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| **Additional File 1:** Data file 1. P450 database used in this study. |
| **Protein ID** | **Sequence** |
| CYP51G | MDLPPELAVLADKVLSLSPVVLVALGSAVLILALAVGRVLFNLLPSKRPPVWEGLPFIGGLLKFTGGPWKLLENGYAKFGECFTVPVAHRRVTFLIGPEVSPHFFKAGDDEMSQSEVYDFNIPTFGRGVVFDVEQKVRTEQFRMFTEALTKNRLKSYVPHFNKEAEEYFAKWGETGVVDFKDEFSKLITLTAARTLLGREVREQLFDEVADLLHGLDEGMVPLSVFFPYAPIPVHFKRDRCRKDLAAIFAKIIRARRESGRREEDVLQQFIDARYQNVNGGRALTEEEITGLLIAVLFAGQHTSSITTSWTGIFMAANKEHYNKAAEEQQDIIRKFGNELSFETLSEMEVLHRNITEALRMHPPLLLVMRYAKKPFSVTTSTGKSYVIPKGDVVAASPNFSHMLPQCFNNPKAYDPDRFAPPREEQNKPYAFIGFGAGRHACIGQNFAYLQIKSIWSVLLRNFEFELLDPVPEADYESMVIGPKPCRVRYTRRKL |
| CYP51G1 | MELDSENKLLKTGLVIVATLVIAKLIFSFFTSDSKKKRLPPTLKAWPPLVGSLIKFLKGPIIMLREEYPKLGSVFTVNLVHKKITFLIGPEVSAHFFKASESDLSQQEVYQFNVPTFGPGVVFDVDYSVRQEQFRFFTEALRVNKLKGYVDMMVTEAEDYFSKWGESGEVDIKVELERLIILTASRCLLGREVRDQLFDDVSALFHDLDNGMLPISVLFPYLPIPAHRRRDRAREKLSEIFAKIIGSRKRSGKTENDMLQCFIESKYKDGRQTTESEVTGLLIAALFAGQHTSSITSTWTGAYLMRYKEYFSAALDEQKNLIAKHGDKIDHDILSEMDVLYRCIKEALRLHPPLIMLMRASHSDFSVTARDGKTYDIPKGHIVATSPAFANRLPHIFKDPDTYDPERFSPGREEDKAAGAFSYIAFGGGRHGCLGEPFAYLQIKAIWSHLLRNFELELVSPFPEIDWNAMVVGVKGNVMVRYKRRQLS |
| CYP55B1 | MAPQHDFPFSRPKGVEPPAEYKELRSKCPVAPGRLFDGSKIWLISRHKELKEVLQDGRFSKVRTLPGFPELSPGGKAAAQSGNAATFVDMDPPEHTKYRGMVWPYLTPEAVEQLRPSIQAKADKLVDAMIARGGPLDLNEAFSMPLPFRVIYDFIGIPEADFAYLSANVAVRSSGSSNAKDAAAAADDLVKYMDNLVAEKERNPTGKDLISELVTKQLRPGHMTREQLVQTAFLMLVAGNATVATQINLGVISLLQHPDQLAAMKADPARLVPAATEEICRFHTGSSYALRRLAVADVQVDGQLVKKGEGIIALNQSANRDESVFPDPDRFDIHRQSNPQQVGFGYGTHVCVAEWLARAEIQVAIGTLFRRLPNLRLAVPESQIQYSDPARDVGLAALPVTW |
| CYP701A3 | MAFFSMISILLGFVISSFIFIFFFKKLLSFSRKNMSEVSTLPSVPVVPGFPVIGNLLQLKEKKPHKTFTRWSEIYGPIYSIKMGSSSLIVLNSTETAKEAMVTRFSSISTRKLSNALTVLTCDKSMVATSDYDDFHKLVKRCLLNGLLGANAQKRKRHYRDALIENVSSKLHAHARDHPQEPVNFRAIFEHELFGVALKQAFGKDVESIYVKELGVTLSKDEIFKVLVHDMMEGAIDVDWRDFFPYLKWIPNKSFEARIQQKHKRRLAVMNALIQDRLKQNGSESDDDCYLNFLMSEAKTLTKEQIAILVWETIIETADTTLVTTEWAIYELAKHPSVQDRLCKEIQNVCGGEKFKEEQLSQVPYLNGVFHETLRKYSPAPLVPIRYAHEDTQIGGYHVPAGSEIAINIYGCNMDKKRWERPEDWWPERFLDDGKYETSDLHKTMAFGAGKRVCAGALQASLMAGIAIGRLVQEFEWKLRDGEEENVDTYGLTSQKLYPLMAIINPRRS |
| CYP701B1 | MLNESTSGHSSDTCVQTSLGCRDGKRRLNEMLETKVIAHHVSHSPCAAIPGGLPVLGNLLQLTEKKPHRTFTAWSKEHGPIFTIKVGSVPQAVVNNSEIAKEVLVTKFASISKRQMPMALRVLTRDKTMVAMSDYGEEHRMLKKLVMTNLLGPTQVHDHRVQQNPPCLKMCHVYASHSKGTPEEKIVCSPAFYRRISPSGMEFGCAEQKPIVEVLELGTCVSTWDMFDALVVAPLSAVINVDWRDFFPALRWIPNRSVEDLVRTVDFKRNSIMKGLIRAQRMRLANLKEPPRCYADIALTEATHLTEKQLEMSLWEPIIESADTTLVTSEWAMYEIAKNPDCQDRLYREIVSVAGTERMVTEDDLPNMPYLGAIIKETLRKYTPVPLIPSRFVEEDITLGGYDIPKGYQILVNLFAIANDPAVWSNPEKWDPERMLANKKVDMGFRDFSLMPFGAGKRMCAGITQAMFIIPMNVAALVQHCEWRLSPQEISNINNKIEDVVYLTTHKLSPLSCEATPRISHRLP |
| CYP701C1v2 | VAEVPGLPFVGNLLQMTVERPHRKLTSWSNEYGPIYTIRTGQKSQVIVSSPELAREAVVAKYSSISNRDLGSNLTILTRNRKIVAMSDYGDRYRMLKRMVVNNLLGQTSQKALHVQRENYLRIALDGLFDELGRFPGSTGQVNARDCIANFLFRLGMHQASVFGRDIESVRVPELGAEVTRWEIYRVLVQDVMKAAVQIDWRDFFPSLKWIPNRKFEDGIYKVERKRSAVTKALMEQHRQLSRSQQRDKCYCDVLLDNESHYSEDELLLAAWEPIIESSDTTLVTSEWALYELASGPKLQEKLYNEIKRVVGDERMVSEDDLPNLPFLNAVIKETLRKYSPVPILPPRYIHEQVELGGYTIPAGYQLIVNIFGIHHDPKRWSNPETWDPSRFLGVEGGSFDMGLTDMRLMPFGGGKRICAGMAQVFYVVPMIIATLVQHFEWTLPQGDMDKRNVVEDTVYLTTQKLEPLQACAKPRVPRRLPSKTLNAVPSNNKVPEHKH |
| CYP702A1 | MVEVYELLTVMVSLIVVKLFHWIYQSKNPKPNEKLPPGSMGFPIIGETFEFMKPHDAFQFPTFIKERIIRYGPIFRTSLFGAKVIISTDIELNMEIAKTNHAPGLTKSIAQLFGENNLFFQSKESHKHVRNLTFQLLGSQGLKLSVMQDIDLLTRTHMEEGARRGCLDVKEISSKILIECLAKKVTGDMEPEAAKELALCWRCFPSGWFRFPLNLPGTGVYKMMKARKRMLHLLKETILKKRASGEELGEFFKIIFEGAETMSVDNAIEYIYTLFLLANETTPRILAATIKLISDNPKVMKELHREHEGIVRGKTEKETSITWEEYKSMTFTQMVINESLRITSTAPTVFRIFDHEFQVGSYKIPAGWIFMGYPNNHFNPKTYDDPLVFNPWRWEGKDLGAIVSRTYIPFGAGSRQCVGAEFAKLQMAIFIHHLSRDRWSMKIGTTILRNFVLMFPNGCEVQFLKDTEVDNSSGSNPDCCNG |
| CYP703A2 | MILVLASLFAVLILNVLLWRWLKASACKAQRLPPGPPRLPILGNLLQLGPLPHRDLASLCDKYGPLVYLRLGNVDAITTNDPDTIREILLRQDDVFSSRPKTLAAVHLAYGCGDVALAPMGPHWKRMRRICMEHLLTTKRLESFTTQRAEEARYLIRDVFKRSETGKPINLKEVLGAFSMNNVTRMLLGKQFFGPGSLVSPKEAQEFLHITHKLFWLLGVIYLGDYLPFWRWVDPSGCEKEMRDVEKRVDEFHTKIIDEHRRAKLEDEDKNGDMDFVDVLLSLPGENGKAHMEDVEIKALIQDMIAAATDTSAVTNEWAMAEAIKQPRVMRKIQEELDNVVGSNRMVDESDLVHLNYLRCVVRETFRMHPAGPFLIPHESVRATTINGYYIPAKTRVFINTHGLGRNTKIWDDVEDFRPERHWPVEGSGRVEISHGPDFKILPFSAGKRKCPGAPLGVTMVLMALARLFHCFEWSSPGNIDTVEVYGMTMPKAKPLRAIAKPRLAAHLYT |
| CYP703B1 | MNILSPELLVPLITEWIQGGRLIFATCSVLVALLSSVFLVAHFRTPMNLPPGPKAMPLLGNLLQMGSHPHRTMTAMHKKYGHILYIRLGCIPTVVVDSPQLIAEITKEQDNVFSSRPHMTFTDIVAYDAHDFAMAPYGPHWRYVRRICVHELLTPKRLEITMKERIEESRCMIMAVAEAAQKGEIVDMRDVFAGVSMTVMCRMLLGRREFAATGKKAKDFKHLIHELFRLMGALNLRDFVPALGWLDLQGFERDMYKLRDEFDEVFDAVIQEHRDLASGKLPGGKPNDFISVLLDLPGENGAPHLDDKTIKAITPDMMAGATDTSAVTNEWAMAEIIRNTEIQRKLQEEIDSVVGLERNVQESDINKLPYLMCVVKETFRLHPAGPFAIPRETMADTKLSGYRIPKGTRVLINIFSLGRSSETWKDPLKFQPERWANENLSAIHDMGFRILPFGYGRRQCPGYNLGTTMVLLTLARLLHGFKWSFPPGVTAENIDMEELYGCTTPLRTRLRTIATPRLAPHLYSQ |
| CYP703C1v2 | MQLGPLPHRTMAGWCQKYGPLVYCRLGSTPTITASSPQMIRELLWTQDETFASRPRTTAGKLMAYHDQDVGLAPYDAHWKLMRRICVENLLTTRRMEGFQKSRAEEARDLVETMLKEAKAGNTINIREHLGGFTMNVITRMLIGKRYFGTESTGEKEATDIRELLHEAVALIGVFFIPDHVPLLKWMDPKSYRHQFKKIGKRMDDYYSYIIEEHRKRQEVVDGPKDFVDVLLGENSELNDVEIKALIQDMVVGGTDTASFTMEWFMLEMIRNPKVMRKVQKEIDSVLEKKATNKHLVEESDLASLDYLKAAVKETFRMHPVGGFLIPHESIRDTNVAGYHVPKGSLILINTHGLGRNSAVWDNVDEFRPERFLRTDDKVHLRDSEYRVIPFGSGKRACPGAQLGQSMLLLGLGRLFHGFDWYPPPGMSTGDIDVMEAYGLTTPPRTPLRAVAKARLDESFYCLH |
| CYP703D1v1 | MDSSVFQAIVAAFFLFLSLIHFLFFRPIRPGAKSNVDPGVKGRDRRQRLHLPPGPKPWPVIGNLLQIGPFPHKSMMEFTRRHGPLVYLKLGVVPTIVTDSPAIIRDILIKQDHIFASRPENIACQYFTYNGRDIAFAPYGQHWRAMRKICTLELLSPRKIASFRDGRCQELDLMVESVFQDLGREEGSSPTTHKINLRDKFASLSCNILTRMLLGKRHFGPGAAGPEDAAEHKQMIYEGFALVNAFNVADYLPFLRAFDLQGHERKMRRIMQRADEVYDEIIEEHRQKLAKNSGGSCQEQQGASFVDVLLSVPGANGEKQLSTTTIKAIMIDMLSAGTDTSSVISEWAMAELARHPREMAKVREELDAAVGVDRPVDESDVVNLNYLKAVVKEIFRLHPVGAFLIPHFSTEDTRIGGYDIPKNTRILVNTYSLGRSRSVWGDDVHLFRPDRFLASPGDLSSQIVELMDSECRVVPFGAGRRSCPGASLGSCMVVMGLARLIQRFDWSAPPGEEIDVSERVGFTVLDKPLELVAKPRECVNF |
| CYP703E1 | MVEIPQLLSSSTPELYLKLAVAGSLLVLLLLLLNLPSSRGARRKSSSSSSSSGSSSSSSPPLPPGPRGWPIIGNLLDVGTVPHEGMMKLTRAYGPLVYLRLGAIPHVVSDDPAIIKEFLKIQDHIFASRPGNVILAELLTYGGKDIGFAPYGAHWRNMRKICTLELFSAKSVDSFQRLRRMEMIHTLGLILDAAVDRRAVDLRDAFNGLTSNMMTRMLLGKRYFGPGDPGPEVGAELKAMIAEGILMMNGFNISDYLPFLRFLDLQGQERRMKQIMRHIDGLATALLLELAPRIGKKPESFVDILVNLRGENGEPHLPEDVMKAVMVDMMAAGTDTPGVSCEWAMAELLRDPALLARVREEVDRVVCVDRLVDESDLAHFRLLRAVLKESFRLHPVGAILIPHLAMEDAVVAGYGIPKDTRVLINVFALNRNAQVWERPHEFDPERHLRGLGEGAVVEFGDPECRLIPFGSGRRMCPAASLGLTMVLLALANLVHAFDWEVPANLSMERAPGKMVKAQALTALARPRLPRHLYSQQI |
| CYP704A1 | MAIIVVTTIFILLSFALYLTIRIFTGKSRNDKRYTPVHATIFDLFFHSHKLYDYETEIARTKPTFRFLSPGQSEIFTADPRNVEHILKTRFHNYSKGPVGTVNLADLLGHGIFAVDGEKWKQQRKLVSFEFSTRVLRNFSYSVFRTSASKLVGFIAEFALSGKSFDFQDMLMKCTLDSIFKVGFGVELGCLDGFSKEGEEFMKAFDEGNGATSSRVTDPFWKLKCFLNIGSESRLKKSIAIIDKFVYSLITTKRKELSKEQNTSVREDILSKFLLESEKDPENMNDKYLRDIILNVMVAGKDTTAASLSWFLYMLCKNPLVQEKIVQEIRDVTSSHEKTTDVNGFIESVTEEALAQMQYLHAALSETMRLYPPVPEHMRCAENDDVLPDGHRVSKGDNIYYISYAMGRMTYIWGQDAEEFKPERWLKDGVFQPESQFKFISFHAGPRICIGKDFAYRQMKIVSMALLHFFRFKMADENSKVSYKKMLTLHVDGGLHLCAIPRTST |
| CYP704B1 | MSLCLVIACMVTSWIFLHRWGQRNKSGPKTWPLVGAAIEQLTNFDRMHDWLVEYLYNSRTVVVPMPFTTYTYIADPINVEYVLKTNFSNYPKGETYHSYMEVLLGDGIFNSDGELWRKQRKTASFEFASKNLRDFSTVVFKEYSLKLFTILSQASFKEQQVDMQELLMRMTLDSICKVGFGVEIGTLAPELPENHFAKAFDTANIIVTLRFIDPLWKMKKFLNIGSEALLGKSIKVVNDFTYSVIRRRKAELLEAQISPTNNNNNNNNKVKHDILSRFIEISDDPDSKETEKSLRDIVLNFVIAGRDTTATTLTWAIYMIMMNENVAEKLYSELQELEKESAEATNTSLHQYDTEDFNSFNEKVTEFAGLLNYDSLGKLHYLHAVITETLRLYPAVPQDPKGVLEDDMLPNGTKVKAGGMVTYVPYSMGRMEYNWGSDAALFKPERWLKDGVFQNASPFKFTAFQAGPRICLGKDSAYLQMKMAMAILCRFYKFHLVPNHPVKYRMMTILSMAHGLKVTVSRRS |
| CYP704C1 | MDVNILTMFVTVSALALACSLWIASYLRNWRKKGVYPPVVGTMLNHAINFERLHDYHTDQAQRYKTFRVVYPTCSYVFTTDPVNVEHILKTNFANYDKGTFNYDIMKDLLGDGIFNVDGDKWRQQRKLASSEFASKVLKDFSSGVFCNNAAKLANILAQAAKLNLSVEMQDLFMRSSLDSICKVVFGIDINSLSSSKAESGPEASFAKAFDVANAMVFHRHMVGSFWKVQRFFNVGSEAILRDNIKMVDDFLYKVIHFRRQEMFSAEKENVRPDILSRYIIISDKETDGKVSDKYLRDVILNFMVAARDTTAIALSWFIYMLCKHQHVQEKLLEEIISSTSVHEDQYSTECNDIASFAQSLTDEALGKMHYLHASLSETLRLYPALPVDGKYVVNEDTLPDGFKVKKGDSVNFLPYAMGRMSYLWGDDAKEFKPERWIQDGIFHPKSPFKFPAFQAGPRTCLGKDFAYLQMKIVAAVLVRFFKFEAVKTKEVRYRTMLTLHMNEDGLNVQVTPRLNSD |
| CYP704D1 | MDFAQGWGSESIAGMMKTIVTAFSGILSLLLAYLLWAAADNWVLHRERKGPVQWPILGVTLEALKNYQTLNDWVVYYFLRDGLTFSCKMMHLDLTFTADPVNVKHILKTNFANYDKRKFFHENFEIFLGDGIFNVDGEIWRTQRKTASFEFASRKLRDFSTVVFRDYSVKLASILARAATAQQSMDMQDLFMRFTLDSIFKVTFDYDVGTLQPGLPNIPFAQAFEITNEITSSRLINPIWKLNRALKIGSERVLLQSAKDVDEFIYGVIEAKKAEMANSKSDLFSRFMRLEEDDSDIQFTDKNFRDTLLNFIIAGRDTTAVSLSWFVYRMAQNPEMTARLQQELRDFDTVRNWKQQPEGDEGLRRRVLGFAELLTFDNLVKLQYLHACILETLRLHPAVPQDPKHAINDDILSDGTQIKKGSLIYYTPYAMGRMPALWGPDAMEFNPQRWFVDGVVQTEQPFKFTAFQAGPRICLGKDSAMLQLRMVLALLYRFFTFQIVEGTDIRYRQMATLLLANGLPAKIIKQKN |
| CYP704E1 | MLSGGPLETFSVWFAMNGESSFPVKTCLSLTWVTAESFLVAAIAWSFAAWIWWHWREQRKLPGPFAWPLIGCLPELSANWDRLHDWVLEQFSDDRRTIYVQFGYPDVAVFTVDPANVEHLLKTNFSNYPKGESNCNLMRELFGVGIFTTDGELWKEQRRMASYEFSSASLRDFSTDVFREYALKLVFILSRFASTGADFDLQEMCMRMTLGTTCKIGFGVVLDCLSPSLPKIQFAQCFDDANFISYHRFVDPLWHVKRALNIGRERKLKHCVKVLNTFTYNVIEKRRQEMASFNTKVWSWAAQSDLLSRLTDLCNRGGEISHYVDTALRDMILNFIVAGRDTTAGTLTWFFYMMSSHPEIADKIFDELSTVVAVAGKHIVEFSKLLTYEKLGKLHYLHAALSETLRLYPAVPLDSKQAAEDDVLPDGTVVKKGSMVGYVPYSMGRMKCLWGDYAAEFKPERWIQEGEFVPQSLFKFTAFQAGPRTCLGKDSAYLQMKMTAALVMRFFTIRVVPGHSMQYRTMLTLNMKHGLRAVVSRR |
| CYP704F1 | MGDEGATLFGAFKSGNVLPAGVGQQEVWIMAAVSLVVVTASMWLWLLSLRRRPPGPMIWPWLGSMLEIAPQFDTMNDWYLNYFSADVKTFSFGMPGFPSCTKFVATVDPVIVEHILTNVYKYGKGDQLRDRLGDFLGRGIFLADGEDWRRHRKIASTEFSTRKLRGHSASVFRGEGVKLANCLKVAMAADQPVEIQDLFLRMTLDSICKVAFGVEIGSLSPDLPDVQFAKDFDNAQAHISKRVVRPMFKILRALDIGEEHHFRIATNSVHSFAMDVIAKRRKEIAAAHDAGEEYHRDDLLSKFMANLTQDENSYDDKELRDVIISFMLAGRDTTAVTLSWFTYEMCCHPEIADKIYEEGVAVIGKHTVVESAVEHLTHEALGQMHYLHAALSESLRLHPAVPRDGKCVLEEDVLPNGIKVKKGDFVQYVPYSMGRMPFLWGPDALEFKPERWLKDGVYQSVSPYIHSAFQAGPRICLGKDSAYLQLKVTAALITHFFKFHLVPGQEIAYTTTLVMPIKKGLKVTLSPRQ |
| CYP704G1 | MDVLYTILTLIAFSLLAIFLAICFILMTIFKGKSIGDPKYAPVKGTVFNHLFYFNKLYDYQAQMAKIHPTYRLLAPNQSDQLYTIDVRNIEHVLKTNFDKYSRGKYSQDVMTDLFGEGIFAVDGDKWRQQRKVASYEFSTRVLRDFSCSVFRKNAAKLVRVISVFYHEGLVFDMQDLQMRCALDSIFKVGFGTELNCLEGSSKEGTEFMKAFDESNALIYWRYVDPIWNLKRFLNIGGEAKLKHNVKLIDDFVNGVINTKKEQLALQQDSNVKEDILSRFLMESKKGQTTITDKYLRDIILNFMIAGKDTTANTLSWFFYMLCKNPIVEDKIVQEIRDVTCFHESELSNIDEFATNLTDSILDKMHYLHAALTETLRLYPVVPVDGRTADAPDILPDGHKLQKGDAVNYMAYAMGRMSSIWGEDAEEFRPERWITDGIFQPESPFKFVAFHAGPRMCLGKDFAYRQMKIVAMCVLNFFKFKLANGTQNVTYKVMFTLHLDKGLPLHAIPRS |
| CYP704H1v1 | MASKLFSFLPSSSSPWLWKWSSSSQSFSSGAWTWIITWALILAWWIFLHRFRQRGLRGPKSWPLVGCLFEQIANFDRLHHWLLDYHHKTWTFSAPVLGVNNTFTAHPANVEYILKTNFVNYPKGELLRQRFRDMMGYGIFNVDGEMWMHQRKVATVEFASSKLRDYSTFAFRDLTLKLAGILADRSGTGQALDLQDLFLRLTLDSICKIGFGVEIGCLRPDLPLIPFAHAFDYGNTLIIRRYIDMFWKIKRSFNAGSERELKRCIRVMDDFLYRVIERRRQELKQSKDVGRPDILSRFLSLDEEEAYTDKMLRDVVINFVIAGRDTTALTLSWLFSELAKRPEVVEKILAEVDRVFGVDEELEGKDSMSKKEQVLAKVANFSRKLDYQGLNRLHYLQATLTEALRLYPAVPLETKTVVADDVLPDGFSVKGGQFVSYSSWAMGRLEEIWGPDVLEFKPDRWLRSDNIFQPQSPFKLTAFQARREFGKAGPRICLGKDSAYLQMKITTILLLRFFKFELLDEKPVNYRMMVVLYMANGLLSRVSFR |
| CYP704J1v1 | MNSTDEVRNISGVFEGLSYPNPLVFITGIAAAVFLAVLLSAEKRDHKGPKRWPLVGSYFQVVKNFPVLHDWFLSYFSSECRTIAVDWGTFYNILTVDPANVEHILKTNFANYPKGRVSHARNYDFMGDGIFNSDGEMWKRHRKLASYEFSSKKVNEYSGQVFRKAAVRMMEVLENIASKKTSFDFQDISMRMTLDSICEVAFGVELNTLSPSLPAVPFAASFDRVNELIVRRLIGPVWKILRALNLGSERELKNQIQVLDSFTFQVIENRRQEIEACEKSGKEYERQDLLSRFMTSTGASDAYHDRELRDAILNFIIAGRDTTAITLSWFIYCICNNPRVAKEIRLELDRTFGSESNTLTFSAFAQLLSTENLRTLHYLHACISETLRLYPPVPRDGKYAANDDVLPDGTKVKRGDSVAYVQYSMGRMEFLWGPDALEFKPERWIKNSEYQPQSPFVYTAFQAGPRICLGKDAAYLQAKITAAMLMRFFNFELVKDHVVHYRLLMVLAMVNGIKVNVSTL |
| CYP705A1 | MDAIVVDSQNCFIIILLCSFSLISYFVFFKKPKVNFDLLPSPPSLPIIGHLHLLLSTLIHKSLQKLSSKYGPLLHLRIFNIPFILVSSDSLAYEIFRDHDVNVSSRGVGAIDESLAYGSSGFIQAPYGDYWKFMKKLIATKLLGPQPLVRSQDFRSEELERFYKRLFDKAMKKESVMIHKEASRFVNNSLYKMCTGRSFSVENNEVERIMELTADLGALSQKFFVSKMFRKLLEKLGISLFKTEIMVVSRRFSELVERILIEYEEKMDGHQGTQFMDALLAAYRDENTEYKITRSHIKSLLTEFFIGAADASSIAIQWAMADIINNREILEKLREEIDSVVGKTRLVQETDLPNLPYLQAVVKEGLRLHPPTPLVVREFQEGCEIGGFFVPKNTTLIVNSYAMMRDPDSWQDPDEFKPERFLASLSREEDKKEKILNFLPFGSGRRMCPGSNLGYIFVGTAIGMMVQCFDWEINGDKINMEEATGGFLITMAHPLTCTPIPLPRTQNSLISHL |
| CYP706A1 | METASSNFSLSQILNIEEPYSSVMLGVAALLAVVCYFWIQGKSKSKNGPPLPPGPWPLPIVGNLPFLNSDVLHTQFQALTLKHGPLMKIHLGSKLAIVVSSPDMAREVLKTHDITFANHDLPEVGKINTYGGEDILWSPYGTHWRRLRKLCVMKMFTTPTLEASYSTRREETRQTIVHMSEMAREGSPVNLGEQIFLSIFNVVTRMMWGATVEGDERTSLGNELKTLISDISDIEGIQNYSDFFPLFSRFDFQGLVKQMKGHVKKLDLLFDRVMESHVKMVGKKSEEEEDFLQYLLRVKDDDEKAPLSMTHVKSLLMDMVLGGVDTSVNASEFAMAEIVSRPEVLNKIRLELDQVVGKDNIVEESHLPKLPYLQAVMKETLRLHPTLPLLVPHRNSETSVVAGYTVPKDSKIFINVWAIHRDPKNWDEPNEFKPERFLENSLDFNGGDFKYLPFGSGRRICAAINMAERLVLFNIASLLHSFDWKAPQGQKFEVEEKFGLVLKLKSPLVAIPVPRLSDPKLYTA |
| CYP706B1 | MLQIAFSSYSWLLTASNQKDGMLFPVALSFLVAILGISLWHVWTIRKPKKDIAPLPPGPRGLPIVGYLPYLGTDNLHLVFTDLAAAYGPIYKLWLGNKLCVVISSAPLAKEVVRDNDITFSERDPPVCAKIITFGLNDIVFDSYSSPDWRMKRKVLVREMLSHSSIKACYGLRREQVLKGVQNVAQSAGKPIDFGETAFLTSINAMMSMLWGGKQGGERKGADVWGQFRDLITELMVILGKPNVSDIFPVLARFDIQGLEKEMTKIVNSFDKLFNSMIEERENFSNKLSKEDGNTETKDFLQLLLDLKQKNDSGISITMNQVKALLMDIVVGGTDTTSTMMEWTMAELIANPEAMKKVKQEIDDVVGSDGAVDETHLPKLRYLDAAVKETFRLHPPMPLLVPRCPGDSSNVGGYSVPKGTRVFLNIWCIQRDPQLWENPLEFKPERFLTDHEKLDYLGNDSRYMPFGSGRRMCAGVSLGEKMLYSSLAAMIHAYDWNLADGEENDLIGLFGIIMKKKKPLILVPTPRPSNLQHYMK |
| CYP706C9 | MDAPGASTTTLLLYGALLLVGFLFIAVARRSNAGLPPGPTGLPLLGSLPSLDPQLHVYFARLAARYGPIFSIRLGSKLGVVVTSPELAREVLREQDLVFSGRDVPDAARSISYGGGQNIVWNPVGPTWRLLRRVCVREMLGPAGLDNVQGLRAREFGATLAHLHAQARAAAPVDVGAQMFLTVMNVITGTLWGGNVGSEGERVALGREFRHLVAEITDMLGAPNVSDFFPALARFDLQGIRKKSDALRERFNQMFARIIEQRVHAERAGGEPPAPDFLEYMLQLEKEGGDGKASFTMTNVKALLMDMVVGGTETTSNTVEWAMAELMQKPELLAKVRQELDAVVGRDAVVEESHLPQLPYLHAVVKETLRLHPALPLMVPHCPSADATVGGYRVPAGCRVFVNVWAIMRDPAVWKDPRDFVPERFLDGAGEGRKWDFTGSEMEYLPFGSGRRICAGVAMAQRMTAYSLAMLLQAFDWELPAGARLELDEKFAIVMKKATPLVAVPTPRLSKPELYYSA |
| CYP706D1 | MSSSTICGPWSWFCKGDQDNEDILLPIILLAVSVTILGTCLFQWGFKKQRETADKLPPGPRGLPIVGYLPFLGPNLHQLFMELAQTYGPIYKLSIGRKLCVIISSPALVKEVVRDQDITFANRNPTIAAKTFSYGGKDIAFQPYGPEWRMLRKILLREMQSNANLDAFYSLRRNKVKESVNETYRKIGKPVNIGELAFSTVISMISGMFWGGTLEVDTEIDIGSEFRAAASELIEILGKPNVSDFFPVLARFDIQGIERKMKKATQRIEKIYDFVMDEWIEKGSARVESEAKNDQRKDFMHFLLGFKEQDSRRSISREQIKALLMDIVVGGTDTTSTTVEWAMAEMMLHPEVMKNAQKELTDAVGTDEIVEERHIDKLQFLHAVVKETLRLHPVAPLLLPRSPSNTCCVGGYTIPRNAKVFLNVWAIHRDPKFWDNPSEFQPERFLSDVSRLDYLGNNMQYLPFGSGRRICAGLPLGERMLMYCLATFLHMFKWELPNGERADTSEKFGVVLEKSTPLIAIPTPRLSNLNLYA |
| CYP706E1 | MILVTDFKDKIYYTMINYWSWWWEVDNESDNVARTILTILVPILVLLWYKWTVSYTKKPRSRLPPGPYGLPVIGYLPFLSSNLHERFTEMSHKYGPIFSLYLGSKLNVVVNSIDLAKVVARDLDQTFANRNPPVTAITVTYGLLDIAWSNNNTHWRNTRKLLVSQVLSNANLDACQGFRTDEVRKTVGHVYAKIGEIVDINEISFETELNVVTNMLWGRNESGSLLEGFREVELKMLELLGAPNISDFIPMLSWFDLQGRKREMQKQHERLDRILDNVIKARMEGVLHDDGKKDFLQIMLELKDQKDGPTSLNMVQIKALLFDILTASTDTTSTMVEWVMAEILHNPDVMRRVQEELTIVIGMNNIVEESHLQKLVYLDAVVKETFRVHPPLPLLIQRCPNESFTVGGYTIPKGSIVYINVMAIHHDPKNWINPLEFKPERFLNGKWDYNGYNLKYLPFGSGRRICPGIPLGEKMLMYILASLLHSFEWSLPKEEELELSEEFGFVTKKRRPLIAIPSQRLPEASLYS |
| CYP706F2 | MMLEGWSLWMEAEHTTIMVSILVATVTIFVGYKWLMKIAMRGKPPLPPGPRGLPLLGNLPFVEPDLHIYFSKLSKKFGPIFKIQMGTKIYVVINSASLARKVLKEDDEIFANRDPPAAAIAETYGGGNILWRPNGPEWRNLRKVLIREMMSKTYFDASYGLRRREVREMVKEIYAKVGSPIKVRNHMFLISLNVVMGMLWGAPLDEDKKHNVGLELVPFIEEAVDLLGKPNISDFFPILAPLDLQGIVSKMLKIRLRFDNIFESVIAIKKSTKTSNQSKDFLQILLELMQQEDEKMLFSMTNIKALLLDIISATTETSSTTVEWVMTELLKNSDIMKKVHEELERVVGNEKIVEECDINQLHYLQSVVKETMRLHPVGPLLIPHSPSVSTTIAGYTIPKGSSVFINVWSIMRDHETWKNPLKFQPERFFEHPEIGDYRGNNFNYLPFGSGRRICAGINLAEKMVMNVLATLLHSFDWKVENATNLNSSEKFGIVVRKLDPLMAIPTIRLPTLEQYY |
| CYP706G1 | MISYHLNKATETICSLWSWWWAGSNKKLDVVAGAVLTVSVAVLAILWYLRTSRKGTAPWPPGPRGLPVVGYLPFLGSNLHHSFAELAHLYGPIFKLWLGNKLCVVLSSPSLAKQVVRDQDIIFANRDPPVAAFAYTYGGLDIAWSPYGSYWRNLRKVFVREMLSNTSLEACYPLQRSEVRKAITNAYSKIGTPMDIGQLSFQTVVNVTLSSLWGNTPEAHNDGKIGAEFREAASEITELLGKPNISDFFPTLAGFDIQGVERQMKRAFLSAEQVIDSIIDRKMKKSTAKEEGASDNGEKKDFLQFLLDLKVQEDTETPITMTQIKALLMDILVGGTDTTATMVEWVMAEMIRNPVIMTRAQEELTNVVGMGSIVEESHLPKLQYMDAVIKESLRLHPALPLLVPKCPSQDCTVGGYTIAKGTKVFLNVWAIHRDPQIWDSPSEFKPERFLSEPGRWDYTGNNFQYLPFGSGRRICAGIPLAERMIIYLLASLLHSFNWQLPEGEDLDLSEKFGIVLKKRTPLVAIPTKRLSSSDLYL |
| CYP706H1 | MSSMVHRLLAMASSFWSQWCNIGYGGAGLFVSFAVIAVGAISWHILRKESLALPPGPRGMPVLGNLPFLHPDLHSCFAKMAQKYGPVMRLWLGNKLTVVLSSPSLAKEVLRDNDAIFADRDTPIAMLTMTYGGSGLIWARCDQNWRMLRKVWVGEMLSKVSLDRLYALRHREVWDSMRRIYANAGTSVNVNEHTFSAMINVITSMLWGRTLEGEERRHADKEFRQVVWEMFDLLTKPDVSDLFPVLAPLDIQGKNSKMKKLGSRLDRIFDFIINHHEVKGLSMEGIENKDREHKDLLQIFLQNEEGSKGILDKTQLKALFLDMVAAGTDTASSAVEWAMAELMNKPEKMERAQKELEQVVGMNNMVEETHLPKLPFLNAVVKEVLRLHPPGPFLVPRRTREPCVLRGYTIPSGTQVLVNAWAIHRDPEFWDSPSEFQPERFLSGSLKCDYSGNDFRYLPFGSGRRICAGVPLAERIVPHILASMLHLFDWRLPDGVNGVDLTEKFGLVLRKATPFVAIPKPRLSNLDLYT |
| CYP706J1 | MIAVLLRNLVNLVSEGWSWWWDGLTENTIFRVVAALSTAAIAISWYAWLIKKASRGLPPLPPGPRGLPLLGNLLFIEPDLHRYFSKLSQLYGPIFKLQLGSKTCIVISSSSVAKEILKDHDVIFANRDVPISALALTYGGQDIAWSHYSPEWRKLRKVFVQEMMSSASLDACSALRRREVQEMVRDVYGKVGTPINMGDQMFLTVLNVVTSMLWGGTLHGEDRSRIGMEFRRVIVEMVGLMGKPNISDLFPALAWFDLQGIESRVKKLVLWFDRIFESLIAQRTQLDGADGGGKNKSKESKDFLQFMLELMHQGDDKTSVSITQLKALFMDIVVAATDTSSTTVEWAMAELLQHPQTMQKAQEELEKVVGNENIVEESHLFQLPYLGAVIKETLRLHPPLPLLVPHSPSTSCIISGYTIPKGSRILFNAWAMQRNPEVWEHPLEFIPERFLEDAASADYKGNNFNFMPFGSGRRICAGLPLAEKMLLYVLASLLHSFDWKLPDGRTSVDLEERFGIVLKKSEPLLAIPTARLSNGHYDPSERIF |
| CYP706K1 | MLLSSFCVTWPYLWCWDSTSLHPILTILVTLISVLCLLRWFKNSSYEATLPSPLPPGPLGLPLLGYLPFLGTNPHLKFHKLAQVYGPIYKLMLGTKTFIVVSSPSLVKEIVRDQDTVFANRDPPISVLVALYGGTDIASLPLGPRWRKARKIFVSEMLSNTNISSSFSHRKIEVKKSIRDVYEKKIGCPISISELAFLTATNAIMSMIWGETLQGEEGAAIGAKFRAFVSELMVLVGKPNVSDLYPALAWLDLQGIETRTRKVSQWIDKFFDSAIEKRMNGTGEGENKSKKKDLLQYLLELTKSDSDSASMTMNEIKAILIDIVVGGTETTSTTLEWVVARLLQHPEAMKRVHEELDEAIGLDNCIELESQLSKLQHLEAVIKETLRLHPPLPFLIPRCPSQTSTVGGYTIPKGAQVMLNVWTIHRDPDIWEDALEFRPERFLSDAGKLDYWGGNKFEYLPFGSGRRICAGLPLAEKMMMFMLASFLHSFEWRLPSGTELEFSGKFGVVVKKMKPLVVIPKPRLSKPELYQ |
| CYP707A1 | MDISALFLTLFAGSLFLYFLRCLISQRRFGSSKLPLPPGTMGWPYVGETFQLYSQDPNVFFQSKQKRYGSVFKTHVLGCPCVMISSPEAAKFVLVTKSHLFKPTFPASKERMLGKQAIFFHQGDYHAKLRKLVLRAFMPESIRNMVPDIESIAQDSLRSWEGTMINTYQEMKTYTFNVALLSIFGKDEVLYREDLKRCYYILEKGYNSMPVNLPGTLFHKSMKARKELSQILARILSERRQNGSSHNDLLGSFMGDKEELTDEQIADNIIGVIFAARDTTASVMSWILKYLAENPNVLEAVTEEQMAIRKDKEEGESLTWGDTKKMPLTSRVIQETLRVASILSFTFREAVEDVEYEGYLIPKGWKVLPLFRNIHHSADIFSNPGKFDPSRFEVAPKPNTFMPFGNGTHSCPGNELAKLEMSIMIHHLTTKYRCVCVYYLLITFSFTHFVLFFQIYV |
| CYP707B2v2 | MWDALSQWGILISLARAWRREKNAKLPRGNWWLPWLGESLDFFWRSPDDFYKTRFSRYGSIFLSHIFGSTTIVTSTPEEAKFILGTRHKLFRAKYPTSIDRVLNHPFWEGDFHCRVRKIVQAPMMPEVLKSQISKFDSLATWTLNTWSHGDHVITHAETRKFSFHVALYLVCSLEPSAESMKMLDDYECVAKGAICFPLNVPGTGFHLALKKSKVILEALDNIIARRRMERSVHNDILSSLLNSSDENGIKLTTDQVKNVLITLLFAGHETTGVLLVWIVKYLTENPQVLHLVKEEQEIVRQSMADDKQPLTWANVRNMPYTLKVVQETLRLANVAPFSPREILEDVEYNGILFPKGWRVQVYYRHFHLNPEYYKEPLKFDPSRFEVPPKPMVYTPFGNGIRLCPGSELVKLEVLIFIHRLVTNYSWHAVGADKGIQYWPTPRPKGGYKIKVHSHAHSSFSQEQL |
| CYP707C1v1 | MVKQSRVAVEVSSTSGAKTPPGPAWRIPLVGETLSFLRDPHRFYLTRIARYGEIFSTSLFGDKCIIVTTPEASKWLLQSAQKFFKPAYPESANSLIDPTRSFGSEQLHNYVRRIVGSSLYPESLQSHIPAIEALACSVLDSWTKQKSVNVYSEMAKYTFEVAMKILCGMEPGKQMDALFQNMQDFEKAFLTLNINLPFTTYRRGLKARDSMFKAVEEMIQQRRKKKRDWSGREQQQRLDMLDSMICVETKDEKFANAVTDIHVRGIIMTILFAGHETSAAQLVWAIKNLHDNPELLHGVKEEHEAIRRKREPGSPLTWSQVMKEMPLTLRVINETMRTSYVGLFLPREALDDLEYDGYYFPKGWKVYASPSMVHLNPKLYTEPYKFDPTRFQDGGPKPNTFIPFGNGQRLCLGGELAKVEMLVLIHHLVTTYSWKIKEDHGGIRWWPVPIPKGGLVIQVEREVERGLEKETRQGQTGELGSGEFQH |
| CYP708A1 | MNNLISLDIMKEMWGVALSFVIALVVVKISLWLYRWANPNCSGKLPPGSMGFPVIGETVEFFKPYSFNEIHPFVKKRMFKHGGSLFRTNILGSKTIVSTDPEVNFEILKQENRCFIMSYPEALVRIFGKDNLFFKQGKDFHRYMRHIALQLLGPECLKQRFIQQIDIATSEHLKSVSFQGVVDVKDTSGRLILEQMILMIISNIKPETKSKLIESFRDFSFDLVRSPFDPSFWNALYNGLMVRSARSNVMKMLKRMFKERREEATSDDSKYGDFMETMIYEVEKEGDTINEERSVELILSLLIASYETTSTMTALTVKFIAENPKVLMELKREHETILQNRADKESGVTWKEYRSMMNFTHMVINESLRLGSLSPAMFRKAVNDVEIKGYTIPAGWIVLVVPSLLHYDPQIYEQPCEFNPWRWEGKELLSGSKTFMAFGGGARLCAGAEFARLQMAIFLHHLVTTYDFSLIDKSYIIRAPLLRFSKPIRITISENPLSSSHQNANLF |
| CYP709B1 | MGLVIFLALIVLILIIGLRIFKAFMILVWHPFVLTRRLKNQGISGPNYRIFYGNLSEIKKMKRESHLSILDPSSNDIFPRILPHYQKWMSQYGETFLYWNGTEPRICISDPELAKTMLSNKLGFFVKSKARPEAVKLVGSKGLVFIEGADWVRHRRILNPAFSIDRLKIMTTVMVDCTLKMLEEWRKESTKEETEHPKIKKEMNEEFQRLTADIIATSAFGSSYVEGIEVFRSQMELKRCYTTSLNQVSIPGTQYLPTPSNIRVWKLERKMDNSIKRIISSRLQSKSDYGDDLLGILLKAYNTEGKERKMSIEEIIHECRTFFFGGHETTSNLLAWTTMLLSLHQDWQEKLREEIFKECGKEKTPDSETFSKLKLMNMVIMESLRLYGPVSALAREASVNIKLGDLEIPKGTTVVIPLLKMHSDKTLWGSDADKFNPMRFANGVSRAANHPNALLAFSVGPRACIGQNFVMIEAKTVLTMILQRFRFISLCDEYKHTPVDNVTIQPQYGLPVMLQPLED |
| CYP709C1 | MGLVWMVAAAVAAVLASWAFDALVYLVWRPRAITRQLRAQGVGGPGYRFFAGNLAEIKQLRADSAGAALDIGDHDFVPRVQPHFRKWIPIHGRTFLYWFGAKPTLCIADVNVVKQVLSDRGGLYPKSIGNPHIARLLGKGLVLTDGDDWKRHRKVVHPAFNMDKLKMMTVTMSDCAGSMMSEWKAKMDKGGSVEIDLSSQFEELTADVISHTAFGSSYEQGKKVFLAQRELQFLAFSTVFNVQIPSFRYLPTEKNLKIWKLDKEVRTMLMNIIKGRLATKDTMGYGNDLLGLMLEACAPEDGQNPLLSMDEIIDECKTFFFAGHDTSSHLLTWTMFLLSTHPEWQEKLREEVLRECGNGIPTGDMLNKLQLVNMFLLETLRLYAPVSAIQRKAGSDLEVGGIKVTEGTFLTIPIATIHRDKEVWGEDANKFKPMRFENGVTRAGKHPNALLSFSSGPRSCIGQNFAMIEAKAVIAVILQRFSFSLSPKYVHAPMDVITLRPKFGLPMILKSLEM |
| CYP709D1 | MLKSTIELYIFTTAIAKKSLHSQTKHKSKMDVPSVVIPILVVLVSRLLTSALVHLLWKPYAITKLFRGQGITGPKYRLFVGSLPEIKRMKAAAAADEVAAGAHSHDFIPIVLPQHSKWATDHGKTFLYWLGAVPAVSLGRVEQVKQVLLERTGSFTKNYMNANLEALLGKGLILANGEDWERHRKVVHPAFNHDKLKFMSVVMAESVESMVQRWQSQIQQAGNNQVELDLSRELSELTSDVITRSAFGSSHEEGKEVYQAQKELQELAFSSSLDVPALVFLRGNTRAHQLVKKSRTMLMEIIEGRLAKVEAAEAGYGSDLLGLMLEARALEREGNGLVLTTQEIIDECKTFFFAGQDTTSNHLVWTMFLLSSNAQWQDKLREEVLTVCGDAIPTPDMANRLKLVNMVLLESLRLYSPVVIIRRIAGSDIDLGNLKIPKGTVLSIPIAKIHRDRDVWGPDADEFNPARFKNGVSRAASYPNALLSFSQGPRGCIGQTFAMLESQIAIAMILQRFEFRLSPSYVHAPMEAITLRPRFGLPVVLRNLQG |
| CYP709E1 | MATLLLLAVAAAAAAWVWWGRYAWRARAVARRLAAQGVRGPRRGGLLRGCNDEVRRRKAEAEADGVAMDVGDHDYLRRVVPHFVAWKELYGTPFLYWFGPQPRICVSDYNLVKQILSKKYGHFVKNDAHPAILSMIGKGLVLVEGADWVRHRRVLTPAFTMDKLKVMTKTMASCAECLIQGWLDHASNSKSIEIEVEFSKQFQDLTADVICRTAFGSNSEKGKEVFHAQKQLQAIAIATILNLQLPGFKYLPTKRNRCKWKLENKLRNTLMQIIQSRITSEGNGYGDDLLGVMLNACFSTEQGEKRDELILCVDEIIDECKTFFFAGHETTSHLLTWTMFLLSVYPEWQDRLREEVLRECRKENPNADMLSKLKEMTMVLLETLRLYPPVIFMFRKPITDMQLGRLHLPRGTAIVIPIPILHRDKEVWGDDADEFNPLRFANGVTRAAKIPHAHLGFSIGPRSCIGQNFAMLEAKLVMAMILQKFSFALSPKYVHAPADLITLQPKFGLPILLKALDA |
| CYP709F1 | MMVYTYVGYFAAGLAVQVLVAKILKLCWIVLWRPYALIKSFEKQGIKGPSYSILHGTLPEMKTLLKAANEVILDTNCHDIAQRVQPHYNRWSAEYGEVFLFWRGVQPAIRIADPKLAKQILSDKSGAYAQPQFDHRLLSFAGNGVGQLNGPDWVRHRSILTPAFTKDKLKLMTKRMASCTIDMIDDWKNRARIADHQNITIEMSEEFKKLTCDVITHTAFGSNYVEGGEVFKAQDELIHHCVATMADLYIPGSRFLPTPSNRQMWKMENNVNNSLRRLIQGRLESAQARGNLDGCYGDDVLGLLVEASKTTNKSLKLTMDEIIDECKQFFFSGHETTAKLLTWTIFLLSLHQEWQERLREEVLTECGMGIPDADMVSKLKLLNMVLLETLRLYCPVLETLRETSRATKLGDFLIPKGVFITIQLVQLHRSKEYWGEDANDFNPLRFKNGVSQAAKHPNAFLGFGMGPRTCLGQNFAMLEVKLVLSLLLQRFSFFLSPEYKHAPANYLTMEAQYGVPTIVKPLLSK |
| CYP709G1 | MDCVIRSSVEAFVAILVVLFGSIVVKLFRDLIWRPYAFHKAYAGQGIRGTPYRILAGSVPEYTELLREAHAQPMQNISHDIVPRITPEYHKWCQIYGEPFFYWYGIHSRLYISEPELIKEVLSNKFGHYDKPTPRPILLALLGRGLVFADGLRWVKHRRIVSPVFNVDKLKPMVKKMAACTSSMLENWQEMMAQADSHGKEIDVHHDFRALTADIISHTAFGSSCNEGKEVFELQRQLQEMAAKAEQSVFIPGSQYIPTRKNSHAWKIDRRVKEILNSIIQSRLEPRTTTRAHVGYGSDLLGIMMTANQKELGGSQRNLSMTIDEIMNECKTFFFAGHDTTSNLLTWAVFLLSINPEWQEILRKEVISVCGTDIPDADMLSKMKSMTMVLNETLRLYPPASKIIRKAYKAIKLGQFSLPKGAVLSFSILAMHHNEKFWGLDANLFKPERFAAGVSKAAIHPNAFFPFSLGPRNCVGQNFAMLEAKTVLAMILQRLSFSLSPAYKHAPIAVLTLQPQYGMQIIFKSIEVQT |
| CYP709H1 | MVVAVQLAALLALLLALWRLVWRPHAVARSFARQGIRGPPYTFLAGSLPEAKRLLMAGRRGTAPLDAGCHDIMPVLLPQFLRWVADYGRTLLFWIGPIPAVLSTDLQLIKQVLTDRTGLYQKDFMIPVLKFLFGNGVILINGDDWKRHRKVVLPAFNHETIKSMSAVTAEVTEQMMQQWRGQIHGSEEESAEIDMIHAFNDLTSKVNGRVAFGTSHREVEEVIVLMREMQKLATAATLDAPILWYLPTRRNLHVRRLNKQLRSKIMSIMQARLAADGADRRGGRGGAVSGGGDLLGLLLEAWTPQPQQHGNGGETLTTDEVIDECKTFFAAGQETTATLLVWAMFLLAVHPEWQDKVREEVVREFCTGDDGEVPHADVLAKLKLLYMVLLETSRLYPPIVYIQRRAAWDAVLGGIKVPQGTVISIPIAMLHRDKQVWGPDADEFNPMRFEHGLTKAAKDPKALLSFSLGPRVCTGQSFGIVEVQVVMAMILRRFSFSLSPKYVHKPKYLLSLTPKLGMPLIVRNVDG |
| CYP71 | MGALWPWIQACLAIVTLIEILWLLLRNRSTKETARLNLPPGPLGLPIIGNLHQLGSLPHRSFASLSWKHGPLMFLQLGRVPTLVISSAKMAKEVMKTQDLAFASRPFLVAANRLCYGSTDMAFAPYGDYWRQVRKICVLQLLSIKKVQSFKLVREEEVASMVRAISGSFGGGPVNLSEAFYTLANNLICRVALGKSYYSEGQQRKYDFRKIVGEFAELLGAFCARDFFPSMGWVDIVTGIRARLNNNFKDLDGFLDEVITEHQGKEVPDPTTKQQSDFVDILLQLQKDPSLDVPLSMDNIKAIILDMFSGGTETSATTLEWLMSELIRNPIVMRTVQEELQRVVGGKGKVFVEEEDLHELQYLQSTIKETLRLYPPAPLLVPRELREKTTINGHDIPANTRVYINAWAIGRQHDSWERVDEFFPERFMNNDIDFKGHDFEFIPFGAGRRGCPGYHFALQIVELAAANLLHCFNWKLPSGCQGLDMAESSGLTMHRKSPLMLVATPRCT |
| CYP710A1 | MVFSVSIFASLAPYLISAFLLFLLVEQLSYLFKKRNIPGPFFVPPIIGNAVALVRDPTSFWDKQSSTANISGLSANYLIGKFIVYIRDTELSHQIFSNVRPDAFHLIGHPFGKKLFGDHNLIYMFGEDHKSVRRQLAPNFTPKALSTYSALQQLVILRHLRQWEGSTSGGSRPVSLRQLVRELNLETSQTVFVGPYLDKEAKNRFRTDYNLFNLGSMALPIDLPGFAFGEARRAVKRLGETLGICAGKSKARMAAGEEPACLIDFWMQAIVAENPQPPHSGDEEIGGLLFDFLFAAQDASTSSLLWAVTLLDSEPEVLNRVREEVAKIWSPESNALITVDQLAEMKYTRSVAREVIRYRPPATMVPHVAAIDFPLTETYTIPKGTIVFPSVFDSSFQGFTEPDRFDPDRFSETRQEDQVFKRNFLAFGWGPHQCVGQRYALNHLVLFIAMFSSLLDFKRLRSDGCDEIVYCPTISPKDGCTVFLSRRVAKYPNFS |
| CYP710B1 | MNATGLLNDGLASLGMSGFGDNLASGPALVAAGGALALGYALWEQMKFRWYRSDKNGNMLPGPASVTPIIGGIVEMVKDPYGFWERQRLYSFPGMSWNSIVGIFTVFVTDPALSRYVFSHNSSDSLLLALHPNAEWILGKTNIAFMSGPEHKALRKSFLALFTRKALGLYVLKQDDVIRKHFNEWMQTAGPREIRPFIRDLNAYTSQEVFVGPYLDDPTEREKFSDAYRAMTDGFLAFPLLLPGTGVWKGRQGRQFIVKTLTRAAARSKVRMAAGQEPECLLDFWTKQILSDIKDAADAGQEAPFYADDKKIAETVMDFLFASQDASTASLVWTITLMAEHPEVLARVRDEQYRLRPNPEEKVTGDMLNEMHYTRQVVKEILRFRPAAPMVPMRAKAPFKLTETYTAPKGALIVPSLVAACKQGYSNPDSFDPDRFSPERAEDIKYASNFLVFGHGPHYCVGKEYAMNHLTVFLALLATSLDFPRIRSKVSDDIIYLPTLYPGDSIFDLSWSAKK |
| CYP711 | MKTQHQWWEVLDPFLTQHEALIAFLTFAAVVIVIYLYRPSWSVCNVPGPTAMPLVGHLPLMAKYGPDVFSVLAKQYGPIFRFQMGRQPLIIIAEAELCREVGIKKFKDLPNRSIPSPISASPLHKKGLFFTRDKRWSKMRNTILSLYQPSHLTSLIPTMHSFITSATHNLDSKPRDIVFSNLFLKLTTDIIGQAAFGVDFGLSGKKPIKDVEVTDFINQHVYSTTQLKMDLSGSLSIILGLLIPILQEPFRQVLKRIPGTMDWRVEKTNARLSGQLNEIVSKRAKEAETDSKDFLSLILKARESDPFAKNIFTSDYISAVTYEHLLAGSATTAFTLSSVLYLVSGHLDVEKRLLQEIDGFGNRDLIPTAHDLQHKFPYLDQVIKEAMRFYMVSPLVARETAKEVEIGGYLLPKGTWVWLALGVLAKDPKNFPEPEKFKPERFDPNGEEEKHRHPYAFIPFGIGPRACVGQRFALQEIKLTLLHLYRNYIFRHSLEMEIPLQLDYGIILSFKNGVKLRTIKRF |
| CYP712A1 | MDLKLNTKLIILITSLAFPFMLYALFKWFLKEQGSLAATKLPQSPPALPFIGHLHLIGKVLPVSFQSLAHKYGPLMEIRLGASKCVVVSSSSVAREIFKEQELNFSSRPEFGSAEYFKYRGSRFVLAQYGDYWRFMKKLCMTKLLAVPQLEKFADIREEEKLKLVDSVAKCCREGLPCDLSSQFIKYTNNVICRMAMSTRCSGTDNEAEEIRELVKKSLELAGKISVGDVLGPLKVMDFSGNGKKLVAVMEKYDLLVERIMKEREAKAKKKDGTRKDILDILLETYRDPTAEMKITRNDMKSFLLDVFMAGTDTSAAAMQWAMGQLINHPQAFNKLREEINNVVGSKRLVKESDVPNLPYLRAVLRETLRLHPSAPLIIRECAEDCQVNGCLVKSKTRVLVNVYAIMRDSELWADADRFIPERFLESSEEKIGEHQMQFKGQNFRYLPFGSGRRGCPGASLAMNVMHIGVGSLVQRFDWKSVDGQKVDLSQGSGFSAEMARPLVCNPVDHFNTF |
| CYP712B1 | MFTLNLDMNYTSCSYLFFTLVTIFLLHRLFSSSSRRGLPPGPRGLPVLGHMHLLRSSLPRSLQALAHTYGPLMTIRIGSLRVLVVSDSDTAKLILKTHDPDFASKFVFGPRQFNVYKGSEFFNAPYGSYWRFMKKLCMTKLFAGYQLDRFVDIREEETLALLSTLVERSRNGEACDLGLEFTALTTKILSKMVMGKRCRQNSNIPKEIRKIVSDIMACATRFGFMELFGPLRDLDLFGNGKKLRSSIWRYDELVEKILKEYENDKSNEEEEKDKDIVDILLDTYNDPKAELRLTMNQIKFFILELFMASLDTTSAALQWTMTELINHPDIFAKIRDEIKSVVGTTNRLIKESDLQKLPYLQAAIKETLRLHPVGPLLRRESNTDMKINGYDVKSGTKIFINAYGIMRDPTTYKDPDKFMPERFLVVEQDTERKMGYYQQYMLELKGQDVNYLAFGSGRRGCLGASHASLVLSLTIGSLVQCFNWTVKGDEDKIKIKLPTGFSASGTAGGSSLMCSPELCFDPFGYQTK |
| CYP712C1 | MAPSDHSFAYYCCLCITWSTIIIIVVHLFIKTCTSFCNKTRHPPSPLGLPIIGHLHLLSSDLPNSLKTLASRYGPLMKIRFGSTPIYVVSDAKTAKEILKIHDVDFASKYTLGFGLSKFDIYDGYTFFNAPYGTYWRFMKKLCMTKLFRGPQLDRFVHIREQETLKLLKSLVDKSREGKPCDLGEELSVFSSNIICRMVIGNICVEDPNLPIEIRKLVGDIMENAAKFSFNEVFGPLNRFDLLGKGKRLVSATRKYDKLLEQLMKKYEDNFDKLINSGDEEQKDVMIILMEAYKDTNAELKLTRTHIKKFFLEIFFAGVETTATAMQSAITELINNPKAFMKLREEIHSVFGSNYRLLKESDVPKLPFLQAVVKETLRLNPIATLRARQCDVDTRINGYDIKAGTRILINAYAIMRDSDSWEKPDDFFPERFLADSMDTNFDHHPTMDFKGDHDFHFLPFGSGRRACIAASHGLIVTHATIGALVQCFDWEVKDDAKIDNEMATGYSGSRVLPLACYPITRFDPTNA |
| CYP712D1 | MGTFTDLQYYTIFFILSFISTLLLRSFLNRITTPTTRLRLPPSPPALPIIGHLRLHFLSSSIYKSFHSLSTQYGPLLYLHFGASRCLLVSSAAMAAEIFKTNDLAFASRPRLAFADKLPYGTSSFITAEYGDYWRFMKKLCVTELLGVKQLERSRVVRREELDCFLKKLVESGENGEAVDVRAEVMKLTNHSTCRVILSARCSEDNDEAERLIEMVTEWVELAVKMSFGDVFGPLKRLGFWIYGRKAVELTLRYDEILEKMLKEHEERGKREDKDLMDVLLEVYQDDKAGMKLTRTHIKAFILDLFMAGTNTSAESMQWTIAELINHPDVFKKVREEIDLAVGRTRLVEESDIPNLPYLQAVVKETLRLHPPAPVATRECRKNCKIGGFNIPEKTAVAINLYAIMRDPEIWDDPTEFRPERFLVPSKEQVDLDQTKGQNFNFVPFGGGRRGCPGTLLAFAMMNTTVAAIVQCFDWKLGGDGDGGKVDMQSGPGLTLSMLHPLKCHPIVHFNPFEG |
| CYP712E1 | MIAIQYVLAIFVLWVITVFLQFIFKRPGKKPAGYCPPPSPPTLPLIGHLHLLTPVAYKGFHALNNKYGPLLYLRLATYPAVLVSSAPLATEIFKALDVHFTSRIKSPFEDNLLFGSSTSFFNAPYGDYWKFMKKICTTELLGTRQMKKLKNVRREEVVRFLSKMLEIGQKHEVANVSAEVLTLANNSTCRMIMSARCSGEDNQAEKCRGLVSESFDLAAKLALFSVFGPLKRIGTWYLRKKIADVPRRYDELFENVLVEHEEKAKREGPHMENKDLMDILLEVYHDKNAEIRITRKQMKTFFLDLFTGGTNTTSDAILWILAELVNHPAAFKKLREEIDSAVGTERLVDEEDIPNLPYFQACVKEAMRLNPPVPLFDRICGENCKLGGYDIPKGITMIMNAYSIMRDPKIWENPNDFIPERFLTEQDNAEGQNLQVYVPFGGGRRMCPGTNMTSSLINCSVTAMVQCFDWKVLGGDGPDGSKVNMDSKSGVVKSMDKPFVAIPVLRRNLFSA |
| CYP714A1 | MENFMVEMAKTISWIVVIGVLGLGIRVYGKVMAEQWRMRRKLTMQGVKGPPPSLFRGNVPEMQKIQSQIMSNSKHYSGDNIIAHDYTSSLFPYLDHWRKQYGRVYTYSTGVKQHLYMNHPELVKELNQANTLNLGKVSYVTKRLKSILGRGVITSNGPHWAHQRRIIAPEFFLDKVKGMVGLVVESAMPMLSKWEEMMKREGEMVCDIIVDEDLRAASADVISRACFGSSFSKGKEIFSKLRCLQKAITHNNILFSLNGFTDVVFGTKKHGNGKIDELERHIESLIWETVKERERECVGDHKKDLMQLILEGARSSCDGNLEDKTQSYKSFVVDNCKSIYFAGHETSAVAVSWCLMLLALNPSWQTRIRDEVFLHCKNGIPDADSISNLKTVTMVIQETLRLYPPAAFVSREALEDTKLGNLVVPKGVCIWTLIPTLHRDPEIWGADANEFNPERFSEGVSKACKHPQSFVPFGLGTRLCLGKNFGMMELKVLVSLIVSRFSFTLSPTYQHSPVFRMLVEPQHGVVIRVLRQ |
| CYP714B1 | MVVVVAAAMAAASLCCGVAAYLYYVLWLAPERLRAHLRRQGIGGPTPSFPYGNLADMRSHAAAAAGGKATGEGRQEGDIVHDYRQAVFPFYENWRKQYGPVFTYSVGNMVFLHVSRPDIVRELSLCVSLDLGKSSYMKATHQPLFGEGILKSNGNAWAHQRKLIAPEFFPDKVKGMVDLMVDSAQVLVSSWEDRIDRSGGNALDLMIDDDIRAYSADVISRTCFGSSYVKGKQIFDMIRELQKTVSTKKQNLLAEMTGLSFLFPKASGRAAWRLNGRVRALILDLVGENGEEDGGNLLSAMLRSARGGGGGGGEVAAAAEDFVVDNCKNIYFAGYESTAVTAAWCLMLLALHPEWQDRVRDEVQAACCGGGGRSPDFPALQKMKNLTMVIQETLRLYPAGAVVSRQALRELSLGGVRVPRGVNIYVPVSTLHLDAELWGGGAGAAEFDPARFADARPPLHAYLPFGAGARTCLGQTFAMAELKVLLSLVLCRFEVALSPEYVHSPAHKLIVEAEHGVRLVLKKVRSKCDWAGFD |
| CYP714C1 | MEKLLALIVVLVILLSLALFYLCNILWLRAVKIRKKLRRQGIRGPKPTFLYGNTKEIKRIRQELKFSQKQGTNNFISTLFPHFLLCRETYGMHMLGPVFLYSTGALEILQVSHPDMVKDIGRWTPSELGKPNYLKKSRKALFGGGLFTENGDEWAYQRKIIAPEFFMDKIKMIQLIEDATVTVLEAWEDMIDDVGGCREIVVDDYLRNLSADVIARACFGSSFTEGEEIFCKLRQLQKAIAQQDSFVGLSALWKYLPTKSNQEIQMLDEQVRLLILDVAKEQHHYQDSHNSLLNAIIDGAQDGRSAAEAEDFIVGNCKTIYFGGHESTVVTAIWCLMLLATHSEWQERARSEAMEVCRGRSTLDVDALRRLKIVTMVIQETLRLYPPASVMMQEALTDVKLGNIEVPRGTIVQVPRLMLHLDKEAWGAHADEFRPDRFANGVAAACRAAHMYVPFGHGPRTCIGQNLAMAELKVVLARLLTKFAFSPSPRYRHSPAFRLTIEPGFGLPLMVTKLP |
| CYP714D1 | MESFFVFFTAAALPVVVAAAVIAGLCITAAWLARPRRVAEVFRRQGIDGPPPSSFLAGNLPEMKARVAAAASAAAPTADGEETASAGGGGGGRDFEKDGFDDYCTRIFPYFHKWRKAYGETYLYWLRRRPALYVTDPELIGEIGRCVSLDMGKPKYLQKGQEPLFGGGVLKANGACWARQRKVIAPEFYMARVRAMVQLMVDAAQPLIASWESRIDAAGGAAAAEVVVDGDLRSFSFDVISRACFGSDYSRGREIFLRLRELSGLMSETSVIFSIPSLRHLPTGKNRRIWRLTGEIRSLIMELVRERRCAARAAREHGGKAAPPSPPERDFLGSIIENSGGQPRPDDFVVDNCKNIYFAGHETSAVTATWCLMLLAAHPEWQDRARAEVLEVCGGDGAAAPAAPDFDMVSRMRTVGMVVQETLRLFPPSSFVVRETFRDMQLGRLLAPKGTYLFVPVSTMHHDVAAWGPTARLFDPSRFRDGVAAACKHPQASFMPFGLGARTCLGQNLALVEVKTLVAVVLARFEFTLSPEYRHSPAFRLIIEPEFGLRLRIRRAGGQDATSQVDTSTAPVHSSHN |
| CYP714E1 | MSIVVEVMVALVAVLVALIHFLHVLVLRLRSLRAKLHRQGIHGPSPDFYFGNIKEMKTLLLQQQTQVKQIKQEHEDEDVCASISHSWTSTVFPHIHKWRKQYGPTFLYSTGSIQWLLVTDVEMVKEILLNTSFNLGKPSYLSRDMGPLLGQGIVSSSGLIWSHQRKIIAPELYLDKVKAMVDRVIYSTNILIRSWESRIERDGVVSEIKVDEDLRSLSADIIARVSFGSNYVEGKEIFTKLRDLIKLLSKIYVGIPGFRYLPNKSNRQIWRLEKEINSNISKLVKQRQEEGHEQDLLQMILEGAKNCEGSDGFFSNSISQDRFIIDNCKTIFFAGHDTTAITSSWCLMLLAKYQDWQDRARAEVLEVCGNGNPDASILRTMKTLTMVIQETLRLYPPAVFITRTSFQDINLKGIKVPKGINMQIPIAILQQDIDIWGPDAHEFNPERFANGVLGACKIPQAYMPFGIGSRVCPGQHLSMIELKVFLSLILSKFRVSLSSSYCHSPAFRLLIEPGHGVVLNMTRI |
| CYP714E4 | MELVLLISLAVVITFLGLLELLYSGLVLKPERLRSVLRKQGIRGPSPSLLLGNISEIRKSQSTTVKASTNEPPVFHNCAATLFPFFEQWRKQYGPVFVFSLGNTQILYVSRADVVREISTCTSLEFGKPSYQQKELGSLLGQGILTSNGKVWAHQRKIIAPELYGDKVKGMMSLIIESTTVLLNSWKSRIDKEGGVAEIKIDEGMRSFSGDVISRACFGSNYSEGAEIFSRLRDLQEAMSKKSLSTGIPGMRYIPTKNNREAWALEKYVRNLILEIVKERKETAHEKDLLQMVLESAKTSNVGQDAMDRFIVDNCKNIYLAGYETTAVSATWCLMLLAANQEWQDRVRAEVLEVCGSGCLPDADMLRKMKQLNMVIHESLRLYPPVAVVSREAFKEMKFGGITVPKGVNVWTMVLTLHTDPEVWGPDAYRFNPDRFAKGITGACKLPHLYMPFGVGPRMCLGQNLAIAELKILIALILSQFSLSLSPKYIHSPALRLVIEPERGVDLLIKTL |
| CYP714F1 | MEGFPISYNFTCLVLLLTWSLIVYLYYSFWWRPELRLRKQGIRGPPPNFLLGNIPEIKQATVQNRSESTPSMESDSFSGFPSFKQWCKKYGNTYMFKLGALHFLYATNPFMVKEIKLFRSLDLGKPAYLQKDRGVLLGKGVITSNGPAWSHQRKILSPQLYVDKXXDTLNIIVESGITVIKSWERILMESKDGLDADIMVDSHMRSFTSCIISKLMFGHDHCRGMNVTARCHTLFKAMGTPTTIGIPFLRYLPTKANRNAWRLAKEIHSMILDIAKNRCGSSTTKDILQVILEGSENGGPGPSSAHEFIVDNCKDMLLAASEGTAISAMWGLMLLASNPEWQARARSEVKQVCGGHLPNFNMLGKMKLKMVILEVLRLYPPVALVSRRALQDVKLCNMQVPKGVNIWIWAPALHRDPDLWGPDADKFNPERFIDGVSGACKSSHAYIPFGVGARLCPGNKLGMIQLKVVLLAMILSSFNLSISPNYRHSPTLGLLLEPEHGVNLVIQKI |
| CYP714G5 | MEAFTVKVFISLALAGVLGLFFRLYNALVVKPEKLRSILRSQGISGPPPSFLLGNIREIKKSRSTAVKDSSTDTHNCAAALFPFFEQWRNKYGQVFMFSLGNTQILHANQPDIVREITTCSSLDFGKPSYLQREFGPLLGQGILTSNGAVWAHNRKILAPELYMEKVKGMIGLITESVDTLLNSWRSKIEAEGGIADIRIDEHMKSFSGDVISRACFGGSYTKGEEIFLKLKALQEAMSKKAFSFIPGMRYIPIKRNRDAWALQKDVRNLILKVVSERKELAAHEKDLLQMVLEGAKKSELSQEATDNFIVDNCKNIYLAGYETTAVSAVWCLMLLAANPDWQARVREEVVEICKGRTPDADMIRKMKQMTMVIYESLRLYPPVPVMSREALADMKFGGIHVPKGVNVWNLVVTLHTDPENWGPDALKFNPERFKNGITGACKLPHLYMPFGVGPRVCLGQNLAMVELKILISLILSNFSFSLSPNYKHSAALRLLIEPENGVNLLVKKL |
| CYP714H1 | MEAEGQWQISEREICWSVVFIATCSIIILLYVKLWYRPQRIRSVLQKQGINGPKPSFPFGNISEMQQLPNQLAPVSLEALDEWAYSIFPYFHTWRQLYGPMFMYSTGTNEHLYVETPELVKWIGMHKSLHLGRPSYLTKTLKPLLGNGIIRSNGLHWAFQRNLLAPEFFHSKIKDWVDIMEESTMAINKKWENHITESEGGIAELVIDGDMKALTADVISKACFGSTYAQGNLIFAKLASMQTALAKPNHIFGFLNLRFLPTKENKEIWKLQKEVEAMILKMIKEREAENQKSSTHGNQTQKDLLQIILEGATSATSTESSGKGIFGPGYNIYQSIVDICKNMYFAGSESTALAITWTLFLFALHPEWQQLVRSEIMETYGNMLPHSFRDMDRLRNLKALTMVIQESLRLYGPAVTTARGVLAEMKLGEHVLPKGINMWLYIPALHRDPDNWGPDAREFKPERFAGGVSAACKYPQAYIPFGLGSRICLGQNFALLEIKEALCLLLSNFSFAVSPNYHHCPQYRMLLTPKYGMRLLVSKVHKTRT |
| CYP714J1 | MEMNTVQVVLVAVVVVLIHVFNVLLLRSRSLRAKLHRQGIHGPSPHFYFGNIPEMKTLLLQVQSAPITQVKDKDDHDSLSHKWPFTLFPHIQKWISQYGPIYLFSSGTIQWLMVSDIEMVKEIIMYTSLNLGKPSYLSKDMGPLLGQGILTSSGPIWAHQRKIIAPELYLDKVKAMVNLIVDSTNVTLRSWEARLESEGAVSEIKIDDDLRSLSADIIARTCFGSNYIEGKEIFSKLRDLQKLLSKIHVGIPGFRYLPNKSNRQMWRLEKEINSKISKLIKQRQEETHEQDLLQMILEGAKNCEGSDGLLSDSISCDVFMIDNCKNIFFAGHETTAITASWCLMLLAAHQDWQDRARAEVLEVCGKGAPDASMLRSLKTLTMVIQETLRLYSPAAFVVRTALQGVNLKGILIPKGMNIQIPISVLQQDPQLWGPDAHKFNPERFSNGVFGACKVSQAYMPFGIGARVCVGQHLAMTELKVILSLILLKFHFSLSLSYCHSPAFRLVIEPGQGVVLKMTRI |
| CYP715A1 | MEFFEMSRVWYIFFKVFVVVICLMFLKLFLRCWIWPVRAQKKLRGNGFVGPAPSFPFGNLNDMKKLKMASVVVDNSKSSTIINHDIHSIALPHFARWQQEYGKVFVYWLGIEPFVYVADPEFLSVMSKGVLGKSWGKPNVFKKDREPMFGTGLVMVEGDDWTRHRHIITPAFAPLNLKVMTNMMVESVSNMLDRWGIQINSGNPEFDMESEIIGTAGEIIAKTSFGVTGENGTQVLKNLRAVQFALFNSNRYVGVPFSNILSYKQTVKAKGLGHEIDGLLLSFINKRKISLAEGDDQGHDLLGMLLKADQKGNFTAKELVDECKTFFFAGHETTALALTWTFMLLAIHPEWQDTIREEIREVIGDSKIEYNKLAGLKKMSWVMNEVLRLYPPAPNAQRQARNDIEVNGRVIPNGTNIWIDVVAMHHDVELWGDDVNEFKPERFDGNLHGGCKNKMGYMPFGFGGRMCIGRNLTTMEYKIVLSLVLSRFEISVSPGYRHSPTYMLSLRPGYGLPLIIRPL |
| CYP715B1 | MELVVQALAAAAALLAVFFLSTLYLSPAATARRLRNAGFRGPTPSFPLGNLREIASSLASNNDTDESNTKGGDIHAAVFPYFARWRRAFGKVFVYWLGTEPFLYVADPEFLKAATAGALGKLWGKPDVFRRDRMPMFGRGLVMAEGDEWARHRHIIAPAFSATNLNDMIGVMEETTAKMLGEWGDMVASGRSCVDVEKGVVRNAAEIIARASFGISADDDDATGARVFHKLQAMQAILFRSTRLVGVPLAGLLHIRATYEAWKLGREIDALLLDIIESRRRREGGGGGKKKKKTTSNDLLSLLLAGSEASAGAERKLTTRELVDECKTFFFGGHETTALALSWTLLMLAAHPEWQAAVREEVVEVAGRSGPLDAAALGKLTKMGCVLSEVLRLYPPSPNVQRQALQDVVVVAGDGEKKVVIPKGTNMWIDVVAMHRDGELWGEEASEFRPERFMREGVQGGCRHRMGYVPFGFGGRICVGRNLTAMELRVVLAMVLRRFAVEVAPEYRHAPRIMLSLRPSHGIQLRLTPLC |
| CYP716A1 | MYLTIIFLFISSIIFPLLFFLGKHLSNFRYPNLPPGKIGFPLIGETLSFLSAGRQGHPEKFVTDRVRHFSSGIFKTHLFGSPFAVVTGASGNKFLFTNENKLVISWWPDSVNKIFPSSTQTSSKEEAIKTRMLLMPSMKPEALRRYVGVMDEIAQKHFETEWANQDQLIVFPLTKKFTFSIACRLFLSMDDLERVRKLEEPFTTVMTGVFSIPIDLPGTRFNRAIKASRLLSKEVSTIIRQRKEELKAGKVSVEQDILSHMLMNIGETKDEDLADKIIALLIGGHDTTSIVCTFVVNYLAEFPHIYQRVLEEQKEILNNKDVNEKLTWEDIEKMRYSWNVACEVMRIVPPLAGTFREAIDHFSFKGFYIPKGWKLYWSATATHKNPEYFPEPEKFEPSRFEGSGPKPYTYVPFGGGSRICPGREYARLEILIFMHNLVKRFKWEKVFPKENKLVADPAPIPAKGLPI |
| CYP716B1 | MVWKEAVSVLQKAQELKEPPLMFTVFLASFIGLAFFFYLISNHRTKAWRGIPPGTFGWPLIGETLEFLGCQRKGNPRDFFDSRTQKYGNVFTTSLVGHPTVVFCSPEGNRFLFSNENKLVVNSWPSSVGNLFRSSLITTVGDDAKRLRRILMTFLRPEALREFVGRVDSMTKRHLAEHWIGKDEVMALPLLKRYTFSLACDLFASINTKDDLDRLWLHFMVFVKGVMQIPIDLPGTRYNKTKHAANAIRQQLGSIINERKIALEAGNASPEQDLLSFLLSNVDEQGESLTDNEIQDNILLLLYAGHDTSSSTLTVLLKFLAENPHCYEEVLREQLNIAGSKEEGQLLEWEDLQRMKYSWRVAQEALRLFPAVQGSFRKAIKEFIYDGFTIPKGWKLHWTVNSTHQKSEYFSNPEKFDPSRFEGEGPPPYTFVPFGGGPRMCPGNEFARMEILIFLHNIVKNFNWNLVNPLEKVIVDPMPAPVNGLPIKLVPHD |
| CYP716C1 | MEVICLLLSMVLLVLALAISIFAFKHSSHSAKNLPPGSLGWPIFGETLDFLFGKPEKFVSDRMKRYSSDIFKTKILGEETAVICGPGGHKFLFSNEQKLFTAFRPHAMQKIFRSYQAAAPAQAQIPREAESKILRSPGFLKPEALVGYLGKMDSITQLHMQTYWEGKDEVKAFALAKTLTLSLACRFFLGSDDPERIARLVSNFDDMTLGMHSIPLNVYGTTFYRANKAAAAIRKELRIIIDEKRADMSKGAQVQDILCHMILATDPSGKHMAEAEIADKIMGLLVAGYSTVATAMTFFMKNVGERPDIYAKILAEQIEVAADKKAGELLDWNDIQKMKYSWNVMYEVMRLTPPLQGTFREALTDFTYAGYTIPKGWKIYWTVSTTNKDPEYFPDPEKFDPSRYDDEKVFPPFTFVPFGGGPRMCPGKEYARLAILTFVHNVVKRFRWEVAFPAEKIVGDMMPTPEKGLPIRLRSRQAERLASL |
| CYP716D1 | MFSSLDHDSIMILVAIPCLLLLYFAIKTLKERLFPNPHLPPGSLGWPLVGETLQFLPINLPPEIFVNYRMKKYDSPVFKTSLFGETVAVFVGPAGNKFLFSNENKLVNVWWPTSVKKLMKLSLANVVGDEAKRLRKILMTSVDRDALKSYIDRMDLVAQNHIRTRWEGKQQVKVHPTANLYTFELSCRLFASIDDPIHISKLAHHFDIFLKGVIHFPIYIPGTTFYRASKSGDALKEEIRLVARQRRAALDKKMESHRKDLLSHLLVTADESGKLLSESEIVDNMLMLLFVSHETTTSAMTCVIKYLAEMPEVYEMVLREQLDIAKSKEAGELLKWEDIQKMKYSWRVVSEVLRMIPPISGTFRQAIVDFTYAGYTIPKGWKLYWSPNTTTKDPAHFPNAEDFDPSRYEGAGPAPYTHVPFGGGPRMCLGYEYVRPKILVFLHNIVKRFKWDLLIPDEKVPYNPLPAPSHGLPIRIRPHQSSA |
| CYP716E1 | MPLIILLVVAAKYMDMDLRLLFSYLLPPAVLCISLYLVVSAYRRKSSNAKFPPGKTGWPIIGETWDFVRAGRSGTPEKFVNDRMSKYSTDVFHTSLLGDNLAMFCGVSGNKFLFSSENKYVTTWWPRPIQRILSFPEEIVTSSKDDSTILRRFLPEILKPEALKHYIPVMDSMAKDHLEADWSPYKQVRVLPLSKKYTFALACRLFMNIKDPAHVSRLENHFNLVTNGLVSVPINFPGTTYYRAVKGGKIIREELLAIMKQRKGELASENYEERAEATDLLTLMLLASDDNGQPLNERDIAYKVLGLLVAGHDTTSSAITMVMYYLAEYPHIYQGVLEEQKEIAMSKAPGELLNWDDVQKMKYSWSVACEVLRVSPPVSGTFREVIADFSFAGFTIPKGWKAYWSVYSTHKNPKYFPDPEKFDPSRFEGKGPAPYTFVPFGGGPFMCAGKEYARLEILVFMHNLVNRVKWEKVIPNEKIMYTSFAMPVKGLPVLLQPLRN |
| CYP716F1 | MAHQQHGFLEGHAESTPAWAAVAAVVAMLVGWLFWRLFSVSPESQGKLPVPPGSFKWPLLGETLDYLDCARRNRVADFFNARVAKYGETFKTHILFNPTVSVTAPDGNKFLFANENKLVQNHWPPSVSRLLGEHSMATKVGEEHRRARRVYTNFFKPEGLQSFVPRIDELARSHNSKYWEGKEFILGGPTVRDFTFAVAADLFLSLKHDDPMFRPFELAACDYLAGILQVPINLPGTAYRKGILGRESQLRVIDMSLKQRRQEMKEGRVPPQQDLMSVLLNTLNEDGTPMSDDQIKDNMLLFVFAGHDTSSSALAGLLKYLSLNPECLKKVLEEQMEIRKEKGGEDIPLSWDDTRKMKYTWRTIQETLRLQPSVQAAFRTVIEEFEYDGYTIPKGWTIFWSVGRSHRNPKFFPDPEKFDPSRFEGTGPAPFTFVPFGGGPHICPGNEFARTEILVYIHYLVLNYEWEMVDPTEDVCIDPMPLFTKQLQLRVRKRFPSL |
| CYP716G1 | FLQSLLLILIPLIAFFCFFLKTKQIGTKNMPPGAFGWPLVGETYQLLFKNIENFIQERAEKHSSEIFKTNLFGEPTVVMFGPAANKFLSINESKLVKVWYMKSQCKLFNLPDQNQNQTQVGVASPPVKVLGLLKHEGIIRYMGNNNNIESIIQKHFITHWEGKTELKVYPLVKSFSISLAFQFFLGTDETHYVDKFATKFENLFSGIYSVPMDFPGSTYHRAIKGASEIRKEIQYMIKDKIEGLSKGKVMDGLLAHIVDAEKSGKYVPKIEISNTIMGLMNASYISIATTLAFMIKHIGLSPHIYQRIISEHADIKRSSKESGTSQLDWDSIQKLKYTWAVALESMRLYSPAPGAFREAKTDFTYEGFTIPKGWKIFWAFIGTNKNPKYFDKPESFDPSRFEGNNVLAPYTYIPFGSGPRSCPGKDYTRLAILTFIHNLVTKFKWEVMLPDEEVSGAMIPIPTEGIPIRLH |
| CYP716H1 | DLFLLSFATILTIIIYVFFKYFFAKPKEKIPPGTFGWPIIGETIQFFISLYYGMVHEFVQERTKKYNSHVFKTSLLGQKVVIFSGPAANKFIFTQGNKLIIGWRPKSVQKLFASTSFVPIEHDTKRAHNVISYLLNSQNVERLISTMDNMSHLHLKNHWKGKNEVIVYDLVKLFTFSLSIRAFIGIKESDKILNLYEKFKIFTYGLLAVDINLPGTTFYKAMKAGNELRKQMKVIIKQRRAELSENPNLSKVDVLTQMINEQDEDGKYMTEVEIEDKVFGFIIGSYDTTATTITLTMKYLQQMPEFFNEIIQEQNEISMQMMPRKELCWNDIQKMKKTWSFVNEVLRNTPVVQGIFREVIEDFTYEDFYIPKGWKIYLSFGATQKNGEYFPNPTKFDPSRFEGNGQVPYTSVPFGGGHRMCPGKEFARILILVFLHHLLKNFRWEPKVPSEKILYPFFLLAIPTDGYPITLSAV |
| CYP716J1 | MMIVVFFLVSTALLILTRSLLQFLRNSSSNSSSSSKGRVPPGSLGVPVIGDSLNFVKALKRNDPWRFYGEKRAKYGTVFKMSLLGSPVVILPAPAGHKLLFGSEEKLMVNSWPVGFKRLLGPGSLTSLTGEDFKRMKKVFMSFLKPEALQRYVPRVSQLSLKHLEDHWEAYAGEEFAIYPAVKSFIFSVACSSFMSLETEEEQLELEEPFAIWTKGLLQLPVNIPGTLFHKALKRREVIHDLLGRLISKRRQEFLQGRASESSDMLSVMLSYRNEDGKPACTDAEIKDNLLLLLFAAHDTSSSTLTLSLKFLAENPYWRNQVLQENLAISQEKSGQDGYSLEWDDLRGMKVSWRVLQETLRLQPPALSGYREVIQDFEFGDYLIPKGWKACWTVVSHRLPEFFPDPEKFDPSRFEGDGPTPYTYVPFGGGPRMCPGNEYAKMVMLVLLHHLVLRFDWQLADPDEGVTMDPMPMPQNGLNVKLHKRT |
| CYP716K1v1 | MILLLGACFLLLITTIFAIRFSPSSNLPPGNLGWPIVGETLQFLALFRKNKAYSFFHERMAKHGGVFKTSLLGSPTIVMPGPDGNKFLFSQENKLVVGCWPPSTASLLGPCSLAVQTGQEHRRLREVFMTFLSSQALGRYLPKLCLLAQSFLQSKWNEEAVVTVAPLVQSFVFSAACNLFLSMDKESDQELLLVPFYKFVKGMMSLPVHFPGTRYYEALKSREAILRLLDPVISARKKELLANPTDDRDMLSVLLTTCDEDGKLISENEIEDNVLLMLFAGHETVFRALTITMKMLTDNPHWKEELYQEHLEIRASKSKPDYVLEWNDLRKMKLTWCSVQESMRLYPPSPGATRKATQEFEYAGYRIPEGYKLMWSVNTSRMKDEFFPEPQKFDPLRFQGNGPAPYVFTPFGGGPRTCPGNEFAKMEMLVFLHYLLLSHDWKPVITNEGIIVETAPLPAHGLPVKLSKR |
| CYP716L1v1 | MALLAMVALLFFLVAPLFWIFNLIVASRKETPAQALQIPPGNLGWPLIGETFRYAVQSGSTFYDERVAKYGAVFKTSLFGSKTVVLPAPEGNRLILMNENKLVSVSYPKSVSVLLGENSLIALRGDEHRRSKALLMTFLRPEMLQKFVGRVCKVVHDHLQKFWSGGDEVIRVYNLMKMFTFALACDLLMGLDIGDEEMEFLARDFDTLVRGLFQLPIDLPGTQFCRAKAARKKLDQCFDRHIREKRRELAGSFRARSHEQDMLEVLLTTRDENGEFSTDLAIKDNIVSLLFAGHDTSSVALTWTLKFLADSPSCMDKVVQENLAVRSSRSSSELSWEDLRKLKYTWQVVQESMRMRPPVGGGFREALVDLEFDGYLNWTTATSYRKPEFFVEPNKFDPSRFDGGNGIAPYTFLPFGAGARMCPGSEFAKMEILVFLHYCVLQFDWKLLEPNEQVIIDPMPRPVHGMPVRISKRN |
| CYP716M1v1 | MDLPPGSLGLPLLGETLQFIRYTKSNRPWEFIEQREAKYGKIFKTSLFGSPMVMVSPPQGNKLVFSNHNLLVETAWPSPMKTLVGSNAINFMSGEEAKSFRDVLMTFLSAQAVQSQVVPTSNMIQDHLHKHWKHGETVLAYSLIKQALFSVTCCAFLSVSDEEEQLELLEPLAKIIKGLISLPLDLPWTNFHHAKKGRVELYKMFDKYIARRRIELENGSSSQQDLLSLLLSTKLDNGKLMNDDQIKDNILSLLFAGHDTSSSSLAMTLKCLAQNPACYQELRREHLDILSAKQPGEELNQNDLRKMKYTWMVIQETLRVMPTGFGILRKALKDIEMDGFTIPKGWQLLISGYRSYRKPEFFAEPFKFEPSRFAEGTGPVPYTYIPFGGGPRICPGIQLAKMQVMVFLHHLVTRYEWTLVEPDEPVSYTPVAMPTKGLPIKLK |
| CYP716N1 | MSQALFFVLLFVISVIWFTFTNRNRKRKHASLPPGNMGLPFIGETLPFLRSLVSNQPWEFFRVREAKYGKVYKTRLFGMPVVVVSPPVGTRFMFADTNHTLITKSWPVPVIKLFPESAFVRPDASGSRQLITSFLGPECMKRYVTSTSVIVQKHLDSWPTGELVRVYPLIKRCLFSIVCNMYLGLTDEKEVMELMEPFEKVIHGIISIPVNLPGTAFHRAKLGQKEICNILEKHIAKRRINSQLSPARDQDLLSMLLSTRSKEGTAMTDNEITHNILGLLVSGHELSASSISMTIKSLVENQTVYKEMKRVHCEIGSFKRPREPLEPLDLKQMKYSWRVVQESLRLRPTAPAVARKTLTDVELEGYTIPKGWQMFSAVYNSHTTPEFFPDPLKFDPSRFERAGPNPYTYFPFGGGPRICGGIEQVKMHSLVILHHITTRFDWTLMEPDEPIKISPVAVPAHGLPLELRLV |
| CYP716P7 | MPWITVVASFLIPVLGTLWIWRYFSRERYDPPLPPGSMGLPLVGETLHILYAMKTSTLWEFYGAREKKYGPIYKTHIFGRPTIVVSPPLGFKLLFSNHGKLVESSWPQPMKTLLGDKCLFFMEGQKAKSFRHILLAFLGPDAIRRYVERASVIIQEHIDKFWMAGSEVKAYPLVKKALFSLVFSLFLSISDEEEERELLAPFQGFLQGLLELPIDLPGTMFRRAKVGRAKIFKKLDEYIAKRKIELETGKAWPQQDFLSVLLTTKGEDGEPMTKEEIKQNILMLVMSAHDTTVSSLVSSMKYIGENPWCYDRLREEHVSIALAKSQKEPLTHSDLQKMDYTWKIVQEAMRLAPPAAGNLRRATTEFTMDGFTVPKDWQLNWTVFRSHKKKEFFEEPEMFNPDRFDRPLLPNTYVPFGGGPRICPGYELAKMQDRIFLHYLVTRFKWTLLDPNEAIHMTPLALPVNGLGIKLVSNPVKI |
| CYP718 | MVLEPNFVLSWVFLCIAATISSTLFFFRKKHHRFITKKIQKKKKLLPGEMGLPWIGETMDFYKAQKSNRVFEDFVNPRIIKHGNIFKTRIMGSPTIVVNGAEANRLILSNEFSLVVSSWPSSSVQLMGMNCIMAKQGEKHRVLRGIVANSLSYIGLESLIPKLCDTVKFHHETEWRGKEEISLYRSAKVLTFTVVFECLYGIKVEIGMLEVFERVLEGVFALPVEFPCSKFARAKKARLEIETFLVGKVREKRREMEKEGAEKPNTTLFSRLVEELIKGVITEEEVVDNMVLLVFAAHDTTSYAMSMTFKMLAQHPTCRDTLLQEHAQIKANKGEGEYLTVEDVKKMKYSWQVVRETMRLSPPIFGSFRKAVADIDYGGYTIPKGWKVILWTTYGTHYNPEIFQDPMSFDPTRFDKPIQAYTYLPFGGGPRLCAGHQLAKISILVFMHFVVTGFDWSLVYPDETISMDPLPFPSLGMPIKISPKVS |
| CYP719A1 | MEMNPLLVCATVAIVFATTTIIRILFSSSSLPQMKWPSGPRKLPIIGNLHQLGDDVLHVALAKLAKVHGSVMTIWIGSWRPVIVISDIEKAWEVLVNKSADYGARDMPEITKIASASWHTISTSDAGSFWQNVRKGLQSGAMGPLNVAAQNQYQERDMKRLIKAMSDEAANNNGIVKPLDHIKKNTVRLLTRLIFGQAFDDNKFIESMHYEIEDIIRISGYARLAEAFYYAKYLPSHKKAEREAFLVKCRVEELVRPLLSSKPPTNSYLYFLLSQNFEEEVIIFCIFELYLLGVDSTSSTTTWALAYLIREQGAQEKLYQDIRMTLGDVDLVKIEDVNKLKYLQGVVKETMRMKPIAPLAIPHKTAKETTLMGTKVAKGTRIMVNLYALHHNQNIWPDPYKFMPERFLEGETGTAYNKAMEQSFLPFSAGMRICAGMDLGKLQFAFALANLVNAFKWSCVEEGKLPDMGEELSFVLLMKTPLEARIAGRNV |
| CYP719B1 | MAPINIEGNDFWMIACTVIIVFALVKFMFSKISFYQSANTTEWPAGPKTLPIIGNLHQLGGGVPLQVALANLAKVYGGAFTIWIGSWVPMIVISDIDNAREVLVNKSADYSARDVPDILKIITANGKNIADCDSGPFWHNLKKGLQSCINPSNVMSLSRLQEKDMQNLIKSMQERASQHNGIIKPLDHAKEASMRLLSRVIFGHDFSNEDLVIGVKDALDEMVRISGLASLADAFKIAKYLPSQRKNIRDMYATRDRVYNLIQPHIVPNLPANSFLYFLTSQDYSDEIIYSMVLEIFGLGVDSTAATAVWALSFLVGEQEIQEKLYREINNRTGGQRPVKVVDLKELPYLQAVMKETLRMKPIAPLAVPHVAAKDTTFKGRRIVKGTKVMVNLYAIHHDPNVFPAPYKFMPERFLKDVNSDGRFGDINTMESSLIPFGAGMRICGGVELAKQMVAFALASMVNEFKWDCVSEGKLPDLSEAISFILYMKNPLEAKITPRTKPFRQ |
| CYP71A1 | MAILVSLLFLAIALTFFLLKLNEKREKKPNLPPSPPNLPIIGNLHQLGNLPHRSLRSLANELGPLILLHLGHIPTLIVSTAEIAEEILKTHDLIFASRPSTTAARRIFYDCTDVAFSPYGEYWRQVRKICVLELLSIKRVNSYRSIREEEVGLMMERISQSCSTGEAVNLSELLLLLSSGTITRVAFGKKYEGEEERKNKFADLATELTTLMGAFFVGDYFPSFAWVDVLTGMDARLKRNHGELDAFVDHVIDDHLLSRKANGSDGVEQKDLVDVLLHLQKDSSLGVHLNRNNLKAVILDMFSGGTDTTAVTLEWAMAELIKHPDVMEKAQQEVRRVVGKKAKVEEEDLHQLHYLKLIIKETLRLHPVAPLLVPRESTRDVVIRGYHIPAKTRVFINAWAIGRDPKSWENAEEFLPERFVNNSVDFKGQDFQLIPFGAGRRGCPGIAFGISSVEISLANLLYWFNWELPGDLTKEDLDMSEAVGITVHMKFPLQLVAKRHLS |
| CYP71A10 | MALLSSVLKQLPHELSSTHYLTVFFCIFLILLQLIRRNKYNLPPSPPKIPIIGNLHQLGTLPHRSFHALSHKYGPLMMLQLGQIPTLVVSSADVAREIIKTHDVVFSNRRQPTAAKIFGYGCKDVAFVYYREEWRQKIKTCKVELMSLKKVRLFHSIRQEVVTELVEAIGEACGSERPCVNLTEMLMAASNDIVSRCVLGRKCDDACGGSGSSSFAALGRKIMRLLSAFSVGDFFPSLGWVDYLTGLIPEMKTTFLAVDAFLDEVIAEHESSNKKNDDFLGILLQLQECGRLDFQLDRDNLKAILVDMIIGGSDTTSTTLEWTFAEFLRNPNTMKKAQEEVRRVVGINSKAVLDENCVNQMNYLKCVVKETLRLHPPLPLLIARETSSSVKLRGYDIPAKTMVFINAWAIQRDPELWDDPEEFIPERFETSQVDLNGQDFQLIPFGIGRRGCPAMSFGLASTEYVLANLLYWFNWNMSESGRILMHNIDMSETNGLTVSKKVPLHLEPEPYKT |
| CYP71A12 | MEMILMVSLCLTTLITLFLLKQFLKRTANKVNLPPSPWRLPLIGNLHQLSLHPHRSLHSLSLRYGPLMLLHFGRVPILVVSSGEAAQEVLKTHDLKFANRPRSKAVHGLMNGGRDVVFGPYGEYWRQMKSVCILNLLTNKMVASFEKIREEELNEMIKKLEKASSSSSSENLSELFVTLPSDVTSRIALGRKHSEDETARDLKKRVRQIMELLGEFPIGDYVPALAWIDRINGFNARIKEVSQGFSDLMDKVVQEHLEAGNHKEDFVDILLSIESEKSIGFQAQRDDIKFMILDMFIGGTSTSSTLLEWIMTELIRNPNVMKKLQDEIRSTIRPHGSYIKEKDVENMKYLKAVIKEVFRVHPPLPLILPRLLSEDVKVKGYNIAAGTEVIINAWAIQRDPAIWGPDAEEFKPERHLDSTLDYHGKDLNFIPFGSGRRICPGINLALGLVEVTVANLVGRFDWRAEAGPNGDQPDLTEAFGLDVCRKFPLIAFPSSVI |
| CYP71A13 | MEMILSISLCLTTLITLLLLRRFLKRTATKVNLPPSPWRLPVIGNLHQLSLHPHRSLRSLSLRYGPLMLLHFGRVPILVVSSGEAAQEVLKTHDHKFANRPRSKAVHGLMNGGRDVVFAPYGEYWRQMKSVCILNLLTNKMVESFEKVREDEVNAMIEKLEKASSSSSSENLSELFITLPSDVTSRVALGRKHSEDETARDLKKRVRQIMELLGEFPIGEYVPILAWIDGIRGFNNKIKEVSRGFSDLMDKVVQEHLEASNDKADFVDILLSIEKDKNSGFQVQRNDIKFMILDMFIGGTSTTSTLLEWTMTELIRSPKSMKKLQDEIRSTIRPHGSYIKEKEVENMKYLKAVIKEVLRLHPSLPMILPRLLSEDVKVKGYNIAAGTEVIINAWAIQRDTAIWGPDAEEFKPERHLDSGLDYHGKNLNYIPFGSGRRICPGINLALGLAEVTVANLVGRFDWRVEAGPNGDQPDLTEAIGIDVCRKFPLIAFPSSVV |
| CYP71A32 | MAALLVFFSVSLILLAVLFHKRKSSLSSRKRPPPSPLRLPVIGHFHLIGALSHRSFTSLSKRYGEVMLLHFGSAPVLVASSAAAAREIMKNQDVIFASRPRLSIFDRLMYSGKGVAFAPYGEHWRNARSMCMLQLLSAKRVQSFGGIREEETSAMIEKIRRSKPTTVVNLSEMFMALTNGVIHRAVLGRKGDGGDDFNRILIKVIKLLGSFNVGDYVPWLSWINRINGVDAEVEKVGTKLDGSMEGILRKYRRKKVGDDETNFVDTLLQFQRESKDTDPVEDDVIKALIFDMVSAGTDTTFAALEWTMAELIKNPRTLKTLQNEVREVSRNKGGITEDDVDKMPYLKAVSKEILRLHPPFAILLPRELTQDANMLGYDIPRGTVVLVNNWAISRDPSLWENPEEFRPERFLETSIDYKGLHFEMLPFGSGRRGCPGSTFAMALYELALSKLVNEFDFRLGNGDRAEDLDMTEAPGFVVHKKSPLLVLATPRQS |
| CYP71AA2 | MAGIMDSTTASYYTTLLCGALLLAAVVFKLKTAAAFSRHNAGVNLPPGPWALPVIGSIHCLLGSLPHHAMRELSRRYGPVMLLRLGHVRTLVLSSPEAAREVMKTHDVAFANRAVTPTASILTYGARDIVFAPFGKHLRELRKLCALELLSPRRVRSFRHVREEEAARLARSVAAAASASSAVNVSELVKIMTNDVTMRAIIGDRCPQREEYLEALDKTMDLLAGFNLVDLFPGSPLARVLGGRSLRTTKRVHEKLHQITEAIIQGHGIKDTVGDEHHECEDILDVLLRFQRDGGLGITLTKEIVSAVLFDLFAGGSETTSTTILWAMSELMRSPHVMEQAKYEIRQVLQGKAMVSEADIEGRLHYLQLVIKETLRLHPPVPIVIPRLCSKPNSKIMGYDIPQGTSVLVNVSAIGRDEKIWKNVNEFRPERFKDDIVDFSGTDFRFIPGGSGRRMCPGLTFGVSNIEIALVTLLYHFDWKLPSETDTHELDMRETYGLTTRRRSELLLKATPSY |
| CYP71AB1 | MANLIYYSLLIILPFLFLIKFYKAMFSSRKQARRLPPCPWQLPIMGSIHHLIGDLPHRALRDLSRRYGPVMLLKFGQVPFIIVSSPEAAKDIMKTHDSIFATRPQSEIMKIITKRGQGLVFAPYDDQWRQLRKICIRELLCAKRVQSFCAIREEEAARLVKSISSDQAHLVNLSKKLADYATDAAIRIITGTRFENQEVRDKFQYYQDEGVHLAASFCPANLCPSLQLGNTLSRTAHKAEIYREGMFAFIGGIIDEHQERRAQDMSHKEDLIDVLLRIQQEGSLESPVSMETIKFLIFDILAGGSETVTTVLQWAMAELMRNPTVMSKVQDEVREVFKWKEMVSNDDINKLTYLQFVIKETLRLHTPGPLFMRECQEQCQVMGYDMPKGTKFLLNLWSISRDPKYWDDPETFKPERFEDDARDFKGNDFEFISFGAGRRMCPGMLFGLANIELALANLLFYFDWSLPDGVLPSELDMTENFGVTVRKKEDLLLHASLYAQLSC |
| CYP71AC1 | MDLMKSNPLQGSPWSLLNLLVLIIVAAMICGELCRRRRRRRGDENGGATRLPPGPWRLPFVGSLHHLAVMRPRGVVVHRALAELARRHDAPVMYLRLGELPVVVASSPEAAREVLKTHDAAFATRAMSVTVRESIGDKVGILFSPYGKKWRQLRGICTLELLSVKRVRSFRPIREEQVARLVDAIAAAAASSTAEAAAVNISRQITGPMTDLALRAIMGECFRWREEFLETLAEALKKTTGLGVADMFPSSRLLRAVGSTVRDVKLLNAKLFELVECAIEQHREQIRAAHDNGGDDDDAHGHGDKECFLNTLMRIQKEGDDLDDLTMATVKAVILDMFAGGSESTSTTLEWALSELVRNPHVMQKAQAEIRHALQGRTRVTEDDLINLKYPKNIIKETLRLHPVAPLLVPKECQESCKILGYDVPKGTIMFVNAWAIGRDPRYWNDAEVFMPERFEKVAVDFRGTNFEFKPFGAGRRMCPGITFANATIEMALTALLYHFDWHLPPGVTPDGLDMEEEFGMSVSRKRDLYLRPTLHMGLETI |
| CYP71AD1 | MEIELSPVLLLLPFLLLGFLYLTGGVLRSGGNARRRLAPAPRGLPVIGNLHQVGALPHRALRALAAATGAPHLLRLRLGHVTALVASSPAAAAAVMREHDHVFATRPYFRTAEILTYGFKDLVFAPYGEHWRHARRLCSEHVLSAARSHRYGPMREQEVALLVNAIRTEAAAAAVDVSKALYAFTNAVICRAVSGRLSREDEGRSELFRELIEENATLLGGFCVGDYFPALAWADAFLSGFAARACRNLRRWDELLEEVIAEHEARLRGGDDGGGEEHREEDFVDVLLALQEESQRHDGSFKLTRDIIKSLLQDMFAAGTDTSFITLEWAMSELVKNPAAMRKLQDEVRRGGGATTAATPYLKAVVKETLRLHPPVPLLVPRECARDTDDDATVLGYHVAGGTRVFVNAWAIHRDAGAWSSPEEFRPERFLPGGGEAEAMDLRGGHFQLVPFGAGRRVCPGMQFALATVELALASLVRLFDWEIPPPGELDMSDDPGFTVRRRIPLRLVAKPVGSEDDK |
| CYP71AE1 | MASLATVPNLPLLLLLHYALATFTASRARKNNKDRLPPSPLALLVIGHLLHLMGSLPRTSPSAASPHGTGPTCSSGLAPCRCSLRRRRVPAAEAILRTHDHVFASRPRTVLLANIVFYRSRDVRFAPYGDHWRQARKLVTTHLLSAKKVRSLRLAREEEVSLVMTKISKAATASAVVDIGQILRSFTNDMICRTVSGKCPRDDRKRIFQELANETSLLLGGFDIEEYFPVLARVGLVGKMMCLKAERLKKRWDELLEELINDHENDDHSCNLISDQNDEDFVDILLSVRQEYGFTREHVKAILDVFFGGIDTSALVLEFTIAELMQRPRMLKKLQDEVRACIPKGQKIVSEVDINNMAYLRAVIKEGIRLHPVAPVLAPHISMDDCNIDGYMIPSGTRVLVNVWAIGRDPRFWEDAEEFVPERFIDSMSSAAANVNFTENDYQYLPFGYGRRMXPGMKFGIAVVEIMLANLMWKFDWTLPPGTEIDMSEVFGLSVHRKEKLLLVPNNMSSC |
| CYP71AF1 | MEQYLFLATLLILSLAFVKLRPRNNGENPPPGPWQLPVIGSLHHLAGALPHRALRDLATRHGELMLLRLGELPVVVASSPAAAREVMRTHDAAFATRPQTATLRALTRDGLGVAFAPQGEHWRCLRKLCVTELLGARRVRCLRRAREAEAAALVASLSTTTPEPVNVSSLVARYVTDAVVRAVVGDRISDRDAFLERLEEGVKVAAGFTLADVFPSSRLARALSGTARRAEAHSREMTRLMDGVIEEHRQRRAATGWRDEEDEDLLDVLLRIQKDGGLQIPLDMGTIRAIIIDLFSAGSETTGTTLQWAMAELMRNPAALRKAQAEVRGVLAGHSHVTEDALPDLHYLHLVIKETLRLHVAVPLLLPRECQEPRLRVLGYDVPERAMVLVNAWAICRDTAVWGPDAEEFRPERFDGGAVDFKGTDFEFVPFGAGRRMCPGVAFAVAIMELGLASLLFHFDWELAGGTAAGELDMAEGLGITARRKSDLWLHATVSVPVPNTETS |
| CYP71AG1 | MTLSAPLSYNTIILVFVVFIISYVSLLVGGGGKKSVANAAANRLPPPSPRGLPVIGNLHQLGSLPHRSLRSLAAAHGPVMLIRLGQVPAVVVSSASAAREVLQAQDHVFAGRPSLTIPRRLLYGCTDIAFAPHGAYWRGARKMSVRHLLSPPRVRAYRAVREQEVDALVRRVLEQACGAGGGVVRLSELLNDFAKDVAGRIVLGLRAAGDDGWRGKVDALLEESNVLLGAFHVGDYIPWLSWVSHVDGTDARVTRAFEKMDRILEEMVDAAATRGREMPLSDSGEEASGGDDAFIHVLLSLQQQQRQQQEEEPTAEWRLSRDNVKALLEDLFGAGTEATIIVLEWAMAELLRNKGVMEKLQREVRQAQARARRSSSSDIIVGEQDLAGTGMEYLRAVIKETMRLHTPGPLLLPHKSMEATRISHGHGYDVPSDTMVIVNAWAIGRDPEAWESPADEFRPERFVGSGVDFRGHHFQLIPFGAGRRMCPGINLAMSVVELALANLVARFDWALPGAELELDMEETTGCTARKKAPLCAVATLLP |
| CYP71AH1 | MKFLLVVASLFLFVFLILSATKRKSKAKKLPPGPRKLPVIGNLLQIGKLPHRSLQKLSNEYGDFIFLQLGSVPTVVVFSAGIAREIFRTQDLVFSGRPALYAGKRFSYNCCNVSFAPYGNYWREARKILVLELLSTKRVQSFEAIRDEEVSSLVQIICSSLSSPVNISTLALSLANNVVCRVAFGKGSDEGGNDYGERKFHEILFETQELLGEFNVADYFPGMAWINKINGLDERLEKNFRELDKFYDKIIEDHLNSSSWMKQRDDEDVIDVLLRIQKDPNQEIPLKDDHIKGLLADIFIAGTDTSSTTIEWAMSELIKNPRVLRKAQEEVREVAKGKQKVQESDLCKLEYLKLVIKETLRLHPPAPLLVPRVTTASCKIMEYEIPADTRVLINSTAIGTDPKYWENPLTFLPERFLDKEIDYRGKNFELLPFGAGRRGCPGINFSIPLVELALANLLFHYNWSLPEGMLPKDVDMEEALGITMHKKSPLCLVASHYNLL |
| CYP71AJ1 | MKMLEQNPQYLYFFSLFLVTIFLYKWLTLKKTPLKNLPPSPPQYPIIGNLHQIGPDPQASLRDLAQKYGPLMFLKFGTVPVLVVSSADAAREALKTHDLVFADRPYSSVANKIFYNGKDMVFARYTEYWRQVKSICVTQLLSNKRVNSFHYVREEEVDLLVQNLENSHSKVANLTELLIEVTGNVVCRVSVGSGDKVDSYKILILEIMDMLGYSRSIEDFFPLLGWVDWLTGLRGKVAEAAKGVDTFLEGVLKEHLSTTGSKYNDFVSILLEIQEADAGSSMDNECIKSLIWDMLGAGTETISTALEWTLAALIKNPDAMFKLQNEVREIGKGKSKISEADLVKMNYLQAVMKESMRLYFTAPLLVPREARQDIKFMGYDISSGTQVLINAWAIARDPLLWDKPEEFRPERFLNSPIDYKGFHYEFLPFGAGRRGCPGIQFAMCINELVVANLVHKFNFELPDGKRLEDLDMTAASGITLRKKSPLLVVARPHV |
| CYP71AJ1 | MKMLEQNPQYLYFFSLFLVTIFLYKWLTLKKTPLKNLPPSPPQYPIIGNLHQIGPDPQASLRDLAQKYGPLMFLKFGTVPVLVVSSADAAREALKTHDLVFADRPYSSVANKIFYNGKDMVFARYTEYWRQVKSICVTQLLSNKRVNSFHYVREEEVDLLVQNLENSHSKVANLTELLIEVTGNVVCRVSVGSGDKVDSYKILILEIMDMLGYSRSIEDFFPLLGWVDWLTGLRGKVAEAAKGVDTFLEGVLKEHLSTTGSKYNDFVSILLEIQEADAGSSMDNECIKSLIWDMLGAGTETISTALEWTLAALIKNPDAMFKLQNEVREIGKGKSKISEADLVKMNYLQAVMKESMRLYFTAPLLVPREARQDIKFMGYDISSGTQVLINAWAIARDPLLWDKPEEFRPERFLNSPIDYKGFHYEFLPFGAGRRGCPGIQFAMCINELVVANLVHKFNFELPDGKRLEDLDMTAASGITLRKKSPLLVVARPHV |
| CYP71AK1 | MSSYVVVAAALLVFVVVVVAAIKNLGKGKLPPSPPSLPFVGHLHLVGELPHRSLDALHRRYGSDGGLMFLRLGRAGALVVSTAAAAADLYRGHDLAFASRPPSHSAERLFYGGRNMSFAPLGDAWRRTKKLAVAHLLSPRRARRAQRGAGAVQPRELRTPNKKGVITRVAAGGSGATAERFRKMMADTSELLAGFQWVDRLPEAAGWAARKLTGLNKKLDDMADESDRFLGEILAAHDDEKAEGEEEDFVDVLLRLRRQGAAAAGGLELAEDNVKAIIKDIMGAATDTSFVTLEWIMTELIRNTQVMSKLQNEIIQVTGSKPTVTEEDLTKLDYLKAVIKEVLRLHPPAPLLIPHHSTMPTTIQGYHIPAKTIAFINVWAIGRDPAAWDTPDEFRPERFMGSAVDFRGNDYKFIPFGAGRRLCPGIILALPGLEMVIASLLYHFDWELPDGMDVQDLDMAEAPGLTTPPMNPVWLIPRCRTI |
| CYP71AL1 | MEITDFSTFLLAFLLLSYLLVTGRRLISKKSTGKLPPGPKKFPIVGNLPQLALAGTLPHRAMRDLAKTYGPLMHLRLGEVSQLVVSSPEMAKEVLKTLDPMFASRPDLILADIMLYDNAGLTFAKYGDYWRQLKKIFATELLSAKRVKSFRSLREEETLNTIRWISSNEGKPINMTNTLLNLVFGVLSRATFGKKSPEQDKLVYIVNKAAELATGGNISDLFPSIKFFRLISVVNYKLKSMFAESNRLLDMIMKEHKKGNGSGESKDLVDVLLGYQRENAEFSLTDENIKAVLLDIFIGGTDGSFTTLDWAMSELMRAPTVLKRAQEEVRQAFETDGYIDEEKFEDLKYVTSIIKETLRLHPPAPLLVPRSNDETAHILGYEVPAKSKILVNVWAINRDPRYWEDAESFKPERFLGSSVGYKGTDFHFLTFGAGRRMCPGMVYGYANIVHPLVKLLYYFDWNLPSGIKPEELDMTEEHGLSVKRKADLYLIPSVRNSISHL |
| CYP71AM1 | MDEYFVDLPYPNLCLYGSCLVLAVVVARAIILSGSGKKPGGLPPGPWQLPVIGSLHHLLRGLPHHAIRDLSLRHGPLMLLRICERTAIVVSSAEAVAEMLKRHDAAFSERPSSPGIEELSRHGQGVIFAPYGDHWRLLRRILMTELLSPRRVEAFRHIREDEAARLVSSLSSLPQPVDMDERLEVFVADSSVRAILGDRLPDRAAFLKMVKAGQDPSSLFDLRDLFPSSWLVRMLPRSRKAERHLQEMFRLMDDILVSHSQRRVDDDSPDGGGGGAVDEEHDMVDVLLRIQKQGDMRVSLNHGVIRAALIDAVGAALDTTSTTLRWAMAELIANPRVMHKAQLEIRRVMAAGQQRRVHEATLRDLHYLKAVIKETLRLHPPAPFVPRVCLDDGIKIQGYHVPRGTIVVANVWAISRDPKYWEDPDMFIPERFHQGDPDHHRCFDFKGFDFEFTPFGAGRRMCPGMNFAHMNVEIALASLLYHFDWKLPDGATPEEIDMTELWGVTVARKAKLLLHPIPCIPAAASIDA |
| CYP71AN1 | MTLLYFQQTWQEIRPKIGLNYLVFFLIFLSFILFLFKLTRSRKLNLPPSPPKLPVIGNIHHLGTLPHRSLQALSEKYGPLMLLHMGHVPTLIVSSAEAASEIMKTHDIVFANRPQTTAASIFFHGCVDVGFAPFGEYWRKVRKISVQELLGPKTVQSFHHVREEEAAGLIDKIRFACHSGTSVNISEMLISVSSDIVSRCVLGRKADKEGGNSKFGELTRTFMVQLTAFSFGDLFPYLGWMDTLTGLIPRLKATSRALDSFLDQVIEEHRSLESDGDRCAQTDFLQALLQLQKNGKLDVQLTRDNIIAVVLDMFVGGTDTSSTMMEWAIAELVRNQTIMRKAQEEVRRIVGKKSKVEANDIEEMGYLKCIIKETLRLHPAAPLLVPRETSASFELGGYYIPPKTRVLVNAFAIQRDPSFWDRPDEFLPERFENNPVDFKGQDFQFIPFGSGRRGCPGALFGVTAVEFMIANLLYWFDWRLPDGATQEELDMSEICGMTAYKKTPLLLVPSLYSP |
| CYP71AP1 | MSLLQWLKECSKPTLFVVTIFLVVVLKFLMKDKLKKRKLNLPPSPAKLPIIGNLHQLGNMPHISLRGLAKKYGPIIFLQLGEIPTVVISSAGLAKEVLKTHDLVLSSRPQLFSAKHLLYGCTDIAFAPYGAYWRNIRKICILELLSAKRVRSYSYVREEEVARLIRRIAESYPGITNLSSMIALYTNDVLCRVALGRDFSGGGEYDRHGFQKMFDDFQALLGGFSLGDYFPSMEFVHSLTGMKSKLQYTFRRFDQFFDEVIAEHRSSKGKQEEKKDLVDVLLDIQKDGSSEIPLTMDNIKAVILDMFAGGTDTTFITLDWAMTELIMNPHVMEKAQAEVRSVVGDRRVVQESDLPRLNYMKAVIKEILRLHPAAPVLLPRESLEDVIIDGYNIPAKTRIYVNVWGMGRDPELWENPETFEPERFMGSGIDFKGQDFELIPFGAGRRICPAITFGIATVEIALAQLLHSFDWKLPPGLEAKDIDNTEAFGISMHRTVPLHVIAKPHFD |
| CYP71AQ1 | MILHPYSLACLLFIFVTKWFFFNSARNKNLPPSPLKIPVVGNLLQLGLYPHRSLQSLAKRHGPLMLLHLGNAPTLVVSSADGAHEILRTHDVIFSNRPDSSIARRLLYDYKDLSLALYGEYWRQIRSICVAQLLSSKRVKLFHSIREEETALLVQNVELFSSRSLQVDLSELFSELTNDVVCRVSFGKKYREGGSGRKFKKLLEEFGAVLGVFNVRDFIPWLGWINYLTGLNVRVEWVFKEFDRFLDEVIEEFKANRVGVNEDKMNFVDVLLEIQKNSTDGASIGSDSIKAIILDMFAAGTDTTHTALEWTMTELLKHPEVMKKAQDEIRRITGSKISVTQDDVEKTLYLKAVIKESLRLHPPIPTLIPRESTKDVKVQGYDILAKTRVIINAWAIGRDPSSWENPDEFRPERFLESAIDFKGNDFQFIPFGAGRRGCPGTTFASSVIEITLASLLHKFNWALPGGAKPEDLDITEAPGLAIHRKFPLVVIATPHSF |
| CYP71AR1 | MAELINTETLSLVLLAVFLILFYIWSSSTSTTRNSPPSPPKLPIIGNLHQLLGSPGTPPHRALQALSKLHGPLMLLHFGSFPVLVVSSAEAAREIMKTHDLAFASRPRTTAFEKLLYNYKDVAAAPYGDYWRQVKSICVLNLLSAKKVRSFRTLREEETRSMINNIKETSRRGEVVDVRKMVMGLTNDVVSRAALGKKYYNDGEFKELITEFTELAGSIHIGDYIPSLGWLSRLGGLDAKLVSLAKRYDAFLDTVLQEHIDRSSETTSNRNDKSVDDQNEDNKDFVDVLLDIQRENSLHFPLNRISIKAVVQDVFLAGTDTTSTLLEWAMAEILRHPRVMSKLQKELRSVKKGEEEILTEDDMVDMHYLKAVIKEALRLHPPFTLLLPKMSIQDVKIKGYDIKANTQVLVNAWQIGRDPESFSYKPEEFEPEGFLEVNSGLSYKGTDFEFIPFGAGRRICPGIQFATTVNEIGLANLLHKFDWKLPGGVRNEDLDMNESSGLTIHKKHPLKAVAIPYSSA |
| CYP71AS1 | LLLIPLLLILKKLKAQNKQQLPPSPPKLPVIGNFHQLGELPHQSLWQLSKKYGPVMLLKLGRVPLVVISSAEAARDVLKVHDLDCCSRPPLIGSGKFTYNYSDIAFSPYSDYWRELRKISVLEVFSLRRVQSFGFIREEEVALLMNSISESSSSASPVDLSEKMFALTGSIVFRMAFGRRFRGSNFDNHSFQELVHAVESLLGGFAAAECFPYVGWIIDRLNGYHAKLERVFQELDTLFQQIIDDHLKPAETTKQEHVQQDIIDVMLKIERDQAESHESEAWLTKNHIKAVLLNIFLGGVDTSAITVIWAMAELCKNPRLMKKAQAEIRNHIGNKGRVTEADIDQLQYLKMVIKETLRLHPPAPLLIARDTLYRFKVNGYDIYPKTLIQVNAWAIGRDSKYWESPEEFIPERFIDKPVDVKGQDFEYLPFGSGRRICPGINLGLIMSELALANLLYCFDWKLPNGREEDCVNMNMEEATGVSLTLSKKTPLILVPVNYLQ |
| CYP71AT1 | MILFLLFVALPIILIFVLPKAKKGAKNTQPPGPVGLPFIGNLHQFDSLTPHIYFWKLSKKYGKIFSLKLGSTPMVVVSSAKLAKEVLKTQDLVYCSRPSILGQQKLSYNGRDIVFAPYNDYWREMRKISVLHLFSLKKVQLYKPIREDEVSRMIKKISLHAASSQITNLSNLMISLISTIICRFAFGVRFDDEAHERKRFDYLLAETQAMMASFFVSDVFPFLGWIDKLTGLTDRLKKNLKELDEFYEELIEQHQNPNRPKSMEGDIVDLLLQLKKEKSIPIDLTLEDIKGLLMNVLVAGSDTSAAGIVWTMTALMKNPKAMKKVQEEIRKSIGNKGIVNEDDIQNMPYFKAVIKESFRLYPPVPLLVPRESMKKSTLEGYEIQAGTIVHVNSWAIARDPEIWENPEEFIPERFLNSDIDYKGQNYELIPFGAGRRGCPGMTLGVASMELALSNLLYAFDWELPHGMKKEDIDTNVRPGITMHKKNDLCLIPKSYF |
| CYP71AU2 | MISLFAVFPFLIFLGFILLSFFQLSSKKSKKNLPPSPPKLPLIGNFHQLGQQPHRSLQKLTNEYGPMMMLQFGSVPVLIASSAEAASHIMKTQDLGFANKPKSIIPSKLFFGPKDVAFTPYGEYWRNARSVCMLQLLNNKRVQSFSKIREEETSLLLRKINHSIGNSQVVDLTDLFVSMTNDVLCRVALGRKYCDGEEGKKFKSLLLEFVELLGVFNIGDYMPWLAWVNRFNGLNAKVDKVAEEFSAFLEGVIEEHKEKIKTDEKEEGSADFVDILLQVQKENKSGFNVEMDSIKAIIMDMFSAGTDTTSTLLEWTMNELIRNPNALRKLRDEVRKVTQGKSDVTEDDLEHMPYLNAVMKESLRLHSPVPLLPREAIKDTKVLGYDVAAGTQVFVCPWAISRDPTIWENPEEFQPERFLDSCVDYKGLHFELIPFGAGRRGCPGITFAKVVNELALARMLFHFEFSLPNGAKAEDLDVDEALGITVRRKFPLLVVATPRI |
| CYP71AV | MALSLTTSIALATILFFVYKFATRSKSTKNSLPEPWRLPIIGHMHHLIGTIPHRGVMDLARKYGSLMHLQLGEVSTIVVSSPKWAKEILTTYDITFANRPETLTGEIVAYHNTDIVLAPYGEYWRQLRKLCTLELLSVKKVKSFQSLREEECWNLVQEIKASGSGRPVNLSENIFKLIATILSRAAFGKGIKDQKEFTEIVKEILRQTGGFDVADIFPSKKFLHHLSGKRARLTSIHQKLDNLINNLVAEHTVKTSSKTNETLLDVLLRLKDSAEFPLTADNVKAIILDMFGAGTDTSSATIEWAISELIKCPRAMEKVQVELRKALNGKERIHEEDIQELSYLNLVIKETLRLHPPLPLVMPRECRQPVNLAGYDIPNKTKLIVNVFAINRDPEYWKDAETFIPERFENSSTTVMGAEYEYLPFGAGRRMCPGAALGLANVQLPLANILYHFNWKLPNGASYDQIDMTESFGATVQRKTELLLVPSF |
| CYP71AV | MELSITTSIALATIVFFLYKLATRPKSTKKQLPEASRLPIIGHMHHLIGTMPHRGVMDLARKHGSLMHLQLGEVSTIVVSSPKWAKEILTTYDITFANRPETLTGEIIAYHNTDIVLAPYGEYWRQLRKLCTLELLSVKKVKSFQSIREEECWNLVKEVKESGSGKPINLSESIFTMIATILSRAAFGKGIKDQREFTEIVKEILRQTGGFDVADIFPSKKFLHHLSGKRARLTSIHKKLDNLINNIVAEHHVSTSSKANETLLDVLLRLKDSAEFPLTADNVKAIILDMFGAGTDTSSATVEWAISELIRCPRAMEKVQAELRQALNGKEKIQEEDIQDLAYLNLVIRETLRLHPPLPLVMPRECREPVNLAGYEIANKTKLIVNVFAINRDPEYWKDAEAFIPERFENNPNNIMGADYEYLPFGAGRRMCPGAALGLANVQLPLANILYHFNWKLPNGASHDQLDMTESFGATVQRKTELLLVPSF |
| CYP71AV1 | MKSILKAMALSLTTSIALATILLFVYKFATRSKSTKKSLPEPWRLPIIGHMHHLIGTTPHRGVRDLARKYGSLMHLQLGEVPTIVVSSPKWAKEILTTYDITFANRPETLTGEIVLYHNTDVVLAPYGEYWRQLRKICTLELLSVKKVKSFQSLREEECWNLVQEIKASGSGRPVNLSENVFKLIATILSRAAFGKGIKDQKELTEIVKEILRQTGGFDVADIFPSKKFLHHLSGKRARLTSLRKKIDNLIDNLVAEHTVNTSSKTNETLLDVLLRLKDSAEFPLTSDNIKAIILDMFGAGTDTSSSTIEWAISELIKCPKAMEKVQAELRKALNGKEKIHEEDIQELSYLNMVIKETLRLHPPLPLVLPRECRQPVNLAGYNIPNKTKLIVNVFAINRDPEYWKDAEAFIPERFENSSATVMGAEYEYLPFGAGRRMCPGAALGLANVQLPLANILYHFNWKLPNGVSYDQIDMTESSGATMQRKTELLLVPSF |
| CYP71AV1 | MKSILKAMALSLTTSIALATILLFVYKFATRSKSTKKSLPEPWRLPIIGHMHHLIGTTPHRGVRDLARKYGSLMHLQLGEVPTIVVSSPKWAKEILTTYDITFANRPETLTGEIVLYHNTDVVLAPYGEYWRQLRKICTLELLSVKKVKSFQSLREEECWNLVQEIKASGSGRPVNLSENVFKLIATILSRAAFGKGIKDQKELTEIVKEILRQTGGFDVADIFPSKKFLHHLSGKRARLTSLRKKIDNLIDNLVAEHTVNTSSKTNETLLDVLLRLKDSAEFPLTSDNIKAIILDMFGAGTDTSSSTIEWAISELIKCPKAMEKVQAELRKALNGKEKIHEEDIQELSYLNMVIKETLRLHPPLPLVLPRECRQPVNLAGYNIPNKTKLIVNVFAINRDPEYWKDAEAFIPERFENSSATVMGAEYEYLPFGAGRRMCPGAALGLANVQLPLANILYHFNWKLPNGVSYDQIDMTESSGATMQRKTELLLVPSF |
| CYP71AV3 | MEVSLTTSIALATIVFFLYKLLTRPTSSKNRLPEPWRLPIIGHMHHLIGTMPHRGVMDLARKYGSLMHLQLGEVSAIVVSSPKWAKEILTTYDIPFANRPETLTGEIIAYHNTDIVLAPYGEYWRQLRKLCTLELLSVKKVKSFQSLREEECWNLVQEIKASGSGTPFNLSEGIFKVIATVLSRAAFGKGIKDQKQFTEIVKEILRETGGFDVADIFPSKKFLHHLSGKRGRLTSIHNKLDSLINNLVAEHTVSKSSKVNETLLDVLLRLKNSEEFPLTADNVKAIILDMFGAGTDTSSATVEWAISELIRCPRAMEKVQAELRQALNGKERIKEEEIQDLPYLNLVIRETLRLHPPLPLVMPRECRQAMNLAGYDVANKTKLIVNVFAINRDPEYWKDAESFNPERFENSNTTIMGADYEYLPFGAGRRMCPGSALGLANVQLPLANILYYFKWKLPNGASHDQLDMTESFGATVQRKTELMLVPSF |
| CYP71AV4 | MELSLTTSIALATIVLILYKLATRPKSNKKRLPEASRLPIIGHMHHLIGTMPHRGVMELARKHGSLMHLQLGEVSTIVVSSPKWAKEILTTYDITFANRPETLTGEIIAYHNTDIVLAPYGEYWRQLRKLCTLELLSVKKVKSFQSIREEECWNLVKEVKESGSGKPISLSESIFKMIATILSRAAFGKGIKDQREFTEIVKEILRQTGGFDVADIFPSKKFLHHLSGKRARLTSIHKKLDTLINNIVAEHHVSTSSKANETLLDVLLRLKDSAEFPLTADNVKAIILDMFGAGTDTSSATVEWAISELIRCPRAMEKVQAELRQALNGKEQIHEEDIQDLPYLNLVIRETLRLHPPLPLVMPRECREPVNLAGYEIANKTKLIVNVFAINRDPEYWKDAEAFIPERFENNPNNIMGADYEYLPFGAGRRMCPGAALGLANVQLPLANILYHFNWKLPNGASHDQLDMTESFGATVQRKTELILVPSF |
| CYP71AV5 | MELSFTTSIAVATIVFVLFKLATRPKSNKKLLPEPWRLPIIGHMHHLIGTMPHRGVMDLARKYGSLMHLQLGEVSTIVVSSPKWAKEILTTHDITFANRPETLTGEIIAYHNTDIVLAPYGEYWRQLRKLCTLELLSVKKVKSFQSLREEECWNLVQEVKESGSGRPVDLSENIFKMIATILSRAAFGKGIKDQKEFTEIVKEILRQTGGFDVADIFPSKKFLHHLSGKRARLTSIHKKLDNLINNIVAEHPGNNSSKSNETLLDVMLRLKDSVEFPLTADNVKAIILDMFGAGTDTSSATVEWAISELIRCPRAMEKVQAELRQALKGKDKVKEEDIQDLSYLDLVIKETLRLHPPLPLVMPRECRQPVNLAGYDIANKTKLIVNVFAINRDPEYWKDAESFIPERFENSPITVMGAEYEYLPFGAGRRMCPGAALGLANVQLPLANILYHFNWKLPNGASHDQLDMTESFGATVQRKTHLVLVPSF |
| CYP71AV6 | MEVSLTTSIALATIVFFLYKLLTRPTSSKNRLPEPWRLPIIGHMHHLIGTMPHRGVMDLARKYGSLMHLQLGEVSAIVVSSPKWAKEILTTYDIPFANRPETLTGEIIAYHNTDIVLAPYGEYWRQLRKLCTLELLSVKKVKSFQSLREEECWNLVQEIKASGSGTPFNLSEGIFKVIATVLSRAAFGKGIKDQKQFTEIVKEILRETGGFDVADIFPSKKFLHHLSGKRGRLTSIHNKLDSLINNLVAEHTVSKSSKVNETLLDVLLRLKNSEEFPLTADNVKAIILDMFGAGTDTSSATVEWAISELIRCPRAMEKVQAELRQALNGKERIKEEEIQDLPYLNLVIRETLRLHPPLPLVMPRECRQAMNLAGYDVANKTKLIVNVFAINRDPEYWKDAESFNPERFENSNTTIMGADYEYLPFGAGRRMCPGSALGLANVQLPLANILYYFKWKLPNGASHDQLDMTESFGATVQRKTELMLVPSF |
| CYP71AV7 | MELTLTTSLGLAVFVFILFKLLTGSKSTKNSLPEAWRLPIIGHMHHLVGTLPHRGVTDMARKYGSLMHLQLGEVSTIVVSSPRWAKEVLTTYDITFANRPETLTGEIVAYHNTDIVLSPYGEYWRQLRKLCTLELLSAKKVKSFQSLREEECWNLVKEVRSSGSGSPVDLSESIFKLIATILSRAAFGKGIKDQREFTEIVKEILRLTGGFDVADIFPSKKILHHLSGKRAKLTNIHNKLDSLINNIVSEHPGSRTSSSQESLLDVLLRLKDSAELPLTSDNVKAVILDMFGAGTDTSSATIEWAISELIRCPRAMEKVQTELRQALNGKERIQEEDIQELSYLKLVIKETLRLHPPLPLVMPRECREPCVLAGYEIPTKTKLIVNVFAINRDPEYWKDAETFMPERFENSPINIMGSEYEYLPFGAGRRMCPGAALGLANVELPLAHILYYFNWKLPNGARLDELDMSECFGATVQRKSELLLVPTAYKTANNSA |
| CYP71AV8 | MEISIPTTLGLAVIIFIIFKLLTRTTSKKNLLPEPWRLPIIGHMHHLIGTMPHRGVMELARKHGSLMHLQLGEVSTIVVSSPRWAKEVLTTYDITFANRPETLTGEIVAYHNTDIVLAPYGEYWRQLRKLCTLELLSNKKVKSFQSLREEECWNLVKDIRSTGQGSPINLSENIFKMIATILSRAAFGKGIKDQMKFTELVKEILRLTGGFDVADIFPSKKLLHHLSGKRAKLTNIHNKLDNLINNIIAEHPGNRTSSSQETLLDVLLRLKESAEFPLTADNVKAVILDMFGAGTDTSSATIEWAISELIRCPRAMEKVQTELRQALNGKERIQEEDLQELNYLKLVIKETLRLHPPLPLVMPRECREPCVLGGYDIPSKTKLIVNVFAINRDPEYWKDAETFMPERFENSPITVMGSEYEYLPFGAGRRMCPGAALGLANVELPLAHILYYFNWKLPNGKTFEDLDMTESFGATVQRKTELLLVPTDFQTLTAST |
| CYP71AX1 | YFLLVPLLAFIYFLHQCFFSPSNTQKRLLPPSPTKLPIIGNLHQLGSLPHRSLHKLSKKYGPVMLLHLGSKPVIIASSVDAARDIMKTHDLVWSNRPKSSMADGLFYGSKDVTFSPYGEYWRQIRSITVLHLLSNKRVQSYRRVREEEISNMIDKIRQKCDSVIDLRDVFSCLANNIISRVNIGRTYNEGECGIAVKSLIEELLILIGTFNIGDYTPWFKWVNKIKGVDSRVKKVAKDLDAFIESVIEERLIRNKKAECSAVEAKDFLGVLLEIQDGKETGFPLQRDSLKALLLDAFVAGTDSTYTVLEWTMTELLRHPRVMTKLEDEVRELGQGKTEITEDDLRNMHYLKAVIKESLRLHAPVPLLVARESMEEVKLLDYDIPAKTEVLINAWSIGRDPLLWDHPEEYMPERFLSSDIDVKGLNFELIPFGAGRRGCPGIPFAIMVNELALANLVYKFNFALPKGIKGEDLDMTECNGLAVRRKSPLLVVATPKSMV |
| CYP71AY1 | ARVNFSLTSPIFLLLSSLFLIILLNKLMRGNKIQKGKKLPPGPKKIAIIGNLPSNGRFTSLIVFLNNLAEKYGPIMHLRIGQLSAVIISSAEKAKEILNTHGVRVADRPQTTVAKIMLYNSLGVTFAPYGDYLKQLRQIYAMELLSPKTVKSFWTIMDDELSTMITSIKSEVGQPMILHDKMMTYLYAMLCRATVGSVCNGRETLIMAAKETSALSASIRIEDLFPSVKILPVISGLKSKLTNLLKELDIVLEDIISAREKKLLSQPQQPLMLDEEDMLGVLLKYKNGKGNDTKFRVTNNDIKAIVFELILAGTLSSAAIVEWCMSELMKNPELLKKAQDEVRQVLKGKKTISGSDVGKLEYVKMVVKESVRLHPPAPLLFPRECREEFEIDGMTIPKKSWVIINYWAIGRDPKIWPNADKFEPERFSNNNIDFYGSNFELIPFGAGRRVCPGILFGTTNVELLLAAFLFHFDWELPGGMKPEELDMNELFGAGCIRENPLCLIPSISTVVEGN |
| CYP71AZ1 | MQMDAVVILLILAFPIASVYVLFYHKKRVDGLSEPPGPPGLPFIGNFYQLYKAPCIHEYLCTLSKRYGSLMTLRMGSVPILVVSSPKMAKEVLKTQDLAYCSRPMMTGMQKLSYNGLDVAFSPYSEHWRQVRKFCTLELFTQKRAQIDFRHVHEQEVSRMIARLSETAAASKDVNAFECFSNLATSIISRVAFGKRHDEDGIGKERLQRMLSELDTMLSVYFVSDFFPMFGWIDSLTGMRARLDRTFKEMDMFYEELIDDHLKPDRPESLTEDIIDVMLKNKGCSSSSLTKDTMKAILLNVFNGGTGTSASLLVWAMTALMRNRGVMKKVQEEIRSVIGKKGNVDEDDIQNLPYLRAVVKETMRLYPTGALLIPRKTIESSIIGEDKDHMYMIKPKTLVYVSMWAIGRDPEIWKNPMKFVPERFLERHDINYQGQQFEYIPFGAGRRICPGIHLGLTTVELALANLLYTFNWEPPVGTRFEDINDETVNGITLQKKNALYIRPKTYMFS |
| CYP71B2 | MTILLCFFLVSLLTIVSSIFLKQNKTSKFNLPPSPSSLPIIGNLHHLAGLPHRCFHKLSIKYGPLVFLRLGSVPVVVISSSEAAEAVLKTNDLECCSRPKTVGSGKLSYGFKDITFAPYGEYWREVRKLAVIELFSSKKVQSFRYIREEEVDFVVKKVSESALKQSPVDLSKTFFSLTASIICRVALGQNFNESGFVIDQDRIEELVTESAEALGTFTFSDFFPGGLGRFVDWLFQRHKKINKVFKELDAFYQHVIDDHLKPEGRKNQDIVTLILDMIDKQEDSDSFKLNMDNLKAIVMDVFLAGIDTSAVTMIWAMTELIRNPRVMKKAQGSIRTTLGLKKERITEEDLGKVEYLNHILKETFRLHPALPFVVPRETMSHIKIQGYDIPPKTQIQLNVWTIGRDPKRWNDPEEFNPERFANSSVDFRGQHFDLLPFGSGRRICPGMPMAIASVELALMNLLYYFDWSMPDGTKGEDIDMEEAGNISIVKKIPLQLVPVQRY |
| CYP71B3 | MSILLYFFFLPVILSLIFMKKFKDSKRNLPPSPPKLPIIGNLHQLRGLFHRCLHDLSKKHGPVLLLRLGFIDMVVISSKEAAEEVLKVHDLECCTRPKTNASSKFSRDGKDIAFAPYGEVSRELRKLSLINFFSTQKVRSFRYIREEENDLMVKKLKESAKKKNTVDLSQTLFYLVGSIIFRATFGQRLDQNKHVNKEKIEELMFEVQKVGSLSSSDIFPAGVGWFMDFVSGRHKTLHKVFVEVDTLLNHVIDGHLKNPEDKTNQDRPDIIDSILETIYKQEQDESFKLTIDHLKGIIQNIYLAGVDTSAITMIWAMAELVKNPRVMKKAQEEIRTCIGIKQKERIEEEDVDKLQYLKLVIKETLRLHPPAPLLLPRETMADIKIQGYDIPRKTILLVNAWSIGRNPELWENPEEFNPERFIDCPMDYKGNSFEMLPFGSGRKICPGIAFGIATVELGLLNLLYYFDWRLAEEDKDIDMEEAGDATIVKKVPLELVPIIH |
| CYP71B40v3 | MALYVVPLWLPLILLLALLLLFMKKMEVKRQSEQLLPPSPPKLPILGNLHQLGSLPHQSLWQLSKKYGPVMLIRLGRIPTVVISSAEAAREVLKVHDLAFCSRPLLAGTGRLTYNYLDIAFSPYSDHWRNMRKIVTLELFSLKRVQSFRFIREEEVSLLVNFISESSALAAPVDLTQKLYALVANITFRMAYGFNYRGTSFDRDKFHEVVHDTKAVAGSISADESIPYLGWIVDRLTGHRARTERVFHELDTFFQHLIDNHLKPGRIKEHDDMVDVLLRIEKEQTELGASQFTKDNIKAILLNLFMAGVDTSSLTVNWAMAELVRNPRVMKKVQDEVRKCVGNKGRVTESDIDQLEYLRMVIKETLRLHPPGPLLIPRETMSHCKVSGHNIYPKMLVQINVWAIGRDPRYWKDPEEFFPERFLDRSIDYKGQSFEYLPFGSGRRICPGMHMGSITMEIILANLLYCFDWVFPDGMKKEDINMEEKAGVSLTTSKKTPLILVPVNYLQ |
| CYP71B41v2 | MALYVVPLWLPLILLLALLLLFMKKMEVKRQSEQLLPPSPPKLPILGNLHQLGSLPHQSLWQLSKKYGPVMLIRLGRIPTVVISSAEAAREVLKVHDVAFCSRPLLAGTGRLTYNYLDIAFSPYSDHWRNMRKILTLELFSLKRVQSFRFIREEEVSLLVNFISESSALAAPVDLTQKLYALVANITFRMAYGFNYRGTSFDRDKFHEVVHDTVAVVGSISADESIPYLGWIVDRLTGHRARTERVFHEVDTFFQHLIDNHLKPGRIKEHDDMVDVLLRIEKEQTELGASQFTKDNIKAILLNLFLGGVDTSSLTVNWAMAELVRNPRVMKKVQDEVRKCVGNKGRVTESDIDQLEYLRMVIKETLRLHPPAPLLIPRETMSHCKVSGHNIYPKMLVQINVWAIGRDPTYWKDPEEFFPERFLDSSIDYKGQSFEYLPFGSGRRICPGMHMGFITMEIILANLLFCFDWVFPDGMKKEDINMEEKAGVSLTTSKKTPLILVPVNYLQ |
| CYP71BA1 | MEAISLFSPFFFITLFLGFFITLLIKRSSRSSVHKQQVLLASLPPSPPRLPLIGNIHQLVGGNPHRILLQLARTHGPLICLRLGQVDQVVASSVEAVEEIIKRHDLKFADRPRDLTFSRIFFYDGNAVVMTPYGGEWKQMRKIYAMELLNSRRVKSFAAIREDVARKLTGEIAHKAFAQTPVINLSEMVMSMINAIVIRVAFGDKCKQQAYFLHLVKEAMSYVSSFSVADMYPSLKFLDTLTGLKSKLEGVHGKLDKVFDEIIAQRQAALAAEQAEEDLIIDVLLKLKDEGNQEFPITYTSVKAIVMEIFLAGTETSSSVIDWVMSELIKNPKAMEKVQKEMREAMQGKTKLEESDIPKFSYLNLVIKETLRLHPPGPLLFPRECRETCEVMGYRVPAGARLLINAFALSRDEKYWGSDAESFKPERFEGISVDFKGSNFEFMPFGAGRRICPGMTFGISSVEVALAHLLFHFDWQLPQGMKIEDLDMMEVSGMSATRRSPLLVLAKLIIPLP |
| CYP71BC1 | MTMKISENMLLLFSQSSANQWLLALGILSFPILYLFLLQRWKKKGIEGAARLPPSPPKLPIIGNLXQLGKLPHRSLSKLSQEFGPVLLLQLGRIPTLLISSADMAKEVLKTHDIDCCSRAPSQGPKRLSYNFLDMCFSPYSDYWRAMRKVFVLELLSAKRAHSLWHAWEVEVSHLISSLSEASPNPVDLHEKIFSLMDGILNMFAFGKNYGGKQFKNEKFQDVLVEAMKMLDSFSAEDFFPSVGWIIDALTGLRARHNKCFRNLDNYFQMVVDEHLDPTRPKPEHEDLVDVLLGLSKDENFAFHLTNDHIKAILLNTFIGGTDTGAVTMVWAMSELMANPRVMKKVQAEVRSCVGSKPKVDRDDLAKLKYLKMVVKETFRMHPAAPLLIPHRTRQHCQINANGCTYDIFPQTTILVNAFAIGRDPNSWKNPDEFYPERFEDSDIDFKGQHFELLPFGAGRRICPAIAMAVSTVEFTLANLLYCFDWEMPMGMKTQDMDMEEMGGITTHRKTPLCLVPIKYGCVE |
| CYP71BE1 | MEFPSSFLFPFLLFLFILFKVSKKSKPQISIPKRPPGPWKLPLIGNLHQLVGSLPHHSLRDLAKKYGPLMHLQLGQVSMLVVSSPEIAKEVMKTHDINFAQRPHLLATRIATYDSTDVAFSPYGDYWRQLRKICVVELLSAKRVKSFQVIRKEEVSKLIRIINSSSRFPINLRDRISAFTYSVISRAALGKECKDHDPLTAALGEITKLASGFCLADLYPSVKWIPLVSGVRHKLEKVQQRIDGILQIVVDEHRERMKTTTGKLEEEKDLVDVLLKLQQDGDLELPLTDDNIKAVILDIFGGGGDTVSTAVEWTMAEMMKNPEVMKKAQAEVRRVFDGKGNVDEAGIDELKFLKAVISETLRLHPPFPLLLPRECREKCKINGYEVPVKTRVVINAWAIGRYPDCWXEAERFYPERFLDSSIDYKGADFGFIPFGSGRRICPGILFGIPVIELPLAQLLFHFDWKLPNGMRPEDLDMTEVHGLAVRKKHNLHLIPIPYSPLTVG |
| CYP71BE5 | MELQFSFFPILCTFLLFIYLLKRLGKPSRTNHPAPKLPPGPWKLPIIGNMHQLVGSLPHRSLRSLAKKHGPLMHLQLGEVSAIVVSSREMAKEVMKTHDIIFSQRPCILAASIVSYDCTDIAFAPYGGYWRQIRKISVLELLSAKRVQSFRSVREEEVLNLVRSVSLQEGVLINLTKSIFSLTFSIISRTAFGKKCKDQEAFSVTLDKFADSAGGFTIADVFPSIKLLHVVSGMRRKLEKVHKKLDRILGNIINEHKARSAAKETCEAEVDDDLVDVLLKVQKQGDLEFPLTMDNIKAVLLDLFVAGTETSSTAVEWAMAEMLKNPRVMAKAQAEVRDIFSRKGNADETVVRELKFLKLVIKETLRLHPPVPLLIPRESRERCAINGYEIPVKTRVIINAWAIARDPKYWTDAESFNPERFLDSSIDYQGTNFEYIPFGAGRRMCPGILFGMANVELALAQLLYHFDWKLPNGARHEELDMTEGFRTSTKRKQDLYLIPITYRPLPVE |
| CYP71BE52 | MEIHIPSLVLCISFFIFFKIVSKLKTKTSNRKHLPLPPGPWKLPLIGNLHNLVGALPHHTLRRLSRKFGPMMSLQLGELSAVIISSADAAKEIMKTHDLNFASRPQVAAADIIGYGSTNITFSPYGGHWRQLRKICTLELLSAKRVQSFRPLRERVFVDLCRRFADHGSSAVNFSEEFMSATYTLISRAVLGEEAEQHEGLLPNVKEMPELTAGFDISEVFPSVGLFKVMSRLRKRIVAVHKDTDRILDDVIHQHRAAKSEEHKDLLDVLLQLQEDGLELPLTDENIKSVLVDMLVAGSETSSTVIEWAMAEMLKNPRILEKAQEEVRRVFDKEGTVDESHIHELKYLKSVVKETLRVHPPAPLILPRICGETCEINGYEIPAETKIIVNAWAVNRDPKYWEDSDCFKPERFLDNLVDFRGNHFQYIPFGAGRRMCPGIGFGLANVELPLAMFMYHFDWELDGGMKPQDLDMEEKFGASAKKLKDLFLIPAIKRTLPTK |
| CYP71BF1 | MWNSLWFTVLFIFLFRYFFLRCYSSSKKNSPPSPPKLPIVGDLHRLGSSPHRSLRALAQQYGPFMLLRFGSVPVLVISSAHAALDVMKTHDNIFSSRFKSSVFDKLVYNCKDVVLAPYGEYWRQMKSICVIHLLSSKKVQCFQKVREEETMILTKKIQESYCSPMNLSETFTVLANDILCRVAFGRKYGGDEENGKKLKELLTRFAQLTGTVDIGDYIPWLSWVSCVNGLNTKLEKLAKELDDLFEGIVEEHVNHLKNKSNTSDYGDVQDTDSKDFVDVLLWIQRENTIGFPIDRVTIKALILDMFIAGTDTTSTTLEWAMTELLRHPKVMKKLRNEVRTIAGDKSNIIEEDLGKMKYLKAVIKEVLRLHPPLPLLMPRESVKDANVRGYDITAGTQVLINAWAIGRDPDSWEEAEEFKPERFLNSCIDFKGHDFQLIPFGAGRRGCPGIHFATILIEMILANVLHKCDWKPMPYRGAKEHGIDLTESAGISVHRKFPLIAIPSPPRF |
| CYP71BG1 | MEASILQLLLLLSLTSCTILFYKIRRWRRPPSPPSLPIIGHLHLLTDMPHHTFFHLSQKLGPIIHLQLGQIPTLIISSPRLAELILKTNDHIFCSRPQIIAAQYLSFGCSDITFSPYGPYWRQARKICVTELLSSKRVNSFQFIRNEEINRMIQLISSHFDSELSSELDLSQVFFALANDILCRVAFGKRFIDDRLKDKDLVSVLTETQALLAGFCLGDFFPDWEWVNWLSGMKKRLMNNLKDLGEVCDEIIDEHLMKKRDDDQNGDGSEDFVDVLLRVQKRDDLQVPITDDNLKALILDMFVAGTDTSAATLEWTMTELARHPSVMKKAQDEVREIAANKGKVEEFDLQHLHYMKAVIKETMRLHPPVPLLVPRESIEKCTLDDYEIPAKTRVLINTYAIGRDPEYWNNPLDYNPERFMEKDIDFRGQDFRFLPFGGGRRGCPGYALGLATIELSLARLLYHFDWKLPTGVEAQDVNLSEIFGLATRKRVALKLVPTINKLYLLSD |
| CYP71BJ1 | MLSSLKDFFVLLLPFFIGIAFIYKLWNFTSKKNLPPSPRRLPIIGNLHQLSKFPQRSLRTLSEKYGPVMLLHFGSKPVLVISSAEAAKEVMKINDVSFADRPKWYAAGRVLYEFKDMTFSPYGEYWRQARSICVLQLLSNKRVQSFKGIREEEIRAMLEKINQASNNSSIINGDEIFSTLTNDIIGRSAFGRKFSEEESGSKLRKVLQDLPPLLGSFNVGDFIPWLSWVNYLNGFEKKLNQVSKDCDQYLEQVIDDTRKRDEENGANNNGGNHGNFVSVLLHLQKEDVKGFPSEKGFLKAIILDMIVGGTDTTHLLLHWVITELLKNKHVMTKLQKEVREIVGRKWEITDEDKEKMKYLHAVIKEALRLHPSLPLLVPRVAREDINLMGYRVAKGTEVIINAWAIARDPSYWDEAEEFKPERFLSNNFDFKGLNFEYIPFGSGRRSCPGSSFAIPIVEHTVAHLMHKFNIELPNGVSAEDFDPTDAVGLVSHDQNPLSFVATPVTIF |
| CYP71BL | MEPFTIFSLVVASLVFFACWALVAPNTSKNLPPGPPKLPIIGNIHQLKSPTPHRVLKDLAKKYGPIMHLQLGQVSTVVVSTPRLAQEIMKTNDISFADRPTTTTSQIFFYKAQDIGWAPYGEYWRQMKKICTLELLSAKKVRSFSSIREEELTRIRKILEFKAGTPINYTEMTIEMVNNVICKATLGDCCKDQALLIELLYDVLKTLSAFNLASYYPRLQFLNVISGKKAKWLKMQKRLDDIMEDILKEHRAKGRAKNSDQEDLVDVLLRIKDTGGLDINVTDEHVKAVVLDMLTAGTDTSSTTLEWAMTELMRNPDMMKRAQEEVRSVVKGEHVTETDLQSLHYLKLIVKETMRLHAPTPLLVPRECRQDCNVDGYDIPAKTKVLVNAWACGVDPGSWENPDSFIPERFENSSINFMGADFQYIPFGAGRRICPGLTFGLSMVEYPLAHFLYHFDWKLPYGMKPHELDITEITTISTSLKHHLKIVPFPKSSLAK |
| CYP71BL1 | MELFTIFSIVVSSLILFTFWSLKVPKNLPPGPPKLPIIGNIHLLDKIAPHRNLRNLARKYGPIMHLRLGQVSTVVISSPRLAHEIMKTQDLSFADRPTTTTSQIFFYKASNIAWARYGNYWRQMKKICTLELLSAKKSRSFFYIREEELTRTYKFLDFSSGTPITLRDTIQEMVNNVVSRATLGDVSEDRQFIIDSTYTMLKSFNSFNLFNYYPSLSFINVISGKQAQWLKMHKEVDVILEKILREHRSRPRGKNDHEDLVDVLIRIKETGDLDMAITDDNIKAIILEMLTAGTSSSSMTIEWAFTEMMRNPKIMKKAQTEVRSVVKGDRVTEADIQNLDYTKLVIKETLRLHGVPILVPRENQEDCVVNGYDIPAKTRLLVNAWACATDPDSWEDPDSFIPERFENNSIGYSGADFEFIPFGAGRRICPGMNFGMGTVEYVVANLLLHYDWKLPDGMKPHDIDMREITGISTLPIHPLKIVPISLSK |
| CYP71BL2 | MEPLTIVSLAVASFLLFAFWALSPKTSKNLPPGPPKLPIIGNIHQLKSPTPHRVLRNLAKKYGPIMHLQLGQVSTVVVSTPRLAREIMKTNDISFADRPTTTTSQIFFYKAQDIGWAPYGEYWRQMKKICTLELLSAKKVRSFSSIREEELRRISKVLESKAGTPVNFTEMTVEMVNNVICKATLGDSCKDQATLIEVLYDVLKTLSAFNLASYYPGLQFLNVILGKKAKWLKMQKQLDDILEDVLKEHRSKGRNKSDQEDLVDVLLRVKDTGGLDFTVTDEHVKAVVLDMLTAGTDTSSATLEWAMTELMRNPHMMKRAQEEVRSVVKGDTITETDLQSLHYLKLIVKETLRLHAPTPLLVPRECRQACNVDGYDIPAKTKILVNAWACGTDPDSWKDAESFIPERFENCPINYMGADFEFIPFGAGRRICPGLTFGLSMVEYPLANFLYHFDWKLPNGLKPHELDITEITGISTSLKHQLKIVPILKS |
| CYP71BL3 | MEPLTIVSLVVASLFLFAFWALSPKTSKNLPPGPPKLPIIGNIHQLKSPTPHRVLRNLARKYGPIMHLQLGQVSTVVVSTPRLAREIMKTNDISFADRPTTTTSQIFFYKAQDIGWAPYGEYWRQMKKICTLELLSAKKVRSFSSIREEELSRISKVLESQAGTPINFTEMTVEMVNNVICKATLGDSCKDQATLIEVLYDVLKTLSAFNLASYYPGLQFLNVILGKKAKWLKMQKQLDDILEDVLKEHRSKGSNKSDQEDLVDVLLRVKDTGGLDFTVTDEHVKAVVLDMLTAGTDTSSATLEWAMTELMRNPHMMKRAQDEVRSVVKGNTITETDLQSLHYLKLIVKETLRLHAPTPLLVPRECRQDCNVDGYDIPAKTKILVNAWACGTDPDSWKDPESFIPERFENCPINYMGADFEFIPFGAGRRICPGLTFGLSMVEYPLANFLYHFDWKLPNGLKPHELDITEITGISTSLKHQLKIVPMIPKSIAK |
| CYP71BN1 | MEVSSFIFTIFLIFLPLLLAIVKNHKKSKKLPPGPWKLSIIGNLHQLEISRPYITLKELSKKYGPLMHLKLGERSTIVISSYKILKELMKTSDTILSHRPELLVSETVAYNGRDIAFAPYGDYWKQMRKICTSEILSTRRIHSNYPLMEEEISRLVKNIKESSSKGTLINVYECLNSLSCAIICRVTVGTTCNDSDSLISTIRKITPLVGLFNISDLFPSLKFLDRYITGSNQKLLKVHHELCDRLLEEIVHEHEESIRKNNVDEEDLLHLLLRLREKESHNFQVPITRDNVKAIILDMFIGGTDTTSILVEWAMAELLKNRNMMKKAQVEVREVLKGKKKVDHIDVQNLKYLKLIVKETLRLHPPGPLAIPRESIEEIAINGYVIPNKTIALMNLYAMGRDPEYWHDPEKFMPDRFNNYVDNDVKMIKGSSNVPMEFLAFGFGKRVCPGMLFATASSELTLARLLYHFDWTLPNGMNPQDLDMTEGFGAAATMKNNLYLVATPYD |
| CYP71C103 | MEVPHADAALLVLLASILLLMARRRFGLGNAAARAREEALNKLPSPGWRLPVIGHLHQVGPLPHVSLRHLAAEHGRDGLMLVRLGAVPTLVVSTPAAAQAVLRTHDHVFASRPHSPVAHILFYGSADVVFAPYGHHWRQVKKISTTHLLTARKVHSYRHARQHEVNLVLAKVRDAMRAGVALDMSELLNAFVFDIVCHAVAGNSFRERGLNKHFRELVEANASLIGGFNLEDHFPALVKLEIFRKIVCAKARRVNNKWDDLLDRLIDEHATPPALDEDRDFIHVLLSVQQEYNLTRDHIKAQLLIMFEAGTDTSTIVLEYAMVRLMQNPRVMAMLQAEVRSTIPKGKDTVTQDDLHGLPYLKAVIKETLRLHMPGPLMVPHLSMDECIINGYTIPSGTRTFINTYAIQRDPSNWESPEEFMPERFMEGGSAAAMDYKGNDFQYFPFGSGRRICPGINFATATIQLMLTNLMYHFDWKLPPESEEEGINMTETFGLTVHRKEKLLLVPLVPQN |
| CYP71C113 | MGEVPSDELLLVLVSAALLVTILVMVRRSGSAARVREELLRKLPSPGGWLPVIGHLHMVGSQPHVSLGDLAAKHSRDGLMLLRLGSVPTLIVTSSNAARAVLRTHDDVFASRPHNPATDIIFYGPSDIAFCPYGDHWRQVKKIAMTHLLTANKVRSYRQAREEEACLVVAKLRDAMAAGAALDLGELLSAFSTNIVGHAVCGKSFRQKGHEKLFRELVETNSLLIGGFNVGDYFPELLKLDIIRWMVCGRARRVNKMWDDLLESLIHEHESKPAPALGDDTDYIHDLLSIQKEYNLTREQVKAQLVIMFGAGTDTSYIVMEYAMARLMQNPDLMTKLQAEVRSSIPKGKHMVIEDDLNHLAYLKAVIKETLRLHMPAPLLVPHLAMADCVINGYTIPSGTRVIVNSRAIARDPSSWESAEEFLPERFMQGGSAAAMDYKGNGFLYLPFGTGRRICPGINFAIAAIEIMLANLVYHFDWKLPPGSAERGISMTESFGLTVHRKDKLLLVPLVPQDYET |
| CYP71C12 | MAQMLDGLRHDEQASLHAPQEASTMPTMSCSDLLLAMMCPLILLLIIFRCYAYATRSGGMLSRVPSPPGRLPVIGHMHLISSLPHKSLRDLATKHGPDLMLLHLGAVPTLVVSSARTAQAILRTHDRVFASRPYNTIADILLYGATDVAFSPYGDYWRQIKKIVTMNLLTIKKVHSYGQTRQQEVRLVMAKIVEEAATHMAIDLTELLSCYSNNMVCHAVSGKFFREEGRNQLFKELIEINSSLLGGFNLEDYFPSLARLPVVRRLLCAKAYHVKRRWDQLLDQLIDDHASKRRSSMLDNNDEESDFIDVLLSIQQEYGLTKDNIKANLVVMFEAGTDTSYIELEYAMAELIQKPQLMAKLQAEVRGVVPKGQEIVTEEQLGRMPYLKAVIKETLRLHPAAPLLVPHVSMVDCNVEGYTIPSGTRVIVNAWAIARDPSYWENAEEFMPERFLSNTMAGYNGNNFNFLPFGTGRRICPGMNFAIAAIEVMLASLVYRFNWKLPIDQAANGGIDMTETFGITIHLKEKLLLVPHLP |
| CYP71C14 | MAVMLVPIPLLLLHQHHNHEHEHPSPVAPQPTMASYYTLLLALLCPLLLLLIKLCRAKTRDDELFDKLPSPPGRLPVIGHLHLIGSLPYVSFRELAIKHGPDLMLLRLGTVPTLVVSSARAAQAILRTNDHVFASRTYSAVTDILFYGSSDVAFSPYGEYWRQVKKIATTHLLTNKKVRSYSRARQQEVRLVMARINEAAVARTTVDLSELLNWFTNDIVCHAVSGKFFREEGQNQMFWELIQANSLLLGGFNLEDYFPNLARVTTVRRLLCAKAHNVNKRWDQLLDKLIDDHATKRSSSVLDLDNEESDFIDVLLSIQHEYGLTRDNVKAILVIMFEGGTDTAYIELEYAMAELIRKPQLMAKLQAEVRSVVPRGQEIVTEEQLGRMPYLKAVIKEMLRLHLAGPLLVPYLSIAECDIEGYTIPSGTRVFVNAWALSRDPSFWENAEEFIPERFLNSIAPDYNGNNFHFLPFGSGRRICPGINFAIATIEIMLANLVYRFDWEIPADQAAKGGIDMTEAFGLTVHRRRSSSLFLGSHKIK |
| CYP71C15 | MELNNTEPLTASRAQAAAVFLLLPVALLLLLLRFARATTMAGDRNSELLLSKLPSPPLRLPVIGHMHLVGSLPHVSLRDLAAKHGRDGLMLVHLGSVPTLVVSSPRAAEAVLRTHDLAFASRPRAMVPDIITYGATDSCYGPYGDHFRKVRKAVTVHLLNSHKVQAYRPAREEEVRLVIAKLRGAAAMAGAPVDMTELLHSFANDLICRAVSGKFFREEGRNKLFRELIDTNASLLGGFNLEDYFPSLARTKLLSKVICVRAMRVRRRWDQLLDKLIDDHATRLVRRHDHDQQQDSDFIDILLYHQEEYGFTRDNIKAILVDMFEAGTDTSYLVLESAMVELMRKPHLLAKLKDEVRRVIPKGQEVVNEDNIVDMVYLKAVIKETLRLHPPAPLYIPHLSREDCSISGYMIPTGIRVFVNAWALGRDAKFWDMPDEFLPERFMDSNIDFKGHDFHYLPFGSGRRMCPGIHSATVTLEIMLANLMYCFNWKLPAGVKEEDIDMTEVFGLTVHRKEKLFLVPQAA |
| CYP71C16 | MELILQLEAKTAAQAVVTVFFFFLLPLALLFYFARAAISSRDSKTRELILSKLPSPPFKLPVIGHMHLIGPLPYVSLRDLAAKHGRDGLMLVRLGSVPTLVVSSPRAAEAVLRTHDLAFASRPRSMVTDIIMYGALDSCFAPYSDHFRSVKKVVTVHLLNSKRVQAYRHVREEEVRLVMARLRGAAAAAAAVDLSQTLQFFANDLICRAVSGKFLCEQGRNKVFRDLMEANSNLLGGFNLEAYFPGLARMPLISKLICARAIRIRRRWDQLLDMLIDDHVASARDRAKNDDDDFIHVLLSLQDEYGFTRDHIKAISIDMFEAGTDTSHLVLEYAMVELTRKPHILTKLQDEVRRITPKGQHMVTEDDIVGMVYLKAVIKETLRLHAPGGFTIPHLAREDCNVDGYMIPAGTRVLINLWALSRDANYWDKPDEFLPERFMDGSNKNTDFKGQDFQFLPFGSGRRMCPGIHSGKVTLEIMLANLVYCFNWKLPSGMKKEDIDMTDVFGLAIHRKEKLFLVPQIANY |
| CYP71C17 | MVVQLMLFFHDKFMAPMAEEPLPFVLIMIIILLLLVLLHYYLSASTRRSSAASKSNDDVLPPSPPRLPVIGHMHLVGSNPHVSLRDLAEKHAADGFMLLQLGQVRNLVVSSPRAAEAVLRAHDHVFASRPRSAIADILAYGSSNISFSPYGDYWRKARKLVAAHLLSPKKVQSLRRGREEEVGIAVAKLHEAAAAGAAVDMRELLGSFTNDVLCRAVCGKSSFRREGRNKLFMELAAGNADQYAGFNLEDYFPSLAKVDLLRRVVSADTKKLKEKWDSVLGDIVSEHEKKSSLRRDDQVQMDDDRDDDQEEQESDFVDILLDRQQEYNLTRHNIHAILMDMFAAGTDTSYIALEFAMSELIRKPHLMTKLQDEVRKNTTTQMVSEDDLNNMPYLKAVVKETLRLHPPVPLLLPRLSMAQCNANGYTIPANTRVIINVWALGRDAKCWENSEEFMPERFMDSGDTIDNVDFKGTDFQFLPFGAGRRICPGMNFGMASVELMLSNLMYCFDWELPVGMDKDDVDMTDQFALTMARKEKLYLIPRSHVIKIT |
| CYP71C19 | MEQAAGLVYQLFQHEMFPWTFSVLALFPFLLLVLHYLATNHRTPTTCKETKNHHPPPPSPPRLPIIGHLHLIGGLLHVSLRELAHRYGPDLMLLHLGQVPNLIVSSPRAAEAVLRTHDLVFASRPYSLIADILLYGPSDVGLSPYGEWRRRIITTHLLTNKKVRSYRVAREEEVHKVMAKVHELSTKGMAVDMTELFSTFSNDLICRLVSGKNFQGEGRNKLFRQLFKANSVLLAGFNLKDYYPGLARLKAVSMVMCAKARNTRKLWDELLDEIIDERMSKQQCEHDEGNDQDEMNFVNVLLLQEQGITREHLKAILVDMYQAGTETSSVVLVFAMAELMQKPHLMAKLQAELRTTIPKQGHELITERDLTDMTYLKAVIKETLRLHPPTPLLLPHLAMADCNIDGYTVRSGTRVIVNAWAIGRNSESWEAAEEFLPERFVDDGSAANVDFIGTDFQFLPFGAGRRICPGINFASASMEIILANLLYHFDWDVSAEAAIDKDGIDMAEAFGLSVQLKEKLLLVPVDYKDGMQDSAVILL |
| CYP71C2 | MALGAAYHHYLQLAGDHGTATHALLLGVLIFLVIRLVSARRTGTTSANKRKQQQRLPLPPWPPGKLPIIGHLHLIGAETHISIRDLDAKHGRNGLLLLRIGAVPTLFVSSPSAADAVLRTQDHIFASRPPWMAAEIIRYGPSDVAFVPYGEYGRQGRKLLTTHMLSTKKVQSFRHGRQEEVRLVMDKIRAAATAAPPAAVDLSDLLSGYTNDVVSRAVLGASHRNQGRNRLFSELTEINVSLLAGFNLEDYFPPNMAMADVLLRLVSVKARRLNQRWNDVFDELIQEHVQSRPSGESEESEADFIHVLLSIQQEYGLTTDNLKAILVDMFEAGIETSYLTLEYGMAELINNRHVMEKLQTEVRTTMGSPDGKKLDMLAEEDLGSMPYLKATIKETLRLHPPAPFLLPHYSTADSEIDGYFVPAGTRVLVHAWALGRDRTTWEKPEEFMPERFVQEPGAVDVHMKGKDLRFIPFGSGRRICPGMNFGFATMEVMLANLMYHFDWEVPGSGAGVSMEESFGLTLRRKEKLLLVPRIAS |
| CYP71C20 | MAQMLAAFLLDGLISHEHGHESLGAPPQAGTMAWYSLVLMTSLLFPLLVLLVMRCYVTRSGAKLLDKLPSVPGRLPVIGHLHLIGSLPHISLRDLATKHSPDMMLLHLGAVPTLVVSSSRVAQSILHTHDDIFASRPYSPIANILFYGATDVGFSPYNEYWRQIKKITTTHLLTMKKVRSYVSARQREVRIVMARITEAASKHVVVDLTEMLSCYSNNIVCHAVCGKFSLKEGWNQLLRELVKVNTSLLGGFNIEDYFPSFTRLAAVRRLLLSCAKAHNINKRWDQLLEKLIDDHTTKHIRSSSMLNHYDEEAGFIDVLLSIQHEYGLTKDNIKANLAAMLMAGMDTSFIELEYAMAELMQKPHVMGKLQAEVRRVMPKGQDIVTEEQLGCMPYLKAVIKETLRLHPPAPLLMPHLSISDCNINGYTIPSGTRVIVNVWALARDSNYWENADEFIPERFIVNTLGDYNGNNFHFLPFGSGRRICPGINFAIATIEIMLANLVYRFDWELPADQAAKGGIDMTETFGVAVHRKEKLLLIPHLHLR |
| CYP71C6 | MALEAAFHYLQLAGIHGTSTPAVLLTILLLLIIRLAWVRTTTASTRFGKQQQLPPSPPGKLPIIGHLHLLGSQTHISIRDLDAKHGRNGLLLLRIGAVPTLFVSSPSAAEAVLRTHDQIFASRPPSMAADIIRYGPTDIAFAPYGEYWRQARKLLTTHMLSAKVVHSFRHGRQEEVRLVINKIHEAATRGTAVDMSELLSGYTNDVVCRAVLGESHRKEGRNRLFSELTEINVSLLGGFSLENYIPPNMVMADVLLRLVSVKARRLNKRWDELFNEIIEEHLHPSKPSSGDQQAVDFIDLLLSLKEEYGLTTDNIKAILVDMFEAGIETSYLTLEYGMAELMNNRHILKKLQEEVRSQGKKLDMITEEDLGSMAYLRATIKETLRLHPPAPFLLPHFSTADCKIDGYLIPSNTRVLVNAWALGRDPSSWERPEDFLPERFLQDQDGDVDTQMRGKDLRFLPFGFGRRICPGMNFGFATMEVMLANLMYHFDWDVPNMVGTGAGVDMAESFGLTLRRKEKLQLVPRIP |
| CYP71C6 | MALEAAYHYLQRAVGHGTSTEALLLTVLLLLIIRVAWVRAFTTTTASTKCKQQLPPTPPGKLPIIGHLHLIGSHPHVSFRDLAAKHGRDGLMLVHVGAVPTVVVSTPQAAEAVLRTHDHVFASRPRNPVADIIRYNSTDIAFAPYGDYWRRARKVVNTHLLSVKMVYSKRHDREEEVRLVVAKICELAMAAPGKALDMTELLGGYASDFVCRAVLGESHRKHGRNELFRELTEISASLLGGFNLEDYFPRLANLDVFLRVVCSKAMGVSKRWDNLFNELIAEYEHGKEDNAEDFVHLLLSLKKEYGLSTDNVKAILVNMFEAAIETSFLVLEYSMAELINNRHVMAKVQKEVRESTPKGEKLDLIMEEDLSRMPYLKATIKEAMRIHPPAPFLLPHFSTNDCEVNGYTIPAGTRVIVNAWALARDPSHWERAEEFYPERFLQEGRDAEVDMYGKDIRFVPFGAGRRICAGATFAIATVEVMLANLIYHFDWELPSEMEAIGAKVDMTDQFGMTLRRTERLHLVPKIYK |
| CYP71CA1 | MDTSTSFPSLFLPTLCTILISYIIIKYVLIWNRSSMAAFNLPPSPPKLPIIGNIHHVFSKNVNQTLWKLSKKYGPVMLIDTGAKSFLVVSSSQMAMEVLKTHQEILSTRPSNEGTKRLSYNFSDITFSPHGDHWRDMRKVFVNEFLGPKRAGWFNQVLRMEIKDVINNLSSNPLNTSINLNEMLLSLVYRVVCKFAFGKSYREEPFNGVTLKEMLDESMVVLAGSSADMFPTFGWILDKLYGWNDRLEKCFGNLDGFFEMIINEHLQSASETSEDEKDFVHSLVELSLKDPQFTKDYIKALLLNVLLGAIDTTFTTIVWAMSEIVKNTQVMQKLQTEIRSCIGRKEEVDATDLTNMAYLKMVIKETLRLHPPAPLLFPRECPSHCKIGGYDVFPGTCVVMNGWGIARDPNVWKEIPNEFYPERFENFNIDFLGNHCEMIPFGAGRRSCPGMKSATSTIEFTLVNLLYWFDWEVPSGMNNQDLDMEEDGFLVIQKKSPLFLIPIKHI |
| CYP71CB1 | MFSSFETLILSFVSLFFMMIFIHSKWISSYSKMAKNLPPSPFGLPIIGNLHQLGMTPYNSLRTLAHKYGSLMLIHLGSVPVIVASSAEAAQEIMKTHDQIFSTRPKMNIASIVSFDAKIVAFSPYGEHWRQSKSVYLLNLLSTKRVQSFRHVREDETNLMLDVIENSCGSEIDLSNMIMSLTNDVVCRIAYGRKYYEDWFKELMKEVMDVLGVFSVGNYVPSLSWIDRLSGLEGRAYKAAKQLDAFLEGVVKQHETKSNESMRDQDVVDILLETQREQASAGTPFHRDTLKALMQEMFIAGTDTTSTAIEWEISEVIKHPRVMKKLQQELDEIAQGRQRITEEDLEDTQHPYLEAILKESMRLHIPVPLLLPREATHDVKVMGYDIAAGTQVLINAWMIARDPTIWEDADEFKPERFLDTNIDYKGLNFELLPFGAGRRGCPGIQFAMSVNKLALANLVYKFDFKLPNGLRLEQLDMTDSTGITVRRKYPLLVIPTARF |
| CYP71D12 | LLFCFILSKTTKKFGQNSQYSNHDELPPGPPQIPILGNAHQLSGGHTHHILRDLAKKYGPLMHLKIGEVSTIVASSPQIAEEIFRTHDILFADRPSNLESFKIVSYDFSDMVVSPYGNYWRQLRKISMMELLSQKSVQSFRSIREEEVLNFIKSIGSKEGTRINLSKEISLLIYGITTRAAFGEKNKNTEEFIRLLDQLTKAVAEPNIADMFPSLKFLQLISTSKYKIEKIHKQFDVIVETILKGHKEKINKPLSQENGEKKEDLVDVLLNIQRRNDFEAPLGDKNIKAIIFNIFSAGTETSSTTVDWAMCEMIKNPTVMKKAQEEVRKVFNEEGNVDETKLHQLKYLQAVIKETLRLHPPVPLLLPRECREQCKIKGYTIPSKSRVIVNAWAIGRDPNYWIEPEKFNPDRFLESKVDFKGNSFEYLPFGGGRRICPGITFALANIELPLAQLLFHFDWQSNTEKLNMKESRGVTVRREDDLYLTPVNFSSSSPA |
| CYP71D13 | MELQISSAIIILVVTYTISLLIIKQWRKPKPQENLPPGPPKLPLIGHLHLLWGKLPQHALASVAKQYGPVAHVQLGEVFSVVLSSREATKEAMKLVDPACADRFESIGTKIMWYDNDDIIFSPYSVHWRQMRKICVSELLSARNVRSFGFIRQDEVSRLLGHLRSSAAAGEAVDLTERIATLTCSIICRAAFGSVIRDHEELVELVKDALSMASGFELADMFPSSKLLNLLCWNKSKLWRMRRRVDAILEAIVEEHKLKKSGEFGGEDIIDVLFRMQKDSQIKVPITTNAIKAFIFDTFSAGTETSSTTTLWVMAELMRNPEVMAKAQAEVRAALKGKTDWDVDDVQELKYMKSVVKETMRMHPPIPLIPRSCREECEVNGYTIPNKARIMINVWSMGRNPLYWEKPETFWPERFDQVSRDFMGNDFEFIPFGAGRRICPGLNFGLANVEVPLAQLLYHFDWKLAEGMNPSDMDMSEAEGLTGIRKNNLLLVPTPYDPSS |
| CYP71D15 | MELLQLWSALIILVVTYTISLLINQWRKPKPQGKFPPGPPKLPLIGHLHLLWGKLPQHALASVAKEYGPVAHVQLGEVFSVVLSSREATKEAMKLVDPACANRFESIGTRIMWYDNEDIIFSPYSEHWRQMRKICVSELLSSRNVRSFGFIRQDEVSRLLRHLRSSAGAAVDMTERIETLTCSIICRAAFGSVIRDNAELVGLVKDALSMASGFELADMFPSSKLLNLLCWNKSKLWRMRRRVDTILEAIVDEHKFKKSGEFGGEDIIDVLFRMQKDTQIKVPITTNSIKAFIFDTFSAGTETSSTTTLWVLAELMRNPAVMAKAQAEVRAALKEKTNWDVDDVQELKYMKSVVKETMRMHPPIPLIPRSCREECVVNGYTIPNKARIMINVWSMGRNPLYWEKPDTFWPERFDQVSKDFMGNDFEFVPFGAGRRICPGLNFGLANVEVPLAQLLYHFDWKLAEGMKPSDMDMSEAEGLTGILKNNLLLVPTPYDPSS |
| CYP71D16 | MQFFNFFSLFLFVSFLFLFKKWKNSNSQTKRLPPGPWKLPILGSMLHMLGGLPHHVLRDLAKKYGPIMHLQLGEVSLVVISSPGMAKEVLKTHDLAFANRPLLVAAKIFSYNCMDIALSPYGNYWRQMRKICLLELLSAKNVKSFNSIRQDEVHRMIKFFRSSPGKPVNVTKRISLFTNSMTCRSAFGQEYKEQDEFVQLVKKVSNLIEGFDVADIFPSLKFLHVLTGMKAKVMNTHNELDAILENIINEHKKTSKSDGESGGEGIIGVLLRLMKEGGLQFPITNDNIKAIISDIFGGGTETSSTTINWAMVEMMKNPSVFSKAQAEVREILRGKETFGEIDVEEFKYLKMVIKETFRLHPPLPLLLPRECREEIDLNGYTIPLKTKVVVNAWAMGRDPKYWDDVESFKPERFEHNSMDYIGNNYEYLPFGSGRRICPGISFGLANVYFPLAQLLNHFDWKLPTGINPRNCDLTEAAGAACARKNDLHLIATAYQHCEE |
| CYP71D16 | MQFFNFFSLFLFVSFLFLFKKWKNSNSQTKRLPPGPWKLPILGSMLHMLGGLPHHVLRDLAKKYGPIMHLQLGEVSLVVISSPGMAKEVLKTHDLAFANRPLLVAAKIFSYNCMDIALSPYGNYWRQMRKICLLELLSAKNVKSFNSIRQDEVHRMIKFFRSSPGKPVNVTKRISLFTNSMTCRSAFGQEYKEQDEFVQLVKKVSNLIEGFDVADIFPSLKFLHVLTGMKAKVMNTHNELDAILENIINEHKKTSKSDGESGGEGIIGVLLRLMKEGGLQFPITNDNIKAIISDIFGGGTETSSTTINWAMVEMMKNPSVFSKAQAEVREILRGKETFGEIDVEEFKYLKMVIKETFRLHPPLPLLLPRECREEIDLNGYTIPLKTKVVVNAWAMGRDPKYWDDVESFKPERFEHNSMDYIGNNYEYLPFGSGRRICPGISFGLANVYFPLAQLLNHFDWKLPTGINPRNCDLTEAAGAACARKNDLHLIATAYQHCEE |
| CYP71D18 | MELDLLSAIIILVATYIVSLLINQWRKSKSQQNLPPSPPKLPVIGHLHFLWGGLPQHVFRSIAQKYGPVAHVQLGEVYSVVLSSAEAAKQAMKVLDPNFADRFDGIGSRTMWYDKDDIIFSPYNDHWRQMRRICVTELLSPKNVRSFGYIRQEEIERLIRLLGSSGGAPVDVTEEVSKMSCVVVCRAAFGSVLKDQGSLAELVKESLALASGFELADLYPSSWLLNLLSLNKYRLQRMRRRLDHILDGFLEEHREKKSGEFGGEDIVDVLFRMQKGSDIKIPITSNCIKGFIFDTFSAGAETSSTTISWALSELMRNPAKMAKVQAEVREALKGKTVVDLSEVQELKYLRSVLKETLRLHPPFPLIPRQSREECEVNGYTIPAKTRIFINVWAIGRDPQYWEDPDTFRPERFDEVSRDFMGNDFEFIPFGAGRRICPGLHFGLANVEIPLAQLLYHFDWKLPQGMTDADLDMTETPGLSGPKKKNVCLVPTLYKSP |
| CYP71D20 | MQFFSLVSIFLFLSFLFLLRKWKNSNSQSKKLPPGPWKIPILGSMLHMIGGEPHHVLRDLAKKYGPLMHLQLGEISAVVVTSRDMAKEVLKTHDVVFASRPKIVAMDIICYNQSDIAFSPYGDHWRQMRKICVMELLNAKNVRSFSSIRRDEVVRLIDSIRSDSSSGELVNFTQRIIWFASSMTCRSAFGQVLKGQDIFAKKIREVIGLAEGFDVVDIFPTYKFLHVLSGMKRKLLNAHLKVDAIVEDVINEHKKNLAAGKSNGALGGEDLIDVLLRLMNDTSLQFPITNDNIKAVIVDMFAAGTETSSTTTVWAMAEMMKNPSVFTKAQAEVREAFRDKVSFDENDVEELKYLKLVIKETLRLHPPSPLLVPRECREDTDINGYTIPAKTKVMVNVWALGRDPKYWDDAESFKPERFEQCSVDFFGNNFEFLPFGGGRRICPGMSFGLANLYLPLAQLLYHFDWKLPTGIMPRDLDLTELSGITIARKGGLYLNATPYQPSRE |
| CYP71D443 | MEFTYYFSLFLLFLLSCFVFVLIFSKTKQNLPPGPRKLPIIGHLHHLAGTAPPHHTLRHLADKHGPLMHLQLGECGYVIASSTEIATHFFKTHDALFASRPSILASEIGAYNNTDISFAPYGKFWRQLRRICSVELLSAKRVKSFQPVREEEATELCKWIAQREGSAINLGEKVQQMNYHIMGRAVLGKKTGEQAAFIALVKEGLDLMSGLDIVDLYPSYRILRLFSRLKRRIEKHHHAMDRIAHNIIEDRKRSDNGEHRDHDLLDVLLGLQDDKSLEIPLTTDNIKAVLGDLFGAGVETSSTTVEWAMAEMLKHPKVLKKAQDEVRMVFDAKNGVVDECYFDELKYLKLIVKESLRLHPPGPLLLPRVSSERCEINGYEIPAKTRLLVNVYAIARDPKCWEDGESFKPERFLEKSVDFMGSSIELIPFGAGRRICPGITFGVATVEIALAMLLYYFDWVLPEGMKAEDLDMTDWPGIAARKKDNLWAVPLVRRTLPA |
| CYP71D445 | MELEFRSPSSPSEWAITSTITLLFLILLRKILKPKTPTPNLPPGPKKLPLIGNIHQLIGGIPHQKMRDLSQIHGPIMHLKLGELENVIISSKEAAEKILKTHDVLFAQRPQMIVAKSVTYDFHDITFSPYGDYWRQLRKITMIELLAAKRVLSFRAIREEETTKLVELIRGFQSGESINFTRMIDSTTYGITSRAACGKIWEGENLFISSLEKIMFEVGSGISFADAYPSVKLLKVFSGIRIRVDRLQKNIDKIFESIIEEHREERKGRKKGEDDLDLVDVLLNLQESGTLEIPLSDVTIKAVIMDMFVAGVDTSAATTEWLMSELIKNPEVMKKAQAEIREKFKGKASIDEADLQDLHYLKLVIKETFRLHPSVPLLVPRECRESCVIEGYDIPVKTKIMVNAWAMGRDTKYWGEDAEKFKPERFIDSPIDFKGHNFEYLPFGSGRRSCPGMAFGVANVEIAVAKLLYHFDWRLGDGMVPENLDMTEKIGGTTRRLSELYIIPTPYVPQNSA |
| CYP71D55 | MQFFSLVSIFLFLSFLFLLRKWKNSNSQSKKLPPGPWKLPLLGSMLHMVGGLPHHVLRDLAKKYGPLMHLQLGEVSAVVVTSPDMAKEVLKTHDIAFASRPKLLAPEIVCYNRSDIAFCPYGDYWRQMRKICVLEVLSAKNVRSFSSIRRDEVLRLVNFVRSSTSEPVNFTERLFLFTSSMTCRSAFGKVFKEQETFIQLIKEVIGLAGGFDVADIFPSLKFLHVLTGMEGKIMKAHHKVDAIVEDVINEHKKNLAMGKTNGALGGEDLIDVLLRLMNDGGLQFPITNDNIKAIIFDMFAAGTETSSSTLVWAMVQMMRNPTILAKAQAEVREAFKGKETFDENDVEELKYLKLVIKETLRLHPPVPLLVPRECREETEINGYTIPVKTKVMVNVWALGRDPKYWDDADNFKPERFEQCSVDFIGNNFEYLPFGGGRRICPGISFGLANVYLPLAQLLYHFDWKLPTGMEPKDLDLTELVGVTAARKSDLMLVATPYQPSRE |
| CYP71D9 | MDLQLLYFTSIFSIFIFMFMTHKIVTKKSNSTPSLPPGPWKLPIIGNMHNLVGSPLPHHRLRDLSAKYGSLMHLKLGEVSTIVVSSPEYAKEVMKTHDHIFASRPYVLAAEIMDYDFKGVAFTPYGDYWRQLRKIFALELLSSKRVQSFQPIREEVLTSFIKRMATIEGSQVNVTKEVISTVFTITARTALGSKSRHHQKLISVVTEAAKISGGFDLGDLYPSVKFLQHMSGLKPKLEKLHQQADQIMQNIINEHREAKSSATGDQGEEEVLLDVLLKKEFGLSDESIKAVIWDIFGGGSDTSSATITWAMAEMIKNPRTMEKVQTEVRRVFDKEGRPNGSGTENLKYLKSVVSETLRLHPPAPLLLPRECGQACEINGYHIPAKSRVIVNAWAIGRDPRLWTEAERFYPERFIERSIEYKSNSFEFIPFGAGRRMCPGLTFGLSNVEYVLAMLMYHFDWKLPKGTKNEDLGMTEIFGITVARKDDLYLIPKTVHN |
| CYP71D97 | MMKMALQFVPIFMFMIILFMLLNLLKKLFQRSTKKLPPGPFKFPIVGNLLQVTGGLPHRRLYNLSKTHGPLMHLQLGEVSAVVISNPRVAKEVLKTHDLCFADRPTLLLGNIVLSNCRDIVLAKYGEHWRQFRKICTLELLSASKVRSFRTIREEEASDLIQSIQSTSGSPVNVSEKVSHLANSITCRSTIGKRCKYEHELIEATENIAYWGAGFFMADLFPSMLVFPVLSGMKPALKKIRRDLDHIFDYIINEHKEKLASRKDQGTKLDAEEEDLVDILLRINDTLQLEFPVTSNDIQGIVQDMFTAGTDTSSAVLEWAMSELMKKPSAMKKAQDELRNALRGKERICEADIQGLTYLKLVIKETLRLHPPVPLLLPRECRKECEIDGYTIPVGTKVMVNAWAIGRDPDYWVDADSFIPERFDGSSVNYNGANFEYIPFGAGRRMCAGITFGIASIELPLAQLLYHFDWTLPNGMKPEDLDMDETFGATTKRKNSLVLNVTSHISSLEE |
| CYP71E1 | MATTATPQLLGGSVPQQWQTCLLVLLPVLLVSYYLLTSRSRNRSRSGKLGGAPRLPPGPAQLPILGNLHLLGPLPHKNLRELARRYGPVMQLRLGTVPTVVVSSAEAAREVLKVHDVDCCSRPASPGPKRLSYDLKNVGFAPYGEYWREMRKLFALELLSMRRVKAACYAREQEMDRLVADLDRAAASKASIVLNDHVFALTDGIIGTVAFGNIYASKQFAHKERFQHVLDDAMDMMASFSAEDFFPNAAGRLADRLSGFLARRERIFNELDVFFEKVIDQHMDPARPVPDNGGDLVDVLINLCKEHDGTLRFTRDHVKAIVLDTFIGAIDTSSVTILWAMSELMRKPQVLRKAQAEVRAAVGDDKPRVNSEDAAKIPYLKMVVKETLRLHPPATLLVPRETMRDTTICGYDVPANTRVFVNAWAIGRDPASWPAPDEFNPDRFVGSDVDYYGSHFELIPFGAGRRICPGLTMGETNVTFTLANLLYCYDWALPGAMKPEDVSMEETGALTFHRKTPLVVVPTKYKNRRAA |
| CYP71E1 | MATTATPQLLGGSVPQQWQTCLLVLLPVLLVSYYLLTSRSRNRSRSGKLGGAPRLPPGPAQLPILGNLHLLGPLPHKNLRELARRYGPVMQLRLGTVPTVVVSSAEAAREVLKVHDVDCCSRPASPGPKRLSYDLKNVGFAPYGEYWREMRKLFALELLSMRRVKAACYAREQEMDRLVADLDRAAASKASIVLNDHVFALTDGIIGTVAFGNIYASKQFAHKERFQHVLDDAMDMMASFSAEDFFPNAAGRLADRLSGFLARRERIFNELDVFFEKVIDQHMDPARPVPDNGGDLVDVLINLCKEHDGTLRFTRDHVKAIVLDTFIGAIDTSSVTILWAMSELMRKPQVLRKAQAEVRAAVGDDKPRVNSEDAAKIPYLKMVVKETLRLHPPATLLVPRETMRDTTICGYDVPANTRVFVNAWAIGRDPASWPAPDEFNPDRFVGSDVDYYGSHFELIPFGAGRRICPGLTMGETNVTFTLANLLYCYDWALPGAMKPEDVSMEETGALTFHRKTPLVVVPTKYKNRRAA |
| CYP71F1 | MEEWLLSLCFIALSTATVLAFWFLKLSGGKADPHKKQLPPGPWTLPVIGSLHHVISALPHRTMMQLSCRHGPLMLLRLGEVPAVVVSTADAAALVMKTHDLVFVDRPRSPTMDIASSGGKDIVFAPYGGHWRQMRKICVVQLLSSTQVSRMEGVRAEEVGSLLRDITAAASTGATINVSEKVMALTNDIVTRAVFGGKFARQCEFLREMDKAFKLVGGFCLADLFPSSRLVRWLSNGERDMKRCHGLIHHIIAEVVENRKAARASGVGRSIPGDEDMLDVLLTLQEDDSLEFPLTTETMGAVLHDVFAGATETTGNTLAWVISELMHNPHTMAKAQHEVRDVLGEGRSVITNSDLGELHYMPMILKEALRLHPPGPLIPRMAREDCTVMGYDIPKGTNVYINIFAISRDPRYWINPEEFMPERFENNNVNYKGTYFEFIPFGAGRRQCPGIQFSSSITEMALANLLYHFDWMLPDGANLASFDMSEKFGFAVSKKYDLKLRAIPHVWSNAMTLK |
| CYP71G1v1 | MTVSITAAVQLFLLLLLLLPLLFVHHKTKPKTKCRSPPGPPPLPVIGNLHQLSLLLHQSLYRLSKIHGPIFKLSLGRVPVLVISSPSLAKQVLKTHDLACCSRASTVSFKEYTYDGCDVAGAPYGDSWRNLRKIFVLKLLSSKKLTSFRLVQEEEIEGMISSIRTRSDTNATVNITEFVVRLANNITFRVAFGYRSEGEYGEKSRFQRLLESGNDTVASFYVGDYFPGLGWLDKMTGKLGKMKRNARDLDEFYQEVIDAHMKDGRKEDGKEDIVDVLLRLREEGQLTMDHIKGALMNIFVGGTDTSAASIAWAMAELARKPKVMKKAQEEVRKAASKKGKVEENDLAQLQYIKCVVNETLRLHLPLPLLVPRETIQHCEINGYDVSAKTRVLVNAWAIGRDEDAWENPEEFNPDRFVGSSLDYKGQDFQFIPFGAGRRICPGIQFGVETVELALANLLYAFNWELPPGVERENIDMHEAPGLVTRRATDLRLVATNYEEAN |
| CYP71J1 | MPLILVILLLLPILLLVIRREKSTSSKLPPCPPKLPLIGNLHQLGSLPHQSLHALSVKYGPLMLLKLGEIPTLIVSSSDMAREIMRTHDHIFASRPSLLTSDILLNGATDVVFAPYGEHWRQMRKLCVNHLLSAKMVQSFRLMREEEVSSMLTRISGLVNMSEVLNLFTSKILFNAISGKFFVEEEGRINVFCKLIRENIAILAQLSVSDFFPSLGWLDLVFGVGARARATAKKWDDVLDEVIEDHVKRSNETGDADDQEERADFVSVLMALQEDDNTGFTLNRNIIKAILQDMIAAGTETSFLVLDWGMTELVRNPGTMKKLKDEVRSVAGSETVVREEDISKMFYLKAVIKEILRLHPPVPLLIPRESMDHCNVQQYEVPSKTRVLINAWSMGRDPKVWEDPEEFRPERFLDSDIDFRGQCFEFVPFGAGRRICPGMHFAAANLELALANLMYRFDWELPDGMKSEDLDMGDSPGLTTRRRQNLHLVARPFQRVKR |
| CYP71K1 | MAELPLYLLLLALLVAVPFLCLTRWSLRHGGGGGGRLPPSPWALPVIGHLHHVAGALPHRAMRDLARRHGPLMLLRLCELRVVVACTAEAAREVTKTHDLAFATRPITPTGKVLMADSVGVVFAPYGDGWRTLRRICTLELLSARRVRSFRAVREEEVGRLLRAVAAAAAVAALTTPGATAAVNLSERISAYVADSAVRAVIGSRFKNRAAFLRMLERRMKLLPAQCLPDLFPSSRAAMLVSRMPRRMKRERQEMMDFIDDIFQEHHESRAAAGAEEDLLDVLLRIQSQDKTNPALTNDNIKTVIIDMFVASSETAATSLQWTMSELMRNPRVMRKAQDEVRRALAIAGQDGVTEESLRDLPYLHLVIKESLRLHPPVTMLLPRECRETCRVMGFDVPEGVMVLVNAWAIGRDPAHWDSPEEFAPERFEGVGAADFKGTDFEYIPFGAGRRMCPGMAFGLANMELALAALLYHFDWELPGGMLPGELDMTEALGLTTRRCSDLLLVPALRVPLRDHER |
| CYP71L1 | MAAASLVLELLRQQWQVTVAILLLPLASFLLTRRRSSNLNGCDESGGLRLPPCPWRLPMVGNLHQIGSLPHRDLARLARRHGPVMMVRLGMVPAVVLSTAAAAEEAFKTNDKDCSSRPLTVGPGKLTYGYKDVVFAPWSDYVREMRKLFIIEMLSARRVKAAYFARETQIERMVAKLEAVGPNPIRIDEHIFTTVDAIVSLFVFGELNAGEQFKGELVDLLNETTDLLTSFTAEDYFPNAAGRLIDRITGMHGRRETLFRKLDSMMEYLLAMYEDPGHKRKADADGSDLVQEVVDLMKRPPAKGMITFTRDHAKSILFDTFMAATDTSSISSYWVMTELIRHPRVLHKAQAEVRAAAGGAPQVRISDMPKLKYLRMVLSETFRMHPPATMLVPRETMRPIRLGGYDIPANTMLMVNAWAIGRDPASWKDPEVFYPERFEELDVDFNGGHYELLPFGAGRRICPGLAMGVANTEFILANLLYCFNWALPQGMRSEDVGVEEFGGLTFRKKKPLVLVPTRYYPDKEEK |
| CYP71L1 | MAAASLVLELLRQQWQVTVAILLLPLASFLLTRRRSSNLNGCNESGGLRLPPCPWRLPMVGNLHQIGSLPHRDLARLARRHGPVMMVRLGMVPAVVLSTAAAAEEAFKTNDKDCSSRPLTVGPGKLTYGYKDVVFAPWSDYVREMRKLFIIEMLSARRVKAAYFARETQIERMVAKLEAVGPNPIRIDEHIFTTVDAIVSLFVFGELNAGEQFKGELVDLLNETTDLLTSFTAEDYFPNAAGRLIDRITGMHGRRETLFRKLDSMMEYLLAMYEDPGHKRKADADGSDLVQEVVDLMKRPPAKGMITFTRDHAKSILFDTFMAATDTSSLSSYWVMTELIRHPRVLHKAQAEVRAAAGGAPQVRISDMPKLKYLRMVLSETFRMHPPATMLVPRETMRPIRLGGYDIPANTMLMVNAWAIGRDPASWKDPEVFYPERFEELDVDFNGGHYELLPFGAGRRICPGLAMGVANTEFILANLLYCFNWALPQGMRSEDVGVEEFGGLTFRKKKPLVLVPTRYYPDKEEK |
| CYP71L7 | LIKQWKTTENRGKLLPSPPKLPVIGHLHLMVGRLPQHVLTRAAQKYGPVMHLQLGEIFSVVVSPREATKQVMKGLDPACADRADSIGTKIMWYDNKDLIFSPYNAHWRQMRKICVSELLNARNEKSFGFIREDEMSRLVRFLRSSAGQAVNMTEKITATTSSIICRAAFGSVVRDDEVLIGLVKTASGMANGFELADLFPSSKLLNLLCLNKYRLWKMRRELDAILEGVVEEHKLKQSGEFGGEDIVDVLLRMQKNSQLQFPITTDTIKGFIFDTFAAGTETSSTTTVWAMAELMKNPRVMANVQAEVREGLKGKKSVDASDVQQLKYLKSVVKETLRLHPPFPLIPRKCREDIEVEGYSIPSNSRIVINVWSLGRDPLYWEEPEIFWPERFDHISTDYVGNNFEFIPFGGGRRICPGLNLGVANVEVPLAQLLYHFDWKLGEPGMSPVHMDMTVAKGLSGPRKTPLFLVPSIYIPTQPN |
| CYP71M1v1 | MAPDLNPSPELKHVLLWSVPLLIIAPTVIFLYMQAVGKKKKNTIRLPPSPLRLPIIGHLHLMVHEPHRSLQRLARSLGPVVHLQLGGVAAIVVSSPEAAKEVLKTHDVHCCSRPSSPGAKLITYGNQDIAFSPYNASWRERRKLFVSELVSSKRVQSFAYALQAQVGELIQSLSLRSPPREPVNLNETLFTLIDGFIGTVAFGSMKGAKLMKYAKFQQVFSEAMVALSAFSAQDFFPASRMSRWFDKLVGLEARYQRIFLELDSYFEMVLSQHMDPGRVKTDKDDLVDVLISLWKGQGKVTKDHLKALLMDAFIGGTTTSSVTLLWAMSELIKNPTVMKKAQTEIRSLVGDKRRLVQVDDLSKLNYLKMIVKETLRLHPPAPLLVPRETMDHVKVLGYDIPTKTRIFVNVWAMGRDPACWDKPEEFYPERFDGVDTDFYGSHYELLPFGAGRRICPAIPMGATIVEFTLASLLHSFDWELPDGMTKEDVSMEGTGRQIFCRKTPLYLVPSFYTG |
| CYP71N1 | MALPPLLLSPLPSLLVVLALLSSLLLAGRKARGGSATWKLPPGPPKLPVIGHLHLLGSSLLHRSLWELSKKHGPLMHLKFGRVPVVVVSSPEMAKEVLKTHDLECCSRPSLLSFSKFSYGLSDVAFIPYGERWRQLRKLCTVELLSTRKINSFRDIRKEEMERVTKLICSHVRASSMVNLSELLLSLSCNMTCRSAFGSGFDDGGDIQLHDMLREAQEELSGLFLSDYLPLLGWVDRLSGMRSRLERAFLKLDSIYQRRIDYHQDRLRQQGKEDGDVLDALLRMQKDEEGLTEDHIKGVLMDIFIAGTDTSSATVEWAMAELIRQPELMKRAQDEVRRCVGSKGEVEESDLHQLHFFKCVIKETMRLHPPAPLLLPRETMQHFKLNGYDILPKTWMYVNAWAIGRDPNSWGRPHVFDPERFMHDSTEASGQDFKLIPFGEGRRICPGKNLGMLMVELVLANLLYSFDWHLPPGMVKEDISMEEAPGVTVHREYALCLMATKYDATTA |
| CYP71P1 | MSLALLVLSAAYVLVALRRSRSSSLKPRRLPPSPPGWPVIGHLHLMSGMPHHALAELARTMRAPLFRMRLGSVPAVVISKPDLARAALTTNDAALASRPHLLSGQFLSFGCSDVTFAPAGPYHRMARRVVVSELLSARRVATYGAVRVKELRRLLAHLTKNTSPAKPVDLSECFLNLANDVLCRVAFGRRFPHGEGDKLGAVLAEAQDLFAGFTIGDFFPELEPVASTVTGLRRRLKKCLADLREACDVIVDEHISGNRQRIPGDRDEDFVDVLLRVQKSPDLEVPLTDDNLKALVLDMFVAGTDTTFATLEWVMTELVRHPRILKKAQEEVRRVVGDSGRVEESHLGELHYMRAIIKETFRLHPAVPLLVPRESVAPCTLGGYDIPARTRVFINTFAMGRDPEIWDNPLEYSPERFESAGGGGEIDLKDPDYKLLPFGGGRRGCPGYTFALATVQVSLASLLYHFEWALPAGVRAEDVNLDETFGLATRKKEPLFVAVRKSDAYEFKGEELSEV |
| CYP71Q1 | PPLLQLSAAVLFFLLPLLYLLFLRGSNGEVRGRQGNSASAPSLPGPCRQLPVLGNLLQIGSRPHRYFQAVSRRYGPVVQVQLGGVRTVVVHSPEAAEDVLRTNDVHCCSRPPSPGSYNYLDVAFAPYSDYWREMRKLFVVELTSVSRVRSFAYARAAEVARLVDTLAASPPGVPVDLSCALYQLLDGIIGTVAFGKGYGAAQWSTERAVFQDVLSELLLVLGSFSFEDFFPSSALARWADALAGVERRRRRIFRQVDGFLDSVIDKHLEPERLSAGVQEDMVDALVKMWREQQDRPSGVLTREHIKAILMNTFAGGIDTTAITAIWIMSEIMRNPRVMQKARAEVRNTVKNKPLVDEEDSQNLKYLEMIIKENFRLHPPGNLLVPRQTMQPCLIGGYNVPSGTRVFINIWAMGRGPMIWDNPEEFYPERFEDRNMDFRGSNFELVPFGSGRRICPGVAMAVTSLELVVANLLYCFDWKLPKGMKEEDIDMEEIGQISFISFRRKVELFIVPVKHEQYQLMGHIN |
| CYP71R4L | MASFELDSTLVLLCLVFVVSCFAVVVRGSGTGRKYGVRAVPPGPLALPIIGNLHKLGGAHPHRSLQGLARRHGPLFLLHLGSVPTVVVSSASLAEALLRTQDHVFCSRPQPYTARGTLYGCRDIAFSPYGEKWRQIRRIAVVHLLSMKRVDSFRALRVEEVARFVQRIGAASGRERVDVSELIIDLTNTVISKAAFGNKLGGMEPATVRDMMKELTVLLGTIAVSDVFPRLGWLDWAMGLDARVKRTAARLDTVVERTLAEHEGNRVKDGEACDLLDDLLSIYKDGDQGFKLDRTDVKALILDMFIAGTDTIYKTIEWTMAELVRNPREMAKVQYEVRLHAAASAQGVVLEEELEKMSLLHAAIKEALRLHPPVPLLIPRESIEDTRLHGYDILAKTRVMVNTWAIGRDSESWENAEEFLPERFIGQAMEYNGKDTRFIPFGAGRRGCPGIAFGTRLVELTLANMMYHFDWKLPNGQDIESFELIESSGLSPGLKSALILAVKPL |
| CYP71S1 | PRPRGLPLIGNLHQVGALPHRSLAALAARHATPLMLLHLGSVPTLVVSTADAARALFRDNDRALSGRPALYAATRLSYGQKNISFAPDGAYWRAARRACMSALLGAPRVRELRDAREREAAALIAAVAAAGASPVNLSDMVAATSSRIVRRVALGDGDGDESMDVKAVLDETQALLGGLWVADYVPWLRWVDTLSGMRRRLELRFHQLDALYERVIDDHLNNRKHASDEEDDLVDVLLRLHGDPAHRSTFGSRSHIKGILDMFIAGSDTSAVTVQWAMTELVRNPDVLAKAQHEVRRVVAAGDKVREADLPELHYLRLVIKETLRLHPAAPLLVPREMTEPFRTAHGVEIPARTRVVVNAMAIHTDPGVWGPDAERFVPERHRDDADGCAQQHDGFALVPFGIGRRRCPGVHFAAAAVELLLANLLFCFDWRAPPGREVDVEEENGLVVHKKNPLVLI |
| CYP71T1 | MELSSSLAAVLHSPLFLLAALLLLPVFTLLSFSSAKKPGDGGGRRLPLPPSPRGVPFLGHLPLLGSLPHRKLRSMAEAHGPVMLLWFGRVPTVVASSAAAAQEAMRARDAAFASRARVSMAERLIYGRDMVFAPYGEFWRQARRVSVLHLLSPRRIASFRGVREQEVAALLDRVRRRCGVRGGGETVNLSDMLMSYANGVISRAAFGDGAYGLDGDEGGGKLRELFANFEALLGTATVGEFVPWLAWVDKLMGLDAKAARISAELDGLLERVIADHRERRRLSQPDGGDGDGDGDENVDHRDFVDVLLDVSEVEEGAGAGEVLLFDAVAIKAIILDMIAAATDTTFTTLEWAMAELINHPPVMRKLQCEIRAAVGVPGASGGAEVTEDHLGELRLLRAVVKETLRLHAPVPLLVPRETVEDTELLGYRVPARTRVIINVWAIGRPXAAWGDRAEEFVPERWLDGGGGGEAVEYAAQLGQDFRFVPFGAGRRGCPGAGFAAPSIELALTNLLYHFDWELPPHADGAAAATAARLDMGELFGLSMRMKTTLNLVAKPWSSDV |
| CYP71T3 | MAVSLVVVVVVVIAIVVPLLYLVLLPAWKPARRDDGDGGMRRRLPPSPPWGLPLLGHLHLLGALPHRALRSLAAAHGPVLLLRLGRVPVVVVSSAAAAEEVMRTRDLEFASRPRVAMAERLLYGGRDVAFAPYGEYWRQTRRICVVHLLSARRVLSFRRVREEEAAALVARVRAAGGAVDLVEHLTAYSNTVVSRAVFGDESARGLYGDVDRGRVLRKLFDDFVELLGQEPMGELLPWLGWVDALNGMEVKVQRTFEALDGILEKVIDDHRRRRREVGRQMDDGGGGDHRDFVDVLLDVNETDMDAGVQLGTIEIKAIILDMFAAGTDTTTTVIEWAMAELITHPDAMRNAQDEIKAVVGITSHITEDHLDRLPYLKAVLKETLRLHPPLPLLVPHEPSSDTKILGYSIPACTRIVINAWTIGRDQATWGEHAEEFIPERFLESGLDYIGQDFVLVPFGAGRRGCPGVGFAVQAMEMALASLLYNFDWETRVVDRRSEFGTSSLDMSEMNGLSVRLKYGLPLIAISRFP |
| CYP71U2 | MDELSIENHSPISMDELSFGSLCLVAMATLALALALMVVMGAHRRGGEKGATTGAKNLPPGPWNLPVTGSLHHLLGASPPPHRALLRLSRRHGPLMLVRLGEVPTVIVSGSDAAMEGWVLKAHDPAFADRARSTTVDAVSFGGKGIIFAPYGEHWRQARRVCLAELLSARQVRRLESIRQEEVSRLVGSIAGSSNAAAVDMTRALAALTNDVIARAVFGGKCARQEEYLRELGVLTALVAGFSMADLFPSSRVVRWLSRRTERRLRRSHAQMARIVGSIIEERKEKKASDDGVGAKDEDDDLLGVLLRLQEEDSLTSPLTAEVIGALVIDIFGAATDTTASTLEWVMVELMRNPRAMEKAQQEVRNTLGHEKGKLIGTDISELHYLRMVIKETLRLHPSSALILRQSQGNCRVMGYDIPQATPVLINTFAVARDAKYWDNAEEFKPERFENSGADIRTSTAHLGFVPFGAGCRQCPGALFATTTLELILANLLYHFDWALPDGVSPESLDMSEVMGITLHRSSSLHLHATLSRLGFVSHSGQ |
| CYP71U5 | KAKLPPGPWNLPVIGSLHHLVVTKLPPHRALLRLSRRHGPLMLVWLGEVPSIVVSSPEAAKEVLKTNDLVFANRPCGPTMDIVSCGGKGILLAPYGDHWRQMRKVCVVEVLSARQVRRIESIQQAEVARLLESVSAATTGCAVVDVGKALAELSSNIIATAVFGGKFPQQEAFLREIDALSVLVGGFSMADLFPSSRLVRWLSSATHDVKRSHARVQRILEDIIQERKEKTSKNGASSAARDNEDLLDVLLRLQRDDTLSFPLTSEIIDCVIRDIIGAATETTSSTIEWAMAELVGNPEAMAKAKHEVRERCHGVVASADIGELQYLRMVIKETLRLHPAGMFHRASLEDCQVMGYHIPKGTAVMINGFAVGTDPAHWGEDAGEFRPERFHDMEMTEYMQMEFVPFGAGRRQCPGTLFATTIMELVLAHLLCHFDWEVPDGQTLDMGEDYGFIVHTRSSLRLQASSIVPSC |
| CYP71V1 | MDDYFFLQSLLLCVAAVALLQLAKVAATMRRRPRTPPGPWRLPVIGSMHHLVNALPHRAMRDLAGVHGPLMMLRLGETPVVVASSRGAARAVLKTHDANFATRPRLLAGEIVGYGWADILFSPSGDYWRKLRQLCAAEILSPKRVLSFRHIREDEVTARVEEIRAAAAPSTPVNLSVLFHSTTNDIVARAAFGRKRKSAPEFMAAIKAGVGLSSGFKIPDLFPTWTTALAAVTGMKRSLRGIHKTVDAILQEIIDERRCVRGDKINNGGAADDQNADENLVDVLIALQEKGGFGKSVTTPWVIVTHMICTLDVQDMFAGGTGTSASALEWAMSELMRNPAVMKKLQGQIREAFHRKAVVTEADLQASNLRYLKLVIKEALRLHPPAPLLVPRESIDTCELDGYTIPAKSRVIVNVWAIGRDPKDAEEFKPEQFDDDAIDFMGGSYEFIPFGSGRRMCPGFNYGLASMELVLVAMLYHFDWSLLVGVKEVDMEEAPGLGVRRRSPLLLCATPFVPAAVSADY |
| CYP71W1 | MELTTLLLLALISFFFLVKLIARYASPSGRESALRLPPGPSQLPLIGSLHHLLLSRYGDLPHRAMRELSLTYGPLMLLRLGAVPTLVVSSAEAAAEVMRAHDAAFAGRHLSATIDILSCGGKDIIFGPYTERWRELRKVCALELFNHRRVLSFRPVREDEVGRLLRSVSAASAEGGAACFNLSERICRMTNDSVVRAAFGARCDHRDEFLHELDKAVRLTGGINLADLYPSSRLVRRLSAATRDMARCQRNIYRIAESIIRDRDGAPPPERDEEDLLSVLLRLQRSGGLKFALTTEIISTVIFDIFSAGSETSSTTLDWTMSELMKNPRILRKAQSEVRETFKGQDKLTEDDVAKLSYLQLVIKETLRLHPPAPLLIPRECRETCQVMGYDVPKGTKVFVNVWKIGREGEYWGDGEIFRPERFENSTLDFRGADFEFIPFGAGRRMCPGIALGLANMELALASLLYHFDWELPDGIKSEELDMTEVFGITVRRKSKLWLHAIPRVPYYSTY |
| CYP71X2 | MYDAVACVVAVVVVVVFAMLWVKLARSGDGGGGGSGGVRLPPGPWRLPVIGSLHHVVGDRLLHRSMARIARRLGDAPLVYLQLGEVPVVVASSPGAAREVTRTHDLAFADRALNPTARRLRPGGAGVALAPYGALWRQLRKICVVELLSARRVRSFRRVREEEAGRLVGALAAAAASPGEEAAVNFTERIAEAVSDAALRAMIGDRFERRDEFLQELTEQMKLLGGFSLDDLFPSSWLASAIGGRARRAEANSRKLYELMDCAIRQHQQQRAEAAVVDGGAGVEDDKNQDLIDVLLNIQKQGELETPLTMEQIKAVILDLFSGGSETSATTLQWAMSELIKNPMVMQKTQAELRDKLRRKPTVTEDDLSGLKYVKLIIKETLRLHPVVPLLVARECRESCKVMGYDVPKGTTVFVNAWAIGRDPKYWDDAEEFRPERFEHSTVDFKGIDLEFIPFGAGRRICPGMAFAEAIMELLLAALLYHFDWELPNGMAASELDMTEEMGITVRRKNDLHLRPHPPCVVRSNFRSFVERERERHFV |
| CYP71Y1 | MEDATHGYVYVGLALVSLFVVLLARRRRSPPPAAHGDGGLRLPPGPWTLPIIGSLHHLVGQIPHRAMRDLARRHGPVMLLRIGEVPTLVVSSRDAAREVTKTHDTAFAMRPLSATLRVLTNGGRDLVFAPYGDYWRQVRKIAVTELLTARRVHSFRSIREEEVAALLRAVAVAAGTVEMRAALSALVSDITARTVFDNRCKDRGEFLVLLERTIEFAGGFNPADLWPSSRLAGRLSSVVRRAEECRNSVYKILDGIIQEHQERTSAGGEDLVDVLLRIQKEGGLQFPLAMDDIKSIIFDIFSAGSETSATTLAWAMAELIRNPTAMHKVMAEVRRAFAAAGAVSEDALGELRYLQLVIRETLRLHPPLPLLLPRECREPCRVLGYDVTRGTQVLVNAWAIGLDERYWPGGSPEEFRPERFEDGEATAAVDFRGTDFEFLPFGAGRRMCPGMAFGLANVELPLASLLFHFDWEVPGLADPAKLDMTEAFGITARRKADLHLRPCLLVSVPGV |
| CYP71Z1 | MGASILLVVVVSKLMISFAAKPRLNLPPGPWTLPLIGSIHHVVSSRESVHSAMRRLARRHGAPLMQLWFGEVGTVVASSPEAAREVLRSHDLAFADRHLTAAAAAFSFGGRDVVLSPYGERWRQLRKLLTQELLTASRVRSFRRVREEEVARLMRDLSAAATAGAAVNLSEMVTRMVNDTVLRCSVGSRCEHSGEYLAALHAVVRLTSGLSVADLFPSSRLAAMVSAAPRAAIANRDKMVRIIEQIIRERKAQIEADDRAADSKSCACSLDDLLRLQKEGGSPIPITNEVIVVLLMDMFAGGTDTSSTTLIWAMAELIRSPRVMAKVQSEMRQIFDGKNTITEDDLVQLSYLKMVIKETLRLHCPLPLLAPRKCRETCKIMGYDVPKGTSAFVNVWAICRDSKYWEDAEEFKPERFENNDIEFKGSNFEFLPFGSGRRVCPGINLGLANMEFALANLLYHFDWKLPNGMLHKDLDMREAPGLLVYKHTSLNVCPVTHIASSCA |
| CYP71Z18 | MEDKVLIAVGTVAVVAVLSKLKSAVTKPKLNLPPGPWTLPLIGSIHHIVSNPLPYRAMRELAHKHGPLMMLWLGEVPTLVVSSPEAAQAITKTHDVSFADRHINSTVDILTFNGMDMVFGSYGEQWRQLRKLSVLELLSAARVQSFQRIREEEVARFMRSLAASASAGATVDLSKMISSFINDTFVRESIGSRCKYQDEYLAALDTAIRVAAELSVGNIFPSSRVLQSLSTARRKAIASRDEMARILGQIIRETKESMDQGDKTSNESMISVLLRLQKDAGLPIELTDNVVMALMFDLFGAGSDTSSTTLTWCMTELVRYPATMAKAQAEVREAFKGKTTITEDDLSTANLRYLKLVVKEALRLHCPVPLLLPRKCREACQVMGYDIPKGTCVFVNVWAICRDPRYWEDAEEFKPERFENSNLDYKGTYYEYLPFGSGRRMCPGANLGVANLELALASLLYHFDWKLPSGQEPKDVDVWEAAGLVAKKNIGLVLHPVSHIAPVNA |
| CYP71Z6 | MEDKLILDLCLSALFVVVLSKLVSSAMKPRLNLPPGPWTLPLIGSLHHLVMTKSPQTHRSLRALSEKHGPIMQLWMGEVPAVVVSSPAVAEEVLKHQDLRFADRHLTATTEEVFFGGRDVIFGPYSERWRHLRKICMQELLTAARVRSFQGVREREVARLVRELAADAGAGGDAGVNLNERISKLANDIVMVSSVGGRCSHRDEFLDALEVAKKQITWLSVADLFPSSKLARMVAVAPRKGLASRKRMELVIRRIIQERKDQLMDDSAAGAGEAAAGKDCFLDVLLRLQKEGGTPVPVTDEIIVVLLFDMISGASETSPTVLIWTLAELMRNPRIMAKAQAEVRQAVAGKTTITEDDIVGLSYLKMVIKETLRLHPPAPLLNPRKCRETSQVMGYDIPKGTSVFVNMWAICRDSRYWEDPEEYKPERFENNSVDYKGNNFEFLPFGSGRRICPGINLGVANLELPLASLLYHFDWKLPNGMAPKDLDMHETSGMVAAKLITLNICPITHIAPSSA |
| CYP71Z7 | MEDNKLILALGLSVLFVLLSKLVSSAMKPRLNLPPGPWTLPLIGSLHHLVMKSPQIHRSLRALSEKHGPIMQLWMGEVPAVIVSSPAVAEEVLKHQDLRFADRHLTATIEEVSFGGRDVTFAPYSERWRHLRKICMQELLTAARVRSFQGVREREVARLVRELAADAGAGGDAGVNLNERISKLANDIVMVSSVGGRCSHRDEFLDALEVAKKQITWLSVADLFPSSKLARMVAVAPRKGLASRKRMELVIRRIIQERKDQLMDDSAAGAGEAAAGKDCFLDVLLRLQKEGGTPVPVTDEIIVVLLFDMFTGASETSPTVLIWILAELMRCPRVMAKAQAEVRQAAVGKTRITENDIVGLSYLKMVIKEALRLHSPAPLLNPRKCRETTQVMGYDIPKGTSVFVNMWAICRDPNYWEDPEEFKPERFENNCVDFKGNNFEFLPFGSGRRICPGINLGLANLELALASLLYHFDWKLPNGMLPKDLDMQETPGIVAAKLTTLNMCPVTQIAPSSAEDAS |
| CYP720A1 | MAESAGESYRLLSVSSSTTFLAFIIIFLLAGIARRKRRAPHRLPPGSRGWPLIGDTFAWLNAVAGSHPSSFVEKQIKRYGRIFSCSLFGKWAVVSADPDFNRFIMQNEGKLFQSSYPKSFRDLVGKDGVITVHGDQQRRLHSIASSMMRHDQLKTHFLEVIPVVMLQTLSNFKDGEVVLLQDICRKVSIHLMVNQLLGVSSESEVDEMSQLFSDFVDGCLSVPIDLPGFTYNKAMKVSFKHLSQLLIQARKEIIRKINKTIEKRLQNKAASDTAGNGVLGRLLEEESLPNESMADFIINLLFAGNETTSKTMLFAVYFLTHCPKAMTQLQEEHDRLAGGMLTWQDYKTMDFTQCVIDETLRLGGIAIWLMREAKEDVSYQDYVIPKGCFVVPFLSAVHLDESYYKESLSFNPWRWQKRNWRTSPFYCPFGGGTRFCPGAELARLQIALFLHYLIACFRWTQLKEDRISFFPSARLVNGFKIQLNRRDSDPPNQ |
| CYP720B1 | MADQISLLLVVFTAAVALLHLIYRWWNAQRGQKRTSNEKNQELHLPPGSTGWPLIGETYSYYRSMTSNRPRQFIDDREKRYDSDVFVSHLFGSQAVISSDPQFNKYVLQNEGRFFQAHYPKALKALIGDYGLLSVHGDLQRKLHGIAVNLLRFERLKFDFMEEIQNLVHSTLDRWVDKKEIALQNECHQMVLNLMAKQLLDLSPSKETNEICELFVDYTNAVIAIPIKIPGSTYAKGLKARELLIRKISNMIKERRDHPHIVHKDLLTKLLEEDSISDEIICDFILFLLFAGHETSSRAMTFAIKFLTTCPKALTQMKEEHDAILKAKGGHKKLEWDDYKSMKFTQCVINETLRLGNFGPGVFRETKEDTKVKDCLIPKGWVVFAFLTATHLDEKFHNEALTFNPWRWELDQDVSNNHLFSPFGGGARLCPGSHLARLELALFLHIFITRFRWEALADEHPSYFPLPYLAKGFPMRLYNRE |
| CYP721A1 | MAVFFILVLVFFFLVFRFIYSNIWVPWRIQSHFKKQSVTGPSYRIFSGNSGEVSRLTAEAKSKPIPSGRNPHEFVHRVAPHYHEWSRVYGKTFLYWFGSKPVVATSDPRLIREALTTGGSFDRIGHNPLSKLLYAQGLPGLRGDQWAFHRRIAKQAFTMEKLKRWVPQMVTSTMMLMEKWEDMRNGGEEIELEVHKEMHNLSAEMLSRTAFGNSVEEGKGIFELQERMMRLFYLVRWSVYIPGFRFFPSKTNREIWRIEKQIRVSILKLIENNKTAVEKSGTLLQAFMSPYTNQNGQEEKLGIEEVTDECKTFYFAAKETTANLMTFVLVLLAMNQEWQNIAREEVICVLGQTGLPTLDILQDLKTLSMIINETLRLYPPAMTLNRDTLKRAKLGDLDIPAGTQLYLSVVAMHHDKETWGDDAEEFNPRRFEDPKKQSALLVPFGLGPRTCVGQNLAVNEAKTVLATILKYYSFRLSPSYAHAPVLFVTLQPQNGAHLLFTRISS |
| CYP721B4 | MAALTSALLFAALLVAAQYVLRLLHSFLWVPFRLERRFRRQGIRWPPRSLVSGNAADYRDLLAAARSAPLSSFRHNGVVARATPQYAVWLARYGRPFVYWFGPRPRLVISDTELVKAVMTDSTGGFDKAASGGNNPLARQLIGEGLVGLSGETWARHRRVISPAFNMERVKAWIPEIAAAASPVLDKWEAEGGSRTEFEIDVHKAFHTLSADVISCVAFGSSYEEGKRIFQLQEEQMQLALLAMRTVYIPGFRFVPTKKNRKRQRLNQEIQCSLRKLIEINGTKCEDSKNLLGLMLSASKAGSEYKMGIEEIIHECKTFYFAGKETTANLLTWATLLLALHQEWQVKARDEVLKVCGKHEHPNAENLSDLKIVTMVLKETLRLYPPATFINRTATRDIKLGKLDIPAGTRLDFPIIHIHRDHEVWGMDAEEFNPSRFADGSSYHLGAYFPFGIGPTICVGQNLAMVEAKVALAMTLQRFAFTVSASYAHAPMLVFTLQPQFGAQVLVRKI |
| CYP722A1 | MEHLCLCLVLCAAMLTLGKFLKIMFQDRKKSTAGVPPGSDGFPVIGETLQFMLSVNSGKGFYEFVRSRRRYGSCFRTSLFGETHVFLSTTESARLVLNNDSGMFTKRYIKSIGELVGDRSLLCAPQHHHKILRSRLINLFSKRSTALMVRHFDELVVDALGGWEHRGTVVLLTDLLQITFKAMCKMLVSLEKEEELGSMQRDVGFVCEAMLAFPLNLPWTRFHKVMQARGRVMEMLEKIIRERRNEINSHNNHHEDFLQQLLAVDNDTPQLTDAEIKDNILTMIISGQDTTASALTWMVKYLGENQKVLDILIEEQSQITKKASNKPFLELEDLSEMPYASKMVKESLRMASVVPWFPRLVLQDCEMEGYKIKKGWNINIDARSIHLDPTVYSEPHKFNPLRFEVNKPKANSFLAFGMGGRTCLGLALAKAMMLVFLHRFITTYRWEVVDEDPSIEKWTLFARLKSGYPIRVSRRL |
| CYP722A1 | MEXDEIKRSMLNLLPNATLQLCCYTVVLIVSLMWLMRGIARVLRDSHWESTAKIPPGSRGLPLIGETLHFMAATSSSKGFYDFVHIRQLRTSIFGQTHVFVSSTESAKVVLNNEVGKFTKRYIKSIAELVGNESLLCASHQHHKLIRGRLINLFSTASISSFIKQFDQLIVTTLSGWEHKPTVVVLHEALELICKAMCKMLMSLESGDEVEMLQKDVAHVCEAMIAFPLRLPCTRFYKGLEARKRVMKMLEKKIEERRRGEAYHEDFLQHLLKDNGSACCDEVPPLTDAEIQDNILTMIIAGQDTTASAITWMVKYLDENQHVLHTLRAEQGRIAEKTSHTSSLTLDDLNEMPYASKVVKESLRMASIVAWLPRVALQDCEVQGFKIKKGWNINIDARSIHLDPTLYNNPTMFIPSRFDGEXKPNSFLAFGTGGRTCLGMNMAKAMMLVFLHRLITTYNWTVVNPDSSIEKWALFSRLKSGCPIHVSPIAKDAADA |
| CYP722B1 | MESLAAGAWWVVVLLLLVLTIVASWYRSWWKTTEAGGPLLPPPAAGAGPWWVWVWQWRETAAFLASHGSGRGFYHFVQERYKLYKGEGEGEATCCFRTALMGRVHVFVSASHPAASQLLTAEPPHLPKRYARTAADLLGPHSILCSTSHAHHRHARRALATTLFATPSTAAFAAAFDRLVIRHWTTLLPPHNQNQVVVVLDAALHISYRAICEMLLGAGGGKLRPLQSDVFAVTQAMLALPLRWLPGTRFRRGLHARKRIMAALREEMAARNHHHHHHHHHHDLLSVLMQRRQLGHPDALTEDQILDNMLTLIIAGQVTTATAITWMVKYLSDNRLIQDKLRAEAFRLELKGDYSLTMQHLNAMDYAYKAVKESLRMATIVSWFPRVALKDCQVAGFHIKKDWIVNIDARSLHYDPDVFDNPTVFDPSRFDVQPQKRRLLVFGAGGRTCLGMNHAKIMMLIFLHRLLTNFRWEMADDDPSLEKWAMFPRLKNGCPILLTPIHNS |
| CYP722C1 | MLNLLREEVLLVVQKYYYDLIMVALFTIGVTYLASKAWKRATTNNREEIPGRLGLPFIGETFSFLSATNSTRGCYDFVRLRRLWNGRWFKTRLFGKIHIFIPSPEGARTIFANDFVLFNKGYVKSMADAVGQKSLLCVPVESHKRIRGLLSEPFSMTSLSAFVTKFDKMLCGRLQKLEESGKSFKVLDLCMKMTFDAMCDMLMSITEDSLLRQIEEDCTAVSDAMLSIPIMIPRTRYYKGITARKRVMETFGEIIARRRRGEETPEDFLQSMLQRDSLPASEKLDDSEIMDNLLTLIIAGQTTTAAAMMWSVKFLHDNRETQDILREEQLSITKMKPEGASINHEDLNSMRYGLKVVKETLRMSNVLLWFPRVALEDCTIEGYDIKKGWHVNIDATHIHHDSDLYKDPLKFNPQRFDEMQKPYSFIPFGSGPRTCLGINMAKVTMLVFLHRLTGGYTWTLDDLDTCLEKKAHIPRLRNGCPITLKSLSKSMPEA |
| CYP723A2 | MMLLLTLLLVLTLFLCLAVFRRTTSRARRAPVSLRQPTVEIHDGDVARRALLDHADAFVNRPAIGAEPRGRRSDNLTTVRYGPQWRVLWRNLTAGFLRPSRVGLLAPLQQKAVDALVADIAARGADGGEVGVRDVVHDALFPLAVRFCFGDDIDERHVRDLRRVMQELKLDVVVKGFSGSMLANLVHWWRLRRFIASGRRRAEIFLPLIAQRRRTQHRDADGGVFRPYVDSLLDLRVPVGHDADADAAGCEDNEGRNSGRALTDDEMVGLVAEFLSGGTETVVSCVEWTLAHLVIEPEIQDKLCRQVVAAADHHGGERGTTPAYLRAVILESLRMHPPVPLTMRDVRSPQAVEHLSLPDGGARVHFILGDIGRDGKAWTDPDEFRPERFMAGGEAEGVGPLPGPREVRMMPFGAGRRYCPGMGLGVAHACLLVAALVREFEWAPTAVAATGGVDLTEVNGFFKMMRTPLRARATPRGTSA |
| CYP724A1 | MLVLSIFLSLGLFFLSILILYISISKKNETNDHHSSLTGSMGWPFIGETISFFKPHRSDSIGTFLQQRVSRYGKVFKSNICGGKAVVSCDQELNMFILQNEGKLFTSDYPKAMHDILGKYSLLLATGEIHRKLKNVIISFINLTKSKPDFLHCAENLSISILKSWKNCREVEFHKEVKIFTLSVMVNQLLSIKPEDPARLYVLQDFLSYMKGFISLPIPLPGTGYTNAIKVRSNRNIHQNAIIEDMNNAIREEDFLDSIISNEDLNYEEKVSIVLDILLGGFETSATTLSLVVYFLAKSPNLLHKLKEEHAAIRAKKGDGELLNWEDYQKMEFTQCVISEALRCGNIVKTVHRKATHDIKFNEYVIPKGWKVFPIFTAVHLDPSLHENPFEFNPMRWTDKAKMNKKTTAFGGGVRVCPGGELGKLQIAFFLHHLVLSYRWKIKSDEMPIAHPYVEFKRGMLLEIEPTKFLED |
| CYP724B1 | MVGGELVLAALVILLALLLTLVLSHFLPLLLNPKAPKGSFGWPLLGETLRFLSPHASNTLGSFLEDHCSRYGRVFKSHLFCTPTIVSCDQELNHFILQNEERLFQCSYPRPIHGILGKSSMLVVLGEDHKRLRNLALALVTSTKLKPSYLGDIEKIALHIVGSWHGKSKDKGMVNVIAFCEEARKFAFSVIVKQVLGLSPEEPVTAMILEDFLAFMKGLISFPLYIPGTPYAKAARARISSTVKGIIEERRNAGSSNKGDFLDVLLSSNELSDEEKVSFVLDSLLGGYETTSLLISMVVYFLGQSAQDLELVKREHEGIRSKKEKDEFLSSEDYKKMEYTQHVINEALRCGNIVKFVHRKALKDVRYKEYLIPSGWKVLPVFSAVHLNPLLHGNAQQFQPCRWEGASQGTSKKFTPFGGGPRLCPGSELAKVEAAFFLHHLVLNYRWRIDGDDIPMAYPYVEFQRGLPIEIEPLCSES |
| CYP725A1 | MDSFIFLRSIGTKFGQLESSPAILSLTLAPILAIILLLLFRYNHRSSVKLPPGKLGFPLIGETIQLLRTLRSETPQKFFDDRLKKFGPVYMTSLIGHPTVVLCGPAGNKLVLSNEDKLVEMEGPKSFMKLIGEDSIVAKRGEDHRILRTALARFLGAQALQNYLGRMSSEIGHHFNEKWKGKDEVKVLPLVRGLIFSIASTLFFDVNDGHQQKQLHHLLETILVGSLSVPLDFPGTRYRKGLQARLKLDEILSSLIKRRRRDLRSGIASDDQDLLSVLLTFRDEKGNSLTDQGILDNFSAMFHASYDTTVAPMALIFKLLYSNPEYHEKVFQEQLEIIGNKKEGEEISWKDLKSMKYTWQAVQESLRMYPPVFGIFRKAITDIHYDGYTIPKGWRVLCSPYTTHLREEYFPEPEEFRPSRFEDEGRHVTPYTYVPFGGGLRTCPGWEFSKIEILLFVHHFVKNFSSYIPVDPNEKVLSDPLPPLPANGFSIKLFPRS |
| CYP726A1 | MEQKNLSFPSILISFLLVLILVVVMRLWKKQNPPPGPWKFPIIGNLPHLLLTSDLGHERFRALAQIYGPVMSLQIGQVSAVVISSAEAAKEVMKTQADAFAQRPIVLDAQIVFYNRKDVLFASYGDHWRQMKKIWILEFLSAKKVQSSRLIREEEMEDAITFLRSKAGSPVNITKIIYGIIISIMIRTSVGNCKQKERLLSVADAVNEAATSFGTADAFPTWKLLHYIIGAESKPRRLHQEIDDILEEILNEHKANKPFEADNLMDVLLNLQKNGNVPVPVTNESIKASVLQMFTAGSETTSKATEWVMAELMKNPTELRKAQEEVRQVFGEMGKVDESRFHDLKFFKLVVKETLRLHPPVVLIPRECRETTRIDGYEIHPNTRIVVNAWAIGRDPNTWSEPGKFNPERFKDCAIDYKGTTFELVPFGAGKRICPGITSAITNLEYVIINLLYHFNWELADGITPQTLDMTEAIGGALRKKIDLKLIPIPYQVSLGSNIS |
| CYP726A1 | MEQKNLSFPSILISFLLVLILVVVMRLWKKQNPPPGPWKFPIIGNLPHLLLTSDLGHERFRALAQIYGPVMSLQIGQVSAVVISSAEAAKEVMKTQADAFAQRPIVLDAQIVFYNRKDVLFASYGDHWRQMKKIWILEFLSAKKVQSSRLIREEEMEDAITFLRSKAGSPVNITKIIYGIIISIMIRTSVGNCKQKERLLSVADAVNEAATSFGTADAFPTWKLLHYIIGAESKPRRLHQEIDDILEEILNEHKANKPFEADNLMDVLLNLQKNGNVPVPVTNESIKASVLQMFTAGSETTSKATEWVMAELMKNPTELRKAQEEVRQVFGEMGKVDESRFHDLKFFKLVVKETLRLHPPVVLIPRECRETTRIDGYEIHPNTRIVVNAWAIGRDPNTWSEPGKFNPERFKDCAIDYKGTTFELVPFGAGKRICPGITSAITNLEYVIINLLYHFNWELADGITPQTLDMTEAIGGALRKKIDLKLIPIPYQVSLGSNIS |
| CYP726A14 | MEQQLLSFPALLSFLLLIFVVLRIWKQYTYKGKSTPPPGPWRLPLLGNFHQLVGALPHHRLTELAKIYGPVMGIQLGQISVVIISSVETAKEVLKTQGEQFADRTLVLAAKMVLYNRNDIVFGLYGDHWRQLRKLCTLELLSAKRVQSFKSVREEELSNFVKFLHSKAGMPVNLTHTLFALTNNIMARTSVGKKCKNQEALLSIIDGIIDASGGFTIADVFPSVPFLHNISNMKSRLEKLHQQADDILEDIINEHRATRNRDDLEEAENLLDVLLDLQENGNLEVPLTNDSIKGAILVGFFFLSSPFFFSTNYHVNSLISLHLIKFVLDMFGAGSDTSSKTAEWALSELMRHPEEMKKAQEEVRRIFGEDGRIDEARFQELKFLNLVIKETLRLHPPVALIPRECREKTKVNGYDIYPKTRTLINVWSMGRDPSVWTEAEKFYPERFLDGTIDYRGTNFELIPFGAGKRICPGMTLGIVNLELFLAHLLYHFDWKLVDGVAPDTLDMSEGFGGALKRKMDLNLVPIPFTTLP |
| CYP726A17 | MEKQILSFPVLLSFVLFILMILRIWKKSNPPPGPWKLPLLGNIHQLAGGALPHHRLRDLAKTYGPVMSIQLGQISAVVISSVQGAKEVLKTQGEVFAERPLIIAAKIVLYNRKDIVFGSYGDHWRQMRKICTLELLSAKRVQSFRSVREEEVSEFVRFLQSKAGTPVNLTKTLFALTNSIMARTSIGKKCEKQETFSSVIDGVTEVSGGFTVADVFPSLGFLHVITGMKSRLERLHRVADQIFEDIIAEHKATRALSKNDDPKEAANLLDVLLDLQEHGNLQVPLTNDSIKAAILEMFGAGSDTSSKTTEWAMSELMRNPTEMRKAQEEVRRVFGETGKVDETRLHELKFLKLVVKETLRLHPAIALIPRECRERTKVDGYDIKPTARVLVNVWAIGRDPNVWSEPERFHPERFVNSSVDFKGTDFELLPFGAGKRICPGILVGITNLELVLAHLLYHFDWKFVDGVTSDSFDMREGFGGALHRKSDLILIPIPFTP |
| CYP727A1 | MASPCEHHVPYTLLGALLSGGGPHAAACGGAAFLRDYAERGTNALLWAALLAVTWLLVLRLAALLRLWALGARLPGPPAFPADPGLAAGDITGYLSKLHGSYGPVVRLWLGPSQLLVSVKDSRVIKELLTKAEDKLPLTGKTYNLACGKLGLFISSFEKVKSRRESLKSFLDEKLSVGTGGSSFKIIQIVLDRVDSIMARDFLDCRYFSQHMAFNIVGSALFGDAFFDWSDASAYEELMMTVAKDACFWASYAVPPFWKPDYRRYRTLCARLKLLTQGIVAKSRNQNGVLSLIDLSSCQRSERMIKDPCRGFSLLDGVISSRCLNEAAEGPLSSEEEICGNIMGLMLHGISTCANLIGNILTRLALYPNLQCQLHSEIVSGHSESSELKIDDVLRMKFLLATVCESARLLPAGPLLQRCSLQQDVNLNSSITIPAGAILVIPLHLVQMEASTWGNDACQFNPNRFLKKEINFEEILAAAHKGSNGINLFTDECDKTESFLPFGSGSRACVGQKFAVLGIAMLIASLLRSYEVQPHPALSQEMESLVDSNSLHHIPNPKIILKKRSI |
| CYP727B1 | MNSVLNSVNDFVSSKSTKEYAKKELNAILWVALITITVFSLEKVFKLFRLWSKASQIPGPPCNSFFGHGNLGSRENFIDLLSVSHDKYGSVFKLWLGPTQLLVSIKDPALIKEMLLKAEDKLPFIGKAFRLAFGRSSLFFCSYDQKRRESLALELNGKMLGRANVIPKNVVDCIMERVDAIMSKGSVDCKSVSQHMAFTILGTALFGDTFLAWSKATFYEELLMMIAKDASFWASYRVTPFWKRGFWRYQSLCTKLKCLTLDIVQQCGKNYGLFSHMDQNSHIGIEKVGIKAASGAPPSNGVEMQDKLFSPELDGHLNEREEPCGNIMGVMFHGCIATASLIGSILERLVTDVEMQDKIYSEIIKVKQGSVKEDQNVEKMLLLLATIYESARLLPAGPLLQRCSLKDDLIFKSGVVIPAGAVLVVPAQLLQMDDSSWGSDASKFNPYRFLSKAGKDSDLVQDTSFTEEAVDPIQCSFILNDPNDNAAFLPFGSGMRACVGQKFAIHGVATLFASLLQRYEVRLDPQLANNPKSTTGPQIVFVRRNS |
| CYP728A1 | MDASAMLVALLTILATAAAVASSSLRRRKNQPPGSLGLPVVGHTLALLRALRSNAARAAAYGPVSTISLFGRPTAFLAGASCNKLLFSSDKLAAMSSASFLRMVGRRNIREVAGDDQRRVRAMMARFLRLDAVKNYVSAMDDEVRRHLRAEWGGRAAVAVMPSMKSLTFDVMCTVLFGLERRGDHAAVRRELSSEFQQLVRGIWAVPVNLPFTTFGKCLAASRRGRRAVARIVEERRRAMPRGGGGGGSAGDLVTHMLAEGMDEEEIIDNVVFLMVAAHDTTAVLLTFLLRHLDGNRAAYERVAAEQEAIATQRRRRGGSGSGSGSALTWDDLAGMRYTWAAAMETLRMVPPTFANMRKAVADVEVGGYVIPKGWQVITAATMTHLDPTIFPDPGRFEPARFEAAAAKSAPPPFSYVPFGGGARACPGNEFARAETLVAMHYIVTGFRWRLAAGCDGGFSRHPLPCPNQGLLLDIEPKE |
| CYP728B1 | MALAVVVVALLVAFLTPLAVYLAGRSTRTKPPPRRNLPPGSLGLPLVGQSLSLLRAMRRNTAERWLQGRIDRYGPVSKLSLFGAPTVLLAGPAANKAVFLSEALAPKQPRSLAAIIGRRNMLELVGDDHRRVRGALAQFLRPEMLRRYVGRIDGEVRRHLAGRWAGRRTVAVLPLMKLLTLDVIATLLFGLARGAVRERLAAAFADMLEGLWAVPLDLPFTAFRRSLRASARARRLLAATVREKKANLEQGESSPSDDLISYLVSLRDGDGGGGRPLLTEEEIIDNSIVCLTAGHDTSAILLTFMVRHLADDPAILAAMHEEIARSKRDGEALTWEDVARMKLTWRVAQETLRMVPPVFGSFRRALEDVELDGGYVIPKGWQVFWAPCVTHMDPAIYHDPDKFDPSRFDAQAAASAPPPYSFVAFGGGPRICPGMELARVETLVTMHYLVRHFRWRLCCGGEENTFVRDPLPSPANGLPVELDHIAPLRCDEFNS |
| CYP728C1 | MDSSMPFALLLALLIPTLLRFVIRRKYSSYNLPPGSLGFPLIGQSISLLRALRSNTDYQWYQDRIKKYGPVFKMSLFGSPTVLMAGPAANHFVFSNQDLIFTQTKAINTILGRSILTLSGEELKRVRSALQGYLRLEMVTKYMRKMDEEVRRHIDLNWVGHKTVKAAPLAKRLTFDIICSVVFGQGIGPIREALATDFETLVQALLSLPVNIPFTKFIKGLRASRRIRKVLRQIAREREAALQQGHSSSADDFFTYMLVLRSEGTHSLTVEDIVDNAIVLLTAGYGNSAVLITFLLRYLANDPDILGKITEEQEEIARRKGPNEPLTWDDVSRMKYTWKVALETLRTVPPIFGSFRTAVKDIEYHGYHIPKGWQVFTAQRITHLDGNFFNDPVKFDPTRFDNHTSIPPYCFVPFGGGPRMCPGNEFARTEILVTMHLVRQFRWKLCCEEEGYRKDPVPIPVLGLPIELETRSPPEYAHA |
| CYP728D2 | MNPEILFALLLFLLPLYFLLTRRSSKRLPPGSLGLPIIGQTLSFLNAMRKNTAEKWLQNRTRKYGPVSKMNLFGTPTVFLQGQAANKFIYTCDGDTLSSQQPLSVKRICGERNIFELSGLEHRRVRGALVSFLKPEVLKQYVGMMDERIRKHFEMHWHGKQKVMAMPLMKTLTFNLMSSLIMGIEQGSKRDVPVKLFQQLMEGLISVPINLPFTRFNRSLQASEKIREIVMDLIREKRVALDHQNASPQQDLITSLLSLRNDHNSVALSDEEIVDNAIIIMIGGHDTSSILLAFLIRLLAKDPSVYAGVVQEQEEIAKNKASNELLTWDDLGRMKYTWRVAMESLRMNPPVFFSFRKVLKDFNYEGYLIPKGWQVMWAACMTHMDGSIFPNPSDFDPKHFERQSSIPPYSFMGFGGGPRICPGYEFARLETLITVHYLVNMFTWKLCCPEISFSRDPMPTFKDGLEIEIEPKILGEII |
| CYP728E1 | MDLMILFEHPSFESKVSSPTIILVTLLALVAGFYYKLKASKLAGKKLPPGSLGFPLVGESISLVRAQKRDKIDEWMWKRIDKFGPIFKTSIFGTKTVVLTGQAGNRFLFSGGDGISYKQPKTIASILGKYSLFEISGSRHKLIRGAIVGFLKPERIQKIVGEINSLVQQQLSKELDGVDSVKIVPFMKRIAFNITCNIFFGIPDGKEKDTLFEEFSVAVKGCWAVPLDIPGTVFHRAMQARASLCKILSKIIDERKRQMEEGTVDVNENIIYSFLSLRDENDEPLIEEEILDMVLSLIMASHDSTTILLCLLVRLLSRDAEIYNKVLEEQREVIKVKGGSDGKITWNEIQMMKYSWRVAQEVMRFYPPIFGNFRQITKDIEFDGFHIPKGWQVLWVASGTHMDKSIFEDPEKFDPSRFDTSSKTFPPYTYVPFGAGLRICPGADFVRIESMLVIHHFITKYQWKEIIPDEPIIRDPMPYPAMGLPVKFYPRSGDLAIAGNDI |
| CYP728F1 | MEAVFGLDKLSSTTVISLATLTTLVAVIWTYRFSLIQRKKLPPGKLGLPFIGESISFFRAHKHNNIGKWIEERTIKYGPVFKTSLMGENVVVMTGEASHRFIFSGRDNGIAAKLATSALAILGKNNIFDLYGSPHKLVRSAIMSFLNSECIQRYVSKMDSLVKEQVLQELNDKETVQVVLLMKKISFIATASLLFGLPEAKERDGLFKDFTIAVKGMWSIPLNLPGSTFRKAVQARGRIFKLFTNLIAERKRGLEDGSMGSHDDVILCLLSLRDENGKTLPDEEIINNLIALMMASHDTTSVLLSLIVRELAKNASVYDKVLEEQNEIAKVRSIASDGQLGWREIQKMRYTWNVAQELMRLTPPIIGNFRHAWRDTTFNGYDIPKGWQVFWLATSTHLDNKVFEDPVKFNPSRFDTNSKSSVPPYTYIPFGAGPRVCPGAEFARTEVLLIIHHLITNYKWTAMVEDEIVVRDPMPFPNKGLPVKIYPKHNI |
| CYP728G1 | MEVLLSSLEESSFEWKLPLISTILVTLIALLAGSIKLKFSPPVDKKLPSGSLGFPFIGETISFLRAQRQDKTVEWIESRIAKYGPVFKTSLMGSKVVVLTGQAGNRFLFSGSDNGILSNQPMSVAKILGKHSIFELAGTRHKLVRGAIMNFLKPESIQRSVSRMDSVVQQQLFQELEGKDSVQMVGLMKKITFKVTCSLLFGLPDGKETEELLEDFTTALKGAWTVPWDLPGTVFRKALQARGRICKQLAQLVRERKAKIEEGRVDSHEDIISSLITLRQENGQPLSEEEIIDNLISVVIASHDTSTVLLGLLIRHLARDTEVCKKVLEEQKQVAKAKEGKGNGKLTWGEVQMMKYTWRVAQELMRMTPPVLGNFKCAWRDTTFGGFDIPKGWQVFWVAPGTHMDKKVFEEPEKFDPSRFENPSTSVPPYAYLAFGAGPRACPGADFSRVEVLLMIHNLITKYHWAEMIIDEPIVREPMPYPAMGLPVKLYQRSTT |
| CYP728H1 | MVYGILFFVLFAFTLSLAFLLSKCLSKSQTKNVPKGSLGYPIIGETLSFLKAQRQDKGSVWLEERISKYGPIFKTSLMGFPTVFVIGQEGNKFVLGSPDDLLSSKKPLTLRKILGRQSLVELTGPRYRLVKGEMLKFLKPECLQNYVKEMDELVNATLLREFRENEIIRAVVFMKKLSYEIACNLLFDIKDEHTKEALFVDFTLAFKAIHSLPINLPGTTFWRGQRARARIVDRMIPILNKRREELSKGVLSSTNDMLSCLLALRDENHQPLDDDLITDNFIFLFVASHDTSATLMSLMIWKLSRDQEVYNKVLEEQMEIIKQREGTEERLTWAEIQKMKYTWRVAQELMRMIPPLFGSFRKALKDTNYKGYDIPKGWQVYWAAYGTHMNDDIFENPHKFDPSRFENPTKPIPPYSYLPFGAGLHYCIGNEFARIETLAIIHNFVKMYEWSQVNPEEAITRQPMPYPSMGLPIKIKPRSCSIS |
| CYP729A1 | MSGATADWAWWLGLVAGAVPLLALAVWHCTDAFHSAAFAFRRRGTRARLPPGHMGLPFVGETLALIWYFNLARRPDAFIEAKRRRYCYGDGDDDGGIYRTHLFGSPAVLVCSPASNGFVFRSAPPGSFGVGWPVPELVGASSLVNVHGGRHARLRRFVLGAINRPGSLRTIARVAQPRVAAALRSWAAKGTITAATEMKNVTFENICKIFVSMEPSPLTEKIHGWFTGLVAGFRSLPLDMPGTALHHARKCRRKLNSVFREELERRKVKMVTGEGGDDDDDGDLMSGLMHVEDEQGRRLDDDEVVDNIVSLVIAGYESTASAIMWATYHLAKSPSALAKLREENLAIAKEKNGDGFITLEDVSKMKYTAKVVEETIRLANIAPMAHRVALRDVEYRGYTIPKGWKVIVWIRSLHVDPAHYDNPLSFNPDRWDKSAELGTYQVFGGGERICAGNMLARLQLTIMLHHLSCGYKWELLNPDAGIVYLPHPRPTDGAVMSFSEL |
| CYP729A6 | MDAVSGWFVTVVICGLLWWWNVLWYVVPLSLRGKLPPGNMGLPFVGDMISFLWYFKFLRRPDDFINAKRRKYGDGAGMFRTHLFGTPSIIVYTPAVSKFIFRSEDKFMQEWPTIELMGRTSMVAVHGKAHARVRSFVMNAINKPEALRRLAALVQPRMISALESWAKMGKIKAQFETQKMTFENISKSFMSMEPGPFLLSMDKLYKGLLEGVRAYPIDFPGFAYHRSIQCRKKLEEIFWTEFDNRKKESYKLKPNNDLMDGLMQIEDAEGDKLSDTEVVDNIVSLVVAGYMSTSLVSMWAISLLAKYPNVLKKLREENMALEKGSPGDLITANDVSNLKYTNKVVDEVIRVANVAAFVFRKSVEEAEYKGYKIPKGWNVLVFIRYIHTNPEHFHDPMYFNPERWNEPLKPGTNQVFGGGQRLCPGNMLAKIQLALLLHHLSLGYKWELLNPNADTIYLSHPAPSDGVEVNFSKL |
| CYP72A1v1 | MEMDMYTIRKAIAATIFALVVAWAWRVLDWAWFTPKRIEKRLRQQGFRGNPYRFLVGDVKESGKMHQEALSKPMEFNNDIVPRLMPHINHTINTYGGNSFTWMGRIPRIHVMEPELIKEVLTHSSKYQKNFDVHNPLVKFLLTGVGSFEGAKWSKHRRIISPAFTLEKLKSMLPAFAICYHDMLTKWEKIAEKQGSHEIDIFPTFDVLTSDVISKVAFGSTYEEGGKIFRLLKELMDLTIDCMRDVYIPGWSYLPTKRNKRMKEINKEITDMLRFIINKRMKALKAGEPGEDDLLGVLLESNIQEIQKQGNKKDGGMSINDVIEECKLFYFAGQETTGVLLTWTTILLSKHPEWQERAREEVLQAFGKNKPEFERLNHLKYVSMILYEVLRLYPPVIDLTKIVHEDTKLGPYTIPAGTQVMLPTVMLHREKSIWGEDATEFNPMRFADGVANATKNNVTYLPFSWGPRVCLGQNFALLQAKLGLAMILQRFTFDVAPSYVHAPFTILTVQPQFGSHVIYKKLES |
| CYP72A5 | MLREVSPWALASVVASVSLLWLVVWTLEWAWWTPWRLERALRVQGLKGTRYRLFTGDLRETARANREARKKPLPLGSHDIAPRVQPMHHSTIKEYGKLSFTWFGPTPRVMIPDPELVKEVLSNKFGHFGKPRSNRIGRLLANGLVNHDGEKWAKHRRILNPAFHHEKIKGMMPVFSTCCIEMITRWDNSMPSEGSSEIDVWPEFQNLTGDVISRTAFGSNYQEGRRIFELQGELAERLIQSVQTIFIPGYWFLPTKNNRRMRAIDVEIRKILREIIGKREKDTKNRETNNDDLLGLLLESNTRQSNGNASLGLTTEDVIEECKLFYFAGMETTSVLLTWTLIVLSMHPEWQERAREEVLSHFGRTTPDYDSLSRLKTITMILHEVLRLYPPATFLTRRTYKEMELGGIKYPAGVDLLLPVIFIHHDPDIWGKDASEFNPERFANGISSATRHQAAFFPFGGGPRICIGQSFALLEAKMTLCTILQRFSFELSPSYTHAPYTVITLHPQHGAQIRLKKLSP |
| CYP72A61 | MRGLGLNLTPITTFAIITVIATVLIWWFWNALNWVWLRPKRIERRLKEQGIQGNSYRPLIGDIRDMVKMIKEAKSKPMDPHSNDIAPRVLPYVVHTIAKYGKSSFMWLGPTPRVFILDPDKFKEMATKVYDFQKPDTSPLFKLLASGFANYDGDKWAKHRKIVSPAFNVEKMKLLVPIFCQSCDDLISKWESLLSSSNGSCELDVWPFVQNVSSDVLARAGFGSSYQEGKKIFELQREMIQLTMTLFKFAFIPGYRFLPTHTNRRMKAIDKEIRESLMVIINRRLKAIKAGEPTNNDLLGILLESNYKESEKSSGGGMSLREVVEEVKLFYLAGQEANAELLVWTLLLLSRHPDWQEKAREEVFQVFGNEKPDYERIGQLKIVSMILQESLRLYPPVVMFARYLRKDTKLGELTIPAGVELVVPVSMLHQDKEFWGDDAGEFNPERFSEGVSKATKGKLSYLPFGWGPRLCIGQNFGLLEAKVAVSMILQRFSLHFSPSYAHAPSFIITLQPERGAHLILRKL |
| CYP72A7 | MSFSVVAALPVLVAVVVLWTWRIVKWVWIKPKMLESSLKRQGLTGTPYTPLVGDIKRNVDMMMEARSKPINVTDDITPRLLPLALKMLNSHGKTFFIWIGPLPTIVITNPEQIKEVFNKVNDFEKASTFPLIRLLAGGLASYKGDKWASHRRIINPAFHLEKIKNMIPAFYHCCSEVVCQWEKLFTDKESPLEVDVWPWLVNMTADVISHTAFGSSYKEGQRIFQLQGELAELIAQAFKKSYIPGSRFYPTKSNRRMKAIDREVDVILRGIVSKREKAREAGEPANDDLLGILLESNSEESQGNGMSVEDVMKECKLFYFAGQETTSVLLVWTMVLLSHHQDWQARAREEVMQVLGENNKPDMESLNNLKQMTMIFNEVLRLYPPVAQLKRVVNKEMKLGELTLPAGIQIYLPTILVQRDTELWGDDAADFKPERFRDGLSKATKNQVSFFPFGWGPRICIGQNFAMLEAKMAMALILQKFSFELSPSYVHAPQTVMTTRPQFGAHLILHKL |
| CYP72C1 | MLEIITVRKVFLIGFLILILNWVWRAVNWVWLRPKRLEKYLKKQGFSGNSYRILMGDMRESNQMDQVAHSLPLPLDADFLPRMMPFLHHTVLKHGKKCFTWYGPYPNVIVMDPETLREIMSKHELFPKPKIGSHNHVFLSGLLNHEGPKWSKHRSILNPAFRIDNLKSILPAFNSSCKEMLEEWERLASAKGTMELDSWTHCHDLTRNMLARASFGDSYKDGIKIFEIQQEQIDLGLLAIRAVYIPGSKFLPTKFNRRLRETERDMRAMFKAMIETKEEEIKRGRGTDKNQRLLFSMLASNTKTIKEQGPDSGLSLDDLIDDCKAFYLAGQNVTSSLFVWTLVALSQHQDWQNKARDEISQAFGNNEPDFEGLSHLKVVTMILHEVLRLYSPAYFTCRITKQEVKLERFSLPEGVVVTIPMLLVHHDSDLWGDDVKEFKPERFANGVAGATKGRLSFLPFSSGPRTCIGQNFSMLQAKLFLAMVLQRFSVELSPSYTHAPFPAATTFPQHGAHLIIRKL |
| CYP72D1 | MEDFIFRGFLSSSLLLSLYVVFRVAHTFWLKPKSQEKRLRKQGIRGTSYKILNGDMKEFARSSKEARSRPLALNQEIAPRVFPFFYKMVQIYGKVSLCWMGTRPSLLLADPELVRLVLTDTSGHIIKPPRNALVGLLQLGVSTLEGDKWAKRRRLMTPAFHVERLRGMIPAFSACCCDLVQRWKKLAGPQGSCELDVASEFNILASDVIARAAFGSSYEEGKRIFDLQKDQVTLVLEAFYSIYFPGLRFIPSKKNKKRYSIDKEIKAALRNIIHKKEQAMQNGDLGDADLLGLLLKGRDDADNDMKIEDVIEECKLFFFAGQETTANLLTWTLVVLSMHPDWQEKAREEVLQICGKRTPDTDSIKQLRIVSMILNEVLRLYPPVNLLYRHTLKETSIRGMSIPAGVDLLLPFLFLHYDPEYWGDNAEEFKPERFSEGVSKASKDEIAFYPFGWGPRFCLGQNFALTEAKMALTMILQNFWFELSPSYTHAPGNVITLQPQHGAPIILHQL |
| CYP733A1 | MAVFGAAVLVALAVTCGLIWSRSRRLSKEMRDIPGTMGWPVVGETFSFISGFSSPAGILSFMRDRQKRFGKVFKTYVLGRMTVFMTGREAAKILLSGKDGVVSLNLFYTGKQVLGPTSLLTTNGDEHKKLRRLIGEPLSIDALKKHFDFINDLAVQTLDTWLDRRVLVLEEASSFTLKVIANMLISLEPEGEEQEKFRANFKIISSSFASLPLKIPGTAFHRGLKARNRMYAMLDSVIARRRDGGEVRNDFLQTLLRKHAKDDADKLTDAQLKDNILTLLVAGHDTTTAGLTWLIKFLGENPEALQKLREEHMEIKERLDGSSHLRWSDVNSMPYTNKVMNETLRRATILPWFSRKAAQDFSIDGYEIKKGTSVNLDVVSIHHDPSVFADPYKFDPNRFDGTLKPYSFLGFGSGPRMCPGMSLARLEICVFIHHLVCRYSWTPLEDDDSVQPTLVRMLRNKYPIVAAAI |
| CYP734A2 | MEEDGGGGAGWGWATWRVAAVAAAAAVWVTMHVAARMADALWWRPRRLEAHSRGAGVRGPPVPVLLGSVREMVALMAEASSKPMSPPTSHNALPRVLAFYHYWRKIYGHRFLIWFGPTPRLTVAEPELIREIFLTRADAFDRYEAHPVVRQLEGDGLVSLHGDKWALHRRVLTDAFYPDNLNRLIPHVGKSVAALAAKWGAMAEAGGSGEVEVDVAEWFQAVTEEAITRATFGRSYDDGRVVFAMQGQLMAFASEAFRKVLVPGYRFLPTKKNRLSWRLDREIRRSLMRLIGRRSDEAEQGEKADDGSFRDLLGLMINAGAAAATRGNAGGEKNSPAAAIPVEDMLEECKTFFFAGKQTTTNLLTWATVLLAMHPDWQERARREVFDVCGAGELPSKEHLPKLKTLGMIMNETLRLYPPAVATIRRAKVDVQLSDGCMIPRDMELLVPIMAIHHDTRYWGPDASQFNPARFANGASKAAKHPLAFIPFGLGSRMCVGQNLARLEAKLTMAILLQRFEIRTSPNYVHAPTVLMLLYPQYGAPLIFRPLSSHPPDSTGP |
| CYP735A2 | MVTLVLKYVLVIVMTLILRVLYDSICCYFLTPRRIKKFMERQGITGPKPRLLTGNIIDISKMLSHSASNDCSSIHHNIVPRLLPHYVSWSKQYGKRFIMWNGTEPRLCLTETEMIKELLTKHNPVTGKSWLQQQGTKGFIGRGLLMANGEAWHHQRHMAAPAFTRDRLKGYAKHMVECTKMMAERLRKEVGEEVEIGEEMRRLTADIISRTEFGSSCDKGKELFSLLTVLQRLCAQATRHLCFPGSRFLPSKYNREIKSLKTEVERLLMEIIDSRKDSVEIGRSSSYGDDLLGLLLNQMDSNKNNLNVQMIMDECKTFFFTGHETTSLLLTWTLMLLAHNPTWQDNVRDEVRQVCGQDGVPSVEQLSSLTSLNKVINESLRLYPPATLLPRMAFEDIKLGDLIIPKGLSIWIPVLAIHHSNELWGEDANEFNPERFTTRSFASSRHFMPFAAGPRNCIGQTFAMMEAKIILAMLVSKFSFAISENYRHAPIVVLTIKPKYGVQLVLKPLDL |
| CYP735A3 | MAMAAAVLVAIALPVSLALLLVAKAVWVTVSCYYLTPARIRRVLASQGVRGPPPRPLVGNLRDVSALVAESTAADMASLSHDIVARLLPHYVLWSNTYGRRFVYWYGSEPRVCVTEAGMVRELLSSRHAHVTGKSWLQRQGAKHFIGRGLLMANGATWSHQRHVVAPAFMADRLKGRVGHMVECTRQTVRALRDAVARSGNEVEIGAHMARLAGDVIARTEFDTSYETGKRIFLLIEELQRLTARSSRYLWVPGSQYFPSKYRREIKRLNGELERLLKESIDRSREIADEGRTPSASPCGRGLLGMLLAEMEKKEAGGNGGGEVGYDAQMMIDECKTFFFAGHETSALLLTWAIMLLATHPAWQDKARAEVAAVCGGGAPSPDSLPKLAVLQMVINETLRLYPPATLLPRMAFEDIELGGGALRVPSGASVWIPVLAIHHDEGAWGRDAHEFRPDRFAPGRPRPPAGAFLPFAAGPRNCVGQAYAMVEAKVALAMLLSSFRFAISDEYRHAPVNVLTLRPRHGVPVRLLPLPPPRP |
| CYP736A1 | MSPPEIAILILVFLTFLWSLLRLINVSSRQSRTLPPGPAALPIIGNLHMLGDLPHRSLQNLAKKYGPIMSMRLGSVPTIVVSSPKTAKLFLKTHDTIFASRPKLQASEYMAYGTKAMAFTEYGPYWRHIRKLCTLQLLCPSKIESFAPLRREEVGLLVQSLKVAAEAGEVVDFSEKVGELVEGITYRMVLGRKNDDMFDLKGIIEEALFLTGAFNISDYVPFLSPLDLQGLTKRMKRVSKTVDQLFEKIIQDHEQVSRSEQGNHHKDFVDVLLSSIHQTLKPNDEEVYMLERTNAKATLLDMIAGAFDTSATAIIWTLAELLRHPKVMKRLQEELQSVIGMDRMVEESDLPKLDYLSMVVKESFRLHPVAPLLVPHQSMEDITVDGYHTPKKSRIFINIWTIGRDPKSWDNAEEFYPERFMNRNVDLRGHDFQLIPFGSGRRGCPAMQLGLTTVRLALGNLLHCSNWELPSGMLPKDLDMTEKFGLSLSKAKHLLATPTCRLYNES |
| CYP737A1 | SWPAATVAMLGTDSVTFSTGAYHRSLRRLLGPCFSPQAVEGYLPSIQAICERYCAEWAAETTAAAAAAAPAATGGDSSAVIEQLPKLQKGARMLTFEVMSHVVAGFHFSPQQLASLSDAFDVFVRGIFAPVALAIPGSNYAKASAARKVMVAALTQQLELLKGGSGGGGNGGGANGGGDGDSDLAINLLFAGHETTATSIVRLMLVLRSRPDVVSRLREEQAAAVRQHGAAISGSSIRDMPYLDAVVKETWRCHPVVPMVPRRAVRDFTLGGHDVPQGWGVVLGLVEPMRDLPAWSGLTPDSPLHPSHFNPDRWLSGRSSASGNSSNSASSSALQQQDGTATADGDDVASAAAAASVGGGGGAAGSGTLSSPMGMLPPQMLTFGGGGRYCLGANLAWAELKVFVAVLLRGYDFTSPLPELEVKLFPALTVAQGFPIEVRAR |
| CYP738A1 | MRSSSRGAKIGRAYPTAHHIDGRASGGRPLHFGLHPCHRPCLRAKAAQSGLAELPLPEGSLGLPVVGETLELITNGDTFGTSRRERYGDVYKTNILGAPTVMVAAPMARRYACICFRFSCQVTSTLVGPDSLNLLTGPRHGAVKRALSDAFADRALRRHVPAIAELVQAVFDRVVLGGAGSRDRAAQLQAVMSALQAGFNTPPVQLPFTAYGKAVAARQEFGQLVSQSIQRSRQHTAASATVSVSPSSAPAFDCAMSDVVAAAAAAAATGTALPDSLLVDNAAAAFFGNASTGPSLAKALQHLATNAAGPNGGATGGVMAALRQEQDIVSRHGPAITAEALDEMSYGTAVARELLRITPAVPAVFRLALVDFELQGRRIPKGWRVWCHVGDSVTRYNKDQFQPERWLGSSGMAAGGCPMHAGGGGAARGAQPEYSLPFGSGVRTCLGRNLVMTELLVVLAVLARGYEWEAVNPAEQWGVVPSPAPKEGLRVRLHRRL |
| CYP739A1 | MAVFGFRELFASMYIPGLSPVLSTITCLAGVLLFLAWQRHSRATSVPRLGPLLTIPLLGDVAWLAADPTRFVFGRFQRYGPTFILNLMGVPLYVLTQPADLRGPYRDQGAEPDVPFSSFRRLMEVAPGRPYDVQADKAAHGPWRRMFLSALGPAGLQALLPRAQAVMQAHLAQWEAAGTAAGGRSGGGCIPSLFRQVRLLSVDLAIEVIAEVPLPPGVERIAFREQLLCFLDGLFGLPLALPGSSVARALAAKEELVAALGPLVAADRQRMAKRWRAAGSSYAALVDTLTAASAAVGGSAAAEAAAGVQAAEPSAAAAARVTVRDAVISGFMALGRAAAVSVLHAVVAGADTTRFALFNTLALVAMSARVQEEIFAEQERVVAEHGPELSARVLGSAAITPYLDAVVREAMRLLPATPGNMRRLTADLRVGAGRGGPASELVIPKGSMVWRFVPLMHCLDPVLWDGDTSVDVPAHMDWRSNFEGAFRPERWLSEDTKPKYYYTFGSDNHLCVGQNLAYMEVKLLLAMLLRKYRLQLHTPDMLARASQMFPFVIPRRGTDRVLLEPR |
| CYP73A5 | MDLLLLEKSLIAVFVAVILATVISKLRGKKLKLPPGPIPIPIFGNWLQVGDDLNHRNLVDYAKKFGDLFLLRMGQRNLVVVSSPDLTKEVLLTQGVEFGSRTRNVVFDIFTGKGQDMVFTVYGEHWRKMRRIMTVPFFTNKVVQQNREGWEFEAASVVEDVKKNPDSATKGIVLRKRLQLMMYNNMFRIMFDRRFESEDDPLFLRLKALNGERSRLAQSFEYNYGDFIPILRPFLRGYLKICQDVKDRRIALFKKYFVDERKQIASSKPTGSEGLKCAIDHILEAEQKGEINEDNVLYIVENINVAAIETTLWSIEWGIAELVNHPEIQSKLRNELDTVLGPGVQVTEPDLHKLPYLQAVVKETLRLRMAIPLLVPHMNLHDAKLAGYDIPAESKILVNAWWLANNPNSWKKPEEFRPERFFEEESHVEANGNDFRYVPFGVGRRSCPGIILALPILGITIGRMVQNFELLPPPGQSKVDTSEKGGQFSLHILNHSIIVMKPRNC |
| CYP740A1 | MAPLLDAKQLELLGIGMQLAAVLLVLYYLLKWLAGKRGGVPGPAFYLPAIGETLSLFASPTRYMWKNWLEYGPFFRTHLLGYPLYVVGSPGLLKPVLGDDSAFEFFVPGKTFTMLISDIRHMQVPEQHAVFRRRLGQALNPGALSRHVMAPLRVVLERHLDAWEAAGRVQLAEACAAASLDVALEVLTGVPLPAAPETRAEVRRGTGGLFRTALAGLYGVPLPWLPGTAIHSALRAQRRLMALLGPELDREVAELAGKSRLPTGGTAWHETHLAHARTPRPGSAACPRGPTADAGSRRSHRHRHHQLLLRHRGAHAHAGGPGRCGPALPHRHAFLRTGTPLSLTKEQIFERALGVVIASDDTSKHLFFFELVAAAMLPGVWAKLEEEQKQAMRKYGDELSYSILNDMPYLDAVIKETIRVFPTAVGGFRRALKDVPVEGGQLIPAGSIVFYSTHLLNAADPALLPRSLAPEALEGPTGLPAHLDYECRLEEAFRPERWLSDETRPRQFAGFGGGQHLCLGMHLAHAEARMLLALVVRRFHLRLEQPQLLSRVTYFPGPVPRKGADGLVLMPRRLEP |
| CYP741A1 | MDGFWKTLGLGALLSPVLYALYLASLIVIPYLKSLPLRRKLRHLPGPPVTGFFLLGNVPDLVRTPVHQCMARWAEQYGKIFKLELPTMTAVVLTDPEAVSQVLKVDRFEKLTTSYQNMEKLTAEQQPNILTEPLSAYYKAVRRAVTPAFSTANLRRFFPLLLDITQQVMTGLAAAGPSAALDLDRVAQRLTIDVIGRFAFDRDFGATADIAKTNEALQVVGELMTALQRMLNPLNRWFWWRKEARGLWASRRRYDALVRRALEDLRSSPPAQHTLLHHLMSLTDPDTGKPLSARRLRSETALFWIAGFETTAHAIGWTLMFIAGSPEVESRVAAELEGAGLLAVPGRPEPRQLAWGDLGGLKYLNAVIHESMRLMPPTSGGTVRVVPRDTQLAGHVLPKGTMLWIPFYAMQRSERVWGPDAAQFRPERWLAAAAGAGGPGARGFLPFSEGPRNCVGQSLALLELRTALALLCGSFRFRLADDMGGVEGAVSEARQHITLKPGDRGLLMHAIPRVPA |
| CYP742A1 | MHTAPRRIHAARCRPLHASTGASTPGPAGAPDLPPLQRAPGPPGLPWLGQLPAYLATKFFPKKMLEWSEQYNGVYAMEIVGRKYLVVTEPSLIAGIVGRGSAGLPKSTGYAMWDSAISPHAGVQGLFTVAENTTTWRAVRRAYGPAIGPGSMSSGTSTSTSSSSTASINSTTGLTSHEMNHLAKCLTLDMLGLSAFGIDFRCLDDPAAAQLPSLIESAMHECGERARSVGRRLLPWLYEEEARAGAADMAAFHALVEDVWRQIRARGAPTEDDNSFGAQLLRLADPSLAPGGAALSDEQICAEIATVIIAGYETTANTLTWMLYGLHAHKDASEQLVAELRGAGLVPDTSSSSSPSSVDPTTASFASLAGAHEALGGLPVLDAYVRECLRLYSTAPNGLIKEVPKNGPPARVGPFAADPGVVVWIPFWSLHLSNLNWEQPHDFQLSRWLGKDPRTAGSLTASRCPVSGTLNALRAATSSSSSSSSSSSSSSSSSSSSSSGSDSDGEGGSSSGGRGSKAIRFMPFGDGSRNCVGQHLGMLQLKLSLAYLAARFDLVLDEARMGGSAAAALERQRVNLTLEVDGGMYLLGASVHSHARVYWYQLVSCEPKC |
| CYP743A1 | MLRALSCLALLAAGAARLAAAAGATDSAVSRALAVLALLLALHVLADPLQRWRLRHIPGPPALPLLGSVPAMMRAGGPFFFRQCFAKYGPVFKVAMGRKWVVVVADAELMRQAGQRLRSHVIIEPNLNRGHLRRLDAEGLFQAHGEFWRLLRGAWQPAFSSAALSGYLPLMSACGLRLAQQLQAGGGARPAAGYVDVWRALGGMTLQVVGSTAYGRLAVACGDVFRFGSALHGSSYQRIGLLLPELVPALVPLAHSLPDPPFKRLQRARSTLLAACMELIRSWRQQHHATTLARGEINSERTHERETRTAGGTTATGVAAAAEAPAAMCGAAVPAAAAAVDGAAAPAGPEEADAAARGGGVGGGGGDGSGVGGSGVAAGSFLDLMLAARDKANGAALTDRMVAAQVQTFLLAGYETTANALAFAIYCVATHPEVESRLLAEVDAVLGRDRPPTESDLPRLPYTEAVLNEAMRLFPPAHATTRIVEAGAPLQLGGVSLPPRTPLILAIYSAHHDPAVWPRPEDFIPERFLPASPLHSEVAARVPGAHAPFGYGSRMCIGWKFAMQEAKLVLALLYQRLLFRLQPGQVPLPTATALTLAPRDGLWVRPVLRRAARAE |
| CYP743B1 | MVASASWQLDLLGALSGAPSPQMAAAGLALLLASLLIYLLDPIQRWRLRKVPGPPARPLLGCLPQLRAQPMPLFLQSCAQTYGPVFKASAEVQGIAVIPHHVSRMQVALGRKWAVVLADAEMQRQVRGTGAERGGSTWRQLRAAWQPAFAPASLAGYLPLMTGCADQLARRLEAKATAAAGATASGATAGGGSSVDMWRELGGMTLQVVGSTAYGVDFHSINEEDQAGSGSGSGSAIATAGATAAAKGRGDDGYGKQLAAACGQIFRYTSSAHGSPYLRVAMLFPELRRLLVPLAHTLPDKRFAILMQARNRLSGAVFQLMDSWKQQHIAAAGSGAAGKGSSGKADASNGVGAAATSGRGGMAGVAPGSFLDLMLGHRQGGGSGSGGKKAEGEEGVEHAPLTDEQVAGQVQLFILAGYETTANALAFAVYCIATHPEVESRLLREVDDVLPGSDQLPGESDLPRLAYTEAVVNEALRLFPPAHLTSRVVPPGETLTVGGFNIPAGIPIFLPMYIAHRDPAVWPRADVFLPERFLHPRGAAQQHAHAPFGYGSRMCIGYKFAMQEAKVALATLYRRLTFTLEPGQQPLQVEASLTMAPRGGLRVTPVPRRKL |
| CYP743C1 | MTFLQLLPGVPLVLLGVLALPVVITLVQEVITKRKYRHIPGPKPQPISGNLREFLTSPGGLLGCLEGWVKQYGDLLTFRLGSRQFVLVADPDAARPVFTARVFLTQIVFPHTARSLRGYQALMDREAVALAGRLRRQAAAGGGGGGGGGGGGGGGDKAGEIEVMSEMSRVTLAVVGTAAYGCNDFFRTMSPAARSSWSWAVALPCLLPAVRHLAAAAPDPVLALHIQSRQVLRQVSTKLITAWRDSHTAASANGSSTNSTSGSSSSTGVAPGSFLGLMLAARDRSRKEGGAAATAKDGMAPTLTDAQIEAQVQTFLLAGFETTANALTFAVYLLACHPEIQGHRIPAGSTLWLSIAHLHTRDGVWPEPQAFRPERFLSPDVPGSAPELAARHPHVHLPFGSGPRMCIGWRFAMQEAKTVLSRLVQAVDFTLAPGQAAPLDTVAGLTLAPRNGVWVRLSPRGGGGSGGGGGRGQEVATAAAKGAAVRSAAA |
| CYP744A1 | MALSSAWALAGLFLAMFVFFGYSLRKRWQLRKIPGALGWPFLGSIPEFSIYGYEYVLGLSAKLGNAWLGVEPLIIICDPALIRKYAYKCVSKPPSMSEYGHVLTGFNYDVDQASAFVASGEVWRRGRRVFEASVINGVRLAAHLPAINRCANRFVAQLAQRVAAPAAAHSGKTLGEEGIDMFSIVGGYTMAVTGEVAYGHVPAVTRGVRPFWQVEHSTLYLPLGVMFPWARPLVRWLATHFPDRAQREHMAARTQIIANISRLLMERWATSKKAAAAAAGTGTGTGTAITADSKAGTASAPPAEAARADGAAAAGKGAEEAIKEVGGGISSSSFMAAMMEGRRGAPQEERLSDVEVIAQSFTFVMAGFETTALTLSLVTFMLATHPEAAARLTAEVDGLGPGELTHEVLAEKLPYTEAVIKETLRLHPPIPYFIREAREDLDLGNGMVAPKGSYLTMYMHAVHLNPDVWPHPERFLPQRFLPEGSAAFGPADPGAWAPFGIGARMCVGHKLAMMMAKTLLVRMYQRFRIELHPRQPLPLKMKTGLSRVPVDGVWVTLTER |
| CYP744B1 | MELVSGLALAGVALFILGFIWAGFNPIERYLSPLRRFPGPAPLPFLGNLVSVATRDLTAYLADCRQAYGGIWLGNQPWVCVADPDLIRRVAYRVLSRPFSHTDSIHLLAGEQWEVDCNTLVFLKNGPTWRLARRAFESSIIHPQSLAGHLPAVWRCVRRYTPRLERHAATGEPLDLSSDLADLTLAVVGEAAYGVDFRTTDEQQDGGRPADPSAPGPALVAAVRECFDCLDVNKTTMYGPLKMIWPGLTPLWRWMAKHLPDAAQTRHMRVADVSRQLMAQWQAAKAKTAAAADTAGATAASGAGAEAGAGVGVGAGAQAKPGGGGAVQAFVEVGGGISSSSFMASLLEGRRGAAKEEERLTDLQIVAQCLTFLLAGFETTAATISFTAFCLATHPEAQARLLAEVDEHFARQAAAEQQQQGQQQREGDDALPELPYLDAVLKESMRLYPAGSALIRKSPQPLDLGRDGLVIPGNTFVCLATHAVMHDPAIWPEPEAFRPERFLPEGSSSLGPMVGGAAASAPAGGGADAAAAAWVPFGMGPRMCVGSKFATMVSKAVLLQIYRRFTFELHPKQVLPLRTRTALTHAPRDGIWVVVKAR |
| CYP744C1 | MQLTWLGWAPVTRWRLRNIPGPFALPFLGHLPAISARDLVHFCHDVARQYGPVWVAARPWIVVSDPVAARKIAYRSLARPSTVASFTHALVGEPRQVDDESIFWNRGPAWKASRRAFETSVLRPDRLAAHMPAVRRCTERFLARLAPYADGSTAVDMKDEYGVIALAITGEVAYVSFWPSDEDAALLAAPTGGSGAATSSSSSSSSSSKSPSSALVRACHECMACFELPLATMYLPLQMLLPALRPLWLALAAALPDAAQRRHMEARQAVADVSRRLMREWQQQAAARANDSGGDGLLLKDQTPVVNGGSSSSGSGGISSSSFLAAMLKDQTGSNTACASSSGTDGGVISQGLSFILAGYDTTGTTLALTTFLLAHNPTTQEKLRAELVENRELLDSADGLAQLPYLDAVLKESQRLHPAVGHFWRDATSDIALPEMGGLVIPKGSFVSISIYNMHRDPAHWKEPERFIPERFLQATGGALGPTDPGAYVPFGSGPRMCVGYKMAIMVVKSVLAGLLLRYRVALHPRQPLPLRLKTGLTLEPADGVWVTLQPLLLPGAK |
| CYP745A1 | MASSSSPLEELLAFAGVKDGTISSPRLALVVLGAALAAYALVFAVINVVDYIRIARGLSAIPSAPGGVPLLGHVIPMLTCVSQNKGAWDIMEDWMDAKGPIVKYNIAGTQGVAVRDPKAMKRIFQTGYKLYEKDLKLSYRPFLPILGTGLVTSDGALWQKQRMLMGPALRVDVLDDIIRIAKKAIDRLCEKLSHHAGKGDIVDIEEEFRLLTLQVIGEAVLSLGPEECDRVFPQLYLPVMNEANRRVLRPYRMYLPTPEWFRFSSRMGQLNGFLIDLFRRRWQARQAAAAAAQGEGSSSSKPKPADILDRIMEAIEESGAKWDAALETQLCYEVKTFLLAGHETSAAMLTWSTLELAAHSQAADKVVEEARAAFGPRGESEAGRRAVDEMIYTLAVLKEGLRKYSVVPVVTRVLAEDDPQGLLGYPLPRGTMVACHLQGTHRLYESPDEFRPDRFMPGGEYDQFDDADRAYMFLPFIQGPRNCLGQHLALLEARVVLGLLHARFSFKPAPSVHPDPASLFMRHPTVIPVGPIRGLKVLVEQRK |
| CYP745B1 | IFQRHCVVVADPELVKRVMQTNLKNYKKDTEFSYEPFLEILGTGLVTSEGETWRAQRQRISSALRIEILDDIIAIATRALEKVRGKGEAVELAEEFRLLTLQVIAEAILSLTPEQSDEVMPNLYLPIMDECNRRSLEPWRKFLPTREWREHRKRVAALNKYIVDLIRVRWKKRVSGETNPNPDILDRVLASVEMEEYGSDVEEQMCFEIKTFLLAGHETSAAMLVWTIYELVKNEDKMTEAVAEANKVLGAVKPGNLPTRDELAHLDYCVSALKETLRLYSVVPVVTRRAVEDDVLGGCKIPKGTTVIISLQGIHHREDLWPNAMSFEPERFLNGKGDEIGNYAYLPFIQGPRNCLGQYLALLEARVVLATLIRRFKFKSASANNGKKHTKAIPIAPADGMWFTVE |
| CYP746A1 | MLALAGGLQSMLQVSSPLVTHKITYGSLRLSSPPPPAFPAGPSGDQTLPLLTDPLRFLTDATATYGPVVGLLLGGERVALVTGRAEARAVLVEAAGEVYVKEGTAFFPGSSLAGNGLLVSDGPVWQRQRRLSNPAFRRAAVEAYGGAMVAATEDMMRRVWGPAGGTRDVYADFNELTLQVTLEALFGFSEDAAQIVAAVEKAFTFFTQRAATGFVIPEWLPTWDNLEFAAAVQQLDRVVYGMINRRRQELAAAFAGVPSDLLTSLLLARDEDGSGMSDQALRDELMTLLVAGQETSAILLGWASALLAAHPEVQAAAAAEVAAVCGGPEAGTPTPASVRHMPYLESVVLETLRLYSPAYMVGRCARRDAALGPYVLPAGTTVLVSPYVMHRDPEVWEEPEVFRPERWQELQRSNLGPNGAYLPFGGGPRNCIGTGFAMMEALLVLAALLQRYSLALPPAAGSSSGGAFPKPKPLLTLRPEAVVLRISPRRQ |
| CYP746B1 | MGSISAANLELIATLASHCLQRTTESVKQGQAVLQQAVQPLPSCFPPGPNGDVALDFARDPLECLASLKSRYGSLVGFKLASRPIVLVSSPNFSREVFVTQSSTFIKAGTAFFPGSSLAGNGLLVSDGDIWKRQRRLSNPAFRRAAIQTYAEQAMVNITEKMVDKVWRTGGVRDVYADFNELTMEIVASALFGASEASEEMAQVGPAITQAFQFFTRRATSMFIVPEWVPTFDNIQYNNAVTDLNKVVFRLINERRRQLANSSAPPRKDLLTRLLHVNEDGSGMDNQSLRDELMTFLVAGQETSAILLTWALLMFALHPHTQELVFQEISEVLNGQLPRQTDVSKLRYLEAFIWETLRLMPPAYVVGRCACHPTELGGYKIPQGTTILVSPYLLHQDPAFWPRVSEFDPSRWMPGGDATEHMENDSFWPFGGGPRNCIGMGFAMMEVTLVLAVISSRFRVSLPVGEPIPSPRAMITLRPESEVKLRLTSRRQQRQRKSEAADEMKVIVCLN |
| CYP747A1 | MKSALSAFVRDSGDQVAETGAPTATRPIPGPAPLSLEALKDVSVIFFEGLHVAQLKFSEKYGPVCRFANPASLNGATSWVFINSPENIQHVCATNVRNYSRRYLPDIYTYVTHGKGILGSQDEYNARHRRLCSGPFRNKWQLQRFSSVVVERSKRLVDIFSAAAAADPSGAFTTDVATQTQRLTLDVVGLVAFSHDFACVEQVQRRDLAGATAGDGRSGVLQDRVLWAVNTFGEVLAQVFITPLPLLKAMDRLGAPHLRQLGEAVSVMRAAMLDVIAATEDDGRGLSDEELWEDVHDIMGAGHETTATTTAALLYCISAHPHVRQRLEEELDAVLADGEAPTYESLERMPYLQACAKEVMRLYPAIPVFPREAARPDVLPTGHGVAAGDVVFMSSYALGRSEAVWGPDVLEFDPDRFSPEREARQHRFQWLPFGAGPRMCLGASFAQMSVALMAATLLQRFRFTPLAPCSPLIPVGYDITMNFGPSGGLRMRVAPRQRGQQQ |
| CYP748A1 | MSSALDELRFYGTLAATLLGPRYDLGRVPGPPGHPLLGNITAVMRPDYHVQMLEWANTYGGIFKFSLGFQPVVVVSDPAVAVQVLGRAPGRAIPRKCVGYKFFDLATNASGAHSFFTTSDEGQWAAVRKAAAAAFSSANVKKAFPIALRHLLLLSLLHVFVEALFGVTPEDFPGRQVAADMNLVLEEANSRLKVPLSGLARAVTQPVVGWREGGTGHVSRGFGARNSRAWGSGEKEWTEENWEPRAVTDLWACLGRVRHPRTGELLGRQGLVPEIGALMMAGFDTSSHSVAWALFALAANPEAQQRVRQELDGRGLLRRPGTAAPPRLPVLDDLPQLPYLNACIDEAMRMYPVAATASVREVTEPTRVGDFVIPPGVIVWPMLYALHNSVHNWDQPDVFKPERWLQSNAGGSSGKGGGGGKRYMPFSDGMKSCLGQALGLMEVRTALVVLLGRYAFALDPGHGGEAAVRRSMIMSLTLKIRGGLRLVATPLG |
| CYP749A1v1 | MANPLIYFSGCLFLSILIILIKFFNKVWWTPIRIQSLMKSQGIRGPSYRFLHGNTKEISTMIRKTRSSPQELLHHTLPMVHPHFYSWIKLYGMNFLQWYGPQAQLIITEPELVKQILSNKDRAYPKTKVSNEIKKLLGDGIVLSEGEKWVKLRKLANHAFHGESIKGMVPEMIASLEIMLERWRHHHSKEIDIFVEFKILTSEVISRTSFGSSYLEGQHVFDMLTRMTHIISENNYRVRIPGIGKFVKASYDIEFENLEAKIRKSFMNMMKRREKDAMLGELDGYGHDLFGLLLKAYHDSDETKKISLDDLIDQCKNFYLAGQETSASALTWIVFLLAVHSDWQDKARKEVLELFGLQIPSQDRIAKLKIMGMVINESLRLYTPNAILMRRVERETKLGKITVPANTEVYISTLAVHQNPEIWGEDALLFKPERFADGVVKATNNNIAAFMPFGLGPRNCAGMNFAITETKLALSMILQRYSFTLSPTYAHCPTEVLTMCPQHGVQVILQRYEHIALKV |
| CYP749B1 | MMTAICFVFLVGLALVLARFLYKSWWYPVSLQLLMKSQGIKGPPYKAPNWNYAKGVLDMEVKSTSAPMEISHDIIPRLFPQVYSWINLYGKNFLHWIDTQPQLVVTDINLIKEILSDKEGSFDKVQLEGVLKKFLGGGIVFEEGKKWSKLRKVANHAFHGQNLKEKVPAMVASVEELLKTWKSYEGKEIEVFKEFKLLSLEIISKSVFGSDYLTGKTMYHMLDEIVLICYKIIADKFSKSSHELKVADHILQAFVDSLVGIMKQREDKVKAGQSNNFGSDFLGSLMESHHNTDQNKRISVVEIIEECKTFYFAGHETVRSVLSWSILLLAVHTDWQDTARKEVLEMLGQGNPNIESISRLKTVGMILNETLRLYPPLVFLHRKVKRNIKLGELRLPAGMEVYIASLAVHHNSEIWGEDTHLFKPERFAEGVAKATRDQLMAFLSFGFGLRKCVGFNFAQMEVKIALCMILQRYRFTVSPNYRHFPTLVMGLWPKHGIQIMLHPL |
| CYP74A1 | MASISTPFPISLHPKTVRSKPLKFRVLTRPIKASGSETPDLTVATRTGSKDLPIRNIPGNYGLPIVGPIKDRWDYFYDQGAEEFFKSRIRKYNSTVYRVNMPPGAFIAENPQVVALLDGKSFPVLFDVDKVEKKDLFTGTYMPSTELTGGYRILSYLDPSEPKHEKLKNLLFFLLKSSRNRIFPEFQATYSELFDSLEKEAFPLRESGFRRFQRRNRLLFLGSSFLRDESRRYKLKADAPGLITKWVLFNLHPLLSIGLPRVIEEPLIHTFSLPPALVKSDYQRLYEFLRIRGEILVEADKLGISREEATHNLLFATCFNTWGGMKILFPNMVKRIGRAGHQVHNRLAEEIRSVIKSNGGELTMGAIEKMELTKSVVYECLRFEPPVTAQYGRAKKDLVIESHDAAFKVKAGEMLYGYQPLATRDPKIFDRADEFVPERFVGEEGEKLLRHVLWSNGPETETPTVGNKQCAGKDFVVLVARLFVIEIFRRYDSFDIEVGTSPLGSSVNFSSLRKASF |
| CYP74B2 | MAATSPRPPPSTSLTSQQPPSPPSQLPLRTMPGSYGWPLVGPLSDRLDFQGPDKFFRTRAEKYKSTVFRTNIPPTFPFFGNVNPNIVAVLDVKSFSHLFDMDLVDKRDVLIGDFRPSLGFYGGVRVGVYLDTTEPKHAQIKGFAMETLKRSSKVWLQELRSNLNIFWGTIESEISKNGAASYIFPLQRCIFSFLCASLAGVDASVSPDIAENGWKTINTWLALQVIPTAKLGVVPQPLEEILLHTWPYPSLLIAGNYKKLYNFIDENAGDCLRLGQEEFGLTRDEAIQNLLFVLGFNAYGGFSVFLPSLIGRITGDNSGLQERIRTEVRRVCGSGSDLNFKTVNEMELVKSVVYETMRFSPPVPLQFARARKDFQISSHDAVFEVKKGELLCGYQPLVMRDANVFDEPEEFKPDRYVGETGSELLNYLYWSNGPQTGTPSASNKQCAAKDIVTLTASLLVADLFLRYDTITGDSGSIKAVVKAK |
| CYP750A1 | MSFDKLLQALPPPLPLPAILIATFIFFFSCWILHQSQRNERLPPGPYPWPIIGNFHQVRLPLHRTLKNLAEKYGPILFLRFGSVPTVVVSSSEKAKHFLKTHDLIFASRPPTSVGKYFFYNFKDIAFSPYGDHWRKMRKICVLELLTSKRIESFKHVRQEELSAMIHSIWEESESGRIAVNVSKAISTSLANILWRILARKKFSDNDLGADGKGFADLVVEVSIAVGSLNIGDFIPYLDCLDLQGIKRALKKANARFDAFAEKMIDEHINASTIRNGEADAGCHVKDIIDVLLEMAKNDNTGAKVTREIIKAITYELFSAGMETSANVLEWAMSELLRHPHAMKKLQQEIESVVGQQGTVKESDLASIVYLHCVVKETLRLYPSLPLALPHESLEAVTVGGYYIPKKTMVIMNLWAIGRDPSVWGADASEFKPERFMQMEENGIDLSGGQSDFRMLPFGAGRRTCPGSAMAILTVEFTLAQLLHTFDWRVEGDPSELDMKEACATKMPRQTPLLAYPRLRLPRCP |
| CYP751A1 | MAAWKRESVVSVFATNESAAIGVCDVTPVHETPLWRYVKHEQNTLAWVSLIVVTFLLSRRLCSVLRLLILGYRLPGPRARAFDGRSQCDDIVELLARLHQEHGPLVKVWTGPAQLLVSVKDVDILQHVFERAHDRVPVLRMALQLLYGRRSLFTSNYSKVSCRSLINGLVLRQAHISSIEVAEKMTQLGGLSKNGCHDLDCMTFSKLMAFAALGTSLYGDGYMIWPVAREFERVMMEVMEALPIWMRYSVPPLWNAKFVVFWKQCLRLRDLARELAAHGNQTSIQESEDRVEGLNILGKLLEEFVSVLFSRMGMGSSTVAEPGAAGMMSHGSLNTAGVLCNVLAQLARHPHIQTKVHNEISTISGFDKSLTETDVQKMIYLNATVLEAARLLPTVPFLQRCSDEHDIALLPGVVIPAGAILTAPIQLIQRDTVYWGDDAAIFNPDRFLKPRRIASGELASEQNQNIPHPCNFTKEPLQLNPAFLVFGAGSRSCIGSSLAVKQISILVTVILKRFEVMLYPTLFISKL |
| CYP752A1 | MEKDDDVSFDVALPTIGLETTHSKFPQLVLSAIGLIVVCGGAYVLYNTHYLRVKIKLPPGPPPWNVFCTSMQSKKPCQALAKICNCEYGGIMTLSLGKFPTILITSTVIATQLHVLKRYKFKFGHPKNIPRPCEYLHPDNYQNLKCVLPYNWTQWHKLWQIYIDHLLPVAHNMSFQSINQLDIQIMLKNLENEMTKEGGMKPFGIGLRPHLRHASFKFIFNICFGRHVDAIAGGVGSHKDPLMMQLEALFIEVIRLGPAFIISDFVPTSLPFHSPIDIQRAAISGTMKKYKTFYHRANIKVPRSEPVDLLDHLVCLQKDEQLQDKEIVWLLSELILASTDHVSTILEWTFAHLMANPQVQAKLHQEIDIVCSKRTNISTTEFDNMPYLVAIVKESMRVSSPIMLTIPHSTTKELNIGGFQLPMNTQIVCHLGALGQDANIYENPSCFDPNRFIGIGVNLNNAFEKQKNIVHLMTQQFCPGRGLEILHVYIFLVKLLQCFEFSHLYVEIMPFKTSDTVEWGVINVLRKPLVACLNPHL |
| CYP753A1 | MANYIIASNALVLLAFVTFFFVYFLRAFILRDKKLRPKYPPSPWKWPILGNLPQLLRGGPACHTTFRLLAKELGPVYNVWLGGSFPMVIVTGEETVHEALIKQSSVFSSRPKLLSWQHISAGFKTTMTSPFGPHWQKLRKTISVDLLGPSKLASYKPIRDSEIQKLLARLREQAHANAGLVSPLDQLRTSAVDVIMRIGFGEEFALMEAVNSNRRHAKIVELDRCFRQLMDAGSIFQLVIDSSVVARTLLFPLARSANRNIETVADNTVSLVMPIVQQRKRYLQDHPATETRTFVDALISCKGESALTDLEIVWNVVELMVGGTDNTSHILEWALANMVKYPHIQEKVYTEVRCAMGPNLERRLVEESELDKLPYLQAVVKESMRRHMMTPLAIPKLAAQDCKLSGYDIPKGTMVVFHAGALAMDDDIWTDPLNFRPERFLAGTGSSNAPVTQTHKHAFMPFGAGRRSCPGAAMGFLHLHHLFANLIYAFEWGPESPRKAVDFTEKFRMVVTMKNPLRATIKERTHFRMM |
| CYP754A1 | MVEESWLWVLFVGALSFSILLQWGLNRKRKLKLPPGPTAWPIVGCVFGLPRLNPPEKLFNKLSEKYGELMLLQLGSWSIVVTSSARMAMEILKTHDNEFANRPDVISSRLNFNNTGLIQMHSTNPLFKRTRRMFSAEIVSPRTVLETGVIRRKQLRTLRSIVQDFDAGRSVNFTHEMKTLAMNLSMSICFGTDYATKVNDEAEALIHTYKIMAIWTRRSLGAIFPALRWLDLDGIESGFADVELQLRTNITALIEKKKQEMSMWSAEDIQAGANEGDVMTKFLSMEGEDRCSEDQLISVVFTILLAGTDTVFNVVTEAMYALLMHPNFYHRAVEELDAVVGKSRLVEEADIPKLPMIQNIIKETFRIKPAGPSLVPRKNFEACEVAGYHIPANTTVFVNCIPLMRDPSFWDSPDEFNPDRFIDSKVTVLGSDFNYLPFGYGKRTCPGLNLGMITVQYILAACLQCISWKLSRPRRLDIETDDDPRKVDDVMVDGKQRVDPALLEFAPQPVK |
| CYP754B1 | MVGDVWIWVLITMVVAVIVGVGIDKKTKRGLKLPPGPPAWPVVGCLASLPAGHPPEVMFAKLAEKHGELMLLWLGSKPYVVASSARMAMEFLKRHDQEFANRPMSVVREYVSFKGNSIISMSASDPKYQRLRRTFVMELLSPKKIAATRDLRKDQVLKMLRAIREDLDAKHEANFTEAVLTLGMSLSIGLLFGRDYGGKVFSEEIQTLVLTFKTMVKYLSMINISDLIPSLRWLDLQGIERGLGLGEVQLRKSIMALIEQKRLDKIRLSSDEIESGACQRDILSKLLSLEGEDRLDDDQLMGVVFALMLAGSDSISRGVGRAMQELLKQPLLHQRALDELDEVVGRRRLVEESDISSLPLINNIIKETLRLHPPAQLLIPHGNVEQCEVAGYHIPARSTVLVNLYALSRDPSFWNSPLEFAPDRFVDSNLTVQGSDFHYIPFGYGRRGCPGLNLGMITVQYALALCLQCILWRLPAGATISETYIDWKNSPDLIVDGDLRVDLHLLEGL |
| CYP755A1 | MVFTVRREVADWSHSFPPMSYGTAVVVGFVLLLLLLVFGYSRRVGKKKTLPPGPFAFPVIGNLFLVGKHPHVTFAKLAKQYGNIMRLHFGAVPVVIVSDANMARELFSVQDMKFASRPIYDLMSTAYKYMNYGTDEEVSLAISEYGPKVRDLRQLCTTELFTQRKIDMKKSVRAEEIQRMFGKIKTMIRDEEPVEIRPIVSEFSLRISCRTTFNKAFLNFENLPWRPGALHPQAFRNMETENTKLLGEHQILDMIPMLKFVLERFDVFGINARWKEVSALKEECTRPVIEWYRKHSSDDESTLDFVEVLLRLSEEGKLSKTCVKSLILELLTAGSDTIASVLEWTLLELVRHPHGMERLSAEIDGFFGINRPVDEDEFTKLPYLQAVAKEVLRLHNPTTLGIPHSNMEEATLAGYHLPARTTVLANFWAISRDPTTWGQDALTFNPDRFLACDLNVNGTNYEYLPFGAGRRICPGRAVAMRVLAAAIGSFVHAFEWSALPGVELNANEGKDGLNIRPETPLVLKLSPRPSAMLY |
| CYP756A1 | MAHLHTRLSEEAEAWIATGVDSFSRWQEYAAGFGRATYIVAALGFFAVVILELHNSRKRRLSKLPPGPFQWPYLGSLPNLLLTVGVTSSFRLREKVSELGRNHGPLMFLQIADTQILIVSSGTAAKEVLIARDEEFNFRPQCAVGKYLGFGSSDIAFAEGRHHWYLRKLCDTRLFSADSFVSYGHIPRAEALKMLHSVWEASKKGNGISVRETVTAFVRNSLCGMLLGSAHLDIENVSLQFTEKTLITLLDETICVVGEITLSDLAPGLKRVDFHGRTRKLKELHERWEKYLRVILEDRSHRLEKSAKPEALVDVLLSLDDADMKLSNEAIMGVLLDTLVGGVYSTSATIEWALAELVRHPGVLEKVQLEMSEVVGPYHIVEDAEISQLPYFQATVKETLRLHPVVPMSLPHMNKVATSISRYQIPANTSVVIDYKAIARDPAAWHKPLRFDPSRFLHTSAASQIDNIFKFLPFGYGRRGCPGANFAAVLLQLALAHLIQAFDWAPTKGQLPHDIDVKESPGLVCFRFSPLVLSSTPRLANSLYQVSP |
| CYP757A1 | MMEIGGMRAEWHVVLSACVTIATMVLTIMKLRKKIGKLPPGPRALPLIGNIHQIGDFSRRNLMQMAEKYGPIMYMRIGSKPLLVVSTAEAAHEFLKTQDKEWADRPTTTADKIFTNDHRNIVCAPYAAHWRHLRKICTMDLFTPKRLMSFRTPRTEEINQMMTSIHEDVAAGKEVKLHVKLGHLTTNNITRMLLGKRFFTVDEKGQMEAHRFKELVFELFRASSTPMIGDFIPWLKWVSIASGYVKYLKRVKADLDAFLQEFLEIKKAASDQATAERAKDFVDLLLEQKTVSGDGPLEDATIRSDMLLAGTDTVSNAMEWTIAELMRHPECMRKLQQELDTVVGKSRIVSETDLPNLPYLQAVVKEVMRFYPPAPLSLPHQSIVPTTVCGYDLPAGTQLCINLYAIQRDPKYWPNPVQFNPDRFLNCDVDVGGTHFQLIPFGAGRRQCPGMPLGNLLLQISVARLVQAFEYSLPRGTKRNYFMNYYSGANKLTSGIMYLICYPAPHYSCOMITRELLAPATENSMOSSMATPDSSGGAFDLAKWINGLVAHWGSVAVAVVAAAVIAKFIFNSTVGRRKLPPGPAPWPILGNIASLAGLPHRSLEKLARKYGSLMYLRLGEVPCIVISSADVAKQLFKTHDILFSNRPGGCFFEQLTEYRNITASRYGPHWRHLRKTCVHELFTQKRLEAYQATRLEEISISIKELFEESDKKGPVDLHAWLHRLLFNNLTRVIMNNRYFGTDEKGMKDAMDFNNVTALMFSQAGDVVISDFLPYLGFLTRLQGKPLLYRKTREIVLEMMRRMTNFDERKKLHAEGRSTGEPEDFVDVLLSSTLSDGTTPLPDDICLMLLMDVLVAGTDTSATTVEWTITELLRHPEAYKRVREELNSVVGSDQLVKEEHLEHLPYLNAVLQESFRLHPATPLGLPRESSEAFEFLGYSLPAGTRLFVNQWAIHRDPAVYEQPEEFNPERFLGREALKFIGDTQFQLVPFGSGRRNCAGLPMAVIVIPLVLAHLLHSVEFSLPDGQQPKDLDMTETFGVAAPKASPLMIYATPRESAALY |
| CYP758B1 | MLATAFLVGFLAWAAMILGKFILEGIQRRNLPPGPWAWPIVGSLFSLGPLPYKTLRVLAKKHGELMYLRLGSIQSVVVSSASMAKEVVTNHDLQFAYRPTKLFGKLLFNSKDIVHASNGPAWRHLRMICTSQFFTKKRLASYEATRTFEIHTLMKDILRKSSSEDCVVNLPFQLRNTSTNFISQMVFNKRYFVEGEESNVEDAKRYQKILKIHFSSYAIFVVSDYIPCLRFITKLQGIRGKFQQIADKIHKKMDEIIDINGHERRRIDANHKQDADRKKDFVDLLLETTSHDGKGTLDHETVRGDMLFAGAETQSSTLEWAMAFLIRNPGVMKQVQAELDGVVGTERVVQESDLEKLPYLEAVVKEVMRVKPGAPIGINHESREPRQVAGHYLPAKTRLIFNIHAIHRDPSVYDRPDEFDPTRFLSPGKGNVPTGQELFQLMPYGAGRRICPGMPLAIVNIPHVLAHLVHSFDWSLPAGQDHRELDMTEKFDGVTSPRLHPLHLIPHPRKPAFLYK |
| CYP758C1 | MMDSASYSAPFAALWDTFGRGTVVAVLVVVVVGELLLYARFQAQRRSTLPPGPRPWPILGNFFVFSDVNHAHHDLRRLAAKFGPLMYLQLGSVPCVVVSTAEAAKELFRGHNDECLISRPKMLGLEILSDNYQLMAYAPAPGKLWHSLRKFGSMELFSFKRVAFYRSLREEELRHWIKFVLESREGEAMNLKSCVFELAANMMTRMLVNKRMFDITGADTQQQLLRSEFESFMEEHYKCLMPNVISDFLPFLRFFCEKLQGWRAYIQDHQEKSVEFWTRIIEVEKHRQRAAERQNDGSYVPDLVDFMSTAPLDDGKVLSDRNITLQILDFFLGGTDTTPLTLEWAMAELVTHPNFMKRAQEELDRVVGLERLVEETDFPNLPFLQAIVKETYRLHPVGPLGGPRESTEPVEALGYKIPAKTRVILNIFAIHRDPAVYERPDEFDPTRFLDRPLAAFDSYELMPFGVGRRMCPAFNLGNTTVHLILANLIHNFDWALADGQNIDTFDMTERLHGVTFSLKYALSLIPTARSGILARAL |
| CYP758D1 | MGFVEMTQNWRLWLQEGSNVSVYGTVLFVMFTTSCILHVLSAIERRKKLPPGPWPWPFIGNLGVVLRKTGARHKFLQALGAKYGGLMYLGLGQIPCLVVSSVRVVESMFKSHDATFSDRLQTYFRKVQYGDSAMRSLSSAGYGSYWRQVRRMCNTELFSPGTHASQEGVRREEIQNMLDVLVHECKRRKPIDLGDWLFGVSTNNMTRMLINKRYYGTGAEIPEKKEEFQGMVKSRTRAAGTFVISDFIPSLTFIAKLQGLPKRFRESHESAKAQMESVLDVEEHRKNAIARASVDIKSEYSPDFVDVLLKAPLDDGQPLADSDIKFLLTDLMIAGTETTGITVEWAMVELMLRPELRKQAQEEIDAVVGADPERFVQESDIQKLPFLVAILKETFRVHPVAPLNVMRSSYEPCEFAGYYLPAQTRLIVNQYAIHRDPSVYENPDKFEPRRFMENPEVNPLSGRDSYQLIPFGVGRRMCPASNLAFTMALLMLANLLHTFDWSFPDGVTADNFDVSEEFLGTVLRKKTPTILMAKPRSHVQ |
| CYP758E1 | MASAHSHTRRWWSQEAHGIRVSGEGTIATLLISSLVIYVTVVYQRRKKLPPGPWPWPVVGNLAVLAGLPHRNLQNLAAKYGGLMYLQLGQVPCLVVSTAAAAKELFRTHDVIFSYRPKRLDHEIISGKSYKSLTSAPYGPYWRQIRRICNTELFSPAIHASHVSVRSEEIHSMMKVLLAESRTEKAIDLKSWLTGVTANNMTRMLINKRFFGTGVSDQQEKKDFEEIFDHIFAAAGTFFISDFIPKLRFVEMLQGKIAKLTAFRKFLHSVIGKIFEVEKHRQRALERGNDPIYVPDFVDVLLNTPLDNGERLTDREIISILSSMIGAGTDTTATTVVWAMSELMVNPKIRKQAQEELDAVVGDSRLVEESDIPNLPFLRTIVKETFRLHAPVPLSLPRCSEQPCEVAGSQFPANTRLILNVFAIHRDPIVYENPDSFQPSRFVDHPEVDHMSGKDFYGLIPFGAGRRMCPGYHLGNVMVSLMLAHLLHSFDWRLPAGVTEENLDMSETYKLVGLRKKPLFLIAKPRSPAYLY |
| CYP758F1 | MAEGGLLFGFALADVLVAAVLISVVVLYFHAETLQRRRCPPGPWPWPVVGNFSALGDLPHRNLAGKYGGLMYLRLGAKPCLVISTAAVAKEFYTTVDASFASRPKRFSWTVWNNNDENYRNIGLAEYGPYYRKLRRLLNTELFSPRRHASHEVTRAQEIQCMMKVLLEESEKGNPVNLQTWLHGTTSNNMTRMVVGKRFYGVRVDDSEKERQDLQKMTSSVFELLGSVDLSDFVPYLSFITKLQGHASKFSKIRDVSDKLTADFFDLDSHRNNYKKMKNDPSYVPDFEDVLMETPFENGTNLPDQDLLKLLQELLNAGTETSSNTSEWAMAELIRRPELIERAQTEMDSVIGSKRLVEESDIQQLPFLQAVMKENFRLHPPAPLLLPHESREPTELLGYHFPAGTELLVNAFAIHRDPSVYDNPDSFDPDRFLARPHVDHMSTSDPYELMPFGKGLRMCPGYRLANTMVALMLANLLYVFDWSLPEGQTEVDMTETIGISVRKKQPLFLVPKPRFELSLESVAEN |
| CYP758G1 | MGALDHSNDMWLQILLALTLVSVVLTWILQCSSSAQKVHPPGPTPWPVIGNLFLFFRAPLPHRMLHNLAEKYGDLMYLRLGFTPCIVVSSPALADYIHKNHDTEFSSRPDGLITGILNGDSQSVSMAKHGDLWKTLRSICWQILRPANIARYETRRMEEINIMLQSIQIAAEAGETVDLSSMLYKLSSNSMTQMLINRRYFTAGGNEENLREAVIFKKMISERLKIASQFAIGDYIPYLRFIDYLFRYNAKAQEIQSMTMRVCDEIMNLEERRRRLTREENGDAQAVREEDFVDDLLSIQAEYTADNSRKIKLTDHQIKLLVQDMLVAGTETSATTVDWAMAELLCHPKVLQQLRSEIVTVVGSRSAVTEQDTKQMPYLNAVVMETLRLHPAAPLNLPRESKGACLFLGRYQLPAKTRVIFNTHSIHRSLEAYDSPNAFKPERFLGVPQANVSGSSFFQLSPFGFGKRVCPGQALGTISVCAALANLVHRFAWSLPCGLPPSHLDMIESFGLTAPRRCPLILLPTPRLKV |
| CYP759A1 | MEFNQLVSVAAVVVVLGASLVFLRLFTKKKLNLPPSPKGRMPIIGHLHLMDDNEAAHRTFARISEQNGPLTMIYMGNKPTLLVSTAAMAEQVLKHNDQAFASRPFITAGKTLGFDFKSIVFAPFGNYYRRLRRIYTVELLSPKRVALSQVLRQHEIKHVINSVLAENQAEGRVNMTSILQEMGIDNLVRMIFAKPHMGATECLTKEEMATLKSVVKEAVNLAGVIYVGDFIPLLDIYDFTGYKKKTNKLAAKMLDIATQLIEKHKSDAGTGVDNDKLNLVDILLSQKGEDQLPPHAMAGILFDFIIAGSDTTSVSIEWAIAELLHYPHYLKRAQEEIDQVVGKERLVTEQDIKHMPFLQAVVKELFRLHPAAPLGIPHCNMEETKLAGYDIPAKNTVMMNLWAIGRDPAHWDDALEFKPERFLNKDITLLGRDFHLIPFSVGRRQCPGAGLGLAVVQLAVASLLHGFEWSTYNQKPEEIDMREKPGLVTPRKSDLIVTAVPRLPLHVYQGDKNGVQNGH |
| CYP75A14 | MVSLNLNEFMLWFLSWLALYIGFRYVLRSNLKLKKRRLPPGPSGWPVVGSLPLLGAMPHVTLYNMYKKYGPVVYLKLGTSDMVVASTPAAAKAFLKTLDINFSNRPGNAGATYIAYDSQDMVWAAYGGRWKMERKVCNMHMLGGKALEDWQPVRDAEMGFMLRNILSHSQRGETVNVPDLLNICAANMIGQIILSKRVFETEGDEANEFKDMVVELMTCAGYFNIGDFIPSVAWMDLQGIQRGMKKLHKKWDALIQRMIDEHQSTAKQRASKPDFLDVVMSQRDNCDGQGGRLSDVHIKALLLNLFTAGTDTSSSVIEWTLAELMNNPKLLKRVHEEMDAVIGRERRLKESDLANLPYFVAVCKEGFRKHPSTPLSLPRVSTEACEVDGYYIPKNTRLMVNIWGIGRDPEVWEKPEEFNPDRFVGSKIDPRGNDFELIPFGAGRRICAGTRMGITMVEYNLGSLIHAFDWDVPPNQEGLNMDEAFGLALQKAVPLVAKVSPRLPLHLY |
| CYP75A17 | MDSLLLLKEIATSILIFLITRLSIQTFLKSYRQKLPPGPKGWPVVGALPLMGSMPHVTLAKMAKKYGPIMYLKMGTNNMVVASTPAAARAFLKTLDQNFSNRPSNAGATHLAYDARDMVFAHYGSRWKLLRKLSNLHMLGGKALDDWAQIRDEEMGHMLGAMYDCNKRDEAVVVAEMLIFMANMIGQVILSRRVFETKGSESNEFKDMVVELMTVAGYFNIGDFIPFLAKLDLQGIERGMKKLHKKFDALLTSMIEEHVASSHKRKGKPDFLDMVMAHHSENSDGEELSLTNIKALLLNLFTAGTDTSSSIIEWSLAEMLKKPSIMKKAHEEMDQVIGRDRRLKESDIPKLPYFQAICKETYRKHPSTPLNLPRISSEPCQVNGYYIPENTRLNVNIWAIGRDPDVWNNPLEFMPERFLSGKNAKIDPRGNDFELIPFGAGRRICAGTRMGIVLVHYILGTLVHSFDWKLPNGVRELDMEESFGLALQKKVPLAALVTPRLNPSAYIS |
| CYP75B1 | MATLFLTILLATVLFLILRIFSHRRNRSHNNRLPPGPNPWPIIGNLPHMGTKPHRTLSAMVTTYGPILHLRLGFVDVVVAASKSVAEQFLKIHDANFASRPPNSGAKHMAYNYQDLVFAPYGHRWRLLRKISSVHLFSAKALEDFKHVRQEEVGTLTRELVRVGTKPVNLGQLVNMCVVNALGREMIGRRLFGADADHKADEFRSMVTEMMALAGVFNIGDFVPSLDWLDLQGVAGKMKRLHKRFDAFLSSILKEHEMNGQDQKHTDMLSTLISLKGTDLDGDGGSLTDTEIKALLLNMFTAGTDTSASTVDWAIAELIRHPDIMVKAQEELDIVVGRDRPVNESDIAQLPYLQAVIKENFRLHPPTPLSLPHIASESCEINGYHIPKGSTLLTNIWAIARDPDQWSDPLAFKPERFLPGGEKSGVDVKGSDFELIPFGAGRRICAGLSLGLRTIQFLTATLVQGFDWELAGGVTPEKLNMEESYGLTLQRAVPLVVHPKPRLAPNVYGLGSG |
| CYP75B1 | MATLFLTILLATVLFLILRIFSHRRNRSHNNRLPPGPNPWPIIGNLPHMGTKPHRTLSAMVTTYGPILHLRLGFVDVVVAASKSVAEQFLKIHDANFASRPPNSGAKHMAYNYQDLVFAPYGHRWRLLRKISSVHLFSAKALEDFKHVRQEEVGTLTRELVRVGTKPVNLGQLVNMCVVNALGREMIGRRLFGADADHKADEFRSMVTEMMALAGVFNIGDFVPSLDWLDLQGVAGKMKRLHKRFDAFLSSILKEHEMNGQDQKHTDMLSTLISLKGTDLDGDGGSLTDTEIKALLLNMFTAGTDTSASTVDWAIAELIRHPDIMVKAQEELDIVVGRDRPVNESDIAQLPYLQAVIKENFRLHPPTPLSLPHIASESCEINGYHIPKGSTLLTNIWAIARDPDQWSDPLAFKPERFLPGGEKSGVDVKGSDFELIPFGAGRRICAGLSLGLRTIQFLTATLVQGFDWELAGGVTPEKLNMEESYGLTLQRAVPLVVHPKPRLAPNVYGLGSG |
| CYP75B3 | MDVVPLPLLLGSLAVSAAVWYLVYFLRGGSGGDAARKRRPLPPGPRGWPVLGNLPQLGDKPHHTMCALARQYGPLFRLRFGCAEVVVAASAPVAAQFLRGHDANFSNRPPNSGAEHVAYNYQDLVFAPYGARWRALRKLCALHLFSAKALDDLRAVREGEVALMVRNLARQQAASVALGQEANVCATNTLARATIGHRVFAVDGGEGAREFKEMVVELMQLAGVFNVGDFVPALRWLDPQGVVAKMKRLHRRYDNMMNGFINERKAGAQPDGVAAGEHGNDLLSVLLARMQEEQKLDGDGEKITETDIKALLLNLFTAGTDTTSSTVEWALAELIRHPDVLKEAQHELDTVVGRGRLVSESDLPRLPYLTAVIKETFRLHPSTPLSLPREAAEECEVDGYRIPKGATLLVNVWAIARDPTQWPDPLQYQPSRFLPGRMHADVDVKGADFGLIPFGAGRRICAGLSWGLRMVTLMTATLVHGFDWTLANGATPDKLNMEEAYGLTLQRAVPLMVQPVPRLLPSAYGV |
| CYP76 | MDYLTIILTLLFALTLYEAFSYLSRRTKNLPPGPSPLPFIGSLHLLGDQPHKSLAKLSKKHGPIMSLKLGQITTIVISSSTMAKEVLQKQDLAFSSRSVPNALHAHNQFKFSVVWLPVASRWRSLRKVLNSNIFSGNRLDANQHLRTRKVQELIAYCRKNSQSGEAVDVGRAAFRTSLNLLSNLIFSKDLTDPYSDSAKEFKDLVWNIMVEAGKPNLVDFFPLLEKVDPQGIRHRMTIHFGEVLKLFGGLVNERLEQRRSKGEKNDVLDVLLTTSQESPEEIDRTHIERMCLDLFVAGTDTTSSTLEWAMSEMLKNPDKMKKTQDELAQVIGRGKTIEESDINRLPYLRCVMKETLRIHPPVPFLIPRKVEQSVEVCGYNVPKGSQVLVNAWAIGRDETVWDDALAFKPERFMESELDIRGRDFELIPFGAGRRICPGLPLALRTVPLMLGSLLNSFNWKLEGGMAPKDLDMEEKFGITLQKAHPLRAVPSTL |
| CYP760A1 | MEDNRMGDGQVEEYSSRVMHLSALTLCAAMAVILLRRVMXSWNADKTLPPGPKGWPIVGSLYSLGPRTIPACRRFTTLADKYGPVMFFRLGSRPTVIVSNDKMARELLRVHDQTFASRPKLATGKHFGYNYSSVVFSPSGAHFVRMKKIYTHELLSPKKVELLSALRMEEAHILLVDVLRNSGTEANGVVNITSLVFKANLNLMGRIVFSKRLFGESATISAPPREVENFKFFVKSATKLVGLFNIGDYIPALRWLDLQGVEGALLQLKPHQEGLLRPIIQEYRKMSLNLEGGMKQKEDGRVDFIAALVSNDSGLSDENIMAVAIDVMVGGSDSTSTAVEWSITELLRHPDCLQAAQEELDSVVGRDRLVEEADCANLPFLNCIVKETLRLHPPSPLAIPHFSAEECTLGGYRIPANTTAYVNIYAIGRDAATWENPNRFNPTRFKDSKVNVYGHDFNLLPFSSGRRGCPGVHFALPTYKLELANLLHCFKWSPPPGVDFKDIDTKEAVGVVCSRLNPLMASVTPRIPRHVILAK |
| CYP761A1 | MVPAGYGGVSEFPFLKFAVAVLGVYFVAVLIRGASRKLPPGPVGFPIIGSVHLLGPRSHVSLAQLARKYGAPLMSLYLGQKLFVVASSAEAAMEVLKKQDAVFCSRPPLRGFKVIFPHDVTFADLTPESNYLRKFIRLHLTTARSIEAFQHIRVDEMLQMVRSIVASPRDVVVNLRTSLEVMTANVLTRSIIGKRFMGRTGLSESEKKEIMEFIHIAAEIGECLGAKNPGDLIPALKLVDWNGLDQRMKNLRRKMATFLANIVRERREKSSLGTSNPPGKEMLGVLLDEMENAAAGEKITEDILNTIIWESFTAGMETTVLATDWTLAEVLRNPEVLQKCQAELDAVVGRNRRAQESDIPDLHYIKAVVKESFRLHPVIPLLIPHYSHDPIKVLGYDIPAHTQLLINVWAIGRDPKVWADPLKFHPERFLEGPHRETEMFGKSFNLLPFGSGRRACMGITLGTLLVEASVVVLLHSFDWILPAEGIDMTEGQGLSVRKNVPACAFATPRLPPHVYAE |
| CYP761B1 | MPFSGGQGTFMFQGSAIAVVAIFLLARFITTPKNIPPGPFAWPIIGSLHLIGPYPHRSLAKLAEKYGSLMSVWFGQRLIIFATSPETALEFVKTQDANFCSRPKQQAPSVLLPHDLTFSDVTSHSKLLRKIFQQQFTTSKKMEATQQLRANEFAHMLRTIPHDTTVNVKFHLEVLAGNIFSQLVMSRRLLQPSSIEDTTTDSTEKLKDLMKITADLDRIIGTFNPGDFIPAVKRFDLAGIGCKFKQFRNRMDSFVEKIIQERLEERKSSRAPKELREKDYLDALLDEADQQKEIDLNVVKTMIWEIFAAGMETNIASSEWAMAELVNAPHTMKKAQAELDAVVGRDRMVKESDLPNLPYIKAIAKESLRLHPPVPFLAHQCIKSCKAFGYDIKSGTSVFVNVYGLGRLESIYPDPNTFNPDRFLPGGSNVGLDYQGQNFELLPFGSGRRICAGMPVASLMVQTAVATXLHAFTWIAPKDHELMEGLGAASLSKAVPLKAHATPRLPSHVYSL |
| CYP761C1 | MAAFAVPTLKNVYYVATVLVVILLVRRLLTWPHQPPGPPGLPLVGHMHFLGANPHISLWKLADKYGPLMSLRLGNKPYVVATSPETAKEFLKTLDANFGSRHYSSQSQYLLYGGQDVAFQESSPSWRNLKKIFTMELASPARLEASRHIREEEMIVLLRTIHSKGELELKSQLIDMISHVISRMVINKRFDDSVESDFPTLVQTHFRLAGAFVPGDYIPAVKWLDLGGFEAQMKKQKERMDAFIDDILVQHRERRAKGPVPMKEYDMVHVLLDRIETKDDQIQLTDTHVKALVLDAFLGASETIILTSEWAMAELLRHPSLMAKAQAELDAVVGRDRMVTESDLRHLTYLNTIIKETFRLHPAAALLLPRESAQPSQAFGYNFPAKTRVLINCYAIHRDPAIWHDPLVFNPDRFLQADLKDVDVKGRHFQLLPFGAGRRVCPGLSMGILTVQFILASLLHSFDWSLPGDMKPEDVDMTEIYGLTLPRAAPLPCAAKLRLPSHLLTTAQKP |
| CYP761D1 | MASSSLDFPTFFIIGATVFAIFIFKKFLTKHSNLPPGPIALPVIGSMHLLGTSPHHNLQKLSTKYGPLMSIRLGQAQCVVASSTETAMEFLKNQDSNFTSRPALRVGEAVFYGQDLVFQNSTPLWRHLKKIFQVEFTSTKRLDTTRHVREEEIAHLTSTLPHNCEVNLRIHLKSMIGNIISRMAVGQRLCAKPEECESEEQLREVASLREVMDNVAFCIGAVNLADYIPALKWLDLQGLERRFKKTFQIMNSVSGEIIAKHQERRKLSNPTDKQKDLIDVLLDDMEKPQDGSPRVTMDSIKAVTWNAFAGATDAIAMSLEWAMSEILLHPHVQAKAHAELDVVVGKNRRVEESDIQNLSYIGAIIKETLRLHPVAPMLAPHAALNPCKAFGFDIPGGTWVIINAWAIARDPAVWKDPTEFNPDRFMQDDPNALNPRVFEMLPFGAGKRMCPGVAMANVTMQRAIAKLLHEFWGLTSELDMSEGTMSIVVPRAVPLHAVAKPRLSSEFYT |
| CYP761E1 | MDFAKSTVARISFEGLKPEDGLSNQRVEIIVFLAAMFILPFVLLKLMRRPKLKLPPSPPAYPIIGHLHLLGKLPHHSIANIAKTYGEIYSLRLGSVPAIVVTTPEMAKEFLLTHDKIWASRTVRDVSGYYLSYNHTGIAFAPFTPVWRNLRKICTSELFTQKRMEASQGVRDVEMQCMIRSILNDANQRRLIDLKLEVNALTANVVTRMVLNKRFMRCVDSTAEEESRAQQFKEIMKDHFTLQGIFMIGDYIPWLRPLDLGGKEKRMKALRKRLDAFLNEILDDHEVKRAKGPIAEEDQDMIDVLLNEMHQQDPNEPHKMDLNNIKSTILNMFAGGTDTATITIEWAMSELLRNPPIMAKLKAELDALIGQDRRVRETDVPNLPYLQAITKETFRLHPAGPLLVPHESTHDCEVAGYRIPAGTRLFVNIYAIGRSSKAWDRPLEFDPERFMTGPDASVDTKGKHYRLLPFGTGRRGCPGMSLGLLLVQFTLAALVHALDWSLPPGMDPEDVDMTEACGLKVPREHALSLNAKPRAAAQFY |
| CYP761F1 | METSQLSDYWAGSQLLGNSSFGPGVRVDSVSGSQYFVVEFFLSAIVFTVFNLVFQRLHEPSLIPPRLSAWNFLCQTHVLRRNPTVVLHNLVKRYGPVTHVKLWSQDLLVLSSVXAVEEFYKLHDMEFGDRPSSMNRVTLSNSINSSCFPPLATYWKHLRFVLVSASTIPSFSSSFAFFRMEWALEALHHHPSIVAQVSEEVERSLGSRSHIEDSDLAKLPYLQAVVKELFRLYPPCAFSFPHESFDEYCHIFGYEVSPRTQVLINIYTIQRDPAVWTNPNEFNPTRFITHPGIDMHGQHYQLLPFGGGRQCPATKLAIRYVQSGLARYFHDARSSHMIPHSTCLEDDL |
| CYP762A1 | MATVSLQEPGLVVGLFLGAPLLLFLYILYYAISLHTTSVEGVRVPRGNFWLLPLLGESISALTVPPKQFIDRQTRKYGAMFTTHIGGDPMIMTTDVDLTRWVYQQTNRLFSVLSPKATYELLGHESIFYAKGDHHLRLRKVFAGYLSTQKLVPFTPRIDKMAASIMESWKRKERVIVFDEAKMYAIHLALAQLISIDTQEYPCMDHIFAHVPGENRLEKLVYLHYDIESGMMSVPLNIPGTAYHKANKAKILFRKALKVIINERRTGDVKCNDLLEGLLSPLEDGTLLDDEQVMDNVITGVGAAEVTTTTALVWMVKWIQENPELHRELQNEMDAIKKTKANGEELTYDDIKKMNLTLWTMYETLRLRKVTGFFIARTADQDVRYKDVVIPKNWVVAMTHGYHLDPNYYPEPEKFNPYRFQTMPPAHTFTPFGASVRLCPGKEMAKIEILTFMYHMLTSFSWEPAEPEGETIWHLFPHPRNKLPIKVTPRT |
| CYP763A1 | MAELGVSEMERMNTFGIGADAQRGLGAGMTLPLLFLATVVWWIWQRHKANLESGLPGTFGLPFIGETLTYVAKMKSPLGNFVDEKTKRYNGAQAFKSSLFFQPTVIATEVETVKMIVAKEGRSFVSNYPSSFALLLGRFNGLNMNGENWKRLRKFVISHIMRVDLLKERMADIEDLVVRTLDSWADDEGRTIYVEDETKTIAFNITALIVLNLKPGKVSQTMQRDYYPLIEGMFSLPINLPWTIYGKATQARVRILKTLEEFLQSRTVKDDVFDNYVQLLQEELPPGSPPALKHEMGLDLLTSLLFAGHDTTAATMVFSVKYIGENPKVLAELRREHEELLKRKQPGERISWDDCKTLSFSNSIITETLRMCNISTTVFRKSLEDVHVGDYVIPKGWLVLPYFRAVHFNPSIYPDPYTFNPFRYQDAAGSKLPFFGFGGGARLCPGMDLARAELCLFLHHLVMKFESWELLGNDVVSYFPFPRLSARLPIRVKRRTPPQQPST |
| CYP763B1 | MDGRLFLQGLETVAFVCVSVLLISQLWPKNEERAKINTRLPRGSYGLPLVGETLKYMASMMTSAPAFMAEHRQKYGEMFKSKLMGAFCIITTKADTIKWVLNHEGKQFVTGYPKSFRKVLGEYAALSLHGDQWKSTRRFLVNSLRVELLRERIPTIEQAVLENLNPWAAKESVSIREETKTLAFNVVAQYLLGSRLKSGPVNDSLRNDFYTLTEGLFALPINLPGTQYRKGLEARARIIETLERDVVSHARPVGDEDQYADYMDYMRKENLPGTTEELLLEKTRCHVLGMLFAGHETAASAMLFAVKYIMDNPRVLNELRAEHENIRISKFEGGSLTWDDYKNMRFTQSVITETLRLANPVALLWREATEDVQLNGYVIPKGWKTVCAIREAHHDPALFDRPSEFNPWRHEQEVMNPAKKLPLLGFGGGPRYCPGAELARAEICIFLHHLVTKFDLKSCGEETVSFFPVPKFSNGLQVQVQERDLSTRISHKIRVH |
| CYP765A1 | MPLAVAILYAANKLALAPALLHTMTIITILTWILGGALTLGLGFIVKEWLWNPLMLIELCKRQGIKGFPFVPFVGQMPAIDEVLSGRNRRVQKQDNDEVEDEDRLTAVTNCYRNHGSTFYFTVGRTVRLSIADPPLIKDILIANSESYSKPLHIRKLGVLGDGIFASSGSTWSPQRSLFTGAFHTKEVKSKIPTMIDCAHSAVEKWSRELNDGYSELDMYQKFAELTLDVIGKTAFGTEEIGGASEAASVIGSFNRYLLYCRELVFGPPATFPTSLKWLRTYMGRIISARRNSHHSGAAETVSDRHDLLDVIIGAVDNIGHSEEGAKKALNEAPDQTISEKRKRAAEMTRLTEKRLLDNALTVLLAGHETTASLLTWTIYLLAEHPLWQKRARAEVEEFCPGGVVEPQVLSHLKLLGMILLESLRLFPPVPLIGRMCIKDNKVGPDLLIPEGLEIVIPVAVLHRDRTIWGDNADEFAPARFGNGISGACGNPLAFLPFGAGPRTCIGQTLALSEAKAVLAVMLPLFSWKLSTSYRHSPDVTLTMMPEFGMPVVLEKIEK |
| CYP766A1 | MMVEYSQSWTALAVVELSVVAITAVFVPLWNVCSTFLLEPLRLRRVMGKQDVRLAPFNLVFGNAFEIGAHAQSFPETLPLKFDDLEPTATPQFDLYFSKYGKRFLYHVGSETRLVVRDPEMAKEVLFNRMGWYERSPLDLHIFSQVIGKGMFVVKGEEWEMQRRMLNPCFSNESLKPMVERMVKSAAQEMRNWEEMAAQAGGRVEHDVEHDIHIIAYNIISYTAFNEGFDKGKQIYLMIYLMQDEIMGHLFAAGNPSFWIPGLRVLAGLLPTKHATAIAQLNGRTEKLIMELVKDRREAVQKGERDSYGDDLLGRMLTATERTDGSSHKFILDAVINNCKNFFFAGSDSAANLTTFSLLMLANYPEWQDRARKEVLEVFGDNDPCEMNDISRLKIVGMISQEIARIFAVSPSIARLAVKDCELGDLLIPKGLVIEIATLAMHRDPELWGKDVAEFRPERFANGASAACTHHQAFLPFGAGPRSCIAEKISWLEVKVVLCMILRRFRILPSPKYKHHPHFAMVNRPKYGLPLILEILPQSRSDSIMAEI |
| CYP766B1 | METVPVNVRNALAVVVASVIVYSVIKFLRVSVWQPLRLRRIMAKQGVSGPPFRFVRGQFVEMWKFTESFPDALPIDDFANLTPTVTPQNALYYPKYGKIYLYWWGTITRLAVRDPKIVKELMVSNHESLTRLQSESQFLAEVVGKGLLTQVGEKWASERRTLGPFFHQKSLEGMVGAIMEGAATELQKWEQEVEERGGTAELDVEPDLHKISGRIISRTAFGDEFEIGEQIFKFQTLLSQELLKGFRSTAYWLVPGYRNLPTKRNRSMNLYGSQVDALVRGIINARREAVQKGVTSSYGDDLLGRMLTAATEGWSANTKEFNQLAVFNICKFFYFAGQDTVANAIGFMILMLALYPEWQDRCRQEVTEILGDEQDWRASDISRLKVVGMVFNETLRIFPPASTLTRVAAKDLQLEGLFIPKGMAIEFSLAAMHQDKDYWGDDVGKFNPERFVNGAASACTHPQAFSPFGLGPKFCIGNNFAVMEAKIVLAMMLRRFQLVLSPNYKHHPTSIMVQSPKFGLPIILKALKIT |
| CYP766C1 | MVFTQWVRFAALAIPEDVRNALGVVLLAFVASAIVRVVFSLVKTYLYDPLSIGRIMAKQGIEGPPFHPIFGTTAELNAYVKSVPESLPLDEDHDSMRTVSPHFHMYFPKFGKRFLYWRGPHAKLVSKDPGLAKEVLLSQYEFFQRHPQDIKMLSNFVGMGLDNLTGEKWAIERRTLNPFFYHDPLKGMVEGMVKGAEPVLKSWEEEVARAGGTAEFNLEEDLHTISGNIIAHTAFGTDHEKAKEIYQTQREYVNLLFQNLHSGWYWIPGFTYLPTQTNVTMARLRSTIDSSLHELITERRKAAERGDTASYGNDLLGIMLAAASNSTDETATEFNLASVFNNAKLFFFAGQDTVATVLTFTLLQLARYPEWQDRARQEVLEEVGETEAYDSTTLNRLKIVGMIVNETMRLFPAVISVSKVATKDMQINELFIPKGLTVEIPIVSYNQDPEIWGDDAHKFKPDRFEHGVSKACKHPRAFLPFSMGPKMCIGKEFALMELKLVVAMVLRRFLSVSPHYKHHPYSSLLTRPKYGMKLIFSSRQASKLEH |
| CYP767A1 | MYSGRWWELPRDLSDLARRSRRHAAAHLAIGASAAKRNGQPKYDLDLIPGPWTHALPFIGNLLQFLRPDFHRVCLRWADKYGGIVRIKFLWHDGLLVTDPPALAAICGRGEGAVDKAANIYSPINQMCTPHAYPNLLTSLADDRWRAVRKAIALSFAFGNIRKKFPLIRDRTGELLEWLRGVGPLESVDVDQAALRVTLDVIGLSAFGHDYGCTRLQQVPYNHLLRVLPRAFTEVMRRIANPFRSFAPGLVKNGKKGLTSFKDFQRHMQELLGEIKARGPPARGDADIGAQLYRVLEAARPAITDERILSEIGILFVEGFETTGHTISWTLFNIATTPGTQEAVAEELSSLGLLVRPKSEGGRSAARQLELDDLKRLRYLTACVKESMRMYPVVSIMGRTTDKPTRVGPYVVPSGTPVATALFAIHNTIHNWRDPMTFKPERWLGECSLGVLGSFMPFSEGPRSCVGQSLAKLEVMTVLAMLLANFRIELSDEMGGREGVRQRESTHLTLQTRGTRGIRMHLHPRDQE |
| CYP768A1 | MWDTLRFYYSTHGPLGAWTPAIVLLLNILGIALALAVTKFIGLYFAPSYDLRKIPTPPVGDAILGHVKFLLRPDYHRVILAWTRKYGKIFRLRILTQWTVVITDPAAAAQVLAVVPGRTHNYTLVDEGLGGPGKISMFGTRDEAHWRNVRKATAPAFSMANVPDARALPGFDLLVPRILLLMAEANRQIVDPLWALWYRTPLAPLLSKHVSECRAAVREVRAFHTATAARLLDRPDPPSDNTLLWACLHRLRHHITGARLTPTQLHPEVGMYTTAGFDTTASTLGWCLYAAALHPDQQQKVADELQQACVFGNGAVVEDLVKLPYLTAFVNEAMRLYPTTAVAAERVSPDRPVAVGPFTLPPGVVLWPLVYGIHMSDANWDEPEAFRMERWLEDPRCAFARGERGPGASGAPRRFLPFADGPKNCVGQNFGLVVVRAVLALLLSRYRVALHGDMGLERVAVVTKLSKLRLVMTPRD |
| CYP769A1 | MSIDARLDRRLNYRCNLRGRVSRRALQDVHLSTRWTKTAPPPGVPLLGHSLTLRAWPSWTWWWFRSGGPRGDQLLLRALLRWSEQYDGAFQLRNGWLVLHPNAVPSSATATSSAQWRLLRRSLLHAFSDSELQLDFEGPGAVVDVNDAALRLSLDVMGLSKLGYDFQVGMAVAVESQGEVLMLRLLGEVAAEWAVRRRRLLGRWAPWISDGAAEGQTRCRILHHFIEQLLLAHGPTGHSIAWALGCLAARRGVQEKLVAELKKEGIFNDPLRLTYDMLSKLPYLDCVVREVLRLYPTMPCPATVRTLKKDVALHGRTLTAASDVWVDVFSMHRSPKWWRDPHHFKPERWTASPPPLAPLCSPEAFMPFSFGSRSCLGQKLAVAQIKAALAMLLCFLVFEPSVAPWGLGLFLRPEGGMQLLVAPRKKNS |
| CYP76A3 | MVLSESNFLLCLISISIASVFFFLLKKTSRSYKLPPGPSGLPIVGNMFDLGDLPHIKMEGMRNQYGPVMWLKIGAINTLVIQSAQAATAFFKNHDANFLERVVVEVNRVCNYLQGSLALAPYGNYWRMLRRICSMELFVHSRINNSESIRRKSVDKMIQWIETHGKKEQGQGIEITRFVFLASFNMLGNLIMSKELAADPDSTTASEFFDAMMGQVEWSGTPNISDVFPLLRWLDIQGLRRKMKRDMGKGKEILSTFIKERIKEQENGRAKGTDFLDVLLAFEGKGKDEPAKLSEHEINIFILEMFLAGTETSSSTTEWALTELLRNPETMARVKAEIAEVVGPNKKFEESDIDKVPYMQAVVKETFRLHPPLPFLLPRKATQDTKFMGYDVPKGTQIFINAWAIGRDPECWHDPLDFIPERFIGSKIDFKGLNYELIPFGAGRRMCVGVPLGHRMVHFVLGTLLHEFNWELPHNMSSKSIDMTERLGTTVRKLEPLKVIPNKCKLS |
| CYP76A4 | MVLDWCYFAWFSIFLVPFFFLVLSRKKSCSHRLPPGPPGWPIFGNLFDLGTLPHQTIAGMKLRYGPVVLLRIGSVKTIAILSAKVATEFFKNHDACFADRKIIDTMLVHNYNKSSLVLAPYGTYWRVLRRICTVEMFTNKRINETAHLRQKCIDSMLQWIDKEAKSMKKGSGIEVARFIFLASFNMMGNLMLSRDLVDPESKKASEFFTAMEGLMEWSGQPNISDIFPCLRWLDIQGLRQKAGRDMGKAIEVASTFVKERLKEHKEGEYKKDFLEVLLEFEGSGKDEPAKLSEHQINIFILEMFIAGSETSSSSVEWALAELLCNPEAMTRVKAEINEVVGSNRKFEESDIDNLHYMQAVVKETLRLHPPAPLLVPRRAIQDTSFMGYDISEDTQVFVNAWAIGRDPECWEDPWAFKPERFLNLSSKTTDFKGQNFEFIPFGAGRRMCAGLPLGNRMSHLLLGSLLHAFDWELPSNVTPKSMDMKERMGMTVRKLQPLQVVPIKNEHILY |
| CYP76AA1 | MAMPACSSWKFLLYSTVFEIILLSFLLIILRDKKKRGKLPPGPPGWPIVGNLFQLGKKPNESLLQLAKKYGPLMSLRLGMKTAIVVSSPAMAREVFKNHDHLFAGRTVIQAAKCASHDKSSLVWSQYGPRWRMLRKICNTELFGVRRLNALQHLRRDQIFQTIRSIYEENYLKRNTVNVGHTAFLTSLNVLGNMIFTQNIFGRDSQAAEELKQTISKVMEISGTPNLADYFPFLQIGDPQGITRAKTLYLKRVYALLDKFVEDRLSSTSTPQNGSSAEKDFLDVLIDCYRNADDGEGAGISRTDITPLIYDLIVAGSETTSTTIEWGLAEVIRNLQAMKRTQAELDDVVGRDRQVEESDIGHLPYLSAVVKEVFRLHPPAPLLLPHRADSCCEIAGFFIPKDAQVIVNVWGMGRDPSTWNDPMEFVPERFTESEVDFKGNNMELIPFGAGRRICPGLPLANRMLHFLLAALLHSFDWSLPDGHNSQQMEMTGKFGLTLQKASPLMAVPSPRLPANLY |
| CYP76AB1 | MEELTQYLLWSIFFFIAIAMLLRRRSSRNLALPPGPRPLPVLGNLLELGQNPHRSLALLARIHGPVMYLKLGSITQSSSPLQPPQKKSLKQKITPPPPDKSQILSQAVGHHQVSVIWLSPNQSWRYLRTLMKANLFNAKSLNATELLRRRKVRELIAYIKGKNGEAVHVARAAFCTVLNLISTTFLSIDMVDIFQSESAQELKDLMSGIMEEVGRPNVSDFFPFLAPIDLQGCRRRFAAYIKKLSDFFDEVIENRLAGGGGRNKHDILNALLQLSREENSKLSRNTIISFLIDSFAAGSETSSATLEWAMVELLRSPEQMATAREEIATVIGLEREVEESDMSRLPFLQAVLKETLRLHPPGPLLVPHKTEESTEINGYAVPKNSQFLVNVWAIGRDERLWENPDCFMPERFVAGGEIDFRGHHFELLPFGSGRRICPGMPLGVRMVQLMLASLLQSFEWGLPDGMKPEDLDLTEKHGLSTVLAAPLKAIATPTKHN |
| CYP76AC2 | AAIHTTALTTEWGIAELLKHPHCITRLRQEMEEVLGDKKGQLIVEADIAKLTYLQCVIKEILRLHPVVSLLLPRMSSQECEVGGYTIPAKTLTFVNVWAIGRDEDVWENALEFRPERFESNKDIDVKGHHYELLPFGSGRRICAGLPVALSMVSLTLANLVHCFDLELPHGQTPDSMNMEERKGIAANKAVPTVLVPKPRFSMNFC |
| CYP76AH1 | MDSFPLLAALFFIAATITFLSFRRRRNLPPGPFPYPIVGNMLQLGANPHQVFAKLSKRYGPLMSIHLGSLYTVIVSSPEMAKEILHRHGQVFSGRTIAQAVHACDHDKISMGFLPVASEWRDMRKICKEQMFSNQSMEASQGLRRQKLQQLLDHVQKCSDSGRAVDIREAAFITTLNLMSATLFSSQATEFDSKATMEFKEIIEGVATIVGVPNFADYFPILRPFDPQGVKRRADVFFGKLLAKIEGYLNERLESKRANPNAPKKDDFLEIVVDIIQANEFKLKTHHFTHLMLDLFVGGSDTNTTSIEWAMSELVMNPDKMARLKAELKSVAGDEKIVDESAMPKLPYLQAVIKEVMRIHPPGPLLLPRKAESDQEVNGYLIPKGTQILINAYAIGRDPSIWTDPETFDPERFLDNKIDFKGQDYELLPFGSGRRVCPGMPLATRILHMATATLVHNFDWKLEDDSTAAADHAGELFGVAVRRAVPLRIIPIVKS |
| CYP76AH4 | MAKKTSSKGKLPPGPFPLPIVGNMLQLGTQPHETFAKLSKKYGPLMSIHLGSLYTVIVSSPEMAKEIMHKYGQVFSGRTVAQAVHACGHDKISMGFLPVGGEWRDMRKICKEQMFSHQSMEDSQWLRKQKLQQLLEYAQKCSERGRAIDIREAAFITTLNLMSATLFSMQATEFDSKVTMEFKEIIEGVATIVGVPNFADYFPILRPFDPQGVKRRADVYFGRLLAIIEGFLNERIESRRTNPNAPKKDDFLETLVDTLQTNDNKLKTDHLTHLMLDLFVGGSETSTTSIEWTMSELVMNPEKMAKLKAELKSVAGDEKIVDESEIAKLPYLQAVIKEVMRIHPPGPLLLPRKAESDQEVNGYLIPKGTQVLINAWAIGRDPSVWKNPDSFEPERFLEQKIDFKGQDFELLPFGSGRRVCPGLPLASRILHMTAATLVHNFDWKLEDEATAEADHAGELFGLAVRRAVPLRIIPIVKS |
| CYP76B1 | HEWVLGVGKPKNLPPGPTRLPIIGNLHLLGALPHQSLAKLAKIHGPIMSLQLGQITTLVISSATAAEEVLKKQDLAFSTRNVPDAVRAYNHERHSISFLHVCTEWRTLRRIVSSNIFSNSSLEAKQHLRSKKVEELIAYCRKAALSNENVHIGRAAFRTSLNLLSNTIFSKDLTDPYEDSASGKEFREVITNIMVDSAKTNLVDVFPVLKRIDPQGIKRGMARHFSKVLGIFDQLIEERMRTGRFEQGDVLDVCLKMMQDNPNEFNHTNIKALFLDLFVAGTDTTSITIEWAMTELLRKPHIMSKAKEELEKVIGKGSIVKEDDVLRLPYLSCIVKEVLRLHPPSPLLLPRKVVTQVELSGYTIPAGTLVFVNAWAIGRDPTVWDDSLEFKPQRFLESRLDVRGHDFDLIPFGAGRRICPGIPLATRMVPIMLGSLLNNFDWKIDTKVPYDVLDMTEKNGTTISKAKPLCVVPIPLN |
| CYP76B4 | MDMLQSSTLSYLVIIFTFSMLLLIKFLIPTNKTNQKNHSKLPPGPSPLPIIGNLLKLGNKPHHSLANLSNIHGPIMTLKLGQVTTIVISSADIAKEVLQTHDTLLSNRTVPDALSVLNHDQYSLSFMRVSPRWRDLRKICNNQLFSNKTLDSSQALRRRKLQDLLDDIKKCSEIDEAVDIGRVAFMTTINLLSNTFFSADFVHSAEEAGEYKEIVVSILKEVGAPNLSDFFPMLTVFDLQGIRRRSVVSVKKVLSIFRRFVGERLKLREGTGSIENDDVLDALLNISLDDGKIEMDKDEIEHLLLNIFVAGTDTTTYTLEWAMAELMHNPEIMSKVQKELEQVVGKGIPIQETDIAKLPYMQAVIKETFRLHPPVPLLLPRKAETDVEIGDYIIPKDAQVLVNAWVIGRDPNKWDNANVFVPERFLDSEIDVKGHHFELIPFGSGRRICPGLPLAIRMLPMMLGSLVNCFDWKLEDGLNIDDLNKEDEYGITLEKSQPVRIVPIKLTIQ |
| CYP76B6 | MDYLTIILTLLFALTLYEAFSYLSRRTKNLPPGPSPLPFIGSLHLLGDQPHKSLAKLSKKHGPIMSLKLGQITTIVISSSTMAKEVLQKQDLAFSSRSVPNALHAHNQFKFSVVWLPVASRWRSLRKVLNSNIFSGNRLDANQHLRTRKVQELIAYCRKNSQSGEAVDVGRAAFRTSLNLLSNLIFSKDLTDPYSDSAKEFKDLVWNIMVEAGKPNLVDFFPLLEKVDPQGIRHRMTIHFGEVLKLFGGLVNERLEQRRSKGEKNDVLDVLLTTSQESPEEIDRTHIERMCLDLFVAGTDTTSSTLEWAMSEMLKNPDKMKKTQDELAQVIGRGKTIEESDINRLPYLRCVMKETLRIHPPVPFLIPRKVEQSVEVCGYNVPKGSQVLVNAWAIGRDETVWDDALAFKPERFMESELDIRGRDFELIPFGAGRRICPGLPLALRTVPLMLGSLLNSFNWKLEGGMAPKDLDMEEKFGITLQKAHPLRAVPSTL |
| CYP76C1 | MDIISGQALLLLFCFILSCFLIFTTTRSGRISRGATALPPGPPRLPIIGNIHLVGKHPHRSFAELSKTYGPVMSLKLGSLNTVVIASPEAAREVLRTHDQILSARSPTNAVRSINHQDASLVWLPSSSARWRLLRRLSVTQLLSPQRIEATKALRMNKVKELVSFISESSDREESVDISRVAFITTLNIISNILFSVDLGSYNAKASINGVQDTVISVMDAAGTPDAANYFPFLRFLDLQGNVKTFKVCTERLVRVFRGFIDAKIAEKSSQNNPKDVSKNDFVDNLLDYKGDESELSISDIEHLLLDMFTAGTDTSSSTLEWAMTELLKNPKTMAKAQAEIDCVIGQNGIVEESDISKLPYLQAVVKETFRLHTPVPLLIPRKAESDAEILGFMVLKDTQVLVNVWAIGRDPSVWDNPSQFEPERFLGKDMDVRGRDYELTPFGAGRRICPGMPLAMKTVSLMLASLLYSFDWKLPKGVLSEDLDMDETFGLTLHKTNPLHAVPVKKRANIN |
| CYP76C2 | MDIIFEQALFPLFCFVLSFFIIFFTTTRPRSSRKVVPSPPGPPRLPIIGNIHLVGRNPHHSFADLSKTYGPIMSLKFGSLNTVVVTSPEAAREVLRTYDQILSSRTPTNSIRSINHDKVSVVWLPPSSSRWRLLRKLSATQLFSPQRIEATKTLRENKVKELVSFMSESSEREEAVDISRATFITALNIISNILFSVDLGNYDSNKSGVFQDTVIGVMEAVGNPDAANFFPFLGFLDLQGNRKTLKACSERLFKVFRGFIDAKLAEKSLRDTNSKDVRERDFVDVLLDLTEGDEAELNTNDIVHLLLDLFGAGTDTNSSTVEWAMAELLRNPETMVKAQAEIDCVIGQKGVVEESDISALPYLQAVVKETFRLHPAAPLLVPRKAESDVEVLGFMVPKDTQVFVNVWAIGRDPNVWENSSRFKPERFLGKDIDLRGRDYELTPFGAGRRICPGLPLAVKTVPLMLASLLYSFDWKLPNGVGSEDLDMDETFGLTLHKTNPLHAVPVKKRGRN |
| CYP76C4 | MDIISGQALFLLFCFISSCFLISTTARSRRSSGRAATLPPGPPRLPIIGNIHQVGKNPHSSFADLAKIYGPIMSLKFGCLNSVVITSPEAAREVLRTHDQILSGRKSNDSIRCFGHEEVSVIWLPPSSARWRMLRKLSVTLMFSPQRTEATKALRMKKVQELVSFMNESSERKEAVDISRASYTTVLNIISNILFSVDLGSYDSKKSNEFQDTVIGAMEAAGKPDAANYFPFMGFLDLQGNRKAMRGLTERLFRVFRGFMDAKIAEKSLGNYSKDVSNRDFLDSLLILNEGDEAELDNNDIEHLLLDMFTAGTDTSSSTLEWAMAELLRNPKTMVKAQAEMDRVLGQNSVVQESDISGLPYLQAVVKETFRLHPAAPLLVPRKAESDVEVLGFMVPKDTQVLVNVWAIGRDPSVWENPSQFEPERFMGKDIDVKGRDYELTPFGGGRRICPGLPLAVKTVSLMLASLLYSFDWKLPNGVVSEDLDMDETFGITLHRTNTLYAIPVKKQTIN |
| CYP76D1 | WRSLRRACATKIFSPQQLDSTQFHRKRKVQDLLNYVQKCCEKGEALDFGEVVLATVMNSISETFISMDLFHYCDPSNDDDNKKSREFKEMVFGIMEEVGRPNVVDFFPFLKLFDPQGVRTRMRNHFEKLLAFFYEVMKERMRLRASGESKEYKDVLDSFLDLLNEENSQLCRHDVLHLFTDLFVAGIDTTSTTMEWAMAELLHNPSKLARLRKELEQIHGKFGQIEESDASKLPYLRAVVKEILRLHPSVPFLVPHKSKDDGELGGFMVPKNAQILVNVWSIGRNSSIWDNQIHLNLKDFWRVKLISKGRDFELVPFGAGRRICPGLPLASRSIHYIMASLLHHFNFKLADDLKPDDMDMSHKFGVTLHKAQPLRVVPIKA |
| CYP76E1 | MDHQTLLLVITFVSATILIFFLRKSNQTQNSTKLPPGPYPLPIIGNILELGKNPHKALTKLSKIYGPIMTLKLGSITTIVISSPQVAKQVLHDNSQIFSNRTVPHAITAVDHDKFSVGWVPTLNLWKKLRKNCATKVFSTKMLDSTKILRQQKLQELLDYVNEKSHNGEVFDIGETVFINVLNSISNTLFSMDLAHSTPDEKSQEFKTIIWGIMEEAGKPNISDFFPILRPLDPQGLYARMTNHMKKLCEIFDGIIEERICLKDSKGDYEVCNDVLDSLLNINIGEATSELSRNEMVHLFLDLFVAGIDTTSSMIEWIIAELLRNPDKLTKVRKELCQTIGKGETIEESHISKLPFLQAVVKETFRLHPPIPLLLPHKCDELVNILDFNVPKNAQVLVNVWAMGRDPAIWDNPNTFVPERFMECDINYKGNNFELIPFGAGKRICPGLPLAHRTMHLMVASLLHNFEWNLADGLIPEHLNMDEQFGLTLKRVQPLRVEAISSA |
| CYP76F1 | NSARVMTLKLGQVTTVVISSADMAKEVLLTHDLITSNRTVPDALSVLNHDQYSLSFMRVSPRWRDLRKICNYQLFSNKTLDSSQALRRRKLQDLLNDIERCSKVGEAVDVGKAAFKTTVNLLSNTFFSVDFVHSAKEAGEYKEIIVSILKEVGVPNVSDFFPMLKFLDLQGIRKRSIVSVKKVLSIFKRFVGERVKMREGTGSIGNDDVLDALLNMSSDGGKIEMDKDEIEHLLLNIFVAGTDTTTYTLEWAMAELIHNPEMMSKLKEELEKTVGKGIPVEETDIAKLPYMQAVIKETFRLHPPVPLLLPRRAEIDVKIGDYVIPKDAQILINAWVVGRDPTKWENPNVFIPERFLDSEIDIKGHHFELIPFGSGRRTCPGLPLAIRMLPLMLGSLVNCFDWKLEDGLNVEDFNKEDEFGITLEKSQPVRIVPTKLY |
| CYP76F38v1 | MDFLSFILFVLFAWALVRALPTLSRGSKAAGGRLPPGPVPLPVVGNLLKLGSKPHKSLAELAKSYGPIMCLKLGHIITIVISTPTVAKEVLQKQDVAFCNRTIPDAVRAHRHDLHSMVWLPVSTRWRTLRKISNSHIFSSQRLDENHHLRRRKLDELLARVAESSLVGAVVDIGAVAFLTSLNLLSNTVFSKDLVEPGLGAVQEMEEVVWGITEEAGRPNLVDYFPVLRRLDPQGTRRRMMGYFGKMFEVFGDIIDERLELRKQQSDGDSPAATTNDVLDVLLNIIEDAEIEEKPNRTDVEHFIVDLFVAGSDTTSSTVEWAMTELLRKPETLERARSELHETIGPKNLVQEADMPRLPYLQAVVKETFRLHPPVPLLLPRTAEKDAELCGFTVPAGAQIMVNAWAIGRDPGTWEDPESFLPERFLGSDVDVKGRSFELIPFGGGRRICPGLPLAIRMVHLMLGSLIHGFRWKVFDDGMGSPETAMDMDEKFGITLQKAKSLCAVPIRG |
| CYP76F39v1 | MDFLSCILFVLFAWALVRALPTLSRGSKAASGRLPPGPVPWPVVGNLLKLGNKPHKSLAELAKSYGPIMCLKLGHMTTIVISTPTVAKEVLQKQDVAFSNRTTPDAVRAHGHDLYSMAWLPVSTRWRTLRKISNSHIFTSQRLDENHHLRRRKLDELLARVAESSLVGAVVDMGAVAFLTSLNLLSNTVFSKDLVEPGLGAVQETKEVVWGMMEEAGRPNLVDYFPVLRRLDPQGIRRRMTGYFGKMLEVFGDIIDERLEWRKQQSDGDSPAGTTNDVLDVLLNIIEDAEIEEKPNRTDVEHFLLDLFAAGSDTTSSTVEWAMTELLRKPETLERARSELHETIGPENLVQEADLPRLPYLQAVVKETFRLHPPVPLLLPRTAEKDAELCGFTVPAGAQIMVNAWAIGRDPGTWEDPESFLPERFLGSDVDVKGRSFELIPFGGGRRICPGLPLAIRMVHLMLGSLIHGFRWKVDDDGMGSPETAMDMDEKFGITLQKAKPLCAVPIRG |
| CYP76F40 | MDFLSCILSVLFAWALVRALRKLSRGSKAASGRLPPGPVPWPVVGNLLKLGNKPHKSLAELAKSYGPIMCLKLGHMTTIVISTPTVAKEVLQKQDVAFSNRTTPDAVRAHGHDLYSMAWLPVSTRWRTLRKISNSHIFTSQRLDENHHLRRRKLDELLARVAESSLVGAVVDMGAVAFLTSLNLLSNTVFSKDLVEPGLGAVQETKEVVWGMMEEAGRPNLVDYFPVLRRLDPQGIRRRMTGYFGKMLEVFGDIIDERLEWRKQQSDGDSPAGTTNDVLDVLLNIIEDAEIEEKPNRTDVEHFIVDLFVAGSDTTSSTVEWAMTELLRKPETLERARSELHETIGPKNLVQEADMPRLPYLQAVVKETFRLHPPVPLLLPRTAEKDAELCGFTVPAGAQIMVNAWAIGRDPGTWEDPESFLPERFLGSDVDVKGRSFELIPFGGGRRICPGLPLAIRMVHLMLGSLIHGFRWKVADDGMGSPETAMDMDEKFGITLQKAKSLCAVPIRG |
| CYP76F41 | MDFLSCILFVLFAWALVHALRTLSRGSKAASGRLPPGPVPWPVVGNLLKLGNKPHKSLAELAKSYGPIMCLKLGHMTTIVISTPTVAKEVLQKQDVAFSNRTTPDAVRAHGHDLYSMAWLPVSTRWRTLRKISNSHIFTSQRLDENHHLRRRKLDELLARVAESSLVGAVVDMGAVAFLTSLNLLSNTVFSKDLVEPGLGAVQEMEEVVWGITEEAGRPNLVDYFPVLRRLDPQGTRRRMMGYFGKMFEVFGDIIDERLELRKQQSDGDSPAATTNDVLDVLLNIIEDAEIEEKPNRTDVEHFIVDLFVAGSDTTSSTVEWAMTELLRKPETLERARSELHETIGPKNLVQEADMPRLPYLQAVVKETFRLHPPVPLLLPRTAEKDAELCGFTVPAGAQIMVNAWAIGRDPGTWEDPESFLPERFLGSDVDVKGRSFELIPFGGGRRICPGLPLAIRMVHLMLGSLIHGFRWKVADDGMGSPETAMDMDEKFGITLQKAKSLCAVPIRG |
| CYP76F42 | MDFLSCILSVLFAWALVRALRTLSRGSKAAGGRLPPGPVPLPVVGNLLKLGNKPHKSLAALAKSYDPIMCLKLGHMTTIVISSPTVAKEVLQKQDVAFCNRTTPDAVRAHGHDLYSMAWLPVSTRWRTLRKISNSHIFTSQRLDENHHLRRQKLDELLARVAESSLVGAAVDIGAVAFVTSLNLLSNTVFSKDLVEPGLGAVQEMKEVVWGIMEEAGRPNLVDYFPVLRRLDPQGIRRRMMGYFGKMFEVFGDIIDERLELRKQQSDGDSPAATTNDVLDVLLNIIEDAEIEEKPNRTDVEHFIVDLFVAGSDTTSSTVEWAMTELLRKPETLERARSELHETIGPKNLVQEADMPRLPYLQAVVKETFRLHPPVPLLLPRTAEKDAELCGFTVPAGAQIMVNAWAIGRDPGTWEDPESFLPERFLGSDVDVKGRSFELIPFGGGRRICPGLPLAIRMVHLMLGSLIHGFRWKVADDGMGSPETAMDMDEKFGITLQKAKSLCAVPIRG |
| CYP76G1 | MINQLTKNELIGLFTSIAVLIYVTCLFYTKRCRTRLPPGPNPWPVIGNIFQLAGLPPHDSLTKLSRRHGPIMTLRIGSMLTVVISSSEVAREIFKKHDAALAGRKIYEAMKGGKSSDGSLITAQYGAYWRMLRRLCTTQFFVTRRLDAMSDVRSRCVDQMLRFVEEGGQNGTKTIDVGRYFFLMAFNLIGNLMFSRDLLDPDSKRGSEFFYHTGKVMEFAGKPNVADFFPLLRFLDPQGIRRKTQFHVEKAFEIAGEFIRERTEVREREKSDEKTKDYLDVLLEFRGGDGVDEEPSSFSSRDINVIVFEMFTAGTDTTTSTLEWALAELLHNPRTLTKLQTELRTYFKSSNQKLQEEDLPNLPYLSAVIMETLRLHPPLPFLVPHKAMSTCHIFDQYTIPKETQVLVNVWAIGRDPKTWIDPIMFKPERFISDPDARDFKGQDYEFLPFGSGRRMCPALPLASRVLPLAIGSMVRSFDWALENGLNAEEMDMGERIGITLKKAVPLEAIPIPYRGT |
| CYP76H6 | MASALFLWLSWLVLSLLSIYLLDLLAHSRRRLPPGPRPLPLIGSLHLLGDQPHRSLAGLAKTYGPLMSLRLGAVTTVVVSSPDVAREFLQKHDAVFATRSAPDAAGDHTRNSVPWLPPGPRWRELRKIMATELFATHRLDALHELRQEKVSELVDHVARLARDGAAVDVGRVAFTTSLNLLSRTIFSRDLTSLDDRGASKEFQQVVTDIMGAAGSPNLSDFFPALAAADLQGWRRRLAGLFERLHRVFDAEIEHRRRVAGEEHGKVKDDFLRVLLRLAARDDDTAGLDDDTLRSVFTLLKDLFAAGSDTSSSTVEWAMAELLRNPLPMAKACDELQRVIGSTRRIEESDIGRLPYLQAVIKETFRLHPPVPFLLPRQATTTIQILGYTIPKGAKVFINVWAMGRDKDIWPEAEKFMPERFLERATDFKGADFELIPFGAGRRICPGLPLAVRMVHVVLASLLINFKWRLPIKVERDGVNMTEKFGVTLAKAIPLCAMATST |
| CYP76K1 | MELTTISPVFLISLLGVPLLYLLWSKASKSPSGAPAAPPPPPGPTPFPVIGNIPDLLRGGELHRALTGLAASYGPVMSLRLGMASTVVLSSPDVAHEALHKKDGAISSRWVPDNANVLGHQDVSMAWLPSSSPLWKHMRTLASTLLFTSRRLGASRGIRERKARELVDYLGARSGRPVRVGLAVFGSVLNFMSNVFFSEDVVELGSETGQEFQQLIADSVAETAKPNISDFFPFLSALDLSRRRRAAAKNLKKFYDFFDDVIDRRLSSGEKPGDLLDSLLELHAKSQLERPLIRALMDLFIAGSHTTTTTVEWAMAELLRNPSKMAKARAELGEAFGRGAVEEGELARLPYLNAVIKETLRLHPPAPLLLPHRVSSDSEPAGGVTLGGYSVPSGARVLINAWAIGRDPAAWSPEPDAFSPERFLGREADYWGRTLEFIPFGSGRRACPGIPLAVAVVPMVVAAMVHSLEWRLPEGMAPGDVDVGDRFGAVLELATPLWAVPVKV |
| CYP76L1 | MEASTILWLLYVSLASCLLYKVFVSTKNGHPKIAARRPPGPTPVLLLGNVFDLRGELHLALARLAEEHGPVMSLKLGTATAVVASSAAAARDALQRYDHVLAARAVCDAARALGTHERSIVWLPGSSALWKRLRAVCTNHLFSARGLDATRAVREAKVRELVEHLRGHAAGAGEEEAAAVDVGRVVFSAVINLVSNVLFSEDVADLSSDRAQELEMLVRDTVEEATKPNLSDLFPVLAALDLQGRRRRTAVHIRKFHDFFDEIISRRQNAGGEGERKEDFLDVLLQLHSADQLSLDTIKTFLGDLFTAGTDTNSITVEWAMAELLRHPAAMSRARAELRDALGAKPHPDESDIGRLPYLSAVVMETMRLHPPSPLLMPHEAVADGAAVGGYAVPRGTKVIVNVWSIMRDPASWPRPEEFEPERFVAAGGSFRGGEMLEFMPFGAGRRACPGTPMATRVVTLVLASLLHAFEWRLPGGMRPCDVDVRGRFGTSLNMVTPLKAVPVPVPARP |
| CYP76M15 | MATPELWWYWWLWVTTMLAVVVSTVVCYLTNQHRRWGGWGSSSGRRRPPGPRPLPLIGNLLDLRRAPGSLHHTLARLARAHGAPVMRLDLGLVPAVVVSSRDAAREAFAAHDRRIAARPVPDSKRALGFCDRSMLSLPSSAPLWRTLRGVMAAHVLSPRSLAASRAARERKVADLIGYLRARAGTVVDLKEAVYGGVANLVSTAMFSIDVVDVGAAESSSSSSAAAHGLQELLEELMQCMAQPNVSDFFPFLSALDLQGCRRRVAVQLGQVLQVLDDITDRRLASSSSSSTSSKGGDRRGDFLDILLDLQSTGKITRDNVTLTLFDIFAAGSDTMALTVVWAMAELLRNPGVMARLRAEVRDALGGRDAVEEADAAGLPFLQAVVREAMRLHPAAPVLLPHKAVEDGVQIGGYAVPRGCTVIFNSWAIMRDPAAWERPDEFLPERFLARDLDFRGKQLEFVPFGSGRRLCPGVPMAERVVPLVLASLVHAFQWQLPAGMSADQVDVSDKFTTTSVLAFPPIKAVPLL |
| CYP76M6 | MEKLKSELWMTAVATCMSLLLYLTILRRRHASGGRSLALPPGPTPLPLIGNLLCLGGIFHQTLAKLARVHGPVMTLKLGLTTAVVVSSAEAAREAYTKHDQRLAARPVPDAFRANGFSERSIVFSPSSDPQWKNLRGIHATHIFSPRALAALRGIRERKVRDIVGYIRTVAGEEMCVREVVHNGVLNLISTSFFSMDMADVRSESARGLRGLIEDIIATVAGPNVSDFFPFLRQLDLQGLRRQTGSHLGIVFGLLDDIIDRRMAETRDHPDKQRHGDFLDALISLASAGKIPRYHITYLLFDVFAAGADTMTTTVEWAMAELLRNPRVMAKVRAEVTDALGGRESFDEGDAASLTYLQCVFKEAMRLHPVGSILVPHLAVQDGVEIGGYAVPKGTTVIFNAWAIMRDPAAWESPDQFLPERFLHKEESSSPPLELRGKDYEYIPFGSGRRLCPGLPLAERAVPFILASLLHAFEWRLPDGMSPDDMDMTEKFATANVLATPLKAVPVASHTS |
| CYP76M7 | MENSQVWLLWGALSVAVLFYLSTLRRRYAGGKPLPPGPTPLPLIGNLHLAGGTFHHKLRDLARVHGPVMTLKLGLATNVVISSREAAIEAYTKYDRHLAARATPDTFRACGFADRSMVFIPSSDPQWKALRGIQGSHVFTPRGLAAVRPIRERKVGDLIAYLRAHAGEEVLLGQAMYTGLLNLVSFSYFSIDIVDMGSQMARDLREVVDDIISVVGKPNISDFYPFLRPLDLQGLRRWTTKRFNRVFSIMGDIIDRRLAHIRDGKPRHDDFLDSLLELMATGKMERVNVVNMLFEAFVAGVDTMALTLEWVMAELLHNPAIMARVRAELSDVLGGKEAVEEADAARLPYLQAVLKEAMRLHPVGALLLPHFAAEDGVEIGGYAVPRGSTVLFNAWAIMRDPAAWERPDEFVPERFLGRSPPLDFRGKDVEFMPFGSGRRLCPGLPLAERVVPFILASMLHTFEWKLPGGMTAEDVDVSEKFKSANVLAVPLKAVPVLIK |
| CYP76M8 | MENSQMWLLWGALSVALFFYFSTLRRRYAGGKPLPPGPTPLPLIGNLHLVGGGTFHHKLRDLARVHGPVMTLKLGLATNVVISSREAAIEAYTKYDRHLAARATPDTFRACGFADRSMVFIPSSDPQWKALRGIHASHVFTPRVLAAVRPIRERKVGDLIAYLRAHAGEEVLVGHAMYTGILNMVSFSYFSVDIVDMGSQMARELREVVDDIILVVGKPNVSDFYPFLRPLDLQGLRRWTTKRFNRVFSIMGDIIDRRLAHIRDNKPRHDDFLDSILELMAAGKIDRVNVLNMLFEAFVAGADTMALTLEWVMAELLKNPSVMAKARAELRDVLGDKEIVEEADAARLPYLQAVLKEAMRLHPVGALLLPHFAMEDGVEVGGYAVPKGSTVLFNAWAIMRDAAAWERPDEFVPERFVERTPQLDFRGKDVEFMPFGSGRRLCPGLPLAERVVPFILASMLHTFEWELPGGMTAEELDVSEKFKTANVLAVPLKAVPVLIK |
| CYP76N1 | MAASLAWLLVAIVLASLYLAMHHRVAAARRRRLPPGPTPLPLVGNLLSVSRSGPHRSLARLAERYCPLMRVRLGVVDYVVASSPAVAGDIHHHSHNAHLASRPLFDVWRGAEHHRNSVIVLPLHGVWRAQRRLATEEVMSPRRLDALAPTRREKVRELMRCVARRAARGEPVEVGLEAFEAFLGILSCTAFSADLVDPDLRDAVQEATKLAATPNASDFFPAMAAADLQGLRRRMGKLVARAYGIIDELLARRKGGREAGEPRKDDMLDVALDNEDEWKNNNPVIDRNNIKGLIADLFVAGTDSGSTAIEWAIVELLQNPQSMQKVKDEFRRVLGTRTEIEESDISQLPYLQAVLKETLRLHPSVPMTYYKAEATVEVQGYIIPKGTNIILNIWAIHRKPDVWADPDRFMPERFMETDTNFFGKHPEFIPFGGGRRICLGLPLAYRMVHMVLASLLFHFDWKLPEGAEKDGVDMREKYGMVLHKETPLKALAIETYNR |
| CYP76P1 | MAIFIGCICSLALLLLCSHVFQLLSDARRRLPPGPRPLPVIGNLLDVAGELPHRSLACVAERYGPLVTLRLGTMLAVVASSPATARDVLHRHGASITDRGTPDAWSTDGHDGNSIFAFPTRHHRWRALRRLGAEQLFSPRRVEEQRPLRRDAVRGLLRHVAELAAASGGGGAAVVDVGRAAFAAMASLLFGALFSAGIDAATSCRFRDAAREFALLTMTPNVSEFFPVVAMADLQGLRRRTARHITWMYQLIDGHVERRMRGRETAGGCGAAHGEKEKDLLDVMLDMSEKEEQNDDSSLTMNDLLMAGSETSSAVIEWAMAELLQNPQTMTKLQEELKKVIGSKTCIDEEDIDQLPYLQAVIKETHRLHPAIPLLMYKAAVPVEIQGYKIPKETTVIVNTWAIHQNSEVWIEPDKFIPERFLQKEISLSSGSTNMELIPFSAGRRFCLGYPVANRMLHVMLASLVHQFQWTLPEVVKKNGGVDMAEKFGITLSMATPLHAIAKNIV |
| CYP76Q1 | MAFFLVACLPWVCFILLSLYVFQLFADARRRLPPGPWPPKPLIGDLLALGKGDQQHRSLARLADRYGPVMSLRLGTVLTVVVSTPDAMREIFHKNKDNLAGRPTADAFNAMGHSANSLLGLEHPGVRWRAIRRFSTAELLAPRRLAALQPLCRDKVRGLVRGVSELAARGEPVHVRRVALDMALSLILSAIYSVDLDPESTAVFRSVVEEAMLLIGTANLSDLFPAIAALDLQGVRRRVAELFTITYRQYDEQVARRRPERDAGEAGKNDLLNVVLDMEREWQQKGSVLSHDAMRVLFTDLYGAGASTTSVLIEWAIADLLQNPESMRKIKEEITNVIGTNAQIQESDIARLPYLQAVVKETLRLRAVAPLVPRRAEATIEVQGFTIPKGTNVILNLWAINRDARAWNDPDKFMPERFIGNDINYLGQNFQFVPFGVGRRICLGLPLAQKVMYLVLGTLVHQFEWTLPEELKDTGIDMTEKCGMVLCLANPLKVMAKKM |
| CYP76S1 | MDVIFPLLVAFITWAIASSLTFRRFGRLPPGPFPVPVIGNIHQLGKHPNQSLAKLSKIYGPLMSLKLGTQTAIVASSSTVVREILQKHDQVFSSRTIPSALHAHDHHKFSMALLPASSRWRHLRKITKEQMFSVQRLDESQGLRQDKLKELRDYLHSCCVTGQAVNIGEAAFTTTLNLMSCTLFSVNFASFDSKFSDELKRDICAFVQVIAAPNLADFSPVLRHVDPQGLLKRTKTYMQKVFDSFEDIITKRLQERGTSQQDSLRRHDLLEALLDEMEKNDSAFTINDMKHLILDLFIAGADSTSSTTEWGMAELLHNPEKMEKAKAELNEVIGQKNLVEESDISRLPYLQAVVKEVFRLHPPGPLLVPHKADADVEIDGYVVPKNANVLVNVWALGRDSSSWADPEAFMPERFLDNEIDVKGQHFELIPFGAGRRMCPGLPLSYRMLH |
| CYP76T1 | MEYLFYLLLISFCWACLHVLNASVLLRRKSGCTVLPPAPRQLPIIGNILALGDKPHRTLAKLSQTYGPLMTLKLGRITTIVISSPNIAKEALQKHDQALSSRTVPDALHVQYYNYHKNSMIWLPASTQWKFLRKLTATQMFTSQRLDASRALRGKKVQELLEYVHEKCNNGHAVDVGRSVFTTVLNLISNTFFSLDVTNYNSDLSQEFSNLVVGFLEQIGKPNIADYFPILRLVDPQGIRRKTNNYLKRLTQIFDSIINERTRLRSSSVASKASHDVLDALLILAKENNTELSSTDIQVLLIDFFIAGTDTTSSTVEWAMTELLLNPDKMVKAKNELQQVEGPVQESDISKCPYLQAIVKETFRLHPPSPFLPRKAVSEVEMQGFTVPKNAQVLITIWAIGRDPAIWPEPNSFKPERFLECQADVKGRDFELIPFGAGRRICPGLPLGHKMVHLTLASLIHSFDWKIADDLTPEDIDMSETFGFTLHKSEPLRAIPMKT |
| CYP76U1 | MAFFLPLAFSLFLAVISAYVLQLLADARRRLPPGPWPLPLIGNLHQLDHLPHRSLARLAARHGPLMSLRLGTVRAVVASSPEMAREVLQRHNADIAARSFGDSMRAGGHCENSVVCLPPRRRWRALRRLSTVGLFSPRRLDAMRALLEEKVAELVRRVSGHAARGEAVDVGHAAHVAALGVLSRTMFSVDLDPEAAREVSDIVDEASVLGTGPNVSDFFPAIAPADLQGVRRRMARLVKRMYAIIDEQIERRMHGRTAGEPRKNDLLDVMLEEGESKEDSNEINRDAIRGLDLFTGGETTSHTMECAMAELLQCPNSMRRVHELKSVIGSKQQMDEHDITKLPYLPPYEAEATIEIQGYTIPKGAKVLINLWAINRCANTWTEPDKFMPERFYDSDITFMGRDFQLIPFGAGKRICLGLPLAHRMVHLMLGSLLHRFTWTLPAEAGKNGVDMRERFGLTLSFVAPLYVIAQEIQ |
| CYP76V1 | MAFFHLCISSLLLVFIISYIFQPLLDARRRFPPGPHRLPVISNLHNIGKNPHHAFARLADRYGPLMSIRLGGVRAVVAMSADAAREILQRNNADITGRGGMDSWHACGHHANSSIALWPRWKWCAMRMLCTEELLGVTHAMREEVARELAHRVSDGSAGGMPVSVAREAFAAVAGVLWWSMFSEDMDAATTRQLRDVIEEAVVVAGAPNLSDYFPVIAAADVMGVRRRMDNLVGWVYGIIDVQIDRRRRRRIVCEPRKNDLLDVAFDMEGEVESEGWVMNQDTMRGMAIYQDLLVAGSGSTSSTIEWAMAELLQNPKSMIQLPEELKGLMGTKTHVAESDISQLPYLQAVIKETLRLHPTVPIAFNKAEATVEIQGYKIPQGTTVYVNIWAICRRAKIWDDLDKFMPYRFLGRDINFLGTNFEFIPFGAGRRICLGMPLAEGMLHLMLASLLHRFEWTIPDEVKGDDLDMAEEFGLVLSMAKPLRAVAKET |
| CYP76X1 | MDYVGSGMLLLLTCIVACFIGSLYARSRKSNYRLPPGPSIFTIMSHVFELYYKPQQTLAKFAKFYGPVMLIKLCTETTVIISSSDMAKEILHTNDSLFTDRSVPDNTTTHNHNNFSLVFLPFSPLWQHLRKICHNNLFSNKTLDGSQELRRMKLKDLLNDMHKSSLKGETVDIGRAAFKACINFLSYTFVSQDFVESLDDEYKDIVSTLLSAVGTPNIADHFPILKILDPQGIKRHTTKYVAKVFHALDIIIDQRMKLRKSEDYVSKNDMLDSLLDISKEDSQKMDKKQIKHLLLDLLVAGTETSAYGLERAMTRLVHDPKAMSKARKELEETIGLGNPIEESDIDRLPYLNAVIKESLRLHPPAPMLLPRKARVDVEISGYTIPKGAQVLINEWAIGRTDIWDDADSFSPERFLGSEIDVKGRHFKLTPFGSGRRICPGSPLAVRMLHLMLGSLINSFDWKLENNMEAKDMNLDKPLRAIPVALNKVY |
| CYP76Y1 | MELNSFLLLCMPLVLCLFFLQFLRPSSHATKLPPGPTGLPILGSLLQIGKLPHHSLARLAKIHGPLITLRLGSITTVVASSPQTAKLILQTHGQNFLDRPVPEAIDSPQGTIAWTPVDHVWRSRRRVCNNHLFTSQSLDSLQHLRYKKVEQLLQHIRKHCVSGTPVDIGLLASATNLNVLSNAIFSVDLVDPGFESAQDFRDLVWGIMEGAGKFNISDYFPMFRRFDLLGVKRDTFSSYRRFYEIVGDIIKSRIKCRASNPVTRNDDFLDVILDQCQEDGSLFDSENIQVLIVELFYAGSDTSTITTEWAMTEFLRNPGVMQKVRQELSEVIGAGQMVRESDMDRLPYFQAVVKETLRLHPAGPLLLPFKAKNDVELSGFTIPSNSHVLVNMWAIARDPSYWEDPLSFLPERFLGSKIDYRGQDFEYIPFGAGRRICPGMPLAVRMVQLVLASIIHSFNWKLPEGTTPLTIDMQEHCGATLKKAIPLSAIPFIEEN |
| CYP76Z1 | MMNSMAIESVYDPLVFGVVLSFIFLLLLHWKKKNSRLPPGPPGWPIIGNVLQLGDKPHESLFGLAQKYGPLMSLRLGCKLTMVVSSPSMAKEVLKDNDQTFSSRSINMAARTFAYQGTSLVWSPYGPHWRFLRRICNAELFSPKRLDALQHLRREEVNRTIRSIFEVSMEGQSVNIGEIAFLNSLSLVGMMVCSRNLFNPGSKEVAEFKEMVWEVLKLTGTPNLSDLFPFLERFDLQGLKKGMKTLARRFDSLFDSIIEERLGEDGAGVHHEGKDFLEIMLGLRKAGTQFTLENIKAVLMDMFIAGTDTTSVTVEWAMAELLGKPAVIRKAQAELDEIVGQAKRMEESDIAKLPYLQAIVKEALRLHPAAPLIIPRRSDNSCEIGGYVVPENTQVFVNVWGIGRDPSVWKEPLEFNPERFLECNTDYRGQDFELIPFGAGRRICIGLPLAHRMVHLVLGSLLHAFNWSIPGATKDDDFVIDMSEVFGLTLQKKVPLIAVPTPRQPINLLY |
| CYP770A1 | LLVSEGQQWRLMHALATPAFKAELLERGAFAAALRGVMEEWHRRAVALLPLWRLQAAGVALTLVGMGHENVSATAAWALLLLAAHPEQQQALYRELRQGCGFPTSRFIQSHPSRTAALLRLPYLDAVLRETLRLYPPVPMLSRQLMQDTTIGGVMLPKDVELVVSPYVLHRLPRLWGPHAACFQPERFMPPPPRPPPAAGGGCTEPAAAGPYLPFGAGPRACPGASFGSAEVKLLVAHVVMRYSLELLQPPPPSPRQLFVSLRPGPGVRVCFVPRHQQQVE |
| CYP771A1 | MRAGYVRAKAVSCLWPKCRQLPTRVRFIRHVRWKPKRSPPPLLRPAHVRYLGKRKLLLREPDDVAAVLARPGEDAFRKHPRQQRVSAFLGAGLATQPDRQRHAAQRDALAPAFRPDAVRQLDAVMAAAAERLAEALMAAAEAEAEEAEAVAAASGSSSGAAGAAAGAGAGAAAGELQVEMQDLLKRHSLDLLGLAALRSDMGALRRSPVMAAAAAAAAAAGGGYAAVGADVDVVTLMTEIEAASLWLLMALPVPNELLPGYGTYEANVRRLDELLVTMLLGGTDTSALTVAFAAWHLAAEPQLQAELRREVLGVLGGRALGELRAEDVKAMPLLAAVVNETLRLHPPLAEITRVATQPNAFLPFGVGSRSCIGRHFGLLSTQLTLAALVARFEVLPPAPPAPTALDWSQSIVITSRSGVWLRLRPIRQ |
| CYP772A1 | MTMVQDSMIQALDALPVPAVAASVVAVIITTVLLAVFRSRPGDAPSVPGLPLLGSAMALGRHGVAFINKCRQQFGNSFSLSLAGVKMTFLFDPQHIDYFFGAPDSKITFRPAVEQFTQRVFGLTSRLFFPLHFKMLTELRHLLVPASIAAHMQALGGRVLALLPLYVHHPQVDLYSLCRGLVFHCAGGEGGHQRPPEGVHRLARDFFAFEDGFELAASPVPHAFQPEFTAARQRLLALLAAADARGLFAGTLAGQLLERTAGLPPALRPNLLLAVLWASQANTVPATFWATGFLLLPENAHHRAAVLAELQAELKGAVSAAGSPGGSAAYSNEELVAAAARVASSRRSAVSRCVAEALRLRVQSIDVRIAADHLELPLAGVKGGGGDVLRLPRGRLLAICPFVSHHDTQLYGGAAAAAAAAAAGCPAVTGAAAAGDVSSPWAFNPDRPELKLGDGTAVVSSVAGLAFGGGPYRCPGRFFAEQELGLLVQLLLWTYDIQLSYTPQLRQVAGGSWLYGVLSGLVGARALAWGCGWFDGVDGPLEDFRHSGDPGGLLPPCDLKRLVGVKVPRRPLWVQLGVPHWQARRLGLVGVAPAATSRRWADIGLG |
| CYP773A1v1 | MDLIWNVVTAGVSLIATICVWQLARDFLWRPRRLLQAFKQQGVLGPVPRLFLGNLDQVRELMAVEVVKSSTGEIRDDNHGGVVAKVLPYYAAWSRSYGETFLVWWGSQPRLMISDPELMKEVLCDKSGSLDRDPGQHAARDLFGDGIALLTMNERWSQKRKMVSLAFHNEKLKLMIDAMVACVEENLKQWKTTEGPVDVASKLRDITQDVLCRTAFGTSYAAGKEVFEMQIEQQYIHLEWQGQVHLPGFRFLPTSANRRRWTLKQQIDSKLRKIVVNRLKESSVSGSYGKDLLGLMLAAKDGVLDFNNGKKLDIQVTMQDVIDECKTFFFTGQETSAALLAWTMLLLALNPDWQTRLRQEVCQVCGQVSAPNTLEMLGNLKSMTMVINEALRMYPPVPLLNRYTHNKVKLKELVIPKGTLLLVPLIVINYNEKFWGVDAKSFNPDRFVSQQQRPFLPFSVGPRTCVGQSFAMIETKIILAMILRKFKFELSETYVHSPFQVLTLQPKFGMPMNLLANQ |
| CYP774A1v1 | MEDFLWKILCSCGVFLVVWLLVPAARSLWHAWRFRCFYAKQGIPGPPFRLIVGNIPEIRKLFNSVPKFETSFHAATKFRVIPDLATFQQTYGRISVHELGSTTRILVADTELVKQVLMSRSSSYIKADLSRQILRAVVGRGVVVTDGDFWRQQRKILNPAFKLAYLKGLMRHMSGAGEDLARKWSSRETTRIDAHREMAALTLDVITRASFGATIGGTNTGYAAFECLDRLLSTGLLYMNSYKRLIPGYSFLPTRENLHLRRSEQYVNTLLRDIIRNRWAEKTRNPDENGKPVYDLLDMMLEAVENKSPTMTMDQLLDECKTIFFAGHSTTALTLTWSLIMLSVHQEWQQRARDEIFAAHKRCGGRDLSAEDLSSLEVVGWIIHEVLRLFPPVSTVTRQCHQAHEIGEFSILPGTLVLCPLALLLQSKEDWGDDVSEFNPERFINKKTKDISEFMAFGAGPRMCLGMNFALIEARLLLSLLLAKFSFTLAEDYVHAPGSPVSMKPVYGAPLLVKKL |
| CYP775A1v1 | MQGLEGPRPKFLVGNMDEITRMKETAFHQPMEIGDHNLLQRICPYYLEWSKLYGRTFVFWWGTEPRITVTRPDMIKEILYSKAAHFGKSALQRKGGAVLLGNGLIMANGSDWAHRRAIVCRAFKMDKIKEMVPSMLESTKNLIRRWDAHLELNGGAPCEVDAYRDLAVVTADIIATTAFGSSYSDGIKLFHTLTSIQKLFVQSNKYLWLPGSRLLPTRTNRKIRKLQREMQALLQDLIKARLSSPSLGTDLLALMLSAVEEDPGNKVQSSKFKFTIQQLIEECQTFFFVGHETTLMLVTWAMMLLCLHPEWQDLARKEARQVLQESNRVVNADTLAKLKTVGMIINETLRLYPPAPNLVRAALQDTCVGDLYVPKGTTFWIPILALHQDKHLWGEDAHEFRPQRFSQGVSRACKTYDFLPFSSGPRICVGQSFAIMEAKLILAMILQHYHLGLSPRYKHSPVSSVTLKPGLGMQLMIKRCD |
| CYP775B1v1 | MLLLAAPMLVFLASLLVILVWSASVAFRYVHLRKSLLEQGLDGPPPKFLIGNMHQVSEMRELATSKDMRVGDHDLLPRICPHFTYWSAIYGKRFLFWWGMEPRITVVEPEMIKEILSTKAEHFGKSLLLKKGGVLLLGNGMVYANGESWAHRRRIVGPAFHAEMLKKMVPEMVASTSQMLGQWSQIIDNKSSRRSGDGSSAEIDINYYLSMATADVIARTAFSSTSSHEKGKRVFQLLTCLQKVFAQSNRFLWLPCNRMLPTAANRRASRIKRDMERALRELVLERRAGRQKHGYGSDFLGLMLSESERDKSEAAAAAQQFDTPELVEECKTIFFTGHETTSALLTWTLMLLALNPEWQQRGRAEVMEHLPSKSSVPDADVLPKLKILGMILNEVLRLYPPAPALVRESLVDLSIQDVKYPRGTTFWIPIVALHHSKDVWGDDALHFNPARFADGVAAACKLQHQKLWSFMPFSLGPRACLGQSFAMMEAKVVLAMILQRFEFKISPNYRHAPVTAITLKPRYGMQLMLAHYNIEDGEKSPG |
| CYP776A1v1 | MAMEWWSAIIAALALAKSIALNLVIARVVGFVFSLCRLHVFVRRRLAKQGILGPKPSWLAGNAVEMKRLVASATSADMKSTSNDISARLLPFHHKHAQTYGKRFLAWSVGWEPFVSISEPELIHEILNSTDFEKSGIQNRFMMPLFGRGLVMATGKAWDHQRRLLNPAFYVERIKGFLPTINFCASGLVQEWKGLIRSSSSNVVEVDVHSVLTSVTADIIARTSFGHEFTHREEYVRLERELEVCVLNQPAFCLIPGYRYLPTKQNRKLWEITRKIRSYLYELIDARLATGKDHFGDDILGLLLAATFSSSPSSTKKVPPMSKDVLIDDCKTLFFAGHESSADLVTWSMMLLALNPEWQARARSEVLQVLDGCEVLTSEMLPKLKLIGNILSETLRLYPAAVAIRRKAVKDVVFTKGKLVIPKGVCAEVPILRVHHDPELWGDDVLEFNPDRFSKSEAVAAGSYLPFGWGPRICIGRNFALAEAKVVLSTLLDNFEWEISPSYRHSPRAGVTLYPQHGMQLLLRQLPQN |
| CYP777A1v1 | MDRVVWVGLIAAACWIAVLKLVELVVKSWWRRRRICQVMEGQGIRGPPCNLLDGNYSEIKRMQAEAAAVDMPALTHDIVARVFPFQHKCTQLYGKHFLHWWGQDPIIHITEPELIVEVLSLKFGHWQKSSQLRRAMEFLFGKGLLVAVGEDWVRQRHAVNSALSAEKIKCFVEVVICCVKPMVRKWEQRVEEGGEAEVEVKQDMLDMATEIILRSSFGDECYDEARRYPELVYRLLGLTSKSSPFNSLIPSFVPTKKNQLLKEIEQCFYRVVATHTQQRNTILSSLLGCAARSSLSVQHVIDECKNIVFAGHETTAHMLTWTMMLLGLHPEWQQRAFEEVAEVCKGRDPTSDTLSKLRVMNMIVNESLRLYPPGAQTAREALKDMKLGDRITIPAGVSVAINIVEVHRSVEMWGDDALEFKPQRFAEGVSRACKQPVGGYLPFLLGPRVCVGQGLALMEAKLALVLILQRLSWRLSPNYRHAPIVALTLQPQHGMQLVISPRRTHDR |
| CYP778A1v1 | MDVISVLLVALVLALSVLWMVCSFLMRYYWVPSALRAVMEKQGIRGSPNPPNPIFDVFDGKPDMKEISHDILPHVLPWAAQNMKFYGNVHLNWWLREPRIVISEPKMIWDLFMKKHKDFVKSHFIKLLSDDIFHKGLFLANGEAWARQRQIVAPRYYIDEVKAMVRAVNNATSQVMAKWEAFVKDSGDVERELDVQVEFMCLNVDVVARTTLGLEDNDFQNILKYNITLLKLQNDQETWSWLPFARLIPFGINVERWKVRKQLNDLVRKQVRERRKKMTEGNNIDFIGKLLDNPDVREDVIVAELKTLYATGFISLAPLLSFTMLMLALYPSWQEKARQEVDQVLDGEVVSPKDVTKLITIEMILQETLRLYPTMPLIARVCIKDSMLGDVFIPKGLGVSVNVVALHHDRDLWGDDVNEFNPSRFKNGTATAAKHPMAFMPFAYGVRTCIGRAFSEVQCKVIIAIILQRFEVKLSPNYRHHPVITGPLIPKNGMPVILKPRQNF |
| CYP778B1v1 | MWLVLLAVLAGLLLILWFQCCSFLVYHLWRPKVLEKVMSAQGVTGPPQKNLLTQIWELPDMEQVSHDIVPHAIPFHHARLQKCGPLHINWWRVEPRVELADIDLMRKALLKGPEFFGKSPVLGMIADDIFGGGVFDASGRDWVEQRRVVVPVFHADKIKGMVRTMYENTQSFLENWVTLIRNGGTGEKALDVFPEFVELTAPIIGQAAFGASSSTSIAIVKLLRLLFALQWQQVRYASLPFLPTNRERWRIKREIHRLLRVEIDSRRALTRENCAASHGSDLLGTMLDSNWDDELIITESKTFYTTGHMSLTSLYSWVMLLLAVNPEWQEKARVEVLELVAREGPLDNAQALDKLKLVEMIIMETMRLYPAFPIIPRIALEDCYVDHLFIPKGLAVSVHNTVIQHSAEMWGEDANEFNPGRFANGSLAASKHPMAFMPFSFGARACVGRAYSQVQAKVVVASLLQRFRWSLSPDYRHNPVAAGLLLPKNGVPIVLKLLDSKTIVTNGMKATGERS |
| CYP779A1v1 | MRKLEAALRGQGLKGPPPIFLAGNVVEILFRREAARNKGMDGISHDIVAHVSPDVAAWSKLYGKPYLIRWLSEPRVVVFDPDSIREILSKQFDKFEKSEQQLEFVLDFIGAGLVGLNGNKWSHHRSVLSPAFHTQRLKAMLSSMTNCTEKLVEKWSRRVGHAKGLETEVEVQQDLKRLAADVISHTSFGSNYEKGERVFQGLTLLGVLLVRCFHNSWLPFFRYLPTKLNFQIWKLRREIDGTLLSLIRERRIAAAKLGERSSHPYGSDLLGLILEEGETGGKSVKFPEQAIVDECKTFYLAGHETSSSLLAWALLLLATHPDWQEKARAEVQQHFPNGVDDGETLSKLKVVGMIILETLRLYPAAGEMNRASSHDTVLSNGIKLPRGTGITIPILSLQHDPELWGPDANEFRPERFANGTTKACKHPNAFLGFSFGPRVCIGQGLAVMEAKVVLAMLLQNFSFRLSPNYRHNPTVQIVIQSFTGIQLLVQKI |
| CYP779B1v1 | MVFVIPVLATGLVGVIVYALLWKFWIAPSRKEAVLRKQGIKGPSLGPPQLFKGGNKDEVLKRRFSKRKFTLEFDGAHDILSHVLPDIHSFSKKYEMPYMYWWGNELRMTVTDPEVVRWVLSKNPQSFGKSASIQATLIKLLGYGLVASNGEHWAQHRRVVGPAFHLEKLKNIMAGTMVDCTSKVLSRWDNDGEFEIDVEKEFSFLAADVISHTAFGSSFEKGRRIFHLLNLQAELLTKIAFSPMQWMPFGRLHPLRENLQLWEVQKELDAILLGLVKDRRKSASYGRDLLGLMLEQSQDNPAFKDDKLVGECKTFYIAGQETTATLLTWAMYLLSQHREWQDRARKEVLEVCKEDEINAEALNKLKLVGMILNETLRLYPPIPIIQRGTFNDTTMGDKISIPKGIVLVIPILAMHHDKEQWGGDAHEFNPERFARGASKACKHPNAFMPFSFGPRVCIGQTFALIEAKIALAMILRRFSASLSPNYQHCPVSGVTLKPLHGMQLTFIRR |
| CYP779C1v1 | MAVWLWTIAALCIALVWKGAAKLLLKPWILEAKLRQQGIRGPPRSILSGNVYEIFQMRARTEAECIQGPITHDIVEYVQPHLLHWAKLYGLPLLWWWGTEPGVVLTDLDMIKEVLYNKSGAFWSPEWQRKFQVDILGRGLAVVNGDEWAFRRRILAPAFHAEKIKASNCEMLEKWNALTEGKDEPIELEVCKELTTLTSDIISRAAFGSSYKKGHKVFELLDQVGGLTCFPLAKRFTHCHSMLPICKLNREIKTANSKLRSTLEEIVQARRDQKLAGEIDNYGSDLLGIMLDEVDAGHHDDKTGLSFTTDSLMEECKTFYIAGQETSAKWLAWTMMLLAANPSWQEQAREEVRQVCQSQAPDAESLSKLKIVGMVLNESLRLYPPAVFNVRSCYKDAKLGHLSFPEGSGVIIPILYLLHDKDIWGDDANEFNPQRFADGISSASKSRHSCAFLPFSQGQRVCLGQSFAQIEAKVAMAMILQRFSFRLSPTYRHSPVHRLALQPQHGLPLLLGRP |
| CYP779D1v1 | MEGIGKAVWTGALLVLLALVAKLWRSIVTRYWLEPRSLDTRIRSQGIQGPPRTFLAGNMLQVMKMRDTPKERDMAGLNHDIVEHVLLDYHQWSKEYGKMYFYWWATEPRIMVTEPELIREVLAKKVTQFEKSDMMVSAVASIIGRGLIAVNGNEWSHHRRVVAPAFYLEKLKKMVPRIGLCALEMLDRWEEALREQPEIEMSSEFSKLTADIISHTAFGSSYLKGQKVFETLRAIPEELSKVDRYNYVPGKSMNPFSELNRAIRNGQKKVNNLLLEIVHARQQLKDSGASSNYGSDLLGLMLDEVDSSRSFSGSGIKPALAFTSESLIEECKTFYVAGHETTAKLITWAMMLLATNPTWQERARAEVLEVCKSGVPDSEAASKLKIVGMVLNETLRLYPPAVFLVRTAMEDTKLGNLIVPEGTGVLVPILSILHDKEVWGEDANEFNPQRFADGVANASKHPFAFLPFSHGPRVCLGQGFALMEAKVALTMILHRFSFEISPSYQHSPVLRLTLTPKHGMPLLLSRRGV |
| CYP779E1v1 | MEGSWILSTCIVLFTAALWRFVTVYWWRPRVIAAQLKKEGIQGPPPRFMVGQIAEIQNMRSAIKDHDMGSFSHDIFHRVHPSLLKWRKQYGKRFVFWWGTEPRISVSEPEIVREVLSKKFSQFDKSEAGLRLANLFLGRGLVSVTGEEWSHHRRLVAPAFFHERIKQMTGTITGCASRMLDQWEATRQQNPEIEISGEVRKLTGDVISHTAFGTSYLEGQRVFEILSKKFPELMPKLVSFSWIPGFRFLPLPINLRLWKLHQKLDSLITGIIDERRNSVKSGGSNTYGNDLLGLMLKECDSSTNFTSRDLIEECKTFYIAGHATTATLLTWTLMLLGGYPEWQERARAEVHEVCGNEIPDGESVSRLKLVGMILYETLRLYPPVVEMTRECVEESWLQDLHVPRGVSVSFPIAGLHQDKELWGEDAGQFNPDRFKDGISSACKHPNAFMPFSFGPRVCVGQSFAMIEAKVILAMILQRFSFRLSPNYRHNPAMKHGLKPTHGVPLVLSKM |
| CYP77A4 | MFPLISFSPTSLDFTFFAIIISGFVFIITRWNSNSKKRLNLPPGPPGWPVVGNLFQFARSGKPFFEYAEDLKKTYGPIFTLRMGTRTMIILSDATLVHEALIQRGALFASRPAENPTRTIFSCNKFTVNAAKYGPVWRSLRRNMVQNMLSSTRLKEFGKLRQSAMDKLIERIKSEARDNDGLIWVLKNARFAAFCILLEMCFGIEMDEETIEKMDEILKTVLMTVDPRIDDYLPILAPFFSKERKRALEVRREQVDYVVGVIERRRRAIQNPGSDKTASSFSYLDTLFDLKIEGRKTTPSNEELVTLCSEFLNGGTDTTGTAIEWGIAQLIANPEIQSRLYDEIKSTVGDDRRVDEKDVDKMVFLQAFVKELLRKHPPTYFSLTHAVMETTTLAGYDIPAGVNVEVYLPGISEDPRIWNNPKKFDPDRFMLGKEDADITGISGVKMIPFGVGRRICPGLAMATIHVHLMLARMVQEFEWCAHPPGSEIDFAGKLEFTVVMKNPLRAMVKPRI |
| CYP77B1 | MDLTDVIIFLFALYFINLWWRRYFSAGSSQCSLNIPPGPKGWPLVGNLLQVIFQRRHFVFLMRDLRKKYGPIFTMQMGQRTMIIITDEKLIHEALVQRGPTFASRPPDSPIRLMFSVGKCAINSAEYGSLWRTLRRNFVTELVTAPRVKQCSWIRSWAMQNHMKRIKTENVEKGFVEVMSQCRLTICSILICLCFGAKISEEKIKNIENVLKDVMLITSPTLPDFLPVFTPLFRRQVREARELRKTQLECLVPLIRNRRKFVDAKENPNEEMVSPIGAAYVDSLFRLNLIERGGELGDEEIVTLCSEIVSAGTDTSATTLEWALFHLVTDQNIQEKLYEEVVGVVGKNGVVEEDDVAKMPYLEAIVKETLRRHPPGHFLLSHAAVKDTELGGYDIPAGAYVEIYTAWVTENPDIWSDPGKFRPERFLTGGDGVDADWTGTRGVTMLPFGAGRRICPAWSLGILHINLMLARMIHSFKWIPVPDSPPDPTETYAFTVVMKNSLKAQIRSRT |
| CYP77C1v1 | MVAFLAVAVAILAASLLLLSRRRTHLPPGPRGFPLLGNLLQMRSVLGSPMNLQNLARQHGAIMTLRVGSVPLVVISSSQLAHEALIEKGSIFSSRPSLSERQVRLSNYRRSINAAPYGHHWRTVRRNMVSHVLSPHRVHAFEPARQRVISELVEKLRQTSQRADSPDGPSAVPVLATLRFTVFSLLSYMCFGQWLDKDAVNGVERMLRHLITSAGRGGRMSDFVPLLKIVQRSPRDLKLEELVGERRELLLPLIQRAKLLAAEDKLDQNSYLSSLFSLQRQEDHQLKLTDEDLIVLCSEFLNAGADTTANTLEWSLANVIKHPAVQKKLLEEIHSSVGDKPVTEKDIDKLVYLKAVVKETLRKHPPGYTTLPHAVTEPCKLGGYDIPVHATLLFNIYAINNDPELWTNPDEYKPERFLEGPGASADFTASSGALNLIPFGAGRRICPGLGLATLHVHLVLARLVQEFEWNTVPGETAVDLTPIQEFTVVMKQPLRATLKARRL |
| CYP77D1 | MDLAALVATIALLALASWSLFFLQHLNLRRRMPPGPIGWPVLGSMREIPRLLSDPQKFQQLVARYGPIVTLWNGSVATILISSPDIAREALVEKGSVLASRPDVPSMRLLTSGFKTINSSPYGVHWRATRKNLVSGILSPRVMSGFAPVQEQAAEDLVRKLASEAKQSGGTVESLSVSVRCVLFQILSFVCFGRKLEEAKLEELNALMKEATTMLHPVLGDLVPFLKVFTSHTKQKSFLVRQNQLLKGLLSRECPAASESYVQTLLSLQGKNLEDVDLDLAVLVRELFIAGADTTTNCVEWSMANLIKYPGIQERVFRELAENVGQKSGVKVADLPKLPYLHAVVKEALRKHPPVYLSAPRTPVHATKLAGYDIPKESTVVVHLQSLSNDAGVWKNPDKFLPERFFEQTELSKRMSMIPFGAGRRDCPGKHLGMLHVHLIVANLVQAFEWRAEGKEVDLSPRTVFTVQMKNPLRASICQRRS |
| CYP780A10 | MELFLQSWNALYFLVFLLSLWLISQKFYKSSTIKLPPGSHGLPLVGESLSLFWGSPLDFLSTRRKRFGGVFWSNLLGSPTIVATTVGSAKFFLSCADCGPSGLFARLIGPKSASEVIGSEHALYRRIILGMMVPETLKCHVQMIDILAQETLESWGSKKTVSVMEETVKFSYCTVIGLVCQKLLPSTPEMIDLMRDVQTIENGVLQFPINLPFSPYRKALQQARARLHRFLDGLINERRAELAANGETDKDALDEFITHKDDKVGFLSNQQVEDNLMTMLFGGHHTTALALMWLIKHLNENPQAFKEVEEEQRRILLGKRSTKYSLTWEDTRQMPATLRVAVHESLRLSNVVGVVTRKITKDISYKGYTLPKDWMIHVYMPPIHLDDSIYPNAAKFNPSRFEVPAKTGTFIPFGYGDRICPGRALSQLEQMIFIHRLITKYRWEPVNPNSTTSYWPMPSVKDGYLVHAMSI |
| CYP780B1v1 | MALWSLYLLLVIPAVAAFLISSKRKSGSVQTPPGNRGWPILGETIQLLRGTAEDFVFQRRKRFGDIFSAHLFGRQSIVISTPEAVKFFLTNPGARNCCSPSNSGFLIVGKESVGHVEGATHARYHRAILSSMSGDPLNNHVQRFDKIAMDLLTSWQRKGCVTVLEETLQLTFDVVTAFICDDPRIFQTKTGDFMHDVTVASRGLFKLPINLPFTDYHRALQARKRLHYHLDRLINERRISKITHDDLLHKLMNDKDLNSTNQQIEDNIVGLLFAGQHTTPLTLVWMMKRLQENPEILKEVVEEHQKILREREQPHLTWEDTRRMPVTMRVLQETLRLASGGMLVREMKHAVEYNGYVFPKGWTLHIFHTAIHLNEDYFADPYKFDPSRFLVPQKPGTLIGFGCGLRTCPGAELAKLEILVFFHRLVTQYSWKPKAPNGAIRNWPLRIPEDGYVVEINRK |
| CYP781A1 | MFWIGWLCVAAAGALLASLGNVYSHWQKLPPGPWGWPIVGCLFCVSRRNLHRSFAELATKYGPIVYLNMGSRATVVISSPEVARAVFREHDVQFASRPRYSTPFKHISQNFKDLVFAPYGGRWKNLRKICSTELFTASKVNMFGGIRKAELHDFCNSIAMRAAAGEEVNLSVCFQELLTNLMSSVLFGKKFYTSDLPPVAEAAAYRATWGMLTQESGKIYLGDYIPALHWLDRLRGKDQRIRKTIIPALQGLLNSVIEERRKQLRRDKPRDFVDVMVALNDQKSLSNDEIVAIIQDMLLAGTGTTRSTLEWGFSELVRHPEVQRRAQEELDRVVGRERYVQESDLSGLPYIQALVKEIMRLHPAAPLGLPHFNSCPVSLAGYTIPANSTLHVNIWTICRDSSSWERAHEFRPERFLGSCHNLLGQHFELIPFSSGRRRCAGINLALLHVSLTLAYLLHRFEWRPPPGVDVSEIDMSETTGLACFRTVPLRVSVRPRLELP |
| CYP781B1v1 | MARKYGPVMSFRLGVRPHIIISSPEMARQVLKEHDVEFASRPLFSTISRLVSHNFQDLIFAPHGERWKMLRRVCGTELFTASKVSHFASTRKRELGAFGAIVEASAKDGHEFDLSSMLHEYFTNLMTCVLFGRKFYGTDTPLTPEAEAYKASWAIQAKESRRLFAGDYIPAMRWLDTLRGTQNRLKNEVLPARSRFLEAVIEEHAKDFDPENPRDFVDVMLTLGGEDKLSNDQIIALLQDLLLAGTGTSKGTIEWAISELIVNPRVQEKAHEELDRVVGRDRPLEESHLNDLPYIQAIVKEVFRKRPIAPLGVPHYNDREVTLAGYTIPAHTTVLVNIWAIHHDPSVWSDPELFLPERFLGSDHSVLGNDFDLLPFSSGRRRCVGIPLAMPHVTLTLAYLLHRWSWRSPLGKPIEMAELAGAGIAGVASPRIVCASHR |
| CYP782A1v1 | MEGHLAFAAIILGFLLFVLRARKSRDRAALPPGPFQWPLIGCLPSFPFHHRHRGFLELSKKFGPIVTMPIGSSKIFLVHGKDLAMEVLRFKDAQFSSRPLSMTGKYIGFEHSDPNLCPLNENWRVVRKAFSNELMAPSRLSSQAWLRREEVLKIVDSLLGITGHGRDWASVDVRKIAEGVVGRIIMRMLFGDHYLGKNIDNPDAGRITRELEREFEKYLAEGNFLWGELNLADYFPALGIFDLQGLEGRFKRLMSKLEPLFTMIIQEHRKNTVMIQDEKGKDVIDVLLQNQLSDKQIMGILSDALLPGIGTTSAAVEWAMAELAANPHTLSRAQQELDSVVGRSRLMDESAIPSLPYLQAIAKEVLRLHPSAPLDDPHLNEEESSLGGYAIPAKSTIFVNLWALGRDDRLWSDASRFDPDRFLGTEIGVHGSHFELLPFSSGRRRCPAHALAMIKLQHIVGALVHGFDWSSAGAVDLIEGNGIIASPRTPLRLRARRRLDDEAY |
| CYP783A1v1 | MEGAWFLALALLILLWWSRNLRARLKLPPGPFPWPIVGSLFIVKEPLPIFFAELGRKYGPVVYFKLGMVPTVAINSAAAAREVLKSRDLEFASRPDLGNLRQISFDYNDLGVAPYGETWKLMRRVSATHLFTPSKLNTTASVRHREVKAMIKNILDEGPEVVDLTAATNAAVVQGVVNLLVGTDDKSLGIDARSLNGIFEKAGEELLNVNLGDLFPFLRRFDVQGLERRFKYVVMPPIKSLMEKIIAHHKSSSREVEDFVDVLVNLNGEDGLTHIQTIGLLSDFFIAGINTSQTSIDFTLAELVRHPAILSRAQKEIDQVVGSSRLVQESDLPRLPYLHAVIKESLRLHPPLPLLLPHHNPAASKIGEYDIPAKSTIFVNAWAIGRDPSTWDRPLEFVPERFLERDVKLTGDDFSLLPFGAGRRTCAGYLMAMRMLPLSVATVIQAFDLATLEGREVDMGESTGGATRRNKNLMVSATPRLAKELYA |
| CYP784A1 | MELLDLVIASCILALSCTWLMSFRKPQGRLPPGPLSIPLFGSIFSLKQPLHEHFIHLSKKYGPLIYLKVGMCDLLVANNSAMAKEVLQTHDVEFAYRPDTRSFRLFSLGYKDLLFAPYGDSWKKLRKVSTTHMFTSSKLNISARQRETELLSIIRSIKTSFDSGNSVELRDLVAEYNTNVICLMLFGQKLEAAKTVVGLVEKTASLSLLINIGELFPLMDWLDLHGIYKIMKKEILPDIKKVLGEIIEQRNGTRKEGQEARDILDVLLTLKDDDGVSEASVMALLMVMFTAGLESSQNVAEFSIAESLNHPHIIQRAQQELDAVVGRKRLVREEDLVKLPYVQGIVKETLRMHPPGPLGIPHANPKPVSIAGYTVPANCKVLVNMWAIGRDPACWDRAEEFLPERFINSDYDVAGNHFHFIPFSAGRRICVGYPLAMRSIPLVVATLLHSFEWKRQDGNSLETAKGLLSIKLASKINLSGHPRLDESAYY |
| CYP784B1v1 | MGITIAILVCLLATAAIIKSLRARRSSRLPPGPISFPVVGSLLSLRQPLHRHFARLADRYGPIVFLKIGMVPYVIANTARAAEFFLKIHDAEFANRPQSEEFFRIFSFGWSDLAFRSPGPEWKLMRKICATNLFSNAMLATSAPYRRSQLQSAMDAILDRSRGGEPVNLRTLFARYTSGSLCLTLFSEECPEVVETINNMAGQAINLNIGEIIPSLDWMDLHGVYAKMRGEIMPRIKALLDDQVREHQERKKAAGDGFVCRDFVDVLISLDESDKLSDQEIIGLLCDMVGAGFKTSMESIEWCMAEVISKPEIMRKAQEELDQIIGRERAVEEHDLQNLPFIQAILKEALRLHPAVPLGMPHYNLRPVELGDGHGTIIPAKCKLLVNLWAANRDPAHWTSPHEFQPERFLGTNISPGGQHFQIIPFSAGRRMCAGYGLAMRSLFFLLASLLHGFIWSEISDNPIALEESIGTISCPPAKDLIVAASPRIEERILAQY |
| CYP785A1v1 | MDLLSLPSLSALVLLAAALWCSSTRRRNPPGNLPPGPLNLPVIGCLHKLGSLPHISLHKLSKRYGDVMHLKLGSVSTVIISSERAAREIFKRHGLEFASRAPLICGKYFGNDYSGLVFSQYTPEVKLYRKLINTHLLSPTKLKSYDGIRREEQRRLARSLSDDRGNPVLLRQKLHIMNMNVITYMLFGKHFCGHYKNTANVDEFVQTVVEMVRLAGIFNVSDYIPGIRWLDVQGLEKKYKQLMNQVNWHLLGILRDRLVDPPVFTSEEPMSFIDVLISMGEKLSDTTKITLLLDVLMGAVDTSALSLEWAMAELLRHPAEFSRVQSQIDTIVGKKKLVDESDIAKLPYVEAIAKETMRLRSVVPLGLPKIVQGGPIELDGYTLPNGTVIYISSYSIGLDERFWKDPLEFRPQRFIDLPDIDVFGQNFNLLPFGTGRRVCPGAKLGFDAVQMGIATLVQGFDWKLDGDLDDPAKLNMDQTFGLVCQKSQPLVAIPIPRLDSHVY |
| CYP786A1v1 | MAAQASSTAALSLLWSLLVAIWKKTLGKLFFRDDRHQQDHMPPGPRPLPVIGNLHQLLGRPPHQALLDLSKRHGPLMFLRLGCVPTFVASSAEAAREFLHTHDLVFASRPRYAVARELTYNFADIMWAPYGDHWRHLRKVCSLELFSGKRVDSFERLRKEEISSALATVEEAARASSVVDLRAVLSDITLYSILRMATSQEFGGKKKQLSRFERRVKETIEHAVEMIGALNVGDYLPSLRWMDLQGYGRRARKLHALQDAFFQSLIDRKRQYQGRGGAGAGGVDDLLDVLLASQEKNALTDDTIKAVIQDVIGAGSDTAWVTCEWAMAELLRHPTAMRRAQREIDAVVGRDRVVEESDLPGLNFLHAIVKETLRLHPPSPVILYESTMPCVSSAGYRIAQGARLLVNVYAISRDANSWERALDFWPERFEEGAKKGVDVRGQNFELIPFGSGRRICPGMGMGLRMVQCVLARLLQGFDWEKVGEIDMREKFGLAMPKLVPLQAIPCPRRS |
| CYP786B1v1 | MNLFAAAAFLVIGLVYWFVNRQRPSTPPGPWKLPVVGNLHQLLGKQPHRVITELSKKYGHLMSLRLGSVQAVVASSSQTAKIFLQTHDVIFSSRPEVANAKLLTYGFSDIMWAPYSQQWRELRKLSVLELFTAKRLESFQGIRRDETLNMIHRLLKLAREKKVVNFRDAATELSWSIIGTMVSNRQEFVNLEEGLKVKSSLDRALQLAGAFNLADYIPFFRAFDVQGFRQQSQILHEQLDFFFQGLVDSHRRQERPPNASEDFIDVLLSIQKQNGVEYVSDDTIKATIQDIFAAGTDTSSMTLEWALTELVRHPRSLQKAQDEISFIVGNDRMVSEADIPKLQFLQAVVKETLRLHPPGPLLQHQSMEDCKVGPYSFPAGTRVIINVYGISRDPSLWEQPLEFDPWRFLDKPTASIDMKGQHFEFIPFGSGRRICPGLAMGVRTVELALAQSLHCFHWHSPDDRVPDIEEVCGMTLPKKNPLLLAPSPRLADAVYGEIQRM |
| CYP787A1v1 | MPTSCCKMKLPGTFVFVIGSLLFTLLVVACQALDHLSTSPGTQMNWFLLTFACILTAVISVSWWLMLKSRLRLPPGPMALPIVGHLHLLLKLPHQSFHKLSHKFGPIMTIKLGNKTAIVISSKKAAKEILTSYDRVFASRPVLISPQSLCYNSKNISCCKYGPYWREMRKICTTELFSSKRLSSFQNTRLEETQNLLQRVAEQLKVPLNMKIELSTLTLNVITRMAIGKKFRHGECSEDAEPLNVILEAVRLMGAVNLGDYIPFLKRLDPGGYIPRLKTTSKKIDCILQRLVDDHREEKVKSGDLVDVLQSVGIEDSAIKAVILDILAGGTDTTAVTTEWALSELIRNPDCLRKVQQEIHVIVGDSRLVNENDLHHLHYLKAVVKETFRLHPAAPMMAPHESIEACTLKGYTIPAKTWLLINAWSMGRDPAQWDSPEEFMPERFINSSIDVKGCDFELIPFGAGRRMCVGMSLALCMVELTLARLVQAFHWALPDGSTMNMEERQGVIVARKHPLIAVANRRLPPEVYINTL |
| CYP787B1v1 | MEALSIILVGAATLVLCSLFASRFLYPLPPGPWGTPLFGHLYSLGELPHQTLSKLSKKYGPIMTVRLGMVPALVIDSPQWAREFLTTHDIAFASRPQNTNSKYLFFNGSDVGFSPYGEHWRNLKKLITMELFTAKKMEVFKALRANGILRVLKSIAAEEGNVVSIRNLLSMLNMNNISQMAFSKQVIDDPIFQRFLAVLEESLDLMAVFVLGDFIPFLKWFDPYGYVAKMKANRKEISGIYQMIIDEHKLKRKKNCTPTDLVDILLSQGVDETTIKGTIMGMFVAGTDTSSLTSEWALTSLINNPGCMRRAQEELDRVVGRERRVQEEDLSSLVYLKAIVKETFRLHPPAPLLLPRESTQECTVKGGYKIPKGTRLIINTWSIGRDPAETPSPEEFKPERFLGKSIDIKGQDFELIPFGAGRRICAGLPLGQTMVELTLASLLQAFEWKTDKTLDMEESEGLTTRMKVPLAAHVTRRTSLKF |
| CYP787C1v1 | MAALVVTLLIVLLPLLLWWLRIYQSKKNVAPGPLAIPLLGHLHLLGRHPHKALSILSKKFGSVMSINLGSVPTLVISSPDAAKTILSTQDIFFASRPRTAAAKFIFFNARDMVWCEYGSYWRTMKKVSTLELFTAKRVEESKKLRMEEISRLVTSIAREGDNGRVAIDMNAKLSMTNMNLVSFMAFSQRFEESSFVELLQEAIDLVTSFVPSDYFPYLSWMDDYLGTVPKMKAVQGKLDKIFQAIIDEHRRVNGEKQRAPDLVDVLLSLDEVDDNDRKGLIMDMFGAGIDTSSITTEWALSELIRNPACMLKAQREIDQAVGFDRAVNEDDLLNLGYVRAIAKETFRLHPPVPLLIPHESTQESLVNGLRVPARTRATVNVWSIGRDPRWWERPEVFDPDRFAARSVIDVKGQHFELLPFGSGRRMCPAMGLGLAMVELSLARLIQGFEWNLPAGLQELNMEEEFGVTLRKRVHLSALAMPRLKAELY |
| CYP787D1 | MASFVALFLLTLSLGLLWRILTKIVDRSLPPGPPRVPLLGHLHLLGVLPHKSLSDLSSRYGPVMLLWFGFAPTLVVSSPDAAREVLCTQDLAFASRPKISIAKYMFYNSKDLGWTSYGPYWRLMRKVTTVELFTAKRLEESRMVRHAQVSKLIGFIVNNGQNGKASVNMKFLLSILNLNVVSLITFGREFPAGSVELIEEVMQLMGSFVLGDCFPFLSWLGSPVIRKMISAHTKLDQLLQEIVDEHKSKFKSSERARDFVDVLLSLEDQGEIDIQCVKAMIMDMMLAGTETSAITTEWALSELMNNPTCMIKAQKEIDTIVGRERMVVEADLCKLSYINSVVNEVFRLHLPAPMLLPRHSTQDCLVNGYKIPKNSRVLVNVWSIARDPSLWESPNLFNPDRFAESSISFKGKNFELLPFGSGRRICPGLSLGVAMVSHTLARLVHGFEWKVSGKELSMDEISEGVAVRRKVPLEVFATPRLASHAYL |
| CYP788A1v1 | MNLSSIMGEYTQHDNFTAVASLSLVLAAAIALLAALFSRLRNSKRPPLPPSPPSKLITGHLHLLDQLPNQSLYKLAKIYGPLIQLRLGVVPVVVASTAEMAREFLKVNDSVCASRPRMAAQKIITYNFTDIGWAAYGAHWRQLRKICTLELFTHRRMQETAKVRARELADTMAGIYRDRETSINMNTRIFSLTMNVINQMVMRKKPFSGSDTKEAREFIDLINGVFMVWGAFNIGDYIPGLSIFDFQGYIGMAKVLHKKLDHLLDKVIEEHIQRRMAKSDEPPDFVDVLLALTLEDGSKVSHKTIKGIIVDMIAGGTDTAAVTIEWALSELMRKPHILKKAQEEMDRVVGRDRVVDESDLPNLPYLECIVKEALRLHPSVPILRHESIEDCVVAGYRIPKGTGIMINVWAIGRDSATWENPMEFDPDRFISAGNTLDVRGNHFDLIPFGSGRRMCPGMPLGISMLQMSLGRFIQCFDWGLPPEMKSAEEIDMTETFGLTVPRKYPLHAVPIPRLPAHLYQA |
| CYP789A1v1 | MVEIPQLLSSSTPELYLKLAVAGSLLVLLLLLLNLPSSRGARRKSSSSSSSSGSSSSSSPPLPPGPRGWPIIGNLLDVGTVPHEGMMKLTRAYGPLVYLRLGAIPHVVSDDPAIIKEFLKIQDHIFASRPGNVILAELLTYGGKDIGFAPYGAHWRNMRKICTLELFSAKSVDSFQRLRRMEMIHTLGLILDAAVDRRAVDLRDAFNGLTSNMMTRMLLGKRYFGPGDPGPEVGAELKAMIAEGILMMNGFNISDYLPFLRFLDLQGQERRMKQIMRHIDGLATALLLELAPRIGKKPESFVDILVNLRGENGEPHLPEDVMKAVMVDMMAAGTDTPGVSCEWAMAELLRDPALLARVREEVDRVVCVDRLVDESDLAHFRLLRAVLKESFRLHPVGAILIPHLAMEDAVVAGYGIPKDTRVLINVFALNRNAQVWERPHEFDPERHLRGLGEGAVVEFGDPECRLIPFGSGRRMCPAASLGLTMVLLALANLVHAFDWEVPANLSMERAPGKMVKAQALTALARPRLPRHLYSQQI |
| CYP78A5 | MSPEAYVLFFNSFNLVTFEAFASVSLIIATVAFLLSPGGLAWAWTGSSKSRVSIPGPSGSLSVFSGSNPHRVLAALAKRFKASPLMAFSVGFSRFVISSEPETAKEILSSSAFADRPVKESAYELLFHRAMGFAPYGEYWRNLRRISSTHLFSPRRIASFEGVRVGIGMKMVKKIKSLVTSDACGEVEVKKIVHFGSLNNVMTTVFGESYDFDEVNGKGCFLERLVSEGYELLGIFNWSDHFWFLRWFDFQGVRKRCRALVSEVNTFVGGIIEKHKMKKGNNLNGEENDFVDVLLGLQKDEKLSDSDMIAVLWEMIFRGTDTVAILVEWVLARMVLHQDIQDKLYREIASATSNNIRSLSDSDIPKLPYLQAIVKETLRLHPPGPLLSWARLAIHDVHVGPNLVPAGTIAMVNMWSITHNAKIWTDPEAFMPERFISEDVSIMGSDLRLAPFGSGRRVCPGKAMGLATVHLWIGQLIQNFEWVKGSCDVELAEVLKLSMEMKNPLKCKAVPRNVGFA |
| CYP78D1 | MRNEVLSTIFLLLIFFTTTINPSSSQLPWLFSLLYLSLAMAVVALPPLLAKRHGHARRVNGGGAAIPGPRGWPLLGSLPAVSGPLMHRRLAALAYAHGGGARRLMSLTLGATPVVVSSHPDTAREILAGAAFRDRPARAAARELMFLRAVGFAPAAGDDGGAYWRRLRRAAGAGMLSPRRAAALAALRARVARRTSEAVSRGMAVPPGRVAMRALLHAASLDNMVGSVLGLEHHDHHGGVISDMGDMVREGYELVGKFNLGDYYSTTQYQCLWGLLDFHGVGPRCQRLAARVREQFGRVMEERRKVSDLHKRDDLLSYMLSMPQEERIEDSDVIAVLWEMIFRGTDVVAILLEWAMARMVLHPDIQSKVQEELDRAVGHRPMTDSDIPSLRFLHCVIKETLRMHPPGPLLSWARLAVHDTYVGKHLVPAGTTAMVNMWAISHDETIWGDPWVFRPERFMEEDINVLGSDLRLAPFGSGRRVCPGRMMGLSTSYLWFGRMLQEYKWSPAQPVKLTECLRLSMEMKKPLVCHAVPRSKTG |
| CYP78D2 | MKSIPANLSSILFCLAVITHQTPWPVALLLFSLSSFFAFSLNYWLVPGGFAWRNHHDNQNPSRFRGPIGWPIVGTLPQMGSLAHRKLASMAASLGATKLMAFSLGSTRVIISSHPDTAREILCGCSFADRPIKESARLLMFERAIGFAPSGDYWRHLRRIAANYMFSPRKISALEPLRQRLANEMVAEVREEMKERRVVVLRDILQKGSLSNVLESVFGSDVSIEREELGFMVKEGFDLIAEFNLDDYFPLRFLDFHGVKRRCCQLAGKVNSVVGQIVKERKGAGDSRSGSDFLSALLSLPEEDQLNESDMVALLWEMIFRGTDTVALLLEWIMARMVVHPEIQAKAQEELDTCIGGHREVQDSDIPNLPYLRAIVKEVLRLHPPGPLLSWARLAIHDVHVDKTFIPAGTTVMVNMWAITHDPSIWRDPWSFNPDRFIEEDVLIMGSDLRLAPFGAGRRVCPGKALGLATVHLWLARLLHEYRWLPAKPVDLSECLRLSLEMKRPLECHVVQRRSKVTQ |
| CYP78E1 | MAERPARLWPLTDFPIFISKGDIVCKDSCIGRFQKYQNVGRAVAKKFREFLSALTKSKACKPVNSVIKALAAPLILIAIAQEFSRDAVKQFLLDGFLTQPLRWLFQYISPFIQQVGTVDTATWTDVHASSILVFFIAAISLIISIVGWCGPGGPAWSFSRIFSPSNKLPTPNGPRGCPVIGSWTLMQGSEMHRELARQAWAGGPSTRNLMALSVGTTLIVLTSDANVAKEILRSAVFGERPLKQAALDLGFERAIGFALQGPYWRHLRKVAVTHMFSHRQIVTHSELLQRETLRMISAMVHSIRTDCVKDYRVGLCARPFLQRAAVNNIMTIVFGRHFDFGNSCDEAEALEAMIREGFELLGGFNWADHLPLVRHIPFLSFSRRCRNLTMKVRAFVQSILDERRRCHHQSHSATSSVLNTSFVDALLSLEGDQKLQDEDIISILWEMVFRGTDTIAVLTEWALAEVILNQGIQARIHEELDAVVGSNRLVQQKDIENLPYLQAVLKETLRSHPPGPLLSWARLANEDTQIAGCHIPRGTTTMVNMWAITHDSSVWPNPEVFDPSRFLKSEGGSDLDVLGTDLRLAPFGSGRRVCPGRALGIATAQLWLASLLHHFSWSQDLSHPIDLTDNLTLSCEMASPLHGCPTVRFPL |
| CYP790A1 | MDSLLLELPLVAFIVSLFCFILNRFSRSKQQFSLPPSPPALPVIGHLHLIGDLPHHSMLELSKKYGEFMFLKLGSLNTLVVSSPDAAKIVLKTLDPEFAMKPEHLEAKYASYGGRGIIFAQYGEHWRQARKLCTVQLLSTKRVESAEPNRKLEMGLLLADLWKCADDGAVVNLTNKLSDFAFNVMLKMVTGKSHSSSASSRDEEEQARSIKEGLMEFVREGTGMHIATFFPWLTWVDKQVYKLASVHKRVDKILESEIDRHREKLGKSQPSMQHENFIDVMLMDSDANDAHIKAMTVDMLAASTDTASITSEWAISELLNHPAALAKVQAELDEVIGQERTMQESDIRSLTYLQAVINETLRLHPPVPIYPRENSAQACMISAKWGVPARTRVFINAYAIGRDETLWKEAHRFKPERFLEEKVGIDARGQDFELIPFGAGRRMCPGMQLGHTNVMLAVGSLLHAFNWIIPGADNGTGKVDMQEHFGMTVARAAPLQLLPVPRLPAHALALKPGI |
| CYP790B1v1 | MVMEQVCTKPQLPPQLPPSPTGLPFIGHLHLLGKLPHQSLLKLAQQYGDVMFLKLGKVNTLVVSSSDSAKEVLNTQDHIFGSRPKTTFSETIGYGGAGLAFANGENWKSTRKVCMYEVLTTKRVESFHPIRKFEVSLFMNELLKASREGSAVDLSSKLSDLTFNVISTMVLGKSYSASALSEAEKKETMFFKETLDEAAIMAGFHAGDYLPIPDWMDTQVNKIKQLQRDLDQFIQKEVESHRQRRDPGQAPRDFVDVLLSNSHISDTSIKALIVDMVGGGTESSAVSVVWALAELIKNPRLMERAQRELKEVVGEDRSLEESDIPNLPFLQAIVKETMRLHPPGPLLIPHESTEECEIGGYTVPARTRTVVNIYAIARDEDNWEDPLNFDPDRFMGSNIDLKGRHFEYLPFGSGRRICPGLMLAMATVQFILGSVLHGFNWRLPSGQTIDDLDMSESFGLTVPKAVPLKLVPSPRLEPQIYVKSLSS |
| CYP790C1 | MEFLRLALAFLKALVFKLGCMSKSSSKSFSLPPSPRAVPLLGHLHLLGKLPHQSLQKLASRYGDVMLLKLGSHRTLVISSAEAARAVLKTHDHVFSSRPSTVAGKIFGYGGAGLVWAPYGEHWRTVRKLCTLELLTAKRVETSHPVRKREMAFVLDELSRHQQSDKQLEPVDLTTKLSDLTFNIMTRMVMNKSYLTGTSAEKEAAVRFKDLITEAFVVGTSCLSDSFSWLAWVDPQARKMERIHQQQDAYLSKQIAEHRQQPGSNGDFLDVMLAMEELSDTSIKSLSQDMLGAGTDTTAVTVEWALSELVKDPALLRRAQEELTEMVGDKAMVDESDLPKLRYLQAVVKETLRLHPAGPLLLPHESAEACVLENYTIPAKTRVIVNAYAIARDSRWWDEPLKFDPERFLEKCQGMDVRGQSFEYLPFGSGRRGCPGVTLGMTTVMFILANLIHAFDWKLASGEEMDMTEAFGVTVPRASPLKLVPSSLNLEFPPKFKS |
| CYP790D1v1 | MLEMILTIVLTLALILVVLFCTNKRNQSLPPSPRALPIIGHIHLVGKKLPHEYLFRLAKQHGGLMYLQLGRIKTLVASTPAAAEEVLKTHDRAFASRPANSAAKYFGYDATDLVWAPYGDHWRHLRKICTLEFFITKRVQMFQPVRKLEMSMLITELVEACNQRRPVDMTSRFFQFAFNTMSRMVLNKSISDASGSESEKLKEFLNNLNEASKVGNGLQIGDLIPCLSWADPKVFRIKWLQTQLVNYLGEQLQEHKKNRESHDEVKDFMDVLIAGGVLDDTRIKALTSDMLAAGTDAIAVTIDWALAELMRNPELMQEVKQELEEVVGSKGTVEEEHIPKLEFLQAIVKETLRLHPPAPLLAPHESVESCNIWGYNIPAGTGLLVNAYALGRDESTWSEANKFNPKRFLETKSDVQVTGQNFELIPFGSGRRMCPALSMGLTMVHYALATMLHTFEWSLPDGKDEVNMKAYFGIVLIREEPLMLVPRLAKSCP |
| CYP791A1v1 | MEGLFQIGTAAIFLSWIAWSLFFAPRTRIYRGNLPPSPGFALPIIGHLHLLGNLPHVSFIELAKRYGPCLMLKLGSYPSLLISSPEFAREALKVNDIVFSSRPSLAASRILADNAAGILWAPYGQEWRNLRKLCSLELLTSRRIEESRPVRAAEVAAAMARAKEISKAGICVNLTSLLEDLTFDIMRVWVMGSSESSRSSAGVYKRVMKESFVAGGEVHVGDYVPWLWWLDLAKVARMKRVHGEIDDIIQKEIDEHCGKRSGSDDFITATLRNNEICRTDRDRKGLITDVIGGSTDTSALTVEWAMAELINNPRSLERAQDELLQTFGKNSLVEEDRLEELEFLTAVVKETLRLHPTAPILIYETTHECQLERYTIPPKTRVFINIYGIARSEASWSDPLAFKPERFLGSGAIDVRGRDFEVLPFGSGRRGCPGIQLGFTMVMLVLANLLHGFHWSLPPGLSRLDMSEESGLTIPRAIPLELLAVPRLDARSYSV |
| CYP791B1v1 | METWIAPLAVLFGLSVALLLKSWILRQPSGGAGCSLPPSPRALPLIGHLHLVLGKHLHRAFGEIAREHGPCVFLKFGSSPHLVISSAQAAREAIRVRDSTYSSRPFLSPAARAEEMALAVAKLVEASRGPMPRTVSLTQVISDVTYGMILRKVVGNGHRRNEEALRFKHLLKEVFVAAGEFYVGDTMPWLQWLDLRKAAHAKRLYKQVDEYMQRLVDEQRRKGGDIGDDFISIMLRNELFSKSDSFMKAIVLDMIGAGTDTSAVTIEWAMAELINNPRIMSRLLEELHSVVGPSSLKVEEAHLDKLVYLDAVVKETLRLHPPAAILIFQAAQPCQVMDYFVPEGTRVFINNYEIARDERCWEEPLKFKPERFVERNIDIVGVRDFEMLPFGSGRRGCPGIQLGLRVVHFVLANLVHGFEWKNPSGKELDMSEGSGLTLPRAVPLELTISSRI |
| CYP791C1v1 | MEFHYWSLSIFSLLAILGTVWCLVRILYPSKRYKGLPCPRMFPVIGHLHLLRRDPHRVLLALAREFGRCMYLKLGQYPCLVLSSAEVTKEALQGHDIAFSSRPALSAARIFGFNGSGVLWAPYGEHLKMVRKLCILELLTPRRVDSFESIRAEERSRFVSQLRDIANRNEAADLTAMLLNMTLNIMMRIVLGTSSATVDKETSTVKELIAEAFVSTGEFLVGDYLPWLSLLDTKKKSRMKALKEQMSSYLQKQIEEHHNQNDKSADFMTLMLQSPEIGSNDVAIKAVIAVQDMIAGGTDTSAITVEWALAELLKHPDLMAKAQEELDNVLGRKSQVQGGHLPKLEYLAAVIKETLRLHPPGPLLIHETTQNCQLKNVFVPQKTLAFINLYALGRDESTWVDPLKFDPNRFIDKKNDGCGHDFGDYLPFGAGRRGCPGMHLALTVVSVTLASLLYGFNWKMPDGMSFEHLDMSEGAGFTIPRALPLKLVPLPR |
| CYP792A1v1 | MEHITAFFTFLASFILVIFYYDRSKSRSSHVMPPSPRAFPILGHIPLLASNSRGPHLILFDLAKKLGPIFYLRLGYTPTLVISSAKIAQEILKTHDRIFSSRPSLTFAEAILPDDLIFARYGARWRELRKICTLELFTARRVGSFAAVRQAEMEKFLAMLSQNLRRTVNMTQELSVLTLEIMQTLVFGTSRTFGANDFLRLAHQANELGGRLHIGDYIPWLKWMDLSLPKLRTLATKFHALLQAHIEEHRSSIAKQGHGGESFLDVLLSLDNMSDLTIRCLMLDAVSAGLDTTATAIEWALAELLLHPQILAKAQKELDDVIPASSAMVSEADIPKLKYLGAIVKETLRKHPPAPLMVPRESTTDCKVTGYTIPAKTQVLINLYAIARDPNIWENPLEFIPESMSSEFNAAVELMTFGFGRRSCPGMNLGLAAVHLVLANLLYRFNWTTPDGKEVDVGESGSRSCVLVHLHWFHFSASNETY |
| CYP793A1 | MEVFLLLLVVITFGFFLRTRNRNNILPPGPLAIPFVGHLHLLLKGHPHVVLKALAEKYGPVMFLRFGVVPIVVVSSSQSAVEFLKVQDKVFTSRPRFLSAGRLLLGFDGEDMVFAPYGMRWKQLRRLCTTKLFTARNFADVRMSEVRSLVRAIQAFGEASPNSALDLRTKFKHLTFNIITRMLMSKRYFEGDTADSKEAEEFIYLMEESFSLAGAFPVSDYLPYSFVKWLNMNQDDRIKTLSVRSRQFVDKIITEHELRSPTCSDDFLGLLLKLRSTEDVLQRNTIRGLMINLLQAATDTSSVSLEWTLAELINHPACMSMVQDEIASVVGSNRMVEERDISKLPYLQAIVKESLRLHPPGPLLLPRECSKTCEVMGYKIPEATTLMVNAYAIGRDPKVWKEPLKFKPERFLDYSCFDVGGNNLDVIPFGAGSRACPGISIAFSILHLALANLVHAFHWTLPAEVVHVDTSNEKYGLTVTLAKKLEAIPLCKIDTIVCGDE |
| CYP793B1 | MSLRFGHVPVVVASSPAAAKEFLKTHDAAFASRPLSAAGRTIVHYNADIVFAPYGDSWRHLRKIATLELLTARRIDMFRGARMEEVRSMCRSLLVADDREMGVVDVRGQVTALTFNLITLMLMGKRYFGKDIENEKGAKKFLEVIASTFKVCGEFPIGDYFPWLPKFLDPAERRMHSLAKSLHEFLSDNIIEHENKRKNKKKNNNDEDFLDILLSLKDNGDEHLQNENIISVMTNLVTAGTDTSAVTLEWAMAESIKNPTIAAKAREEIELVLGEKWRTKMVEEPDLSQLTYLQAIVKETLRLHPAGPLLVPHQSTEAVSNVMGYHVPRGTTVLINAYAIARDSSAWGDDALLFRPERFLGTDLDIRGRDFEAVPFGSGRRQCPGMALALTTVHLTLANLLHGFEWREPSGESIDTSKEQYGLTLLLAKKLRLIATPRLEQGTL |
| CYP794A1 | MGAFGLLLYLRNKMKKIQGNKQQLPPSPQSLPIIGHLHHFVSSGKEPHQLFQSLAAVHGPIFSLRLGYMNVVVVSDRSTAKQVLKTNDLALASRPKLISVKHALYNFQDVVFSDYTKELREIRKFLAMELLSAKKLDMFTNVKEDELSWLVLTLANASEQLNTFKMRDYLVGLTYNVITRMLMGKRYYGAPPDDKEYEEGVAFKKVVDDAIKIGVAGSIADFFPQLEFLDWKVSQAKKVQRELDKFLQRMLDEHRVPNRGNSQEDFLDMILEASFMSDDRIKATESMTLLHLQDLITGGTDSSSSFLEWTLAELIMHPQVLAKAQEEIDTVVGHGRKVKESDIPRMPYLQAVIKEGFRLHSPVPLLVPHYANQECSINGYTIPCNTTVFVNTYAMGRDPKVWDNPLEFDPERFLSGPHKEVEVLGQNVNFELLPFGSGRRSCPGSALGNSIVHFTLATLLHCYDWKAGDKIDFAESSGAAKIMKFPLCVQPTPRLQIQDMYVTNQYTNPIHM |
| CYP795A1v1 | MEFLVGFAILLILVVFSSVFYLRVASQSPSLPTPLPIIGHLYLLGKLPHHSLLAIARKYGPLVQLRLGSVPVVIASSPEMAREFLRNQDLTFASRPTLLTTKYILYDSKDMVFAPYGEHWRSMRKLCVVELLTDRRLASSQQARLEELQRLLAKIAKVVETSEPFLLLDLLTEFTFNVITRMVMNKAYFGSGETMEELAATRDFIHMQEQGTILLGEFHIGDYIPFLKWFDSSVAKMKALHKIQDEFPQKVVDQHVLARQSREQTQAHDGDGDFVDTLLSLDSPDPNNQARNIKALIQNLLGAGTDTSITTIQWAMAELLNNPRALEKAQEELRAKFGNARQEIIQEHELKDLPYLHAVIKETFRLHPPAPLLIPHQSTQDTTVAGLAIAKGTRLFVNVYAIGRDPALWKSPDDFLPERFLGSSIDVHGKNFELLPFGSGRRGCPGMALGLITVQLALANLLHRFQWSLAPGVDAHPMAECFGVVTTMEIPLRARASPNKD |
| CYP796A1v1 | MASLVNATAALQDEGPASNTIRATLTIALVAAVIAWWAIAKSRYGLKNLPPGPRGLPIIGHFHLIGRLPHVSLQQLSAKFGPLMSLRFGFVPVVVVSSPAMAREILKTHDTAFADRPYKIAANFIFYGQRSISWSSYGDHFKKARKLCATELFTARRVTSFTHVIRDELWKLSGELRAASASGEVVKLRRHLRGLSFNLMTRILMKKVYFGPGASTDESALQEAKEFVNIIDSVLTVGGAFAITDFFPGTKWIDWTVPAAKAASDKLNSFLTKVLDEQRPGEVPDFVALTKSYFDGPDQMKYTKALLVDMFLGGSETSSTVVEWAMAELLHYPKVIAKAQEELERVVGRERMIEESDLPKLEYFSALVKEVFRLHPPLTMMVPHTTAQNQKVAGYDIAKNSMIFVNVFAIGRDPSVWSNPLEFNPDRFMGTSFNVHGHDFELLPFGSGKRGCPGLPLGLRNVQLVLSNLLHGFDWSYAGDIEKHQMTEAMAVVNFMEHPINVRASPRLDDATYKTLSINT |
| CYP796B1v1 | MFWAVHIVVFLLTAFILKQWLSSISLNLPPGPRGLPLIGHFHLLAMGKIPHIALQQLSKRFGPLFHLRLGSVPVFVVSSPEMAKEFLKNHDTEFAYRPRNNVVSIVMDSRSMSFSPYGDYWKKLRKLCATEIFTAKRMSMNTQIIRDELWELSGELLRASKAGQVVGVRPHLRALSFNVMTRILMKKTYFGSKASGDPAIAAEASNFIAMIDEILEVGAAFSITDYFPYLSWLDLVARRAKVAGDKMNGFLQKVLDEQRPGEVPDFVEVTRSHIGNDLVSLRALLMDLLLGGSETSSTVTEWALAELLHHPDWMVKAQQEIESVVGRTRMVEEGDISKLEVLNAIIKESFRLHPPVSLLIPHASVEAQNVAGYDISKNAMLIVNVYAIGRDPRVWSDPLEFQPQRFIGSSIGVNGQDFELLPFGSGKRACPGLHLGLRNVQLVLSNLLHGFEWKFPGSPKDQTMDEAMGNISFMAHTLKAKITPRLNESLYRLT |
| CYP796C1v1 | MLPAIVLVLTLAFFVTQWMWSKRAIKLPPGPRALPLIGHFHLLGRIPQISLYHLSKKFGPLMYLRLGSAPLIVISSPAMAREFLKTHDAAFARRPPRVAVDILMYKFKSLSYSEGEYHKNIRRMCSMELFTARRVTSFTKIIRDELWDLTAELAKASKAGQPVALRGKLRSLSFNVMTRILMNKTYFGSKASSDDPQAREFVGVIDEVMDAAGAFSIADYFPSVGWLDWSIARCRRAHQRMDAFLDKVLNEQRPGEIPDFVEMTKARVDGPEQAQYLKALLMDLLLGGSETSSTVVEWAMAELLHNPEWMEKLQQEIESVVGRDRMVEESDLAKLELVNAVIKETFRLHPPLSLMVPHTSPEPRLVAGFEIPAKATVLINTYAIGRDSQAWPNDPDKFKPGRFVGSNINVYGHDFELLPFGSGRRGCPGLPLGLRNVQLVLSNLIHGFDWRFRDGATRKLSFDSGPGFINIIADAVVAQVSPRLEQCAFGTLAAS |
| CYP797A1v1 | MEHFDLALYLGLILLAGALWRQYRSFKVRLPPGPRGLPLIGHLHLLSTLPHRSLQKLSQAHGPLMHLRFGTVPVIVASSPAMAKEVLKTHDLAFASRPYLLVGEYAAYNFHNIGLAPYGDHWKMMRKLCSTELFTAKRIDSFSWVRVEELSGMVSGLLAKSASKEVVQIKSFLTDFTFNVMTRILMDRAFFGPAGADSQGKAREFRGIVEEILQVAGSFNVSEYIPSAFKWIDWNIPRFKRLHARQDRFLQEIIDEHKVGHDALAKPRDFIDILLSYFNHGDSRIDLDNIKAVLSDLLPGGTDTSITTVEWILAELLRNPLALKKAQDELDAVVGKDRMVNESDFPKLHYLHAIIKETFRLHPPIALLVPHMSRYECKVAGYDVPKGATTLVNVYAIGRDPTVWEDPTRFSPDRFLEGAGKGMDVRGQDFELLPFGSGRRSCPGLQLGLKTVELALSNLVHGFDWSFPNGGGGKDASMDEAFGLVNWMATPLRAVVAPRLPPHAYEKV |
| CYP797B1v1 | MDLTLSVVVSSLLLLFILAVVIISYKTSPPGPWGLPLIGHLHLLARMPLHRALQSMSQKHGPIVSLSLGMRPAILISAPALARELFTSQDVNFPSKPYTSVSEHIGYNFRSIGTAPYGEYYSSIRKLCLTELFTARNIDSFSWIRREELSHLLSAILSRASHGQALDLRKTLSVFTFNSITGALMSKRYLSHDTGAASSKEAMEFKNWLIEVLQLVMEPSLSNFVPWYLRWLDWKTPGLRRLHAKLDKFLQMVVEEHKKSTREQKDFLDILLKAFGEEEAYAKANLLDLMVAGTETSVTGTEWLMAAVIQEPRILKKAQQELHDAVGNRRMVQESDLSKLGYLDAIIKESLRRYPIVPIYIRECQGQASKLGGYDVPKGTIVIVNSWALGMDPVVWENPTQFLPERFLASSIDIKGQDFELLPFGSGRRRCPGMPLGLRTMKLLVANLIHGFDWSVEPGKIQSMEDCFKSTCIMKHPLRPVVTPRLHKDAYTTQIHDFFI |
| CYP797C1v1 | MELALSSFALPFLLLVLTGALSILVTSWDKKKNLPPSPGWALPLIGHLHLITKQPHRSLQALSKKYGPIMFLKLGMIPSIIVSSPEMAKEALMNNGLAFASRPYLLISEIIGYDFQSIGIHYSEHSRRLRKMCVTELIAPQKLESSLWVRFQELSRAFRILQKSNEEKVAVDMRYLFSTFTFNAFTMILMSKRYFGDTTDDNDQHREIKHVINEIFSLAIKFHITEFVPSYLRWLDPTIPQFKRLHERQDKFMKKIIKEHKEPTARPKDFMDALLESFSAEDTVKAFITVSSLHILLLASDSTAVAAEWVMAQLLHNPHVLEKAQFELNLVVGPNRLVQESDFSKLEYLQAIIKETLRLCPPGPLLIPRSSDEACTIGGYYVPKGSTLFVNAFAIGRDPSIWERPTEFMPERFLGRSVDFKGQHFDLIPFGSGRRMCPGMPLALKALELLLANLVHGFDWSFPPGEIQTLEDCFETTLLLKSPLKLLAVPRHSASVYAEI |
| CYP797D1v1 | MATIFGGVLVFLVLFFLTKRLSFTRQRLPPSPLSLPLIGHLHLLTRMAHQSLQVLSNKYGPILYLKLGMVPTIVVSSPDMAREILKTHDAKFSSRPYFLVGEYFSYGYCGMGFTSGGEHWKNLRKLCATELFTINRIDSFEWVRKEEISRMISTIENTTGVINMRNLLITYGFNVMTETVMSKRFFCENGALLDADQAREFKKVSIETVEMALKFHISEFVPSYLRWIDWNIPKVKILQAKSDKFMQQIVQEHKRSKNSRKTKDFMDVLLESFTDSSNKQSLKAENTVKALTMELLAGGTDTSASSIEWALMELLLNPHTMVKAREELVKFVDLTNSTVNEGDLPKLTYLNAVIKETMRLHPPAPLLVPHKSTVECKIAGFDIPKGTTTIVNLYAIGRDPNVWENPTKFCPERFLGDSRIDVKGQNFELIPFGSGRRTCPGMILGLRNVQLVLANLIHRFEWALIPGREYGVEETTGTVNWAKTPLEVLKR |
| CYP797E1v2 | MEFPVYLLVALVVCFLGRSLLQSRKRLPPSPWGLPLIGHVHHLSRLPHQSLQNLSRKLGGIMYLRLGMTPAIVISSPDLAKEALRSNDSSFGFRPYLLVGEYLTYNFKGIGLSNGDHWKNMRKICITELFSVKRMESFRGLRLAEVSHLVSRLAQASKSQSVVNVRELVTDFNFNIHLTVLTFNVQTRILMSKRFFGENLSDDELAEARVFKELIDESVKFAFQFHISEFVPSWLKWIDWNIPQAKRVAAKQDEFLQKIIDEHKAKKSRPTKDFMDILLEQRGDDQEVVKAILMSFAQEILIAGMDTSACTVEWALLELVHNPEVMKKAQEELDVVVGRNRMVTETDFSKLTYLEAVIKETLRLHPPVPILVPHMSNKACVLAGFDVPKGATTIINFYSISRDPNVWEHPTKFWPERFGQITADVKGQDFELIPFGAGRRMCPGMSLGLKTVHLVLSNLLHSFHWERVPGESYNLDEGVGSVTWPKSPLQAQLTPRLRNLDVIFNFAQ |
| CYP797F1v1 | MEFLVYVLLGSVFLFYLLVRPFLQPRKLLPPSPRGLPFIGHLHLLGRQPHISLQELSNKFGDIVCLRLGLVPAILISSSAAAREALKTHDQTFSGRPYFLLGDYVYSSKSMVLSPPNEHWRRMKKLFNAELFTANRLASFLEVRREELASMVSFLIDNQSRVVNVRELVRSYTFNTITRIVMSKRFFGEKNTVNEEEAMEFMEVMEEIIKFGFAFHISELVPAWLRWIDWKIPAVKRIAAREDIVIQKILDEHRKTKSSRGTKDFLDILLEHDTKGDGGGNDLDNARGTIMELVGAGTYTTACVIEWAILELLRNPDVLEKAQHELESIVGQTNRLVEESDIEHLTYLQAIVKETFRLHPPAPLLLRMSTQECVISNYHIPKGANTFVNVYAIGRDPGLWENPMEFWPERFVGSSMDVRGQDFELIPFGAGRRTCAGLTLGLKVVQVGLANLLHGFDWSCVAGRDYNVAESSVSVIWPKKPLEAIVILKSR |
| CYP797G1v1 | MDLVTAFIVLLVILLPILRGLFQRSRLPPSPSFGLPLIGHLHLLGRMPHQSLQALAKKHGSILFLRLGIIPAVVVSSVDLAKEVLKNQDLTFASRPYFLVGEDVGYHFMGMSLAGYGDHWKKLRRLYTLELFTAKRIDSFLSLRLEELSHMLSAVLYAHEKNQAVNMRNLLTCFTFNTITRILMNKRYFQHQGEELQGIDSSEASVFKAVLSEITEISLQFHISEFVPAYLRWMDLSVYHMRRLHADQDKFLQKIVDEHKYEKNKSSKDFMDLMLELFDGDPKGDNMIKAALQELVSAGTETSATTVEWTFGEILHRAPHVLTKAHEELDSVVGRSRLVDEADLPRLPYLQAIIKEAFRLHVPVPLLVPHMSMHEASLDGYHVPKGATTIVNAYAIGRDPALWDNPLEFRPERFLGSSMDVKGQDFELLPFGSGRRACPGMGLGLKTVQLALANLIHGFDWKASGQNALEEAAGAVIWLKTPLEAVGSPRLQVEVLTSCHI |
| CYP797H1Pv2 | MEVAQYAVVLLITLLGLPLIGHLHLLGRILHLSFQTLSTKYGPIVFLRLGMVPAVVISSLELVKEVLKIQDANFALGPYLTMGEYNYNFRDIGFVLYCDYWKSMRKLCATELFTVKRIESFQGVRTRETHGVLSELVNAADYQKPINMYVFHVVMQILMSKPFFEYREHEAEMSSKGKDFKHIVFEITEQMLQFHISEFVPAFMRRIDWKIPEMMRIHARQDKFFKRIIDDHKARLESETSQPKDFMDTMLQSLKSEGARGEEELLSGRDTSASLIEWTLLELMHNPLVLQTVVGKERLVAERGFDKLEYLACKVAGYDIPKGTPTFVICFTIGRDPAVWEDALRFKPERFLGNLIDIKGQDFGL |
| CYP798A1 | MDNGMMVWIVLAGVVAMAVWYLLVQYQQPKQSHNVPRETLPPGSVGWPFLGEIISFYFRTPDFVKQRRGRYGNLFRTVLIGYPTVISTDPEVNKFILNNDGRLFVPAYPSYWSQIIGECNIFVARGDFHKRMRGAFLHFISISVVKNRLLSEIQNIITFSLAGWEGRNVNVLHEAEEMIFSVMANHMLSLSAGTALESMKRDFLVMMKGLRSLPLRVPGTTFYKSLQKKQVLFNQIKSIIEERKLNMSAYDSYDDLLSSILKSASEKEFTTTQIVDLIVQSVIGSLETTPKIMASVVRHLSENPHIIKYLKEEHETIIQAKENNQSLSWDDYKSMVFTKSVIKETLRFGMQPLNNIMFKKTLQDVKIEGYTIPKGWTCIIYDLVSDMDNKYCKDPLSFNPQRWQSKEMNEVPFLAFGGGPRLCPGYELAMLTMSFFLHHLVTKFRWEYLPSKSELRWFDSPLNSVFDCRIH |
| CYP799A1 | AVQYLTQKPKALQQLRREHEAILLAKKQKPEKILTWEDYKSMEFTRSVIKETLRLSNVGPFLFRECVQDTEIKGYRIPKGWKVVACTTAVSHDPAIFPEPSCFNPWRWQEDMAEEKHLQVFGGGSRYCVGAELAKLEMAVFLHHLVTKFSWDICEGEIIRSPLVLFKDGYPISVRKRAS |
| CYP79A2 | MLDSTPMLAFIIGLLLLALTMKRKEKKKTMLISPTRNLSLPPGPKSWPLIGNLPEILGRNKPVFRWIHSLMKELNTDIACIRLANTHVIPVTSPRIAREILKKQDSVFATRPLTMGTEYCSRGYLTVAVEPQGEQWKKMRRVVASHVTSKKSFQMMLQKRTEEADNLVRYINNRSVKNRGNAFVVIDLRLAVRQYSGNVARKMMFGIRHFGKGSEDGSGPGLEEIEHVESLFTVLTHLYAFALSDYVPWLRFLDLEGHEKVVSNAMRNVSKYNDPFVDERLMQWRNGKMKEPQDFLDMFIIAKDTDGKPTLSDEEIKAQVTELMLATVDNPSNAAEWGMAEMINEPSIMQKAVEEIDRVVGKDRLVIESDLPNLNYVKACVKEAFRLHPVAPFNLPHMSTTDTVVDGYFIPKGSHVLISRMGIGRNPSVWDKPHKFDPERHLSTNTCVDLNESDLNIISFSAGRRGCMGVDIGSAMTYMLLARLIQGFTWLPVPGKNKIDISESKNDLFMAKPLYAVATPRLAPHVYPT |
| CYP79B2 | MNTFTSNSSDLTTTATETSSFSTLYLLSTLQAFVAITLVMLLKKLMTDPNKKKPYLPPGPTGWPIIGMIPTMLKSRPVFRWLHSIMKQLNTEIACVKLGNTHVITVTCPKIAREILKQQDALFASRPLTYAQKILSNGYKTCVITPFGDQFKKMRKVVMTELVCPARHRWLHQKRSEENDHLTAWVYNMVKNSGSVDFRFMTRHYCGNAIKKLMFGTRTFSKNTAPDGGPTVEDVEHMEAMFEALGFTFAFCISDYLPMLTGLDLNGHEKIMRESSAIMDKYHDPIIDERIKMWREGKRTQIEDFLDIFISIKDEQGNPLLTADEIKPTIKELVMAAPDNPSNAVEWAMAEMVNKPEILRKAMEEIDRVVGKERLVQESDIPKLNYVKAILREAFRLHPVAAFNLPHVALSDTTVAGYHIPKGSQVLLSRYGLGRNPKVWADPLCFKPERHLNECSEVTLTENDLRFISFSTGKRGCAAPALGTALTTMMLARLLQGFTWKLPENETRVELMESSHDMFLAKPLVMVGDLRLPEHLYPTVK |
| CYP79C1 | MDYYLNNVIFSVVVTFSITLNIVFLIKSVVARFLGRRKKLPPCPRGFPIIGNLVGMLKNRPTSKWIVRVMNDMKTDIACFRFGRVHVIVITSDVIAREVVREKDAVFADRPDSYSAEYISGGYNGVVFDEYGERQMKMKKVMSSELMSTKALNLLLKVRNLESDNLLAYVHNLYNKDESKTKHGAVVNVRDIVCTHTHNVKMRLLFGRRHFKETTMDGSLGLMEKEHFDAIFAALDCFFSFYVADYYPFLRGWNLQGEEAELREAVDVIARYNKMIIDEKIELWRGQNKDYNRAETKNDVPMIKDWLDILFTLKDENGKPLLTPQEITHLSDLDVVGIDNAVNVIEWTLAEMLNQREILEKAVEEIDMVVGKERLVQESDVPNLNYVKACCRETLRLHPTNPFLVPHMARHDTTLAGYFIPKGSHILVSRPGVGRNPKTWDEPLIYRPERHITGNEVVLTEPDLRLVSFGTGRRGCVGAKLGTSMIVTLLGRLLQGFDWTIPPGTTDRVELVESKENLFMANPLMACVKPRLDPNMYPKLWTGPA |
| CYP79D1 | MAMNVSTTIGLLNATSFASSSSINTVKILFVTLFISIVSTIVKLQKSAANKEGSKKLPLPPGPTPWPLIGNIPEMIRYRPTFRWIHQLMKDMNTDICLIRFGRTNFVPISCPVLAREILKKNDAIFSNRPKTLSAKSMSGGYLTTIVVPYNDQWKKMRKILTSEIISPARHKWLHDKRAEEADNLVFYIHNQFKANKNVNLRTATRHYGGNVIRKMVFSKRYFGKGMPDGGPGPEEIEHIDAVFTALKYLYGFCISDFLPFLLGLDLDGQEKFVLDANKTIRDYQNPLIDERIQQWKSGERKEMEDLLDVFITLKDSDGNPLLTPDEIKNQIAEIMIATVDNPSNAIEWAMGEMLNQPEILKKATEELDRVVGKDRLVQESDIPNLDYVKACAREAFRLHPVAHFNVPHVAMEDTVIGDYFIPKGSWAVLSRYGLGRNPKTWSDPLKYDPERHMNEGEVVLTEHELRFVTFSTGRRGCVASLLGSCMTTMLLARMLQCFTWTPPANVSKIDLAETLDELTPATPISAFAKPRLAPHLYPTSP |
| CYP79E1 | MELITILPSVLPNIHSTATVLFLLLLTTALSFLFLFKQHLTKLTKSKSKSTTLPPGPRPWPIVGSLVSMYMNRPSFRWILAQMEGRRIGCIRLGGVHVVPVNCPEIAREFLKVHDADFASRPVTVVTRYSSRGFRSIAVVPLGEQWKKMRRVVASEIINAKRLQWQLGLRTEEADNIMRYITYQCNTSGDTNGAIIDVRFALRHYCANVIRRMLFGKRYFGSGGEGGGPGKEEIEHVDATFDVLGLIYAFNAADYVSWLKFLDLHGQEKKVKKAIDVVNKYHDSVIESRRERKVEGREDKDPEDLLDVLLSLKDSNGKPLLDVEEIKAQIADLTYATVDNPSNAVEWALAEMLNNPDILQKATDEVDQVVGRHRLVQESDFPNLPYIRACAREALRLHPVAAFNLPHVSLRDTHVAGFFIPKGSHVLLSRVGLGRNPKVWDNPLRFDPDRHLHGGPTAKVELAEPELRFVSFTTGRRGCMGGPLGTAMTYMLLARFVQGFTWGLRPAVEKVELEEEKCSMFLGKPLRALAKPRQELLQSF |
| CYP79F1 | MMSFTTSLPYPFHILLVFILSMASITLLGRILSRPTKTKDRSCQLPPGPPGWPILGNLPELFMTRPRSKYFRLAMKELKTDIACFNFAGIRAITINSDEIAREAFRERDADLADRPQLFIMETIGDNYKSMGISPYGEQFMKMKRVITTEIMSVKTLKMLEAARTIEADNLIAYVHSMYQRSETVDVRELSRVYGYAVTMRMLFGRRHVTKENVFSDDGRLGNAEKHHLEVIFNTLNCLPSFSPADYVERWLRGWNVDGQEKRVTENCNIVRSYNNPIIDERVQLWREEGGKAAVEDWLDTFITLKDQNGKYLVTPDEIKAQCVEFCIAAIDNPANNMEWTLGEMLKNPEILRKALKELDEVVGRDRLVQESDIPNLNYLKACCRETFRIHPSAHYVPSHLARQDTTLGGYFIPKGSHIHVCRPGLGRNPKIWKDPLVYKPERHLQGDGITKEVTLVETEMRFVSFSTGRRGCIGVKVGTIMMVMLLARFLQGFNWKLHQDFGPLSLEEDDASLLMAKPLHLSVEPRLAPNLYPKFRP |
| CYP800A1 | MGGAVRRTRAGRFGAASATETAKAEDDEVASAEVGVSVGASAMGGAEDEASGTACPYTAAKEALGLAPPPPTRRDENGNPAMVDNVSFLKSLIKASQHPVGMPIAMLDWAAEKGECVGIKNAIGPFCVSILDPEIVEYVCFTNAKNYRLRMLPDAFRYVIQNKGITGSDGQYNRDHRLMCQKPFINSFSLAEFSSTVEERIAHMCNTWQQAHAMGGGKPYEINIDYDSQQVTLDVIGKVAFAYDFKRCEAHEAKTLRGEADEDGNVSKLLAAYNGSSEIMGELFITPGPILKLQNFLGLGRVRELKEQYAILESVGTKLMSERRAIVKERLAAGDEEDYCLLDVLVKAKDADGQPLSDADLWGDINDIMAAGHRTTASNFTVNLWHVARYEHIQEQIEKEVAALGGRPPTFQDVQEGKLPYTQRVVKESLRKYAPINLFPRLAEGPDTLPSGHKVEEGDFILLSTYAMGRNPRVWEDPNKFDPDRFTDEALYAQAEKQASAVARGDPAKLEQARERMRRRMNAGRDFTYTPFGAGPRSCIGGVFALLAATTMLASTVQKFKLSKASHSKGAVGEELNIMYDTTICFPEGVWINLEPRERPLGA |
| CYP801A1 | MRSSEVIGNLVNAFDVASNASTIAAVALLGIFTLGLFFILFVRARARATLARASVPAVTWRPKFLWRLYSRSARSLLQRVEQRFRRGDGSGRGRRAFGAVVGACPFVHVGEARLARDVLRETSRKAPLYHAFEAFSGTGIFTAEGDDWDGKRTEVLRAFHDVGLASLRDRAVEESASAVEEMREVVERGGGEIEARALPILQRLALRVTFAYLTGVSLRRACEDVGRERSEVEGEYLDAATTLRHLIPARARSIWIFSDLLYGLTPVGRLEARKIRTTRSLSALALRTAKEESPLGRLRVGEAHLREKSIKVGKDEYPKGLLDEATTLLFAGHDTQSATLSWCLLRLVQDVEVQSELRASLRDDIIEEALGLPPSKSGSRQRRSSEKTTKPAWATSAFAPTLEAVIRETLRLHPVAPLVVRMLSSDTHSEKMTIPKGCAVGVWLSSVHRDESVWERPEEFDPKRWFGGPAHARTGSMGGSSNDDDDNGGILTPSRDRSNALRHKGVGYMPFAYGPRSCVGQHLAQVTMRVALAHLVHAFEFAPSADLDASMPSVGFTVTPSTGAPVRVRLAARAPA |
| CYP802A1 | MASRATARAAASHDARAATRRARVGGAARESAARRRASGRATSDVDGASGRATSDVDGASGRATSADAFDLGQAIGTLARGERGATLPPGRVGALGVRETLEYLADSNGFVRRRVERYGPIFKTALFFKPAIVFGSREAVREFLKFEGELPADEALPETFRELHTEYGALRMTGSRHAATRANFGKVLGRAALESYAPAIGERTREFVEDVARRSGKETSSFRPGAECVDFALDLLFELFLGHVPEAKYKDAMKAYNGGLLSLGKWSSEFKAGKLALEDLTSYVEAHYRGVKARGELDRPEYFFYKQYSQAVDEFDEVFSDDRIATTCVLMVWGSYIEAAALMGHACVLLGEHDDARRAVLREFERVCCDDENGCRRIGTLADIMSMQYTSAVAKESLRVMPQTAGGLRVNPSPRKFASFDVPAGYVLTADPRIPFRDEANFPDPDAFKPERFVPGTHEAKQNDVSSETYYPGGMGQHQCPGISLATVMTQIFLAELVSAFPNGWRGKTAPKYVQVPIVILDREYEIEFLR |
| CYP803A1 | MSALVANAVGPVAVARRPPRRMRHAPRERVSAPRASRADDLPGILLGAAAKKLEEDVNSFIGLFDEDAPTHERPPTLPVAGNTLDIAQGGHRQLLEWAETYGVADGVHEVKMLSQTILHLTDPKLARELMFERSDSFPDRGVSAMAKFFREDQAAFVNTSGEQWMAYRKMGTATVNGGALDRLAGKVAERSEALVTRWVRDASASGDGRNATEVDISDASQAVTLEVIHEALFSEQLDVIDGERNAVALARSFREFNVANQDLLNDFLTLYQRFETPERARRDTHRRRLRAHFDERADARRAAIARDGAAAAPRDLLTALLTARDPATGAALTRDDVNLTLTEMMVAGHDTTAATVACMMCLLASHPEVRASVTGEVDEFRRNNGGRLPSSVADANALVKLDDAMKETMRLYPAVLIVVRKAEEGTGGVFTKGPGREVRIPEGSGMWVSPYVLGRLARHWGGDEEDVKRFRPSRFEEARERGDSLDAYMPFGGGPRVCLGSRFAMLEGKVLAAHILADWDVELAAETRDAIARNDGELPIAYAAGLMSFPEPLRLRVRRRGAASGPR |
| CYP804A1 | MGGYFTSDRAAKYGWGVPRLALVTLFAFEIVPRAFLAGSRAPVDALVSTPLPFTARAAAAPFAPLTLVPYLHSLRWIAHAYTGSIGAGVNVQVLGLLGNLAIMAVAGGLCLWDLTKDISLVVYFLKTFCGDQLAGKLDTAEWKLVLAFTFALPLAMWGAAGANGAAFAMFLPYARIAPILFAIQAVCEFGDAHLEYHPVIGKFFRHRYGFEAFTLCALTMMPGGITAPELRVVQFDLVICLFYRVANLGIILHKQGFAVAAAASLAVTIRKGCFRVFGALSGQRIVNVTDAEVATAVMRASDVKGDALERHVATPAWRPLLSLESVDHELYRNMLRDFHAVVKACPPPQRVGEIARAKVDELMYRTYSEEAEEASPVRGGAEPSPPPSPERPVVDVTLADSPVDSPHPHGGKGGDVGKCPFVQMQRTMRGGASGQSNAAGRSTPARSDAAPVIDADDVARLSLSVFIEYLFGREWEPKFETLLAASWEWRKEIAVRGRADPGVKKAAVELVVDDLIKNSHLWDLFGEKWREPRYYSLIMQPFLVSPAINVGDIAVAMKAHPDLALEPAMRRMHPFPIFERWVDKDVVVDGRIAVRADTQVIMFTSDFANSKHLWPAFGTGPRACAGTSMALGVLNAIHQKMLGRPGFEPERGHKFSGRNNDGVTSLSEVWYFAKTVLPVVFGFGGEKTTEAAALERAAAAALE |
| CYP80A1 | MDYIVGFVSISLVALLYFLLFKPKHTNLPPSPPAWPIVGHLPDLISKNSPPFLDYMSNIAQKYGPLIHLKFGLHSSIFASTKEAAMEVLQTNDKVLSGRQPLPCFRIKPHIDYSILWSDSNSYWKKGRKILHTEIFSQKMLQAQEKNRERVAGNLVNFIMTKVGDVVELRSWLFGCALNVLGHVVFSKDVFEYSDQSDEVGMDKLIHGMLMTGGDFDVASYFPVLARFDLHGLKRKMDEQFKLLIKIWEGEVLARRANRNPEPKDMLDVLIANDFNEHQINAMFMETFGPGSDTNSNIIEWALAQLIKNPDKLAKLREELDRVVGRSSTVKESHFSELPYLQACVKETMRLYPPISIMIPHRCMETCQVMGYTIPKGMDVHVNAHAIGRDPKDWKDPLKFQPERFLDSDIEYNGKQFQFIPFGSGRRICPGRPLAVRIIPLVLASLVHAFGWELPDGVPNEKLDMEELFTLSLCMAKPLRVIPKVRI |
| CYP80B2 | MEVLSIAIVSFSFLLFLFFILRDSRPKNLPPGPRPSPIVGNLLQLGDKPHAEFAKLAQKYGELFSLKLGSQTVVVASSPAAAAEILKTHDKILSGRYVFQSFRVKEHVENSIVWSECNDNWKLLRKVCRTELFTPKMIESQSEIREAKAREMVKFLRGKEGEVVKIVEVVFGTLVNIFGNLIFSKDVFDLEDPTGGSVELKEHLWKLLDMGNSTNPADYFPIMGKLDLFGQRRAVAEVLQQIYDVWGVMLKERRGTKGSESKNDFVDVLLNAGLDDQKINALLMELFGAGTETSASTIEWAITELTKKPLVVSKIRLELVNVVGDNTVKESDLPHLPYLQAFVKETLRLHPPTPLLLPRRALETCTVMNYTIPKECQIMVNAWAIGRDPKTWDDPLNFKPERFLSSDVDYKGNDFELIPFGGGRRICPGLPLASQFSNLIVATLVQNFEWSLPQGMSTSELSMDEKFGLTLQKDPPLLIVLKARASNI |
| CYP80C1 | MDQRFLQRLFSLVSSAEILFLLLLPLTFIILKNIIRSCSESKYLPPGPKPWPIIGNLLHVGNQPHVSLAEIAKIHGPLISLRLGTQLLVVGSSAKAAAEILKTHDRFLSARHVPQVIPRESHVLRRVALVWCPESIDTWKLLRGLCRTELFSAKAIESSATLREKKVGELMDFLVAREGKVVSIGEVVFSTVFNTISNLLFSNDLAGLEEKGMSSGLKSHVRKLMLLVATPNIADFYPIFAGLDPQGLRRKLSKLVEETFAIWAINIKERRNSYVHDSPKRDFLDVFLANGFDDDQINWLAAELFSAGTDTTATTIEWAVAEILKNKEVMKKVDEELEREITKNTISESDVSGLPYLNACIKETLRLHPPVPLLVPHRATETCEVMKYTIPKDSQVLVNVWAISRDPSTWEDPLSFKPDRFLGSNLEFKGGNYEFLPFGAGRRICPGLPMANKLVPLILASLIRCFDWSLPNGEDLAKLDMKDKFGVVLQKEQPLVLVPKRRL |
| CYP80D1 | MVSISVLANSYPSFPMLFLLAILLLLSLVLKHKSSKVPAIPPGPKSWPIIGNVLQMGNKPHISLTKLAQVYGPLMSLRLGTQLVVVGSSREAASEILKTHDRELSGRCVPHASFAKDPKLNEDSIAWTFECTDRWRFFRSLMRNELFSSKVVDGQSRTRETKAREMIDFLKKKEGEGVKIRDIVFVYTFNVLANIYLSKDLIDYDQTGECQRVCGLVREMMELHTTLNISDLYPILGSLDLQGVSRKCNECESRIQELWGSVIKERREGRNDTGDDDDNSSKRKDFLDVLLDGEFSDEQISLFFVQELLAAVSDSTSSTVEWAMAELMRNPQAMKQLREELAGETPEDLITESSLAKFPYLHLCVKETLRLHPPAPFLIPHRATEDCQVLDCTIPKDTQVLVNVWAIARDPASWEDPLCFKPERFLNSDLDYKGNHFEFLPFGSGRRICAGLPMAVKKVQLALANLIHGFDWSLPNNMLPDELNMDEKYGITLMKEQPLKLIPKLRK |
| CYP80E1 | MATIVTEISSNTLFTILFLLPLIYLIAKQLKALYSSRFAPLPPGPYSWPILGNALQIGNSPHITLASLAKTYGPLFSLRLGSQLVIVAASQEAATEILKTQDRFLSGRFVPDVIPAKWLKLENLSLGWIGEVNNEFKFLRTVCQSKLFSNKALLSQSCLREKKAADTVRFIRTMEGKVLKIKKVAFAAVFSMLTNILISSDLISMEQESTEGEMTEIIRNIFEVGAAPNISDLFPILAPFDLQNLRKKSKELYLRFSTMFEAIIEERRERKMSSDNASGKEDFLDTLISNGSSNEHINVLLLELLVAGSDTSTSAIEWAMAELLRNPQCMKKAQAELASEINQDLIQESDLPRLKFLHACLKESMRLHPPGPLLLPHRAVNSCKVMGYTIPKNSQVLVNAYAIGRDPKSWKDPLDYKPERFLTSNMDFRGSNIEFIPFGAGRRACPGQPMATKHVPLVLASLLHFFDWSLPTGHDPKDIDMSDKFHTSLQKKQPLLLIPKIKN |
| CYP80F1 | MYIEDTSEIFTIFFTHILLPLLSFFIIRCVISSRKKLPLPPGPFPWPIIGHLFYLGNKPHVSLAKLANVHGPHLMSIRLGGRLVIVASSPMATAEVLKTHDRLLSGRFVSHPMRVEGSYIRNLATETLEECDENWKKVRSMYQIVLFSHKAVESQVNIREKKVMELVKFVASKEGELVNIKGIAFVTILNILSNSTISNDLVDFEGKGIGEGMREWIRNYTKLEGVPQLADLFPILDGCTWDFQGTYKKLKDTFERISDVWRDIINKKRMEISNKYYEGEDFADALIRNGFEDKQINALLMELYSAGTETTITTVEWTLVELLKNPEAMKRLRNEIKKELTTIDDREIMIVKDSNLPNLPYLEACMKETLRLHPPAPLLFPHRAVQTCEVMGYRIPQDTQIIVNVWKMARDSEYWNDDPWSFKPDRFLDSSTDYKGHDFEFIPFGSGRRICAGQSLALRMLPMIVGSLVHNFELILPNNMNPMEMNMDDIIDVTMAKKDPLFIIPKIRNS |
| CYP80G1 | MDLQVALFSLIPIILVCILFFKSKHKNLPPGPHAWPLIGSLPVLFTNTEVPLHITLTNMARTHGPMMILWLGTQPTLVASTAEAAMEILKTKDRVCSGRHIRMSFRLKHHIKYSLVWSDCTDYWKLLRKIARTEIFSPKMLQAQSHVREQKVGELVEYLRSKEGQVVKLTQFVFGTLLNILGNVVFSRDVFVYSDDDGNKDGIQNLIREMLMIGAEPNIAEFYPILEELDLQGLKRKCDERFLRVMKLWKGTVNERKEKRNEETKDMLDVLLANDFNDAQINALFLETFGPGSETSSATIEWVMSELIKNPKEMAKVRKELDEVVGTSTVKESHLPQLPYLQACIKETMRLHPAAPFLLPRRAIEACELMGYTIPKDCQILVNAYAIGRDPNSWTDPLTFRPERFFESDVDYHGGHYQFIPFGSGRRTCVGMPLATRTIPLIVGSLVHTYDWGLPDGKRPEELELKEMLSLSLAIDPSLCVVPKMRV |
| CYP80G2 | MDLQIALFSLIPVILVFILLLKPKYKNLPPGPHPWPLIGNLPILFTNTEVPLHITLANMARTHGPIMILWLGTQPTVMASTAEAAMEILKTHDRIFSARHIRMSFRLKHHIKYSLVWSDCTDYWKLLRKIVRTEIFSPKMLQAQSHVREQKVAELIDFLRSKEGQVVKISQFVFGTLLNILGNVVFSKDVFVYGDETDKGGIQNLIREMLMIGAEPNVAEFYPSLEELDLQGLKKKCDERFIRVMKMWEGTVKERKANRNEESKDMLDVLLANDFNDAQINALFLETFGPGSETSSATIEWVIAELIKSPKEMAKVRKELNEVVGTSTIKESDLPQLPYLQACIKEAMRLHPAAPFLLPRRAAETCEVMGYTIPKNSQVLVNAYAIGRDPKSWKDPSTFWPERFLESDVDFHGAHYQFIPFGSGRRTCVGMPLATRTIPLIVGSLVHNYDFGLPGGNRPEDLKMNEMLSLTLAIDPSLCVVPKARA |
| CYP80H1 | MEQSNLFIFILLLILFVLFLVLHHMRQKFSKYPPGPYPLPILGNFLHLRKTPHISLANLAKVHGPLISLRLGAKLLVVASSQEAATEILKIHERVMSGRPVPLTIEAVSKGLDFFTLIGATSCTKNWKILRTIVKAELLSTEVVDKTTAAREEKVKELINLLSSKQGKVVNLGDYVFATAANTVSRLLFSKDCISLENQGMVGGFSKENIKTIVKMASTPNLGDHYAIFNGLDIQGLGKKSVECLGRLYASWNSLIDGRHVSKCRDHVGKDKDFLDVLLANGFSKDQINLILSEMFITGIDTTSTAVEWAMAELIKNQDAMTKLSEELAKEIGGNIIRDSDLPRLPYLNACVKETLRLHPSVAMIPRRAVETCQVMNYTIPKNAEIWVNLWALGRDPTKWEDPLAFKPSRFLQSHLGFMGSHFEYIPFGSGRRMCPGLPLAVRLVPLVLASLVHSFDWYLPENLSPGELNMDAKLGLTLQREKPLYLIPRPK |
| CYP80J1 | MQSLNLESILNNADSSATLPLLLLLFSIVFLVAIKQKSSRKLPLPPGPRPWPIVGNLPQLGKKMHVSMADLAKTHGGLMSLRLGTQLVIVGSSPEAATEILKTHDKELCGRHVPMVSFATDPKLNKDSIAWSYECGKEWMAFRALMRTELFSTKIVETQYHVREKNVRAMVDYLSRKQGELVAMRDVVYIYTFNTLGNVYFTRDFMDFDGEEGRRVSALVREMMELWSAPNISDLYPILSRFDLQGLRKKADVCVKKMCDLWDHSIRERREIRGKSRHDSSDLAPKNKDFLDILLESGFDDEQISYIFLELLAAVSDGSTSTVEWALSEMVKNPEAMKKARQELSEQISESFVTESQLSKLPYLHACIKETLRLHPPAPVLLPRRAAQDLEIMNHTIPKNAQVLVNVWAIARDEKIWKDPMSFKPERFINSSVDYKGNDFEYLPFGAGRRICAGLPMATRQVLLALANLIHQFEWSLPDNLRPEQLDMEELFGVTLLKENPLALIPKRKF |
| CYP80K1 | MDPDTVTADISIFSFLYALLLLPFLVILKHIFLKPPPLPPGPYPWPIIGNLLQMGKNPHAKLANLAKLHGPLMSLRLGTQLMVVASSPAAAMEVLKTHDRALSGRYLSXSVPVKNPKLNHLSIVFAKDCNTNWKNLRAICRMELFSGKAMESQVELRERKVTELVEFLATKEGEVVKVMDLVFTTICNILSNKFFSMDLCDFEDEGRVGGALKDLIHKNAEFGATPNLSDYYPILGGLDIQGINRKAKEMFERIPTTWEDILKERRTQRSNRSSHRDFLEALLEIGFEDDQINQVILELFSAGAETSSLTVEWAMAELIRNQDAMDKLRGELRQIVGESPVRESHLPRLPYLQACVKEALRLHPPAPLLLPHLAAETCQVMGYTIPKDSQIFVNIWAMARDPKIWDDPLSFKPERFLDSKLDFKGNDFEYIPFGAGRRICPGLALGGRQVPLILATFVHLFGWSLPGNMDSAQLDMEEWLVITLRKEQPLRLVPRVRK |
| CYP81A1 | MERFYYVAVATFVLVFLLHHLLTRKKQQRLPPGPRFAYPILGHLPLLKKPLQTSFADLVSRHGPIIHLRLGRRHAVVVGSAAVAKECFSGELDVAIANRPHFPSAREVTFDYSVLTAVNYGALWRTMRRVSTVHLLSAHRVNVMSDTVIARELRVMVRRLARASASAPGDAARVELKRRLFDLSHSVLMEIMAQTRNTYSDDPREEMSREARDMKDIIEEIIPLVGAANLWNYVPLLRWLDLYGAKRKLADVVNRRDLIFDNMIGAERQKLRQLERKKGEAHASESDKMGMIGVMLSLQKTEPDVYTDTFINALVSNLLAAGTETTSTTLEWAMSLLLNHPDVLKRAQEEIESNVGRDRLLDKNDLPRLPYLHCIISETLRLYPPTPMLLPHEASTDCKIHGYDVPAGSMVLVNAYAIHRDPAMWEDPEEFRPERFELGRAEGKFMMPFGMGRGRCPGENLAMRTMGLVLGALLQCFDWTRVGDREVDMATATGTIMSKAVPLEAQCKPRANMSAVLQKI |
| CYP81B1v1 | MEIPYLLTTTLLLLFTTLYLLLRRRSSTLPPTIFPSLPIIGHLYLLKPPLYRTLAKLSAKHGQILRLQLGFRRVLIVSSPSAAEECFTKNDIVFANRPKMLFGKIIGVNYTSLAWSPYGDNWRNLRRIASIEILSIHRLNEFHDIRVEETRLLIQKLLSACNSGSSQVTMKFSFYELTLNVMMRMISGKRYFGGDNPELEEEGKRFRDMLDETFVLAGASNVGDYLPVLSWLGVKGLEKKLIKLQEKRDVFFQGLIDQLRKSKGTEDVNKKKTMIELLLSLQETEPEYYTDAMIRSFVLVLLAAGSDTSAGTMEWVMSLLLNHPQVLKKAQNEIDSVIGKNCLVDESDIPNLPYLRCIINETLRLYPAGPLLVPHEASSDCVVGGYNVPRGTILIVNQWAIHHDPKVWDEPETFKPERFEGLEGTRDGFKLLPFGSGRRSCPGEGLAVRMLGMTLGSIIQCFDWERTSEELVDMTEGPGLTMPKAIPLVAKCKPRVEMTNLLSEL |
| CYP81C3 | MEFLYYHLALLFFLFIVVKNLFHRKRNLPPAPFALPVIGHLYLLKQPLYKSLHALLSRYGPALSLRFGSRFVIVVSSPSVVEECFTKNDKIFANRPKSMAGDRLTYNYSAFVWAPYGDLWRKLRRLAVAEIFSSKSLRKSSTVREEEVSCLIRRLLKVSTSGTQNVELRLLFSILASNVVMIVSAGKRCVEEEHAGTKMEKQLFQDFKDKFFPSLAMNICDFIPILRVIGFKGLEKNMKKLHGIRDEFLQNLIDEIRLKLKKTTSLKTDEVTDGEERRSVAEILLCLQESEPEFYTDEVIKSTVLMMFIAGTETSAITLEWAMTLLLNHPKVMQKVKAEIDEHVGHGRLLNESDIVKLPYLRCVINETLRLYPPAPLLLPHFSSEACTAGGFDIPQGTMLVVNAWTMHRDPKLWEEPNEFKPERFEAGLGEGDGFKYIPFGIGRRVCPGASMGLQIVSLALGVLVQCFEWDKVGTVEDTSHGLGMILSKAKPLEALCSPRRDLITLLSHL |
| CYP81D1 | MEETNIRVVLYSIFSLIFLIISFKFLKPKKQNLPPSPPGWLPIIGHLRLLKPPIHRTLRSFSETLDHNDGGGVMSLRLGSRLVYVVSSHKVAAEECFGKNDVVLANRPQVIIGKHVGYNNANMIAAPYGDHWRNLRRLCTIEIFSTHRLNCFLYVRTDEVRRLISRLSRLAGTKKTVVELKPMLMDLTFNNIMRMMTGKRYYGEETTDEEEAKRVRKLVADVGANTSSGNAVDYVPILRLFSSYENRVKKLGEETDKFLQGLIDDKRGQQETGTTMIDHLLVLQKSDIEYYTDQIIKGIILIMVIAGTNTSAVTLEWALSNLLNHPDVISKARDEIDNRVGLDRLIEEADLSELPYLKNIVLETLRLHPATPLLVPHMASEDCKIGSYDMPRGTTLLVNAWAIHRDPNTWDDPDSFKPERFEKEEEAQKLLAFGLGRRACPGSGLAQRIVGLALGSLIQCFEWERVGNVEVDMKEGVGNTVPKAIPLKAICKARPFLHKIIS |
| CYP81D1 | MEETNIRVVLYSIFSLIFLIISFKFLKPKKQNLPPSPPGWLPIIGHLRLLKPPIHRTLRSFSETLDHNDGGGVMSLRLGSRLVYVVSSHKVAAEECFGKNDVVLANRPQVIIGKHVGYNNANMIAAPYGDHWRNLRRLCTIEIFSTHRLNCFLYVRTDEVRRLISRLSRLAGTKKTVVELKPMLMDLTFNNIMRMMTGKRYYGEETTDEEEAKRVRKLVADVGANTSSGNAVDYVPILRLFSSYENRVKKLGEETDKFLQGLIDDKRGQQETGTTMIDHLLVLQKSDIEYYTDQIIKGIILIMVIAGTNTSAVTLEWALSNLLNHPDVISKARDEIDNRVGLDRLIEEADLSELPYLKNIVLETLRLHPATPLLVPHMASEDCKIGSYDMPRGTTLLVNAWAIHRDPNTWDDPDSFKPERFEKEEEAQKLLAFGLGRRACPGSGLAQRIVGLALGSLIQCFEWERVGNVEVDMKEGVGNTVPKAIPLKAICKARPFLHKIIS |
| CYP81E1v2 | MDILSLLSYSVFYLALFFIFNIVIRARKFKNLPPGPPSLPIIGNLHHLKRPLHRTFKGLSEKYGHVISLWFGSRLVVVVSSASEFQQCFTKNDVVLANRPRFLSGKYIFYNYTTLGSTSYGEHWRNLRRITALDVLSNHRINSFSGIRRDETQRLITRLADDSSTNFAEIELSYRFYDMTFNNIMRMISGKRYYGEDCDMSDLQEASQFRDMVSELLQLSGANNKTDFMPLLRFLDFENLEKRLKDISGKTDAFLRGLIQEHRAKKERANTMIDHLLNLQDSQPEYYTDQIIKGLALAMLLAGTDSSAVTLEWSMSNLLNHPEVLKKVKDELDTHVGQDRLVDESDLPKLSYLKNVINETLRLYTPAPLLLPHSTSDECNIGGYKVPQDTIVLINAWAIHRDPELWTEATTFKPERFEKKGELEKLIAFGMGRRACPGEGLAIRAISMTLALLIQCFDWKLTNGDKIDMAERDGFTLTKLVPLKAMCKSRPVINKVFKQ |
| CYP81F1 | MLYFILLPLLFLVISYKFLYSKTQRFNLPPGPPSRPFVGHLHLMKPPIHRLLQRYSNQYGPIFSLRFGSRRVVVITSPSLAQESFTGQNDIVLSSRPLQLTAKYVVYNHTTVGTAPYGDHWRNLRRMCSQEILSSHRLIIFQHIRKDEILRMLTRLSRYTQTSNESNDFTHIELEPLLSDLTFNNIVRMVTGKRYYGDDVNNKEEAELFKKLVYDIAMYSGANHSADYLPILKLFGNKFEKEVKAIGKSMDDILQRLLDECRRDKEGNTMVNHLISLQQQQPEYYTDVIIKGLMMSMMLAGTETSAVTLEWAMANLLRNPEVLEKARSEIDEKIGKDRLIDESDIAVLPYLQNVVSETFRLFPVAPFLIPRSPTDDMKIGGYDVPRDTIVMVNAWAIHRDPEIWEEPEKFNPDRYNDGCGSDYYVYKLMPFGNGRRTCPGAGLGQRIVTLALGTLIQCFEWENVKGEEMDMSESTGLGMRKMDPLRAMCRPRPIMSKLLL |
| CYP81G1 | MIDLFLLALMAGFIAVAYVFRSKQKKNLPPNPVGFPVIGHLHLLKEPVHRSLRDLSRNLGIDVFILRLGSRRAVVVTSASAAEEFLSQQNDVVFANRPLATLTEYMGYNNTLVSTAPYGEHWRRLRRFCAVDILSTARLRDFSDIRRDEVRAMIRKINVELVTSGGSVRLKLQPFLYGLTYNILMSMVAGKREEDEETKEVRKLIREVFDFAGVNYVGDFLPTLKLFDLDGYRKRAKKLASKLDKFMQKLVDEHRKNRGKAELEKTMITRLLSLQESEPECYTDDIIKGLVQVMLLAGTDTTAVTLEWAMANLLNHPEVLRKLKTELNEVSKEGRVFEESDTGKCPYLNNVISETLRLFPAAPLLVPHASSTDCEVAGFDIPRRTWLFINAWAIQRDPNVWDDPETFKPERFESETHRGKFLPFGIGRRACPGMGLAQLVLSLALGSLIQCFDWERDNDVAVDMSEGKGLTMPKSVPLVAKCKSLPILDKLVL |
| CYP81H1 | MDCILLILTTLVAIFIVKIVLLVTKPNKNLPPSPNICFPIIGHLHLLKKPLLHRTLSHLSHSLGPVFSLRLGSRLAVIISSPTAAEECFLTKNDIVLANRPRFIMGKYVAYDYTSMVTAPYGDHWRNLRRITALEVFSTNRLNASAEIRHDEVKMLLQKLHDLSVERPAKVELRQLLTGLTLNVIMRMMTGKRFFEEDDGGKAGISLEFRELVAEILELSAADNPADFLPALRWFDYKGLVKRAKRIGERMDSLLQGFLDEHRANKDRLEFKNTMIAHLLDSQEKEPHNYSDQTIKGLILMMVVGGTDTSALTVEWAMSNLLNHPQILETTRQNIDTQMETSSSRRLLKEEDLVNMNYLKNVVSETLRLYPVAPLMVPHVPSSDCVIGGFNVPRDTIVLVNLWAIHRDPSVWDDPTSFKPERFEGSDQFGHYNGKMMPFGLGRRACPGLSLANRVVGLLLGSMIQCFEWESGSGGQVDMTEGPGLSLPKAEPLVVTCRTREMASELLFFGSEPSNKNV |
| CYP81J1 | STEIFSPVRIRSLAAVRQEEVKLMITGILASTSTDNSVKVNMKVVFSELMFNVIMKIIAGKRYFGVNTDSEVEEGQKFRVVFDEMFSTLEVASPQDFLPFLKWFGFKRMENRLTKLAKELDQLFQKLIEERRSERGKVQSTVIDVLLSLQETDREQYSDKLIKGMILSLIAAGTHTTAGTMEWAMSLLLNHPEALLKVRDEIDKKVGQDRLIDHSDLQNLSYLNNAIKESLRLFPTAPLLLAHESSAECTVGGFTIPSNTILFANAYALHRDPKVWTDPVSFKPERFENNGQQGSRIYVPFGLGRRSCPGEGLATQVVGLALGTLIQCFEWDRNGEEKVDMTDGSGLAMHMEKPLEAMCKPRQSIVDVINRL |
| CYP81K1 | MEDLWFIFFSFLTATLIFFITKKFLWSLNSKLPPSPTPLPIIGHLHLIKKYPLPQALRHLSSNYGPVLFLKFGCRNVLTLSSPDSIEECFTNHDVTLANRPKTITSDHFSYGYKNFGFAPYGDLWRTLRRLSTLEVFSSASLQKNSSIRNEEVSNLCLIIFRLSRDSRIVDLKYQFTLLTAHIMLRLVSGKRGVKKSDPESEKRFLDDFKLRFFSSMSMNVCDYFPVLRWIGYKGLEKRVIDMQRMRDEYLQRLIDDIRMKNIDSSGSVVEKFLKLQESEPEFYADDVIKGIIVLMFNGGTDTSPVAMEWAVSLLLNHPDKLEKLREEIKSNVKHKGLIQDSDLSSLPYLRCVIYETLRLYPAAPLLLPHCSSKRFNLGNYEIPENIMLLVNAWAVHRDGELWEEANVFKPERFEGFVGDRDGFRFLPFGVGRRACPAAGLGMRVVSLAVGALVQCFEWEKVEAGDIDMRPVFGVAMAKAEPLVALPKPWSEMVPILSQL |
| CYP81L6 | MDVALSTIVFVIAIFIPALLTLVQRSRSRHAGHNPPPPPEPRAIPLVGHLHHLLRKKPLHRCLAHLAERHGDVLGLRFGSSRVAVVSSASVAQQCLVALDTSFGNRPRLPSARILSYEWSTMGHSNCGPYWRQARRTTSTEFSSVERVQHFADVHEQEARAMARRLCRVAHASGGRALVDVKSRLLEMLMNGLLDMLFRRTTSRSRSSDEKDEAVEVSEEARCFMAMAEETMELTLTVWDFLPPLARWLDVDAVGRRLQRLQANRTEFLQRLIEEHKEMEKSGQVTRRTLVGVMLELQDKDPEAYTDQLIRSLCVSALEAGTLSTGYTIEWVMSLLLNNPHIMKKARDEIDACVGEPKRLLDATDLPKLPYLRCIILETLRLYPVVPLLVPRESSTNCTVNGFNIAKGTMLLVNTFAIHRDPRTWDDPETFLPERFEDGSNQSGKTTMDLSFGMGRRRCPAENLGMQLAGIALGTMIQCFNWERVGTELVDMAEGSGLTMAKKVPLEAFCQPRASMVDLLANI |
| CYP81M1 | MANTTLSSLLFLSMASALFLLTLLRILRSKKQQRPPPPPAEPAVPPRHRGHLHLFKKPLHRALSGLAATHGPVLLLHFGSRAVLHVTDPAVAEECLTDHDVTFANRPRLPSSCHLSNGYTTLGSSSYGPNWRNLRRIATVEVFSAHRLLRSADVRGGEVPHMARWLYLAAPAAGPSEPARADVKARAFELVLNVVARMVAGKQYYGGEGDAEAETEEAARFREMVREYFAMHGASNLQDFVLLLGLVDIGGAKRRAVKLSRERNTWAQRLIDEHRATATAAAATEARTMVGDLLKMQASEPEAYSDKVITALCLSILQTGTDTSSSTIEWGMALLLNHPAAMAKARAEIDRFVGTGRVVEEADLPNLPYLQCIIRENLRLYPVGPLLAPHESSADCSVSVAGGGRYAVPAGTMLLVNVHAMHRDARFWGPDPESFSPERFEGGRSEGKWMLPFGMGRRRCPGEGLAVKVVGLALATLVQCFEWRRVGDEEVDMTEGSGLTMPKAVPLEALYWPRPEMVPALSGIFFIYNFFY |
| CYP81N1 | MTGGLEVAMVAGGGNGGAAVLVGITVLLFVVVVVVVVLVRWWSGGEGGAAPSPPALPVLGHLHLLKKPLHRSLAAVAAGVGAPVVSLRLGARRALVVSTHAAAEECFTACDAALAGRPRTLAGEILGYDHTIVLWTPHGDHWRALRRFLAVELLSAPRLAALAADRHAEAASLVDAILRDAAGGAKVTLRPRLFELVLNVMLRAATTRRRHASVDARKLQEIIEETFSVNGTPSVGDFFPALRWVDRLRGKVGSLKKLQARRDAMVTGLIDDHRQWRSGSAGDGDQDKEKKGVIDALLALQETDPDHYTDNVVKGIILSLLFAGTDTSALTIEWAMAQLVTHPETMKKARAEIDANVGTARLVEEADMANLPYIQCVIKETLRLRTAGPVIPAHEAMEDTTVGGFRVARGTKVLVNAWAIHRDGDVWDAPEEFRPERFVDSDAGGAVTAPMMPFGLGRRRCPGEGLAVRVVGVSVAALVQCFDWEVGDDDVVDMTEGGGLTMPMATPLAAVCRPREFVKTILSTS |
| CYP81P1 | MEISQAFVFASLLLLLLLTWLLFHLLSYQAPPPNGDGGRRIPSPPALPVVGHLHLLKKPLHRSLAALAARYGGGAGLLLLRFGARPVVLVSSQAAADECFTAHDAALAGRPGLASRRLLTDGCPTIATAGHSARWRHLRRLATVHALCARRLAATSPARDAEARAMAARLYSSSSSSSAASAVVVGVKPAAYGFVASVIMSMVAGERMAEEDVLRFKAITEAGLAAAGAANRQDFLPFLRLLDFGRARRRLAGIAKERHDFGQRIVDEYRRRHRRRLAVAADDFSSSPPRRTVIGDLLRQQESSPESYADEVIRTVCLSLLQAGTDTSASTIEWAMALLLNNPDVLRKATDEINSVVGMSRLLQEPDLANLPYLRCIITETLRLYPLAPHLVPHEASRDCMVAGHVIARGTMVLVDVYSMQRDPRVWEDPDKFIPERFKGFKVDGSGWMMPFGMGRRKCPGEGLALRTVGMALGVMIQCFQWERVGKKKVDMSEGSGLTMPMAVPLMAMCLPRVEMESVLKSL |
| CYP81Q1 | MEAEMLYSALALTFAIFMVYRILSNSQDKRSLTKLPPSPPGWLPVIGHAHLMKNLLHRTLYDFSQKLGPIFSIRFGSRLVVVVSSSSLVEECFTKYDIVLANRPQASVDRRSLGFSTTSVIGAPYGDHWRNLRKLCDLEVFAPTRLASFLSIRLDERDRMISALYKISSAGFAKVNLEAKIVELTFNNIMRMVAAKRYYGEEAEDDEEAKRFRDLTKEALELTSASNPGEIFPILRWLGCNGLEKKLAVHSRKTDEFMQGLLDEHRRGERQNTMVDHLLSLQESQPEYYTDEIITGLIVALIIAGTDASVVTTEWAMSLLLNHPKVLEKARKELDTLVGHERMVDEHDLPKLRYLHCIVLETLRLFPSVPTLVPHEPSEDCKIGGYNVPKGTMVLVNAWAIHRDPKVWDDPLSFKPDRFEIMEVETHKLLPFGMGRRACPGAGLAQKFVGLALGSLIQCFDWERTSPEKIDLNEGSGITLPKAKTLEAMCKPRHVMEKVLRQVSNV |
| CYP81Q7 | MEITWLSTSLCLLFLSFAFNIFLQRRRIHPHLPPSPPAIPILGHLHLLLKPPIHRQLQSLSKKYGPIFSLRFGSSPVVIISSPSTVEECFTKNDIIFANRPRWLIGKYIGYNYTTIASASYGEHWRNLRRLSALEIFSSNRLNMFLGTRRDEIKILLHRLSQNSRDNFARVELRPMFTELTCNIIMRMVTGKRYYGEDVDSEEAKRFQKIMRGIFELAGASNPGDFLPLLRWVDFGGYEKKLVKLNREKDVIFQGLIDEHRSPDQGLVNKNSMIDHLLSLQKSEPEYYTDEIIKGLALILTFAGTDTTATTIEWAMSLLLNHPDVLKKARAELDTHVGKDRLMEESDFPKLQYLRSIISETLRLFPATPLLIPHISSDNCQIGGYDIPRGTILLVNAWAIHRDPKSWKDATSFKPERFENGESEAYKLLPFGFGRRACPGAGLANRVIGLTLGLLIQCYEWERVSEKEVDMAEGKGVTMPKLEPLEAMCKARAIIRKVL |
| CYP81R2 | MNYMYYCLAFFLSSFLVFKLVFQRSRNLPPSPFGFPIIGHLHLVSKPPMHKVLAILSNKCGPVFTLKLGSRNIVAVCSLSAAEECYIKNDIVFANRPQSIFVHYWSYNYAAFLFAPYGHLWRTLRRFSVTELFSRSCLDRSAAISEEVRTLVRLILSKVSDDGAKKVDLNYFFTITSLNVIMKMNAGKKWVEEEKAACIDSGKQCIEDVQKIFPSNPGTTVLDFFPFLKWFGYRGEEESVIKVYKERDEFLQGLIEEVKRKETSSVTSNPAEGVKDQTTVIGSLLALQKSDPELYTDEVVKGTMATLYLAGVDTVDFTTEWAMTFLLNHPERLERVKAEIDREVGHERLVQESDLPKLRYVRCVVNETLRLYPPAPLLLPHAPSEDCIVGGYKIPRGTIVMVNAWAIHRDPKLWEDPESFKPERFEGLNNEGEKQGFIPFGIGRRACPGNHMAMRRVMLALAALIQCFEWERVGKELVDMSIVDALISVQKAKPLEAICTPRPFTTTLISPP |
| CYP81S1v1 | MEEDYSASLWLRYSFLLPCMVFLVLSTKFLLHKRKQGKINHLPPSPFALPIIGHLYLLKQPIHRTLHSLSKKYGPIFSIKLGSRLAVVISSPSAVEECFTKNDIVLANRPYFLSSKYLNYNNTTMGSVEYGEHWRNLRRISALEIFSPPRLTSLFSIRREEVMALLRRLHGVSKHGNYAKVELRSMLLDLTSNIIMRMVAGKRYYGEDVKEIEEARIFKEIMEEFAECIAVRNLGDMIPLLQWIDFTGHLKKLDRLSKKMDVFLQGLVDEHRDDRDRNTMINRFLALQEEQPEYYTDEVIKGHVLVLLIGGTETAATSMEWALANLLNHPNVLKKAKAELDAQVGDRLIDESDFAKLHYLQSIISENLRLCPVTPLIPPHMPSSDCTIGGYHVPAGTILFVNAWSLHRDPTLWDEPTSFKPERFESAGRVDACKFIPFGMGRRACPGDGLANRVMTLTLGSLIQCFEWERVGENKIDMTEKTAMTMFKVEPLELMCRARPILDMLLSLSGQKI |
| CYP81T1 | MEVSHWFNFAALFFFFVLASKLVIYKLGNPKNLPPSPPSRPIIGHLHLLKQPIHRTLCELSKKYGDILFLRFGARKVLVISSPSAVEECFTRKDVIFANRPRTLAGKHLNYNSTTMGFSSYGEHWRNLRRLTTIELFSASRVASFSDIRKEEVQLLLNQLFRDSSKQQAKVGLTASFMELTFNVMMRMIAGKRYYGKEVVDEEAGQFQNIIKEMEALRGSSNMNDFFPVLQWIDFQGLEKRMMGLKKKMDKFLQDLIEEHQKVRSQSSQSTKITGLGNQKRNMTLIDVMLSLKETEPEFYTDQTIKGVIMSTLTAGSQTSAATLEWAMSLLLNNPETMRKASEEIDAIVGTEHILDEVDVTKLSYLQNILNETFRLFPPAPLLLPHESSEDCTISGFHVPRGTMLLVNTWSIHRDTKLWVEPTKFMPERFEGGEGEGYKLLPFGAGRRACPGAGLAKRIIGLTLGVLIQCFEWDRVSKEEINLTEGTGLTIPKAEPLEALCRPRQSMVNLLSSM |
| CYP81U1 | MVGILVYVALFILSLLLFLTAAAKLHNSKSKIKNQAPSPPSLPVVGHLHLLKKPLHRSISLLSARHGPILLLRFGSRPALAVSSLPLAEECLSGKNDLAFANRAHFPHEAAPLQLLTLGSANYGPHWRMLRRISAVELLSSHRINSFSQLRSEEVHSMISTLFRESSDKELNRVELKSKLFELAMNNMMRMIFGKDLASSEGAGRFREMVKESHSLLGASTRLGDFFPFLGWMDWRARRMVLRLVRRRDEFLQSLIDAHARKMEEVEEKTMIRVLVELQKSNRESNNDEGFMLKPLIIGLLQAGTDTSSDTIEWAMSLLLNNRDKLKKARDEIDARVGKERLLRESDLPNLPYLQCVITETLRLYPAAPLLVPHESAEECTVGGYAVPQGTMLLVNAYAIRVVGIVLGTLIQCFEWERVGEEEVDMTEGSGLTLPRANPLEAICRPRQSMISVLAGL |
| CYP81W1 | MGNLYHYAVILLPIILIIKFLFHGRQRQRYRLPPSPFALPVIGHLHLLKPPLYQGLQALSSQYGPILFLRFGCRPFVVVSSPSAVQECFTKNDVVLANRPRSMIGDHVTYNYTAFAWASYGHLWRVLRRLTVVEILSSNKLLLLSTVREEEVRYLLRQLFKVSNDGAQKVDMRLYLSLFSFNFIMKTITGKRCIEEEAEGIETNRQFLERLKRIFVPTTTTNLCDFFPILRWVGYKGLEKSVIQFGKERDGYLQGMLDEFRRNNSAVEWQKKRTLIETLLFLQQSEPDFYTDDVIKGLMLVISAGTDTSSVTLEWAMSLLLNHPEALEKARAEIDSHVKPGHLLDDSDLAKLPYLRSVVNETLRLYPTAPLLLPHLSSEDCSVGGFDIPRGTTVMVNVWALHRDPRVWEEATKFKPERFEGMENEEKEAFKFAPFGIGRRACPGAALAMKIVSLALGGLIQCFEWERVEAEKVDMSPGSGITMPKAKPLEIIFRPRPTMTSLLSQL |
| CYP81X1 | MEEEADYRLIVITASVGFLLLFLYVLKSILLKSKNLPPSPPYALPLIGHLHLIKEPLHLSLHKLTDKYGPIIFLCLGTRKVLVVSSPSAVEECFTKNDITFANRPQTLAAKHLNYNKTTIGVASYGHYWRNLRRLTTVELFSTTRLAMLTSVRVEEVQLMVKQLFEECKGRQQIMIDLRARLLEVSFNIMLRMISGKRYYGKHAIAQEGKEFQILMKEFVELLGSGNLNDFFPLLQWVDFGGVEKKMVKLMKKMDSFLQKLLDEHCTRRNVMSEEEKERRKSMTLIDVMLDLQQTEPEFYTHETVKGVILAMLVAGSETSATTMEWAFSLLLNHPKKMNKVKEEIDTYVGQDQMLNGLDTTKLKYLQNVITETLRLYPVAPLLLPHESSNDCKVCGFDIPRGTMLLVNLWTLHRDANLWVDPAMFVPERFEGEEADEVYNMIPFGIGRRACPGAVLAKRVMGHALGTLIQCFEWERIGHQEIDMTEGIGLTMPKLEPLVALCRPRQSMIKVLSNI |
| CYP82A6 | MDFVLNYLNTTTIAFISLISLLFFLFRFSKVSHTKEPPIVSGSWPLLGHLPLMRNTQTPHKTLGALVDKYGPIFTIKLGATNALVLSNWELAKECFTKNDIVVSSRPKPVAVELMSYNQAFIGWAPYGTYWRQLRKIVTLEILSNRRIELLSHIRVSEVQTSIKELVNVWSNQMSSQYGLLDDTKSSSTNDYASVELKKWFAQLTLNMVLRMVVGKRCFGDVDVENKEEAKKFLENIRDFMRLIGTFTVGDGVPFLKWLDLGGHEKEMKKCAKKFDEMLNEWLEEHREKKGLGSEDKVVGERDFMDAMLLVLKDKPIEGFDVDTIIKATTLELILGGSDTTAGTLTWAMCLLLKHPHVLEKLKEELNTYIGKERCVKESDINKLVYLHAIIKETLRLYPPAPFSSPREFTEDCTIGGYHIKKGTRLMPNLWKIHRDPNVWPDPLEFKPERFLSTHKDVDVRGQNFELLPFGSGRRMCAGMSLGLHMVHYILANFLHSFEILNPSPESIDVTEVLEFVTTKATPLEVLVKPCLSFKCYESM |
| CYP82B1 | MEKPILLQLQAGILGLLALICFLYYVIKVSLSTRNCNQLVKHPPEAAGSWPIVGHLPQLVGSGKPLFRVLGDMADKFGPIFMVRFGVYPTLVVSTWEMAKECFTSNDKFLASRPPSAASSYMTYDHAMFGFSFYGPYWREIRKISTLHLLSHRRLELLKHVPHTEIHNFIKGLFGIWKDHQKQQQPTGREDRDSVMLEMSQLFGYLTLNVVLSLVVGKRVCNYHADGHLDDGEEAGQGQKLHQTITDFFKLSGVSVASDALPLLGLFDLGGKKESMKRVAKEMDFFAERWLQDKKLSLSLSSETNNKQNDAGEGDGDDFMDVLMSILPDDDDSLFTKYSRDTVIKATSLSMVVAASDTTSVSLTWALSLLLNNIQVLRKAQDELDTKVGRDRHVEEKDIDNLVYLQAIVKETLRMYPAGPLSVPHEAIEDCNVGGYHIKTGTRLLVNIWKLQRDPRVWSNPSEFRPERFLDNQSNGTLLDFRGQHFEYIPFGSGRRMCPGVNFATLILHMTLARLLQAFDLSTPSSSPVDMTEGSGLTMPKVTPLKVLLTPRLPLPLYDY |
| CYP82C2 | MDTSLFSLFVPILVFVFIALFKKSKKPKHVKAPAPSGAWPIIGHLHLLSGKEQLLYRTLGKMADQYGPAMSLRLGSSETFVVSSFEVAKDCFTVNDKALASRPITAAAKHMGYDCAVFGFAPYSAFWREMRKIATLELLSNRRLQMLKHVRVSEISMVMQDLYSLWVKKGGSEPVMVDLKSWLEDMSLNMMVRMVAGKRYFGGGSLSPEDAEEARQCRKGVANFFHLVGIFTVSDAFPKLGWFDFQGHEKEMKQTGRELDVILERWIENHRQQRKVSGTKHNDSDFVDVMLSLAEQGKFSHLQHDAITSIKSTCLALILGGSETSPSTLTWAISLLLNNKDMLKKAQDEIDIHVGRDRNVEDSDIENLVYIQAIIKETLRLYPAGPLLGHREAIEDCTVAGYNVRRGTRMLVNVWKIQRDPRVYMEPNEFRPERFITGEAKEFDVRGQNFELMPFGSGRRSCPGSSLAMQVLHLGLARFLQSFDVKTVMDMPVDMTESPGLTIPKATPLEILISPRLKEGLYV |
| CYP82C2 | MDTSLFSLFVPILVFVFIALFKKSKKPKHVKAPAPSGAWPIIGHLHLLSGKEQLLYRTLGKMADQYGPAMSLRLGSSETFVVSSFEVAKDCFTVNDKALASRPITAAAKHMGYDCAVFGFAPYSAFWREMRKIATLELLSNRRLQMLKHVRVSEISMVMQDLYSLWVKKGGSEPVMVDLKSWLEDMSLNMMVRMVAGKRYFGGGSLSPEDAEEARQCRKGVANFFHLVGIFTVSDAFPKLGWFDFQGHEKEMKQTGRELDVILERWIENHRQQRKVSGTKHNDSDFVDVMLSLAEQGKFSHLQHDAITSIKSTCLALILGGSETSPSTLTWAISLLLNNKDMLKKAQDEIDIHVGRDRNVEDSDIENLVYIQAIIKETLRLYPAGPLLGHREAIEDCTVAGYNVRRGTRMLVNVWKIQRDPRVYMEPNEFRPERFITGEAKEFDVRGQNFELMPFGSGRRSCPGSSLAMQVLHLGLARFLQSFDVKTVMDMPVDMTESPGLTIPKATPLEILISPRLKEGLYV |
| CYP82D1 | MDVTIEYLYTIVAGVICIILISYSKFFRGDARAQPKLPPLASGGWPLIGHLHLLGSSNQPPYITLGNLADKYGPIFTLRVGVHNAVVVSTWELAKEIFTTHDVIISSRPKFTAAKILGHDYANFGFSPYGDYWQMMRKVTASELLSTRRFETLRDIRDSEVKKSLMELCNSGFDGDLKVEMKRFLGDMNLNVIMRMIAGKRYSNNESGDEREVRKVRWVFREFFRLTGLFVVGDAIPFLGWLDLGGHVKEMKKAAREMDSVVCGWLEDHRHKNVIGETKMEQDFIDVLLSVLHGVHLDGYDVDTVIKATCLTLIAGATDTTTVTITWALSLLLNNRHTLKKVQDELDEKVGKDRLVNESDINNLVYLQAVVKETLRLYPAGPLSGARQFTKDCTVGGYNIRAGTRLILNLWKMHRDPRVWSEPLEFQPERFLNTHKDVDVKGQHYELLPFGGGRRSCPGITFGLQMTNLALASFLQAFEVTTPSNAQVDMSATFGLTNIKTTPLEVIAKPRLPYHLLFVKEH |
| CYP82E1 | MYHLLSPIEAIVGLVTFAFLLYLLWTKKQSKILNPLPPKIPGGWPVIGHLFYFNNNGDDDRHFSQKLGDLADKYGPVFTFRLGFRRFLAVSSYEAMKECFSTNDIHFADRPALLYGEYLCYNNAMLAVAKYGPYWKKNRKLVNQELLSVSRLEKFKHVRFSIVQKNIKQLYNCDSPMVKINLSDWIDKLTFDIILKMVVGKTYNNGHGEILKAAFQKFMVQAMEIELYDVFHIPFFKWLDLTGNIKAMKQTFKDIDNIIQGWLDEHIKKRETKDVGGENEQDFIDVLLSKRSNEHLGDGYSHDTTIKATVFTLVLDATDTLALHIKWVMALMINNKNVMKKAQEEMDTIVGRDRWVEENDIKNLVYLQAIVKEVLRLHPPAPLSVQHLSVKDCVVNGYHIPKGTALLTNIMKLQRDPQIWVDPDTFDPERFLTTNAAIDYRGQHYELIPFGSGRRACPAMNYSLQVEHLSIAHLIQGFNFATTTNEPLDMKQGVGLTLPKKTDVEVLITPRLPPTLYQY |
| CYP82F1 | MDLIMLFLLSALFIFPVLILIKSRLRPKNKKSTAPMVPGAWPLLGHLHLFDTVNPTHVTFGAMADVYGPVFMAKLGSIKVMIINSKEVAKEIYTVHDKLLERPELTASKLLGYNDSFLTFSPYGLYWREIRKIAVSELFSTSGVDMHMVSRAREADLAFRALYVRWEKRGKPKEGVLVDMKQEFIDLTANISLMMVSGKRYFGENPNCEVKEARRCGKLIREFLDYFALFLLSDVAPVLGFLDWKTKRGMKRTAKGLDKVAEGWIEEHKNKRSDHGRSENDYLDILIKILGQDKIPGLSDTHTKIKALCLNLVLAGSETAIVVLVWAVSLLLNNPHVLRKAQEELDSKIGKERVVEELDIKDLVYLQAIVKETFRLYPPVPLVAYRAVVEDFDIAFCKCHVPAGTQLMVSAWKIHRDPNVWSNPEQFEPERFLTSNRELDVGGQSYKFFPFGLGRRSCPAIPLGMRMVHYLLVRFLHSFDLARPSSQDVDMTESNGLVNHKATPLEVNIIPRLHKSLYEVDHIGTDN |
| CYP82G1 | MTFLFSTLQLSLFSLALVIFGYIFLRKQLSRCEVDSSTIPEPLGALPLFGHLHLLRGKKLLCKKLAAMSQKHGPIFSLKLGFYRLVVASDPKTVKDCFTTNDLATATRPNIAFGRYVGYNNASLTLAPYGDYWRELRKIVTVHLFSNHSIEMLGHIRSSEVNTLIKHLYKGNGGTSIVKIDMLFEFLTFNIILRKMVGKRIGFGEVNSDEWRYKEALKHCEYLAVIPMIGDVIPWLGWLDFAKNSQMKRLFKELDSVNTKWLHEHLKKRSRNEKDQERTIMDLLLDILPEDIVISGHVRDVIVKATILALTLTGSDSTSITLTWAVSLLLNNPAALEAAQEEIDNSVGKGRWIEESDIQNLKYLQAIVKETHRLYPPAPLTGIREAREDCFVGGYRVEKGTRLLVNIWKLHRDPKIWPDPKTFKPERFMEDKSQCEKSNFEYIPFGSGRRSCPGVNLGLRVVHFVLARLLQGFELHKVSDEPLDMAEGPGLALPKINPVEVVVMPRLDPKLYSLL |
| CYP82H1 | MITCEMGIYLQMQDIILFSLVFFSTLILWRIFSTYVIRKKTCSGPPEPAGRWPLIGHLHLLGGSKILHHILGDMADEYGPIFSLNLGINKTVVITSWEVAKECFTTQDRVFATRPKSVVGQVVGYNSRVMIFQQYGAYWREMRKLAIIELLSNRRLDMLKHVRESEVNLFIKELYEQWSANGNGSKVVVEMMKRFGDLTTNIVVRTVAGKKYSGTGVHGNEESRQFQKAMAEFMHLGGLLMVSDALPLLGWIDTVKGCKGKMKKTAEEIDHILGSCLKEHQQKRTNISNNHSEDDFIYVMLSAMDGNQFPGIDTDTAIKGTCLSLILGGYDTTSATLMWALSLLLNNRHVLKKAQDEMDQYVGRDRQVKESDVKNLTYLQAIVKETLRLYPAAPLSVQHKAMADCTVAGFNIPAGTRLVVNLWKMHRDPKVWSDPLEFQPERFLQKHINVDIWGQNFELLPFGSGRRSCPGITFAMQVLHLTLAQLLHGFELGTVLDSSIDMTESSGITDPRATPLEVTLTPRLPPAVYQ |
| CYP82J1 | MDFSFHLLAVSTVLALVLWYTLRRVRETRRKTEKGLQPPEPSGALPLIGHLHLLGAQKTLARTLAAMADKYGPIFTIRLGKHPTVVVSNLEAIKECFTTHDRILSSRPRSSHGEHLSYNYAAFGFNNSGPFWREMRKIVTIQLLSSHRLKSLRHVQVSEVNTLINDLYLLSKSNKQGSTKIDISECFERMTINMITRMIAGKRYFSSTEAEKEDEGKRIGKLMKEFMYISGVFVPSDVIPFLGWMNNFLGSVKTMKRLSRELDSLMESWIQEHKLKRLESTENTNKMEDDDFIDVMLSLLDDSMFGYSRETIIKATAMTLIIAGADTTSITLTWILSNLLNNRRSLQLAQEELDLKVGRERWAEDSDIGNLVYIQAIIKETLRLYPPGPLSVPHEATKDFCVAGYHIPKGTRLFANLWKLHRDPNLWSNPDEYMPERFLTDHANVDVLGHHFELIPFGSGRRSCPGITFALQVLHLTFARLLQGFDMKTPTGESVDMTEGVAITLPKATPLEIQITPRLSPELYYEC |
| CYP82K1 | MIIWRILSTSHKRNKTLPPPEPSGAWPLIGHLRILNSQIPFFRILGDLAVKHGPVFSIRLGMRRTLVISSWESVKECFKTNDRKFLNRPSFAASKYMGYDDAFFGFHPYGEYWLEMRKIATQELLSNRRLELLKHVRVSEIETCIKELHTTCSNGSVLVDMSQWFSCVVANVMFRLIAGKRYCSGIGKDSGAFGRLVREFFYLGGVLVISDLIPFTEWMDLQGHVKSMKRVAKELDHVVSGWLVEHLQRREEGRVRKEEKDFMDVMLESLAVGDDPIFGYKRETIVKATALNLILAGTDTTSVTLTWALSLLLNHTEVLKRAQKEIDVHVGTTRWVEESDIKNLVYLQAIVKETLRLYPPGPLLVPRESLEDCYVDGYLVPRGTQLLVNAWKLHRDARIWENPYEFHPERFLTSHGSTDVRGQQFEYVPFGSGRRLCPGISSSLQMLHLTLSRLLQGFNFSTPMNAQVDMSEGLGLTLPKATPLEVVLTPRLENEIYQH |
| CYP82L1 | MILEALILVFLYGFWKILARNSEGKKSTRAPEPSGAWPLFGHLPSLVGKDPACKTLGAIADKYGPIYSLKFGIHRTLVVSSWETVKDCLNTNDRVLATRAGIAAGKHMFYNNAAFALAPYGQYWRDVRKLATLQLLSNQRLEMLKHVRVSEVDTFIKGLHSFYAGNVDSPAKVNISKLLESLTFNINLRTIVGKRYCSSTYDKENSEPWRYKKAIKKALYLSGIFVMSDAIPFLEWLDYQGHVSAMKKTAKELDAVIRNWLEEHLKKKIDGELGSDRESDFMDVMISNLAEGPDRISGYSRDVVIKATALILTLTGAGSTATTLVWTLSLLLNNPTVLKAAQEELDKQVGRERWVEESDIQNLKYLQAIVKETLRLYPPGPLTGIREAMEDCSIGGYDVPKGTRLVVNIWKLHRDPRVWKNPNEFKPDRFLTTHADLDFRGQNMEFIPFSSGRRSCPAINLGLIVVHLTLARILQGFDLTTVAGLPVDMIEGPGIALPKETPLEVVIKPRLGLELY |
| CYP82M1v1 | MDYHISFHFQALLGLLAFVFLSIILWRRTLTSRKLAPEIPGAWPIIGHLRQLSGTDKNIPFPRILGALADKYGPVFTLRIGMYPYLIVNNWEAAKDCLTTHDKDFAARPTSMAGESIGYKYARFTYANFGPYYNQVRKLALQHVLSSTKLEKMKHIRVSELETSIKELYSLTLGKNNMQKVNISKWFEQLTLNIIVKTICGKRYSNIEEDEEAQRFRKAFKGIMFVVGQIVLYDAIPFPLFKYFDFQGHIQLMNKIYKDLDSILQGWLDDHMMNKDVNNKDQDAIDAMLKVTQLNEFKAYGFSQATVIKSTVLSLILDGNDTTAVHLIWVMSLLLNNPHVMKQGQEEIDMKVGKERWIEDTDIKNLVYLQAIVKETLRLYPPVPFLLPHEAVQDCKVTGYHIPKGTRLYINAWKVHRDSEIWSEPEKFMPNRFLTSKANIDARGQNFEFIPFGSGRRSCPGLGFATLVTHLTFGRLLQGFDFSKPSNTPIDMTEGVGVTLPKVNQVEVLITPRLPSKLYLF |
| CYP82Q1 | MEFHLSLLTTVTAILVVTAFFLQISKRKKVDTTKNKLLPPKAKGAWPLIGHLPLLGKNRIAHRVLGDLADKYGPIFTIKLGVYQVLVVSSADAVKDCFTTSDKAFASRPKSTAVEIMGYNYAMFGLAPYGEYWRQVRKIAVLEILSQKRVDMLEWARVSEVRTSTNEVYDAWRVNKENEGSDMVLVDMKQWFTNLILNVLVRIISGKRFPFKSVEGIRFQKMEKKLFELLGAFVVSDLIPSMKRFDIGGYQKQMKMAAEEINDIMEGWLNNRKTQKESGEQKEGDQYFMDVLISVLKDASDADFPGYDHDTVIKATCMALLAAGSDTTSVTIIWALALLLNHPEKMKIAQDEIDKHVGRDRLVEESDLKNLVYINAIIKETMRLYPAAPLSVPHEAMEDCVVGGYHIPKGTRLLPNFWKIQHDPNIWPEPYEFKPERFLSTHKDVDVKGKHFELLPFGTGRRMCPAITFVLQILPLTLANLIQQFEIRKPSNDPIDMTESAGLTTKRATPLDVLIAPRLSLKMYPVDV |
| CYP82R1 | MHNPTLKQWIRTSTLPAPIIVSFIVILLFYFFKKRSSNMIRTKKAPEVVGAWPVIGHLNLLSVPKPAYIVLGELADQYGPAFSIQFGVHPILVVSSWELVKACFTTNDKFFSSRLVNKAIKYMFYDQKTISFAPHGPYWRELRKMITLNLLSNERLKMLKHQRISEMDACLKKLYELSTKRKDENAGVLVDMSKWFGDISFNVVTRIVAGKHIFGPKTERYMNVMEEARRLMDVMVFSDVIPYLGWLDRLRGVDSEIKRTAKELDSALESWVDEHRQKRVSISAGIGGIVNITEEEEIDFIDIMLSIIAKNKLLGDDPGTLIKAIVQEMYLAAWDNTTVTLTWALCLLLNNKQVLKRAQCELDAQVGKERQVEDSDINTLPYIQAIVKESMRLYPPGPIIERETTEDCDVGDFRIPAGTRLWINLWKLQRDPNVWPNDPQEFQPERFLNGHADIDMKGQHFELIPFGSGRRMCPGVSFSLQVMHLVLARIIHGFELKTPTDADIDMSTTLGMISWKATPLEVLLTPRFPPVFYM |
| CYP82S1 | MDLPSHFLAIAGLILGLVLWYNHWRGKTLTHKSKGMSPPEPSGAWPFVGHLHLLHGKVPVFRTLGAMADKVGPVFVIRLGMYRTLVVSNREAAKECFTTNDKIFASRPNSSAAKILGYNYAAFAFAPHGPYWREMRKLSMLEILSTRRLGDLMHVQVSELHAGIKDLYILGKDNNWVNPKKVVISEWFEHLTFNVVLRMVAGKRYFNNVVHGGEEARSAIAAIKKLLLLVGASVASDVIPFLEWVDLQGHLSSMKLVAKEMDSLIESWVKEHTGRLNSEASSSQDFIDIMLTKLKDDSLFGYSRETIIKATVLTMIVAGSDTTSLTSTWLLSALLNNKHVMKHAQEELDLKVGRDRWVEQSDIQNLVYIKAIVKETLRLYTTFPLLVPHEAMEDCHVGGYHISKGTRLLVNAWKLHRDPAVWSNPEEFQPERFLTSHANVDVFGQHFELIPFGSGRRSCPGLNMGLQMLHLTIARLLQGFDMTKPSNSPVDMTEGISVALSKLTPLEVMLTPRLPAELY |
| CYP83A1 | MEDIIIGVVALAAVLLFFLYQKPKTKRYKLPPGPSPLPVIGNLLQLQKLNPQRFFAGWAKKYGPILSYRIGSRTMVVISSAELAKELLKTQDVNFADRPPHRGHEFISYGRRDMALNHYTPYYREIRKMGMNHLFSPTRVATFKHVREEEARRMMDKINKAADKSEVVDISELMLTFTNSVVCRQAFGKKYNEDGEEMKRFIKILYGTQSVLGKIFFSDFFPYCGFLDDLSGLTAYMKECFERQDTYIQEVVNETLDPKRVKPETESMIDLLMGIYTEQPFASEFTVDNVKAVILDIVVAGTDTAAAAVVWGMTYLMKYPQVLKKAQAEVREYMKEKGSTFVTEDDVKNLPYFRALVKETLRIEPVIPLLIPRACIQDTKIAGYDIPAGTTVNVNAWAVSRDEKEWGPNPDEFRPERFLEKEVDFKGTDYEFIPFGSGRRMCPGMRLGAAMLEVPYANLLLSFNFKLPNGMKPDDINMDVMTGLAMHKSQHLKLVPEKVNKYM |
| CYP83A1 | MEDIIIGVVALAAVLLFFLYQKPKTKRYKLPPGPSPLPVIGNLLQLQKLNPQRFFAGWAKKYGPILSYRIGSRTMVVISSAELAKELLKTQDVNFADRPPHRGHEFISYGRRDMALNHYTPYYREIRKMGMNHLFSPTRVATFKHVREEEARRMMDKINKAADKSEVVDISELMLTFTNSVVCRQAFGKKYNEDGEEMKRFIKILYGTQSVLGKIFFSDFFPYCGFLDDLSGLTAYMKECFERQDTYIQEVVNETLDPKRVKPETESMIDLLMGIYTEQPFASEFTVDNVKAVILDIVVAGTDTAAAAVVWGMTYLMKYPQVLKKAQAEVREYMKEKGSTFVTEDDVKNLPYFRALVKETLRIEPVIPLLIPRACIQDTKIAGYDIPAGTTVNVNAWAVSRDEKEWGPNPDEFRPERFLEKEVDFKGTDYEFIPFGSGRRMCPGMRLGAAMLEVPYANLLLSFNFKLPNGMKPDDINMDVMTGLAMHKSQHLKLVPEKVNKYM |
| CYP83A2/CYP83B1 | MDLLLIIAGLVAAAAFFFLRSTTKKSLRLPPGPKGLPIIGNLHQMEKFNPQHFLFRLSKLYGPIFTMKIGGRRLAVISSAELAKELLKTQDLNFTARPLLKGQQTMSYQGRELGFGQYTAYYREMRKMCMVNLFSPNRVASFRPVREEECQRMMDKIYKAADQSGTVDLSELLLSFTNCVVCRQAFGKRYNEYGTEMKRFIDILYETQALLGTLFFSDLFPYFGFLDNLTGLSARLKKAFKELDTYLQELLDETLDPNRPKQETESFIDLLMQIYKDQPFSIKFTHENVKAMILDIVVPGTDTAAAVVVWAMTYLIKYPEAMKKAQDEVRSVIGDKGYVSEEDIPNLPYLKAVIKESLRLEPVIPILLHRETIADAKIGGYDIPAKTIIQVNAWAVSRDTAAWGDNPNEFIPERFMNEHKGVDFKGQDFELLPFGSGRRMCPAMHLGIAMVEIPFANLLYKFDWSLPKGIKPEDIKMDVMTGLAMHKKEHLVLAPTKHI |
| CYP83D1 | LVLLSLLSIVISIVLFITHTHKRNNTPRGPPGPPPLPLIGNLHQLHNSSPHLCLWQLAKLHGPLMSFRLGAVQTVVVSSARIAEQILKTHDLNFASRPLFVGPRKLSYDGLDMGFAPYGPYWREMKKLCIVHLFSAQRVRSFRPIRENEVAKMVRKLSEHEASGTVVNLTETLMSFTNSLICRIALGKSYGCEYEEVVVDEVLGNRRSRLQVLLNEAQALLSEFFFSDYFPPIGKWVDRVTGILSRLDKTFKELDACYERSSYDHMDSAKSGKKDNDNKEVKDIIDILLQLLDDRSFTFDLTLDHIKAVLMNIFIAGTDPSSATIVWAMNALLKNPNVMSKVQGEVRNLFGDKDFINEDDVESLPYLKAVVKETLRLFPPSPLLLPRVTMETCNIEGYEIQAKTIVHVNAWAIARDPENWEEPEKFFPERFLESSMELKGNDEFKVIPFGSGRRMCPAKHMGIMNVELSLANLIHTFDWEVAKGFDKEEMLDTQMKPGITMHKKSDLYLVAKKPTT |
| CYP83E1 | MLPMLLLLVLCLTLPLLMFFHKHKTNTNNPPGPKGLPIIGNLLQLDISNLHLQFSQFSKIYGPLFSLQLGLRPAIVVSSAEIAKEVFKNNDHVFSNRPISYGQNILSYNGSEIVFAPYGDFWREIRKICAIHIFSSKRVSYYSSIRIFEVKKMIKNISVHADSSNVTNLSELLISLSSTIICRTAFGKSYEDDGIEKSRFHGLLHEFQALLAASFFADYIPFTGWIDKLRGLHGRVDRNFKEFDEFYQEIIDEHLDPNREQITDEEDIVDVLLELKKKRSFSFDINFDHIKGILTDMLVAATDTTSAASVWAMTALIKNPRVMSKVKGEIRNLGVKKDFLYEDDIQNCPYLKAVVKETLRLHLPAPLLVPRESIENCTINGYNIPAKTILYVNAWAIQRDPDIWINPEEFYPERFLESSINFIGQDFELIPFGAGRRICPSIPMAVASLELILANLLYSFDWKLPHGLVKEDIDTSMLPGITQHKKNPLCLIAKVPK |
| CYP83F1v1 | MALLIFVILFLSIIFLFLLKKNKISKRACFPPGPNGLPLIGNLHQLDSSNLQTQLWKLSQKYGPLMSLKLGFKRTLVISSAKMAEEVLKTHDLEFCSRPLLTGQQKFSYNGLDLAFSPYGAYWREMKKICVVHLLNSTRVQSFRTNREDEVSHMIEKISKAALASKPFNLTEGMLSLTSTAICRTAFGKRYEDGGIEGSRFLALLNETEALFTMFFLSDYFPYMGWVDRLTGRAHRLEKNFREFDVFYQQIIDEHLDPERPKPDHEDILDVLLQIYKDRTFKVQLTLDHIKAILMNIFVGGTDTAAATVIWAMSLLMKNPEAMRKAQEEVRKVIGDKGFVYEDDVQQLPYLKAVVKETMRLQPTAPLLVPRETTTECNIGGYEIPAKTLVYVNAWAIGRDTEVWENPYVFIPDRFLGSSIDLKGQDFELIPFGAGRRICPGIYMGIATVELSLSNLLYKFDWEMPGGMKREDIDVDHTQPGLAMHTRDALCLVPKAYAVMGNDA |
| CYP83G1v1 | MNKNMSPLILLPFALLLFFLFKKHKTSKKSTTLPPGPKGLPFIGNLHQLDSSVLGLNFYELSKKYGPIISLKLGSKQTVVVSSAKMAKEVMKTHDIEFCNRPALISHMKISYNGLDQIFAPYREYWRHTKKLSFIHFLSVKRVSMFYSVRKDEVTRMIKKISENASSNKVMNMQDLLTCLTSTLVCKTAFGRRYEGEGIERSMFQGLHKEVQDLLISFFYADYLPFVGGIVDKLTGKTSRLEKTFKVSDELYQSIVDEHLDPERKKLPPHEDDVIDALIELKNDPYCSMDLTAEHIKPLIMNMSFAVTETIAAAVVWAMTALMKNPRAMQKVQEEIRKVCAGKGFIEEEDVEKLPYFKAVIKESMRLYPILPILLPRETMTNCNIAGYDIPDKTLVYVNALAIHRDPEVWKDPEEFYPERFIGSDIDLKGQDFELIPFGSGRRICPGLNMAIATIDLVLSNLLYSFDWEMPEGAKREDIDTHGQAGLIQHKKNPLCLVAKKRIECV |
| CYP84A1 | MESSISQTLSKLSDPTTSLVIVVSLFIFISFITRRRRPPYPPGPRGWPIIGNMLMMDQLTHRGLANLAKKYGGLCHLRMGFLHMYAVSSPEVARQVLQVQDSVFSNRPATIAISYLTYDRADMAFAHYGPFWRQMRKVCVMKVFSRKRAESWASVRDEVDKMVRSVSCNVGKPINVGEQIFALTRNITYRAAFGSACEKGQDEFIRILQEFSKLFGAFNVADFIPYFGWIDPQGINKRLVKARNDLDGFIDDIIDEHMKKKENQNAVDDGDVVDTDMVDDLLAFYSEEAKLVSETADLQNSIKLTRDNIKAIIMDVMFGGTETVASAIEWALTELLRSPEDLKRVQQELAEVVGLDRRVEESDIEKLTYLKCTLKETLRMHPPIPLLLHETAEDTSIDGFFIPKKSRVMINAFAIGRDPTSWTDPDTFRPSRFLEPGVPDFKGSNFEFIPFGSGRRSCPGMQLGLYALDLAVAHILHCFTWKLPDGMKPSELDMNDVFGLTAPKATRLFAVPTTRLICAL |
| CYP84A1 | MESSISQTLSKLSDPTTSLVIVVSLFIFISFITRRRRPPYPPGPRGWPIIGNMLMMDQLTHRGLANLAKKYGGLCHLRMGFLHMYAVSSPEVARQVLQVQDSVFSNRPATIAISYLTYDRADMAFAHYGPFWRQMRKVCVMKVFSRKRAESWASVRDEVDKMVRSVSCNVGKPINVGEQIFALTRNITYRAAFGSACEKGQDEFIRILQEFSKLFGAFNVADFIPYFGWIDPQGINKRLVKARNDLDGFIDDIIDEHMKKKENQNAVDDGDVVDTDMVDDLLAFYSEEAKLVSETADLQNSIKLTRDNIKAIIMDVMFGGTETVASAIEWALTELLRSPEDLKRVQQELAEVVGLDRRVEESDIEKLTYLKCTLKETLRMHPPIPLLLHETAEDTSIDGFFIPKKSRVMINAFAIGRDPTSWTDPDTFRPSRFLEPGVPDFKGSNFEFIPFGSGRRSCPGMQLGLYALDLAVAHILHCFTWKLPDGMKPSELDMNDVFGLTAPKATRLFAVPTTRLICALXXXCYP |
| CYP85A1 | MGAMMVMMGLLLIIVSLCSALLRWNQMRYTKNGLPPGTMGWPIFGETTEFLKQGPNFMRNQRLRYGSFFKSHLLGCPTLISMDSEVNRYILKNESKGLVPGYPQSMLDILGTCNMAAVHGSSHRLMRGSLLSLISSTMMRDHILPKVDHFMRSYLDQWNELEVIDIQDKTKHMAFLSSLTQIAGNLRKPFVEEFKTAFFKLVVGTLSVPIDLPGTNYRCGIQARNNIDRLLRELMQERRDSGETFTDMLGYLMKKEGNRYPLTDEEIRDQVVTILYSGYETVSTTSMMALKYLHDHPKALQELRAEHLAFRERKRQDEPLGLEDVKSMKFTRAVIYETSRLATIVNGVLRKTTRDLEINGYLIPKGWRIYVYTREINYDANLYEDPLIFNPWRWMKKSLESQNSCFVFGGGTRLCPGKELGIVEISSFLHYFVTRYRWEEIGGDELMVFPRVFAPKGFHLRISPY |
| CYP86A1 | MEALNSILTGYAVAALSVYALWFYFLSRRLTGPKVLPFVGSLPYLIANRSRIHDWIADNLRATGGTYQTCTMVIPFVAKAQGFYTVTCHPKNVEHILKTRFDNYPKGPMWRAAFHDLLGQGIFNSDGDTWLMQRKTAALEFTTRTLRQAMARWVNGTIKNRLWLILDRAVQNNKPVDLQDLFLRLTFDNICGLTFGKDPETLSLDLPDNPFSVAFDTATEATLKRLLYTGFLWRIQKAMGIGSEDKLKKSLEVVETYMNDAIDARKNSPSDDLLSRFLKKRDVNGNVLPTDVLQRIALNFVLAGRDTSSVALSWFFWLVMNNREVETKIVNELSMVLKETRGNDQEKWTEEPLEFDEADRLVYLKAALAETLRLYPSVPQDFKYVVDDDVLPDGTFVPRGSTVTYSIYSIGRMKTIWGEDCLEFRPERWLTADGERFETPKDGYKFVAFNAGPRTCLGKDLAYNQMKSVASAVLLRYRVFPVPGHRVEQKMSLTLFMKNGLRVYLQPRGEVLA |
| CYP86B1 | MNFNSSYNLTFNDVFFSSSSSSDPLVSRRLFLLRDVQILELLIAIFVFVAIHALRQKKYQGLPVWPFLGMLPSLAFGLRGNIYEWLSDVLCLQNGTFQFRGPWFSSLNSTITCDPRNVEHLLKNRFSVFPKGSYFRDNLRDLLGDGIFNADDETWQRQRKTASIEFHSAKFRQLTTQSLFELVHKRLLPVLETSVKSSSPIDLQDVLLRLTFDNVCMIAFGVDPGCLGPDQPVIPFAKAFEDATEAAVVRFVMPTCVWKFMRYLDIGTEKKLKESIKGVDDFADEVIRTRKKELSLEGETTKRSDLLTVFMGLRDEKGESFSDKFLRDICVNFILAGRDTSSVALSWFFWLLEKNPEVEEKIMVEMCKILRQRDDHGNAEKSDYEPVFGPEEIKKMDYLQAALSEALRLYPSVPVDHKEVVQEDDVFPDGTMLKKGDKVIYAIYAMGRMEAIWGKDCLEFRPERWLRDGRFMSESAYKFTAFNGGPRLCLGKDFAYYQMKSTAAAIVYRYKVKVVNGHKVEPKLALTMYMKHGLMVNLINRSVSEIDQYYAKSFDEGYIN |
| CYP86C1 | MNVLISAVVWVYTHLRLSDVALALVGLFLLSYLREKLVSKGGPVMWPVLGIIPMLALNKHDLFTWCTRCVVRSGGTFHYRGIWFGGAYGIMTADPANVEHILKTNFKNYPKGAFYRERFRDLLEDGIFNADDELWKEERRVAKTEMHSSRFLEHTFTTMRDLVDQKLVPLMENLSTSKRVFDLQDLLLRFTFDNICISAFGVYPGSLETGLPEIPFAKAFEDATEYTLARFLIPPFVWKPMRFLGIGYERKLNNAVRIVHAFANKTVRERRNKMRKLGNLNDYADLLSRLMQREYEKEEDTTRGNYFSDKYFREFCTSFIIAGRDTTSVALVWFFWLVQKHPEVEKRILREIREIKRKLTTQETEDQFEAEDFREMVYLQAALTESLRLYPSVPMEMKQALEDDVLPDGTRVKKGARIHYSVYSMGRIESIWGKDWEEFKPERWIKEGRIVSEDQFKYVVFNGGPRLCVGKKFAYTQMKMVAAAILMRYSVKVVQGQEIVPKLTTTLYMKNGMNVMLQPRDW |
| CYP86E2 | MTTRALVAMALRFLREYVRASDLAVAAAVLFACSAARSRLSSRPGEPMLWPVVGIIPTLFAHLAAGDVYDWGAAVLLGRSRGTFAYRGTWGGGSSGVVTSVPANVEHVLKANFDNYPKGPYYRERFAELLGGGIFNADGDSWRAQRKAASAEMHSARFVQFSAGTVERLVRRELLPLLESLSGREGPESAAAAVDLQDVLLRFAFDNICAAAFGVEAGCLADGLRDVPFARAFERATELSLTRFYTPPFVWKSKRLLGVGSERALVESARAVREFAERTVADRRAELRKVGDLAGRCDLLSRLMSSPPAAGYSDEFLRDFCISFILAGRDTSSVALTWFFWLLASHPHVEARVLDDVARGGGDVSAMDYLHAALTESMRLYPPVPVDFKEALEDDVLPDGTLVRARQRVIYYTYAMGRDKATWGPDCLEFRPERWLSKSGAFAGGAESPYKYVVFNAGPRLCVGKRFAYMQMKTAAAAVLARFRVEVLPGQEVKPKLNTTLYMKNGLMVRFVRREQRHELGHPLPAAAADAGED |
| CYP86F1 | MQYLVMSRGDNCTHFHSQNQGQTGLGMCTGPNRMDSWMLTQVMLAGVVTFLVWHVIKYSRIKGPIVWPVFGTTPQFLWNLPRMHDWTTDMLVKHDGTYTSIAPKCTCLTAVATCRPENLEYVLKTNFANYPKGRSFTYPSHDLLGQGIFNTDHDLWKMQRKTASLEFSTRTLRDLMVKANRSSVGQRLLPVLADVARNRAPIDFQDLFLRYTFDNICMVGFGVDPGCLAPGLPTVPFAQAFDLATEGTLTRMVVPEIFWRITRALGWGMEGRLAKAISTIDKFAADVITERRRELNMLKTLNATEYPCDLLSRFMQTTDHEGNPYTDRFLRDVTTNFILAGRDTTAIALSWFFYLITQNPAVEEKILNEIREILQSRRQSGGVGEPDDDDAGRTTQEASLSFEELKQLHYLHAALSESMRLYPSVPIDNKDVTADDFLPDGTFVRKGTRLMYSIYSMGRMESIWGKDCLEYKPERWLRNGVFTPESPFKYAVFNAGPRLCLGKELAYLQMKSVASAILRNYHVKLVPEHKVEYKLSLTLFMKYGLHVTLHPRVTVAY |
| CYP87A2 | MWALLIWVSLLLISITHWVYSWRNPKCRGKLPPGSMGFPLLGESIQFFKPNKTSDIPPFIKERVKRYGPIFKTNLVGRPVIVSTDADLSYFVFNQEGRCFQSWYPDTFTHIFGKKNVGSLHGFMYKYLKNMVLTLFGHDGLKKMLPQVEMTANKRLELWSNQYSVELKDATASMIFDLTAKKLISHDPDKSSENLRANFVAFIQGLISFPFDIPGTAYHKCLQGRAKAMKMLRNMLQERRENPRKNPSDFFDYVIEEIQKEGTILTEEIALDLMFVLLFASFETTSLALTLAIKFLSDDPEVLKRLTEEHETILRNREDADSGLTWEEYKSMTYTFQFINGTARLANIVPAIFRKALRDIKFKDYTIPAGWAVMVCPPAVHLNPEMYKDPLVFNPSRWEGSKVTNASKHFMAFGGGMRFCVGTDFTKLQMAAFLHSLVTKYRWEEIKGGNITRTPGLQFPNGYHVKLHKKRD |
| CYP87B6 | MLPIGLCVVSLVIIWITYWIRRWKNPRCNVTLPPGSLGFPLIGESIQFLISCSNSLDLHPFFRKRIQKRYGPLFKTSMLGRQVVVTADPEANHFILEQEGKSVEMCYLDSVAQLCGHDESSAGATGHIHKYLRTLILNHFGYERLRYKLLKKVEAMAHKSLGAWSSQPSVELNRATSQIMLDFISKELFSYDPKGCTESMGDAFIDFLDSLASVPLNIPGTTFHKCLKNQKKTMKILREIVDERCASPEIRRGDFLDYFLEGMKKEAFITKDFIAFVMFGLLFASFESIPIMLSLALKLIMEHPLVLQELEEHEAILRNKDTSNFTLTWEDYKSMTFTVIDETLRMANVGLGNFRKALEDIKIKGHTIPAGWTILVVSSVLHMDPNIYPDPLVFNPWRWKGSXKITTKNFTPFGGGIRFCPGAELSKLTMAIFLHVAVTKYRFTKIKGGNLVRNPVLKFKDGFHIKVSKK |
| CYP87C6 | MSMHYLAALSVTLLGAILLRWAFKWMNYGRTGGEEGMLLPPGSRGLPFLGETLEFFAASPTLELVPFFKRRLERFGPIFRTNIVGEDMIVSLDPELNARVLQQEERGFQIWYPSSFMRILGADNMVSMLGPLHRHIRNLVLRLFGPEALRLVLLRDVQRSARDELRSWLDRPEVEVRTATSRMIFGVTAKKLISHDDVASGGSLWKCFDAWTKGLMSFPICVPGTAFYRCMQGRKNVMKVLKQQLDERRNGAERKTVDFFDLVIDELDKPNSIMSESIALNLLFLLLFASHETTSMGLTVILKFLTDNPKSLQELTEEHEKIMERRVDPDSDITWEEYKSMKFTSHVIHESLRLANIAPVVFRQANQDVHIKGYTIPEGSKIMICPSAAHLNSKVYEDPLAFNPWRWKDTPEPVGGSKDFMAFGGGLRLCVGAEFAKLQMAMFLHYLVTNYRWKALSKGTMMLYPGLRFPDGFHIQLHKKT |
| CYP87D1 | MWAIGLVVVALVVIYYTHMIFKWRSPKIEGVLPPGSMGWPLIGETLQFISPGKSLDLHPFVKKRMQKYGPIFKTSLVGRPIIVSTDYEMNKYILQHEGTLVELWYLDSFAKFFNLEGETRVNAIGAVHKYLRSITVNHFGVESLKESLLPKIEDMLHTTLAKWASQGPVDVKQVISVMVFNFTANKIFGYDAENSKETLSKNYTKILNSFISLPLNIPGTSFHKCMQEREKMLKLLKDTLMERLNGPSKRRGDFLDQAIDDMKTKKFLTVDFIPQLMFGILFASFESMSTTLTLTFKFLTENPRVVEELRAEHEAIVKKRENPNSRLTWEEYRSMTFTQMVVNETLRISNIPPGLFRKALKDFQVKGYTVPAGWTVMLVTPAIQLNPDTFKDPVTFNPWRWKDLDQVTISKNFMPFGGGTRQCAGAEYSKLVLSTFLHVLVTSYSFTKVKGGDVSRTPIISFGDGIHIKFTARN |
| CYP88A3 | MAETTSWIPVWFPLMVLGCFGLNWLVRKVNVWLYESSLGENRHYLPPGDLGWPFIGNMLSFLRAFKTSDPDSFTRTLIKRYGPKGIYKAHMFGNPSIIVTTSDTCRRVLTDDDAFKPGWPTSTMELIGRKSFVGISFEEHKRLRRLTAAPVNGHEALSTYIPYIEENVITVLDKWTKMGEFEFLTHLRKLTFRIIMYIFLSSESENVMDALEREYTALNYGVRAMAVNIPGFAYHRALKARKTLVAAFQSIVTERRNQRKQNILSNKKDMLDNLLNVKDEDGKTLDDEEIIDVLLMYLNAGHESSGHTIMWATVFLQEHPEVLQRAKAEQEMILKSRPEGQKGLSLKETRKMEFLSQVVDETLRVITFSLTAFREAKTDVEMNGYLIPKGWKVLTWFRDVHIDPEVFPDPRKFDPARWDNGFVPKAGAFLPFGAGSHLCPGNDLAKLEISIFLHHFLLKYQVKRSNPECPVMYLPHTRPTDNCLARISYQ |
| CYP88B1 | MDFYNLALFFIALILGIFTFYAILMRINGWYYAIKFCSNKYNIPNGYMGLPYFGNTLSYFKASMCGDPKSFIDFFATRFGEGGMYRAYIFGKPTIMVTKPEIIRKVLMDEEYLERGLPNYMKKLIGLTTSIEEDKYFRRLTAPVKSHGLLSDYFDYIDKTVSSTLEKYATTEEPVEFLHKMHKLTFEVFMRLLIGDEVNQELFDEMFEEITAVISGVHNLPINLPGFAYHKGLKARKVLXEVFKKLIDERREAMKDGKSMPKANIIDMLLSNNNQDYEANMLSDKKIIEILVLFSFAGFEPVALMSVKAIFHLQKHPHFLEKAKEEQEEIVKRRASSNAGLSFDEIRQMTFVSKIINETLRIATDQSVFLRDTSTTFNINGYTIPKGWKFFAVVWNIHMNPDVYVQPKEFNPSRWDDIETKPGIFLPFSMGPKSCPGSNLAKLQISVILHYYLLHYRVEQINPEARCYPPENCLVKFKKLSISSNGN |
| CYP88C1 | MEYDSMFLYTALAVGILTIWSILKNGNGWFYTFKFSSNKCRLPPGDMGWPFFGNMLHFVKCLSNYDLASFVSYFVTRFGKGGLYKAYMFGKPTILVTSPELCRKVVMDDENFDLGFPQYILELLRKEPIGGTTNQEDKLARRLTTPIKSHGLVSFFFDFLSENVKTSFEKWSASEKPIELLAEMKKPTFAVLMRVLLGGEELVARELLDVIFKENNFRFAGLRSLPINIPGFAFHRAMKGRKEIIKVFERVINERKVLIAKDKTRAKSNILDIMLSTQDDDGKGLRDGNILKTLLWYTFSGYESVAKVATQTMMLLQNHPECLKKAKEEQEEIVKRRTSPNEGLNFSEIGQMKYVTNVINETLRLGSTETVLFRDARTDVNLNGYTIPEGWKCLALLGNFYKDPDTYVKPNEFIPSRWDDLEVKPASFLPFGVGLRMCPGANLVRLEVAVVLHYFLLNYRLEMLDPDSTPEKCLARFKKLSA |
| CYP88D3 | MEMQWVYICTAALFACYVFVNKFLRRFNGWYYHLKLRNKEYPLPPGDMGWPLIGNLLSFNKNFSSGQPDSFTTNLILKYGRDGIYKTHVYGNPSIIICDPEMCKRVLLDDVNFKIGYPKSIQELTKCRPMIDVSNANHKHFRRLITAPMVGHKVLDMYLERLEDIAINSLEELSSMKHPIELLKEMKKVSFKSIIHVFMGTSNQNIVKNIGSSFTDLSKGMYSIPINAPGFTFHKALKARKKIAKSLQPVVDERRLIIKNGQHVGEKKDLMDILLEIKDENGRKLEDQDISDLLIGLLFAGHESTATGIMWSVAHLTQHPHILQKAKEEQEEILKIRPASQKRLSLNEVKQMIYLSYVIDEMLRFANIAFSIFREATSDVNINGYLIPKGWRVLIWARAIHMDSEYYPNPKEFNPSRWKDYNAKAGTFLPFGAGSRLCPGADLAKLEISIFLHYFLLNYRLERINPDCPVTTLPQCKPTDNCLAKVIKVSRA |
| CYP88D4 | MELYWAWVCAATLATCYVLRRLNGWYYDVKLRKKQYPLPPGDMGWPLIGNLIPFYKDFSSGRPNSFINNLLLKYGEGGIYKTHLFGNPSIIVCEPEICMRVLTDDVNFRVGYPTTIKELIRLKHISRAEHKQYRRLVNTLPILDHQALATLYLERIENIVTNSLEELSSMKHPVELLKEMKKVTFKVFIHILMGSSIHHMIIENMDTSFAELTNGILSAPINAPGFVFHKALKARKKLAKILQSVVDERRLRSKNGQEGKDKVFLDNLLEAKDENGRKRDDEYIVDVLIAQLFAGHETSATALMWTILYLTQHPHILEKAKKEQEEIMKARVSSQGRLNLQEIKQMVYLSQVIDETLRCANIVFTTFREAISDVNINGYVIPNGWRVLVWARAVHMNPKYYPNPEEFNPSRWDDYHGKAGTFLPFGAGSRLCPGKDLAKLEISVFLHYFLLNYKLERINAECPITFLPILKPVDNCLAKVIKVS |
| CYP88D5 | MELYWAWVSAATLATCYVFVDIFLRRLNGWYYDLKLCKKQHPLPPGDMGWPLIGNLISFYKDFSSGHPNSFTNNLLLKYGQSGMYKTHLFGKPSIIVCEAEICRRVLTDDVNFKFAYPESLRQLIPVQSISRAEHRQFRRLINTPIMNHQALAVYLERIENIMINSLEELSSMKHPVELLKEMKKVTFKVIIDILMGTSIPHMITQNMESFFAELCNGMLSAPINAPGFVYHKALKARKKLAKTVQSVVDERRLKSKNGQEGKDKAFIDSVLEVNDENGRKLEDGYIIDLLIAILFAGHETSATTMMWTIVYLTQHPHILNKAKEEQEKIMKVRVSSQTRLNLQEIKQMVYLSQVIDETLRCANIVFSMFREATSDVNMSGYVIPKGWRVLIWGRAVHMDPENYPNPEEFNPSRWDDYHGKAGTSLPFGVGSRLCPGKDLAKLEISIFLHYFLLNYKLERINPDCPITFLPIPKPVDNCLAKVIKVSCN |
| CYP88D6 | MEVHWVCMSAATLLVCYIFGSKFVRNLNGWYYDVKLRRKEHPLPPGDMGWPLIGDLLSFIKDFSSGHPDSFINNLVLKYGRSGIYKTHLFGNPSIIVCEPQMCRRVLTDDVNFKLGYPKSIKELARCRPMIDVSNAEHRLFRRLITSPIVGHKALAMYLERLEEIVINSLEELSSMKHPVELLKEMKKVSFKAIVHVFMGSSNQDIIKKIGSSFTDLYNGMFSIPINVPGFTFHKALEARKKLAKIVQPVVDERRLMIENGPQEGSQRKDLIDILLEVKDENGRKLEDEDISDLLIGLLFAGHESTATSLMWSITYLTQHPHILKKAKEEQEEITRTRFSSQKQLSLKEIKQMVYLSQVIDETLRCANIAFATFREATADVNINGYIIPKGWRVLIWARAIHMDSEYYPNPEEFNPSRWDDYNAKAGTFLPFGAGSRLCPGADLAKLEISIFLHYFLRNYRLERINPECHVTSLPVSKPTDNCLAKVIKVSCA |
| CYP88E1 | MNLKWAIAIATVAAATFFELLRNFNRFWYEPKLKPGQAPLPPGSLGWPIFGNMASFLRAFKSHNPDSFITKYLHKYDRTGVYKAFLFWQPTVLATTPETCKVVLSRDSLFETGWPSSTRRLIGTRSFAGVTGEEHLKLRRLTEPALSNPKALEDYIPRMSSNIKSCLEEWSCQERTLLLREMRKYAFRTIHDILFSKDSGLDVEEVSSLYYEGNQGIRSLPINLPGTSYNRALKARKKLDVLLHRVLNKRRFSEKPEKTDTLSLLMDATDENGKHLDDKQIVDLLVMYLNAGHDSTAHLILWLLIFLLKHEIVYDKVKEEQELIASQKPLGDSLSLSDVKKMSYLSRVINETLRVANISPMVFRRAVTDVEVNGFTIPKGWYVEPWLRQVHMDPAVHSNPQNFDPDRWAVIRPFTHLPFGLGSRTCPGNELAKLEACIIVHHLVLGYEVKPLNPDCEVTFLPHPRPKDYFPVQVRRRR |
| CYP88F1v1 | MDLWLPSIAVALIIVLISCILNFNSWFYAPKLRPGSPPLPPGSLGWPVFGNMGDFLQAFKSSNPESFVGGFISKYGCGGLYKAFLFRQPTILATSAEVCKTVLCNHDVFEIGWPERVVKELLGLKVLSAVTGDDHLKLSKLVKPALSSPKAIQHQMPCIEENVKKLLDEWADRGNIVFLDEARMFTLKTIHEILVGEDTGIDFKQVSGLFHTMNKGLRALPLNFPGTAYSNAVKARATLANDFWRIFYERKESKKRGGDTLSMLLDATDEGGQPLEDDQIVDLIMSFMNGGHESTAHLVTWLAILLKEHPAVYQRLKAEQDEIALKKMPGESLTLADMRSMTYMSRVIDETLRLINISPFVFRKVLSDVQLNGYTIPRGWFVEAWLRQVHMDPLVHKNPREFDPDRWINEKPQPHTYVAFGLGNRKCPGSNLSKIQSSIIIHHLITKYNWEPLNPHYKLVYLPHPRPADHYPVKITKRALV |
| CYP89A2 | MEIWLLILASLSGSLLLHLLLRRRNSSSPPLPPDPNFLPFLGTLQWLREGLGGLESYLRSVHHRLGPIVTLRITSRPAIFVADRSLTHEALVLNGAVYADRPPPAVISKIVDEHNISSGSYGATWRLLRRNITSEILHPSRVRSYSHARHWVLEILFERFRNHGGEEPIVLIHHLHYAMFALLVLMCFGDKLDEKQIKEVEFIQRLQLLSLTKFNIFNIWPKFTKLILRKRWQEFLQIRRQQRDVLLPLIRARRKIVEERKRSEQEDKKDYVQSYVDTLLDLELPEENRKLNEEDIMNLCSEFLTAGTDTTATALQWIMANLVKYPEIQERLHEEIKSVVGEEAKEVEEEDVEKMPYLKAVVLEGLRRHPPGHFLLPHSVTEDTVLGGYKVPKNGTINFMVAEIGRDPVEWEEPMAFKPERFMGEEEAVDLTGSRGIKMMPFGAGRRICPGIGLAMLHLEYYVANMVREFQWKEVQGHEVDLTEKLEFTVVMKHPLKALAVPRRCH |
| CYP89B17 | METSWLLLSGALLLSLLVLRLHAKNRRLPPGPPAVPLFGNLLWLRNSAVQVEPLLLKLFKRYGPVVTLRMGSQLTIFVADRRLAHAALVGAGAVTMANRPQAATSSLLGVSDNIITRTDYGPVWRLLRRNLVAETLHPSRVRLFAPARAWVRGVLMDKLRAGGAAGDDEPRDVMEAFRYTMFCLLVIMCFGERLDEPAVRAIQDAERKWLLYISQQMSVFFFFPSVTRHVFRGRLQTARALHRRQTELFVPLINARREYKRLAKDGQAPERETTFQHSYVDTLLDITLPDEEGHRPLTDDEIVRLCSEFFTAGTDTTSTGLQWIMAELVKNPAVQDRLYAEIKATCGDGDAEAVSEEAVHGMPYLKAVILEGLRKHPPGHFVLPHKAAEDMDVGGYLIPKDATVNFMVAVMGRDEQEWERPMEFVPERFLEGGDGAEVDLTGIKGIRMMPFGVGRRICAGMSIAMLHLEYFVASMVREFEWKEAPGH |
| CYP89C3 | MEDWLFYSLTTLLCLLCSLILRARTPGKKARNADSSSPLPPLPPGPTPLPVLGPLLFLARRDFDIEPVLRRIARDHGKVFTFAPLGRARPGIFVADRGAAHRALVQRGAAFASRPPSTASSAVLTSGGRNVSSSPYGATWRALRRNLASGVLNPARLRAFSPARRWVLGVLARRVRADGRHGEAPVAVMEPFQYAMFCLLVHMCFGGDRLGDDARVRDIEATQRELLGSFLSFQVFSFLPWVTKLVFRRRWEKLVSLRRRQEELFVPLIQARREAGGDGDSYVDSLVKLTIPEDGGRPLTDGEIVSLCSEFLSAGTDTTATALQWILANLVKNPAMQDRLRDEVSSAGAGADGEVLEEELQAMPYLKAVVLEALRRHPPGHYVLPHAVHEDTTLDGYRVPAGAPVNFAVGDIGMDEEVWRAPAEFRPERFLPGGEGDDVDLTGSKEIKMMPFGAGRRVCPGMALALLHLEYFVANLVREFDWRQADGEEVDLTEKLEFTVVMKRPLRARAVPLRPPPPAVAAA |
| CYP89D1 | MEVILLPLVVIITSTMLLLLIISTAKKRHHGTANLPLPPAPPSVPVVGPLLWLVRARSNLEPAIRELHRRHGPILSLTFLSPRAAIFVSSREVTHRALVQRGHTFASRPPAIAPFAVLTSGQCTVSSAPYGPLWRSLRRNLTSGVLGHGSRAPLYAPARRWALHLLTSDLAAASGNTGGGVAVAVVDCLQFAMFSLLTYMCFGKRLDRRGVREIEAVQRELFSSYISFQVFAFCPTVTKRLFFRRWQKVLSIRRRQEDIFLPLIEERRKRIKISSMDNDGSMVCCYVDTIISHKLPKEAGDRRLTDGELVSLCTEFLTASVDTIVTALQWIMARVVEQPEIQAKLLDEINRVVSSDKEHVDEEDIKSMAYLKALVLEGLRRHPPAHFLLSHAAVEETSLDGHRIPAGRSVNFSVADVAHDENVWSRPEEFLPERFLDGGEGAGTDLTGSREIKMMPFGVGRRICPGLGLALLQLEYFVANMVREFEWGMVDGDCGGGINLAERPEFTVIMEQPLRALVVPRRRE |
| CYP89E1 | MEETWLFLLFSISLVAVLLATARRRRSSSIKARLPPGPSPLLFLAKFLRLRRSIFDLGPLLRDLHARHGPVISIRLFGTTLVFVADRRLAHRALVQGGSTFADRPPLPELGRLFTSDTRDINSSPYGPYWRLVRRNLASEALSPARVALFAPARRRARDVLVRGLRDRGGDGSRPVELRPLLRRAMFELLLYMSLGARLAPEALEEVERLELWMLRAFTSFPVFSFFPAITKRLFRNQWAAHVAVRRRVGEIYVPLINARRAGDGDGDDPPCYTDSLLQLRVAEEGDRPLTDDEIIALCSEFLNAGTDTTVTLVEWIMAELVNRPDIQAKVHDEVRRRPELTEADLQAMPYLKAVVLEGLRLHPPAQFLLPHGVQSDAEVGGYVVPRGAELNVWVAELGRDEVVWTAAREFMPERFMDGGEVEVDVTGSREITMMPFGVGRRMCPGYTVGTLHAEYLVGSLVRELEWLPETEGEAADMAEELDFTTVMKHPLRARVLPRPSSLY |
| CYP89F1 | MHAELTSTTTMEMGSLLPHAASLFAVSMASLMIAAVLSIVRRPWPWKTAAISREAVLRLLGVRLGDVPTTVVRDGAVAVDALVRRADAFSDRPAGGGATSIVSGGRAHNINTVPHGPLWVALRRNLTSEAFHPVHGLARAAPGRSSRTSRPPRRAPPAEGQAVRDCLYAALFALNVATCFGDGVDGELVGAMRAAQQEFLRFLPRARVFSTFQKAARLVYPDRWKQLLRHRRRQEEMYLPLIRAINEQRRTRGTPSPPPPTTYVDTLLYLEVPADDGRRRRKLSDGEMVGLVSEYLGAATGTVVAQLEWALANLVRRPDIQTRLCGEVEAAAGGEPCAYLRAVVMECLRRHPPVSSVQRHMVRDVMLGGAHVARGNVVSFAIEEIGRWTSSEEFSPERFMEGGEEGVRLAIGSKQEATTKVKMMPFSAGRRTCPGMGYAILHLEYFLANLVTAFEWRRVPWEEEVDLTADYGFITTMQHPLRALVVPLSNDRSTVV |
| CYP89G1 | MALLLLLVSSSCLVVAASIAVLCYVNNDADERLPPGPRVRLPLIGNLFLHAPTMAFLPSALRRLRRSHGPVVTLWAGNRPAVFVIGRDFAHRTLVLAGAALAHRPPSPFASSRALSFNRHGVNAAEYGDRWRRLRSNICSCLAATEALRRRSVDRLVATLELEARAGAGATGVVAPTDAFRHGVFSFFAVLCFGEWVRDGEHDAVLRDLRRAHADILALTVELGAFHLVPAVLMVPYLHRWWKLSGLQRSHRDIVAALISVRRLRREKADGDVADSATFCYVDTLLELELGEDEMVSLCWEFMNAAAKTTSTALEWTMARLVHHSDIQRKLRHDIAKTTNSGGVGVSPSPYLKAVVQESLRLHPPAHYLLAHTVDRDVPLGAGGYVIPKGAIVNYAVAEIGRDATAWTDPDEFVPERFMEGGEGAMVDAVSCGGAEIRMMPFGAGRRACPGASFAVSVLHLFVGRLVEQFEWWPVAEDEKAAAVDFSEKTGLVTVMKTPLRALLVPITSS |
| CYP89H1 | MDDLVTMFPHLSHSRSVTLLFLFLTTAFLLVGCSRKSGAVMLAVLRWLAAPVLTLPWHRASGGRGTRRGLSVQVTDRAVARRALVQHSAAFLDRPTGAVPSTILTRNRHYNILSSPYGPYWRAARRNVATGVLHPSQLRMLGGTRARVLGDLVRALKSGAPAGESLYFAVYSVLAGMCFGEDVVAELGETRLRAMQKFQRDILLALPSFGVFVRYPRIGRFLYRSRWHRLLALRRQQEESFLPLVAAIRNRREASRGNTTLTTYVESLLDLRIHEDGGRAVTDGELVSLISEFLGAGTESTAAALEWTMANLVKSPDLQQKLRLEANAMACGKRVIEEEDLARMPYLRAVVLESLRRHPPVPFVIRRVDGDDAKKVIGVSRLPDGGATVNFLVGKIGRDPAAWSDPMSFKPERFMPGGEGDGTDLTCTTELKMMPFGAGRRVCPGLATAMLHLKYFVANLLTEFEWWEAEDDKVDLTEFRGFFFTVMNRPLQARLVPTDAAAAPWLSN |
| CYP89J1 | MQHVLVILTVTLVLLVVVVRRYAPSKAVYTRLAASIKSTMARRFRPPAIVIKDRATAHRLLVRGCAGGNFCNRPASLTPTAVVSQLRHHNIITAPYDPFWRVTRRNLTSEVLHPLRLHQYAAARREALRVLVADLRAQCTSNPDGLVLAAESIRNAMFGLLATMCFGDGIDKGLVRAMADAQYEFMQLFPDLRLFARVPALARLIHRKRWSKIIALRRKQEDMYLPLIHARRTRQRQSGETPAYVDTLIDLWVPDEHNAGKRRRQRRLANGELVGLCSEFVGAGTETVAAELQWIMANLVKHPHLQEAVRRETDAAVDANAEEVGEEVLPKLEYLNAVVMEALRLYPTVTLVIRQVMEEDDVVHDSRRIPAGTNVIFRPLSLGRDKTAWANPDEFRPERFLACRGGQSVNLVAAAGSRGGEMSMMPFGAGRRVCPGMGVAMLHTAYFLANLVKEFEWRDAEGELAVDLRPRFAFFTVMERPLRARLLLRSRTQNGQVN |
| CYP90A1 | MAFTAFLLLLSSIAAGFLLLLRRTRYRRMGLPPGSLGLPLIGETFQLIGAYKTENPEPFIDERVARYGSVFMTHLFGEPTIFSADPETNRFVLQNEGKLFECSYPASICNLLGKHSLLLMKGSLHKRMHSLTMSFANSSIIKDHLMLDIDRLVRFNLDSWSSRVLLMEEAKKITFELTVKQLMSFDPGEWSESLRKEYLLVIEGFFSLPLPLFSTTYRKAIQARRKVAEALTVVVMKRREEEEEGAERKKDMLAALLAADDGFSDEEIVDFLVALLVAGYETTSTIMTLAVKFLTETPLALAQLKEEHEKIRAMKSDSYSLEWSDYKSMPFTQCVVNETLRVANIIGGVFRRAMTDVEIKGYKIPKGWKVFSSFRAVHLDPNHFKDARTFNPWRWQSNSVTTGPSNVFTPFGGGPRLCPGYELARVALSVFLHRLVTGFSWVPAEQDKLVFFPTTRTQKRYPIFVKRRDFAT |
| CYP90B1 | MFETEHHTLLPLLLLPSLLSLLLFLILLKRRNRKTRFNLPPGKSGWPFLGETIGYLKPYTATTLGDFMQQHVSKYGKIYRSNLFGEPTIVSADAGLNRFILQNEGRLFECSYPRSIGGILGKWSMLVLVGDMHRDMRSISLNFLSHARLRTILLKDVERHTLFVLDSWQQNSIFSAQDEAKKFTFNLMAKHIMSMDPGEEETEQLKKEYVTFMKGVVSAPLNLPGTAYHKALQSRATILKFIERKMEERKLDIKEEDQEEEEVKTEDEAEMSKSDHVRKQRTDDDLLGWVLKHSNLSTEQILDLILSLLFAGHETSSVAIALAIFFLQACPKAVEELREEHLEIARAKKELGESELNWDDYKKMDFTQCVINETLRLGNVVRFLHRKALKDVRYKGYDIPSGWKVLPVISAVHLDNSRYDQPNLFNPWRWQQQNNGASSSGSGSFSTWGNNYMPFGGGPRLCAGSELAKLEMAVFIHHLVLKFNWELAEDDQPFAFPFVDFPNGLPIRVSRIL |
| CYP90C1 | MQPPASAGLFRSPENLPWPYNYMDYLVAGFLVLTAGILLRPWLWFRLRNSKTKDGDEEEDNEEKKKGMIPNGSLGWPVIGETLNFIACGYSSRPVTFMDKRKSLYGKVFKTNIIGTPIIISTDAEVNKVVLQNHGNTFVPAYPKSITELLGENSILSINGPHQKRLHTLIGAFLRSPHLKDRITRDIEASVVLTLASWAQLPLVHVQDEIKKMTFEILVKVLMSTSPGEDMNILKLEFEEFIKGLICIPIKFPGTRLYKSLKAKERLIKMVKKVVEERQVAMTTTSPANDVVDVLLRDGGDSEKQSQPSDFVSGKIVEMMIPGEETMPTAMTLAVKFLSDNPVALAKLVEENMEMKRRKLELGEEYKWTDYMSLSFTQNVINETLRMANIINGVWRKALKDVEIKGYLIPKGWCVLASFISVHMDEDIYDNPYQFDPWRWDRINGSANSSICFTPFGGGQRLCPGLELSKLEISIFLHHLVTRYSWTAEEDEIVSFPTVKMKRRLPIRVATVDDSASPISLEDH |
| CYP90D1 | MDTSSSLLFFSFFFFIIIVIFNKINGLRSSPASKKKLNDHHVTSQSHGPKFPHGSLGWPVIGETIEFVSSAYSDRPESFMDKRRLMYGRVFKSHIFGTATIVSTDAEVNRAVLQSDSTAFVPFYPKTVRELMGKSSILLINGSLHRRFHGLVGSFLKSPLLKAQIVRDMHKFLSESMDLWSEDQPVLLQDVSKTVAFKVLAKALISVEKGEDLEELKREFENFISGLMSLPINFPGTQLHRSLQAKKNMVKQVERIIEGKIRKTKNKEEDDVIAKDVVDVLLKDSSEHLTHNLIANNMIDMMIPGHDSVPVLITLAVKFLSDSPAALNLLTVEENMKLKSLKELTGEPLYWNDYLSLPFTQKVITETLRMGNVIIGVMRKAMKDVEIKGYVIPKGWCFLAYLRSVHLDKLYYESPYKFNPWRWQERDMNTSSFSPFGGGQRLCPGLDLARLETSVFLHHLVTRFWIAEEDTIINFPTVHMKNKLPIWIKRI |
| CYP90E1v2 | MISSSTAWAWTSLAGVAGVFWLAALVYWRSWRFRKLQRLPPGSMGWPLIGELVPYVTIVRSETPFRFTRERESKYGPVFKTSLLTGKTVMITDVEGVKFVLHNEGVLFETGYPRSLKDVLGEHAMLFQHGDLQKRMHAMLKRFVSSTPLKKHLTREMELLTMQGMSTWSRGQRILLQDEIQRITHDFLMKQLFGLEPGKLSTTILKEFHTLMAGIIGIPMMIPGTPYFKAMKAREKLSKIIMDMVATRRAKPDIEHKDILNALIEEVKQEDGDMEKIIIDNVLVNIANAENVPAVVIALAVKNLSETPKALEQIREENLAIRKGKDPSEGLSWNEYMSLEFTQAVFNETLRLANGAQGVMRKALKDVEYRGYIIPKGWTVLPYFLNIHFDENMFPNSAKFHPWRWLEKNIPPSYVLPFGGGSRLCPGQELAKVQTAVFLHHLVTQFKWDAEPEKVINFPMISTRNHVPVVLYDLN |
| CYP90F1v1 | MNLPPGRMGWPLVGETLEYLATRPIGVPQPFIAKRVARYGSIFKTHLFGCPTIVTTDPDFNRFVLANEGKLFQSSYPAGVDRVLGKFSMVQASGELHKRMRALTVSFMQAQSLKDNFLQTIQARVISLLSTWEGRVVKIQDEAQSLSFDCIVGHVLGMDPGAENTKTIKEDFFNLVYGLTIPLRIPGTRYWTAMKGRQNIVRLVEQMVAERTTKPCTARKDFLQQLLQDDNGKNLTLEQISDFIVFMLFAAHDTTATAMTMAIKYLLANPQALNQLQEEHLEIRRNKRSPDEPLEWNDYLQMTFTQHVINETLRLTNVLTSAHRIALQDVQTEEGYVIPKGWKVVSSWTTIHLNPKLYAEPLEFNPWRWKTQSVKYFTPFSGGPRFCTGSELARLEIALLLHFIITKYSLHPAEDDEAVYFGTVKMRKGLPVTVTKLSQIL |
| CYP92A1 | MEPATWAVFLGIALCAAAALFLSRGRRPVYNPPPGPKPWPIIGNLNLMGELPHRSMNELSKRYGPLMQLRFGSLPVLVGASVEMAKLFLKTNDAAFSDRPRFAIGKYTAYDFSDLLWAPSGPYLRQARRICATELFSATRLESFEHIRDEEVRVMLRQLRQAAGRTVRLRDYLQMLALGVISRIVLGNKYVMEEVADGEGDSAPAITPAEFREMVDEFFALHGAFNIGDYIPWLDWLDLQGYVARMKRMKARFGRFLERVLDVHNERRLREGGNFVAKDMLDVLLQLADDTSLEVQLSRDNVKAITQDLIIAGTDSNANTLEWAVSELLKNPKILAKAMEELNHVIGPDRLVTESDLPRLPYIEAVLKETMRVHPAAPMLAPHVAREDTSVDGYDVLAGTVLFINVWAIGRDPGLWDAPEEFRPERFVESKIDVRGHDFQLLPFGSGRRMCPGINLALKVMALSLANLLHGFEWRLPDGVTAEELSMDEAFKLAVPRKFPLMVVAEPRLPARLYTGA |
| CYP92A1 | MEPATWAVFLGIALCAAAALFLSRGRRPVYNPPPGPKPWPIIGNLNLMGELPHRSMNELSKRYGPLMQLRFGSLPVLVGASVEMAKLFLKTNDAAFSDRPRFAIGKYTAYDFSDLLWAPSGPYLRQARRICATELFSATRLESFEHIRDEEVRVMLRQLRQAAGRTVRLRDYLQMLALGVISRIVLGNKYVMEEVADGEGDSAPAITPAEFREMVDEFFALHGAFNIGDYIPWLDWLDLQGYVARMKRMKARFGRFLERVLDVHNERRLREGGNFVAKDMLDVLLQLADDTSLEVQLSRDNVKAITQDLIIAGTDSNANTLEWAVSELLKNPKILAKAMEELNHVIGPDRLVTESDLPRLPYIEAVLKETMRVHPAAPMLAPHVAREDTSVDGYDVLAGTVLFINVWAIGRDPGLWDAPEEFRPERFVESKIDVRGHDFQLLPFGSGRRMCPGINLALKVMALSLANLLHGFEWRLPDGVTAEELSMDEAFKLAVPRKFPLMVVAEPRLPARLYTGA |
| CYP92A15 | MEVQELVPSPWSSSSSFLVLVLATLLFVAAFLRRRQGARRKYNIPPGPRPWPVIGNLNLIGALPYRSIRDLSRRYGPLMSLRFGSFPVVVGSSVDMARYFLRANDLAFLDRPRTAAGRYTVYNYAGVLWSHYGEYWRQARRLWVTELLSARRLASTEHVRAEEVRAMLRGLSRRAGAGTAVVLKEHMLMVTLNVISRMVFGKKYIVEEGEGSSPTTAEEFRWMIEEIFFLNGVFNIGDMVPWLGWLDPQGYIGRMKRLGGMFDRFLEHILDEHVERRRREGDGFAARDMVDLLLQFADDPSLKVPIQRDGVKAFILELITGSTDTTSVSVEWAMSEVLRNPSVLARATDELDRVVGRRRLVAEGDIPNLPYLDAVVKESMRLHPVVPLLVPRVSREDAFSVSVAGAAASYDIPAGTRVLVNVWAIGRDPAVWGDDAEEFRPERFAAGGERGGVDVKGQDFELLPFGSGRRMCPGFGLGLKMVQLTLANLLHGFAWRLPGGAAAEELSMEEKFGISVSRLVQLKAIPEPKLPAHLYDE |
| CYP92A15 | MEVQELVPSPWSSSSSFLVLVLATLLFVAAFLRRRQGARRKYNIPPGPRPWPVIGNLNLIGALPYRSIRDLSRRYGPLMSLRFGSFPVVVGSSVDMARYFLRANDLAFLDRPRTAAGRYTVYNYAGVLWSHYGEYWRQARRLWVTELLSARRLASTEHVRAEEVRAMLRGLSRRAGAGTAVVLKEHMLMVTLNVISRMVFGKKYIVEEGEGSSPTTAEEFRWMIEEIFFLNGVFNIGDMVPWLGWLDPQGYIGRMKRLGGMFDRFLEHILDEHVERRRREGDGFAARDMVDLLLQFADDPSLKVPIQRDGVKAFILELITGSTDTTSVSVEWAMSEVLRNPSVLARATDELDRVVGRRRLVAEGDIPNLPYLDAVVKESMRLHPVVPLLVPRVSREDAFSVSVAGAAASYDIPAGTRVLVNVWAIGRDPAVWGDDAEEFRPERFAAGGERGGVDVKGQDFELLPFGSGRRMCPGFGLGLKMVQLTLANLLHGFAWRLPGGAAAEELSMEEKFGISVSRLVQLKAIPEPKLPAHLYDE |
| CYP92B3 | MENSWVVLALTGLLTLVFLSKFLHSPRRKQNLPPGPKPWPIVGNIHLLGSTPHRSLHELAKRYGDLMLLKFGSRNVLILSSPDMAREFLKTNDAIWASRPELAAGKYTAYNYCDMTWARYGPFWRQARRIYLNEIFNPKRLDSFEYIRIEERHNLISRLFVLSGKPILLRDHLTRYTLTSISRTVLSGKYFSESPGQNSMITLKQLQDMLDKWFLLNGVINIGDWIPWLAFLDLQGYVKQMKELHRNFDKFHNFVLDDHKANRGEKNFVPRDMVDVLLQQAEDPNLEVKLTNDCVKGLMQDLLAGGTDTSATTVEWAFYELLRQPKIMKKAQQELDLVISQDRWVQEKDYTQLPYIESIIKETLRLHPVSTMLPPRIALEDCHVAGYDIPKGTILIVNTWSIGRNSQHWESPEEFLPERFEGKNIGVTGQHFALLPFGAGRRKCPGYSLGIRIIRATLANLLHGFNWRLPNGMSPEDISMEEIYGLITHPKVALDVMMEPRLPNHLYK |
| CYP92C5 | MELASTMSVAMALAAAIFVVLCSVVASARGRREKALKLPPGPRGWPVLGSLGALAGALPPHRALAALAARHGPLMHLRLGSYHTVVASSADAARLVLRTHDSALADRPDTAAGEITSYGYLGIVHTPRGAYWRMARRLCATELFSARRVESFQDVRAQEMRALARGLFGCAAGRRAVAVREHVAGATMRNILRMAVGEKWSGCYGSPEGEAFRRSLDEAFAATGAVSNVGEWVPWLGWLDVQGFKRKMKRLHDLHDHFYEKILVDHEERRRLAQASGGEFVATDLVDVLLQLSEESTKLESESEARLPRDGVKALIQDIIAGGTESSAVTIEWAMAELLRHPEAMAKATDELDRVVGSGRWVAERDLPELHYIDAVVKETLRLHPVGPLLVPHYARERTVVAGYDVPAGARVLVNAWAIARDPASWPDAPDAFQPERFLGAAAAVDVRGAHFELLPFGSGRRICPAYDLAMKLVAAGVANLVHGFAWRLPDGVAAEDVSMEEHVGLSTRRKVPLFXVXEPRLPVHF |
| CYP93A4 | MADIQGYIILFLLWLLSTILVRAILNKTRAKPRLPPSPLALPIIGHLHLLAPIPHQALHKLSTRYGPLIHLFLGSVPCVVASTPETAKEFLKTHENSFCDRPKSTAVDFLTYGSADFSFAPYGPYWKFMKKICMTELLGGRMLDQLLPVKHEEIRQFLQFLLKKANARESIDVGSQLIRLTNNVISRMAMSQRCSDNDDEADEVRNLVHEVADLTGKFNLSDFIWFCKNLDLQGFGKRLKEVRKRFDTMTERIIMEHEEARKKKKETGEGDPVKDLLDILLDISEDDSSEMKLTRENIKAFILDIFAAGTDTSAVTMEWALAELINNPNILERAREEIDSVVGQSRLVQESDIANLPYVQAILKETLRLHPTGPIILRESSESCTINGYEIPARTRLFVNVWAINRDPNYWENPLEFEPERFLCAGENGKSQLDVRGQHFHFLPFGSGRRGCPGTTLALQMVQTGLAAMIQCFDWKVNGTVDMQEGTGITLPRAHPLICVPVARLNPFPSFCYPBVGLYCYRRHIZAECHINATAMEPQLVAVSVLVSALICYFFFRPYFHRYGKNLPPSPFFRLPIIGHMHMLGPLLHQSFHNLSHRYGPLFSLNFGSVLCVVASTPHFAKQLLQTNELAFNCRIESTAVKKLTYESSLAFAPYGDYWRFIKKLSMNELLGSRSINNFQHLRAQETHQLLRLLSNRARAFEAVNITEELLKLTNNVISIMMVGEAEEARDVVRDVTEIFGEFNVSDFIWLFKKMDLQGFGKRIEDLFQRFDTLVERIISKREQTRKDRRRNGKKGEQESGDGIRDFLDILLDCTEDENSEIKIQRVHIKALIMDFFTAGTDTTAISTEWALVELVKKPSVLQKVREEIDNVVGKDRLVEESDCPNLPYLQAILKETFRLHPPVPMVTRRCVAECTVENYVIPEDSLLFVNVWSIGRNPKFWDNPLEFCPERFLKLEGDSSGVVDVRGSHFQLLPFGSGRRMCPGVSLAMQEVPALLGAIIQCFDFQVVGPKGEILKGDDIVINVDERPGLTAPRAHNLVCVPVERRSGGGPLKIIEC |
| CYP93C4 | MLLELALGLCVLAWFLHLRPTPSAKSKALRHLPNPPSPKPRPPFIGHLHLLKDKLLHYALIDLSKKHGPLFSLSFGTMATVGGSTPELFKLFLQTHEGTSFNTRFQTSAIRRLTYDNSVAMVPFGPYWKFVRKLIMNDLLNATTDNKLRPLRTQQIRKFLRVMAQSAEAQKPLDVTEELLKWTNSTISMMMLGEAEMIRDIAREVLKIFGEYSLTDFIWPLKYLKVGKYEKRIDDILNKFDPVVERVIKKRREIVRRRKNGEVVEGEASGVFLDTLLEFAEDETMEIKITKEQIKGLVVDFFSAGTDSTAVATEWALAELVRRSTAVVGKDRLVDEVDTQNLPYIRAIVKETFRMHPPLPVVKRKCTEECEINGYVIPEGALVLFNVWQVGRDPKYWDRPSEFRPERFLETGAEGEAGPLDLRGQHFQLLPFGSGRRMCPGVNLATSGMATLLASLIQCFDLQVLGPQGQILKGDDPKVSMEERAGLTVPRAHSLVCVPLARIGVASKLLS |
| CYP93D1 | MVDLQYFSVIILVCLGITVLIQAITNRLRDRLPLPPSPTALPIIGHIHLLGPIAHQALHKLSIRYGPLMYLFIGSIPNLIVSSAEMANEILKSNELNFLNRPTMQNVDYLTYGSADFFSAPYGLHWKFMKRICMVELFSSRALDSFVSVRSEELKKLLIRVLKKAEAEESVNLGEQLKELTSNIITRMMFRKMQSDSDGGEKSEEVIKMVVELNELAGFFNVSETFWFLKRLDLQGLKKRLKNARDKYDVIIERIMEEHESSKKNATGERNMLDVLLDIYEDKNAEMKLTRENIKAFIMNIYGGGTDTSAITVEWALAELINHPEIMKKAQQEIEQVVGNKRVVEESDLCNLSYTQAVVKETMRLHPGGPIFVRESDEECAVAGFRIPAKTRVIVNVWAIGRDSNQWEDPLEFRPERFEGSEWKVMSEKMMSFGAGRRSCPGEKMVFRFVPIILAAIIQCFELKVKGSVDMDEGTGSSLPRATPLVCVPVAKEATQSFSLLEPNVNF |
| CYP93E1 | MLDIKGYLVLFFLWFISTILIRSIFKKPQRLRLPPGPPISVPLLGHAPYLRSLLHQALYKLSLRYGPLIHVMIGSKHVVVASSAETAKQILKTSEEAFCNRPLMIASESLTYGAADYFFIPYGTYWRFLKKLCMTELLSGKTLEHFVRIRESEVEAFLKRMMEISGNGNYEVVMRKELITHTNNIITRMIMGKKSNAENDEVARLRKVVREVGELLGAFNLGDVIGFMRPLDLQGFGKKNMETHHKVDAMMEKVLREHEEARAKEDADSDRKKDLFDILLNLIEADGADNKLTRESAKAFALDMFIAGTNGPASVLEWSLAELVRNPHVFKKAREEIESVVGKERLVKESDIPNLPYLQALLKETLRLHPPTPIFAREAMRTCQVEGYDIPENSTILISTWAIGRDPNYWDDALEYKPERFLFSDDPGKSKIDVRGQYYQLLPFGSGRRSCPGASLALLVMQATLASLIQCFDWIVNDGKNHHVDMSEEGRVTVFLAKPLKCKPVPRFTPFAA |
| CYP93F1 | MDHQLVARGLFKPLLLFVAGLIVLYALRRRRRHRRSSGLRLPPSPFGLPILGHLHLLAPLPHQALHRLAARHGPLLFLRLGSVPCVAACSPDAAREVLKTHEAAFLDRPKPAAVHRLTYGGQDFSFSAYGPYWRFMKRACVHELLAGRTLDRLRHVRREEVARLVGSLRASADGGERVDVDAALMGLTGDIVSRMVMGRRWTGDDNDAEEMRSVVAETAELTGTFNLQDYIGVFKYWDVQGLGKRIDAVHRKFDAMMERILTAREAKRKLRRQAAADGEDDEKDLLDMLFDMHEDEAAEMRLTRDNIKAFMLDIFAAGTDTTTITLEWALSELINNPPVLRKLQAELDAVVGGARLADESDIPSLPYLQAVAKETLRLHPTGPLVVRRSLERATVAGYDVPAGATVFVNVWAIGRDAAWWPEPTAFRPERFVSGGGGGGTAADVRGQHFHLLPFGSGRRICPGASLAMLVVQAALAAMVQCFEWSPVGGAPVDMEEGPGLTLPRKRPLVCTVSPRIHPLPAAASASLT |
| CYP93G1 | MASLMEVQVPLLGMGTTMGALALALVVVVVVHVAVNAFGRRRLPPSPASLPVIGHLHLLRPPVHRTFHELAARLGPLMHVRLGSTHCVVASSAEVAAELIRSHEAKISERPLTAVARQFAYESAGFAFAPYSPHWRFMKRLCMSELLGPRTVEQLRPVRRAGLVSLLRHVLSQPEAEAVDLTRELIRMSNTSIIRMAASTVPSSVTEEAQELVKVVAELVGAFNADDYIALCRGWDLQGLGRRAADVHKRFDALLEEMIRHKEEARMRKKTDTDVGSKDLLDILLDKAEDGAAEVKLTRDNIKAFIIDVVTAGSDTSAAMVEWMVAELMNHPEALRKVREEIEAVVGRDRIAGEGDLPRLPYLQAAYKETLRLRPAAPIAHRQSTEEIQIRGFRVPAQTAVFINVWAIGRDPAYWEEPLEFRPERFLAGGGGEGVEPRGQHFQFMPFGSGRRGCPGMGLALQSVPAVVAALLQCFDWQCMDNKLIDMEEADGLVCARKHRLLLHAHPRLHPFPPLL |
| CYP93H1 | MAFEILFYIILIFSLSSIFGRKFLSAKSQKCISNRLPPGPKGLPIIGHLHLLNNTPHQTFHNLCSRYGPFIHVRLGSVFCIVASSAEYAKETLVTNGLAFASRSVNIASDLLTYGSAGFGFAPYGPQWKFMKKLVTTELLSDKNMTQLKYVRSDEASQLVQLLLDNATSGTVVNVSNEVTMLSNNIISRMMWNIRCSGEDEDGKEIISIIRECTEILAQFNLSDFIPFLGKIDLQGVRKRAMNIHLRYDAILEIIIKKRHEERRKNKERNMQDAGGDNGDDHNSNNFLNILLDAMEDENAKTPVTIENIKALMFDFLNAGTDTSATVVEWSLSELINHPTIMAKARQEIDTIVGKDRLVQESDLPNLPYLQAIFKESLRLHPPVTLFGRESIQDCKIGGYDIPAKTVLFLNIWSINRDPNYWKTPLEFRPERFMPHSDQKEGDDNEYLLEYRGQHFNYLPFGAGRRGCPGMSLAALISPRVLALLIQCFDWKIACNDKGVAPKLVDLTERPGLTVPKLHPLMLIPSVRLNPFPISL |
| CYP94A1 | MFQFHLEVLLPYLLPLLLLILPTTIFFLTKPNNKVSSTSTNNNIITLPKSYPLIGSYLSFRKNLHRRIQWLSDIVQISPSATFQLDGTLGKRQIITGNPSTVQHILKNQFSNYQKGTTFTNTLSDFLGTGIFNTNGPNWKFQRQVASHEFNTKSIRNFVEHIVDTELTNRLIPILTSSTQTNNILDFQDILQRFTFDNICNIAFGYDPEYLTPSTNRSKFAEAYEDATEISSKRFRLPLPIIWKIKKYFNIGSEKRLKEAVTEVRSFAKKLVREKKRELEEKSSLETEDMLSRFLSSGHSDEDFVADIVISFILAGKDTTSAALTWFFWLLWKNPRVEEEIVNELSKKSELMVYDEVKEMVYTHAALSESMRLYPPVPMDSKEAVNDDVLPDGWVVKKGTIVTYHVYAMGRMKSLWGDDWAEFRPERWLEKDEVNGKWVFVGRDSYSYPVFQAGPRVCLGKEMAFMQMKRIVAGIVGKFKVVPEAHLAQEPGFISFLSSQMEGGFPVTIQKRDS |
| CYP94B1 | MEMLNAIILILFPIIGFVLIFSFPTKTLKAKTASPSNPTSYQLIGSILSFNKNRHRLLQWYTDLLRLSPSQTITVDLLFGRRTIITANPENVEHILKTNFYNFPKGKPFTDLLGDLLGGGIFNSDGELWSSQRKLASHEFTMRSLREFTFEILREEVQNRLIPVLSSAVDCGETVDFQEVLKRFAFDVVCKVSLGWDPDCLDLTRPVPELVKAFDVAAEISARRATEPVYAVWKVKRFLNVGSEKRMREAIKTVHLSVSEIIRAKKKSLDIGGDVSDKQDLLSRFLAAGHGEEAVRDSVISFIMAGRDTTSAAMTWLFWLLSQNDDVETKILDELRNKGSLGLGFEDLREMSYTKACLCEAMRLYPPVAWDSKHAANDDILPDGTPLKKGDKVTYFPYGMGRMEKVWGKDWDEFKPNRWFEEEPSYGTKPVLKSVSSFKFPVFQAGPRVCIGKEMAFTQMKYVVGSVLSRFKIIPVCNNRPVFVPLLTAHMAGGLKVKIKRREQCDSMYI |
| CYP94C1 | MLLIISFTIVSFFFIIIFSLFHLLFLQKLRYCNCEICHAYLTSSWKKDFINLSDWYTHLLRRSPTSTIKVHVLNSVITANPSNVEHILKTNFHNYPKGKQFSVILGDLLGRGIFNSDGDTWRFQRKLASLELGSVSVRVFAHEIVKTEIETRLLPILTSFSDNPGSVLDLQDVFRRFSFDTISKLSFGFDPDCLRLPFPISEFAVAFDTASLLSAKRALAPFPLLWKTKRLLRIGSEKKLQESINVINRLAGDLIKQRRLTGLMGKNDLISRFMAVVAEDDDEYLRDIVVSFLLAGRDTVAAGLTGFFWLLTRHPEVENRIREELDRVMGTGFDSVTARCDEMREMDYLHASLYESMRLFPPVQFDSKFALNDDVLSDGTFVNSGTRVTYHAYAMGRMDRIWGPDYEEFKPERWLDNEGKFRPENPVKYPVFQAGARVCIGKEMAIMEMKSIAVAIIRRFETRVASPETTETLRFAPGLTATVNGGLPVMIQERS |
| CYP94D1 | MALLIFIFLLCFPISIFFIFFTKKSSSEFGFKSYPIVGSFPGLVNNRHRFLDWTVETLSRCPTQTAIFRRPGKQQLIMTANPSNVEYMLKTKFESFPKGQQFTSVLEDFLGHGIFNSDGDMWWKQRKTASYEFSTKSLRDFVMSNVTVEINTRLVPVLVEAATTGKLIDLQDILERFAFDNICKLAFNVDCACLGHDGAVGVNFMRAFETAATIISQRFRSVASCAWRIKKKLNIGSERVLRESIATVHKFADEIVRNRIDQGRSSDHKEDLLSRFISKEEMNSPEILRDIVISFILAGRDTTSSALSWFFWLLSMHPEVEDKILQELNSIRARTGKRIGEVYGFEHLKMMNYLHAAITESLRLYPPVPVDIKSCAEDNVLPDGTFVGKGWAITYNIFAMGRMESIWGKDCDRFDPERWIDETNGCFRGEDPSKFPAFHAGPRMCVGKDMAYIQMKSIVAAVLERFVVEVPGKERPEILLSMTLRIKGGLFARVQERS |
| CYP94E4 | MEAIHLAYVLVFLLPILLLRLRRRGPPPVKRPRTTTAHCPHPSPVLGNTLHFIRNRRRFFDWYADMLRAAPSGAIEAWGPLGAGHAVTTASPADVDHLLRSSFDKYAKGALFRDATADLIGDGLFAADGRLWSLQRKLASHAFSSRSLRRFTDGVLDVHLRRRFLPLLDAAARDGGAVDLQDALRRFGFRTICHVAFGVEGLDDDARRQDALFAAFDAAVEISFRRALTPATFVRRLTKLLDVGKSRRLREAVHAIDDYAMSVVESKVARRRNSLDDGAADLLSRFMAAMDDGGGSDSELGAMFPTPAAKLRFLRDVVVTFVLAGKDTTSSALTWFFWLLAANPRCERRAHEEAASCCGDGGDVKGMHYLHAAITEAMRLYPPVPFNGRVAVRDDVLPSGAALRAGWYANYSAYAMGRMEKLWGKDCLEFVPERWLGEGGEFVPVDAARFPVFHAGPRVCLGKEMAYVQMKTVAAAVLRRFRLDVVAPVANMEAPPAYEMTATMKMKGGLLVRLCSRED |
| CYP94F2 | MMDLNAAALFFCLCLSFIFFRSLRSPPTKNSCPHSYPIIGNLIALLRNRHRFHDWVADMLSRTPSLTLQVNTFLNASHGVCTANPLNVNHLLVSNFPNYIKGSRFHDFFHELLGDGIFNVDGHLWTVQRKISSHEFNTKSLKHFISDTVQSELSTRLIPFLSSACENNQVIDLQDVLRKAMFDNICNLAFGADPACLSSEAVGENSLNLSFVQAFDDAVEISASRSLLPIHVIWKIKRFFNIGSEKRLKEAVGIINEYANMILKSKEDQIGSGDCGNLDLLSRFMSSSSNFGLGFDDQEHKRKFLRDIVISFILAGKDSTSTALTWFFWLMAGNPRCEGLILAELSEASPAPATSPVIFSYDDLKGLNYLHAAISESLRLFPPVPIDSRLAVDDDILPDGTHVRKGWFADYSAYAMGRMHQVWGPDCREYRPERWLDDDGRFRPSDQFRFPVFHCGPRLCLGKEMAYVQMKSIAASVMREFEIVAVDGGGCAGKMADPPYTPSIVLKMRGGLPVRVKRRRQPNAIDFC |
| CYP94G1 | MMDRELVTLLYTAGILLVVTLWCIWYHHPKYGKNRGPKVYPLLGSYLSLLHNKSRILDWMVDLIRDSPTMTVRTVRPGGRQFHITAGPANVEHILKTNFENYPKGENSYANLHDLLGNGIFNIDGKSWKLQRKVASHEFTTQSLKNFMVGAVHDELRGRFIPVLQECCNTGRTVDLQDLLARFTFDTICKLGFGVDPACLDLCFPSVRFANAFDTATSITANRFITFASVWKTMRALNVGSEKKLRAAVADIDDFAMFVIQNRRKQVAGQSNRQTDNSSDADDAAHLDLLSRFMGLTAADQDRRDFDTQDPSCDQNEGPQLGYSDEFLRDIVISFILAGRDTSTSSLTWFFWNLEHHRQVEDAICKEVSEILKNRLVEDKDHNKHVPTSFFSFEELKKMHYLHAAVSESLRLYPPVPIEMKLAHSSDEWPDGTRIDPNSTIIYHPYAMGRMERIWGPDCMKFKPERWLKDGVFVQESPYKHAVFQAGPRMCLGRELALMQIKMVVAVLLQRFRFSSQKGFTPEYDLNLTLPMKNGFPVSVQSKVPM |
| CYP94H1 | MSTPNYMSPEMGRFEKWALLLREESEEHTLAFVATILFVAVNALIFIWWHHPLYGKNIGPRVYPFVGSLPSAIQHAHRLLDFSVETLRKSPTLTIRYVQSGYTAYSTANVENVEYVLKTKFDNFVKGERMGDVLFDLLGRGIFNADGNLWKLQRKLASHEFSSRSLREFGVECVQKELQNRLVPVLSQFSENGNVVDLQDLLMRFSFDNICQLGFGVDPNCLEPSLPPVKFAEAFDKANECTLLRFRTFPIMLRLYKFFNIGIERGLKESMAVVHNFAQEVIEARRKEFNENHGDIGHARQDLLSRDAKEKQKASDIFLRDMVISFVLAGRDTTSLGLSWFFYALGHNPHVEAKIYDEIKEQLQLQAQEDDSLPSSRPPGQLFTFEQLKKLHYLHAALHESLRLFPPVPWDSKHAVRDDVLPDGTVILKGERVTFNIYAMARMEANWGPDCNEFKPERWLKDGVFVPESPFKFATFQAGPRICLGKEMALIQMKLVASSLVYCFKFTLLEDPPRTCLSFVFKMLNGFPGDVHKRAVST |
| CYP94J1v1 | MEQGTLAAALLISCVGFFVWFYLKNRHENGETVPRMYPLLGTMPELLKNKDRILEWTTEYLAKSPGHTITLKRWGAKPFKLTSNAQNVEYILKTNFDNYPKGEYVCDTLRDLLGDGIFNADAGLWKLQRKLASYEFTTRSLHDYLMDSVAEKIEKRLLPTIASICGRRVDLQDVFMRFAFDSICKLAFGVDPMSLDPSFPTIAFARAFDESTRLSTERFYQVHPLLWKIKRYFNLGSEKHLKEYLAIVNEFAAMVIKNRRKKTGARENQDLLSRFMALEMEDTASSYSDKFLRDIIISFVLAGKDTTSVTLSWFFWLLSKHPKVENKIIQEIVDVAERNHEPGRRMKHFAYSELREMNYLQAALSESLRLYPAVPFDSKGAKGPDVLPDGSRIEKGTRVTYQIYAMGRMESLWGKDCLEFKPERWLSSTGSFVNESPYKFTAFQAGPRICIGKEMAMLQMKSLVAALLPKFKFEMASDTEPRYSINMTLAIKNGLPVIPRARE |
| CYP96A1 | MALITLLEVSISLLFFSFLYGYFLISKKPHRSFLTNWPFLGMLPGLLVEIPRVYDFVTELLEASNLTYPFKGPCFGGLDMLITVDPANIHHIMSSNFANYPKGTEFKKIFDVLGDGIFNADSELWKDLRKSAQSMMTHQDFQRFTLRTIMSKLEKGLVPLLDYVAEKKQVVDLQDVFQRFTFDTSFVLATGVDPGCLSTEMPQIEFARALDEAEEAIFFRHVKPEIVWKMQRFIGFGDELKMKKAHSTFDRVCSKCIASKRDEITNGVINIDSSSKDLLMCYMNVDTICHTTKYKLLNPSDDKFLRDMILSFMLAGRDTTSSALTWFFWLLSKNPKAITKIRQEINTQLSPRTNDFDSFNAQELNKLVYVHGALCEALRLYPPVPFQHKSPTKSDVLPSGHRVDASSKIVFCLYSLGRMKSVWGEDASEFKPERWISESGRLIHVPSFKFLSFNAGPRTCLGKEVAMTQMKTVAVKIIQNYEIKVVEGHKIEPVPSIILHMKHGLKVTVTKRSNLL |
| CYP96B2 | MAFSSILQLTLCFLCFSVFYYYHIKSKRKNPAIPVCWPLVGMLPDLLVNRHQLHDWITSFLTASQLNFRFIGPTMSSNMRFFFTCDPANVRHIFTSNFANYPKGPDFAEIFDDTLGDGIFNVDGDSWRRQRAKTQLLMYNHRFQSFVSRCSSDKVENALLPLLSHFAGTGERCNLQDVFMRLTFDMSTMLASGEDPGCLAISLPMPKVPFVRAVDYTTRVLLVRHIIPLSLWKLARRLGVGFERKMAEALRTINQFIYETIVKRRAKKATEGIEDSEDLLSSYLKDDDENADTFLRDTTMTLIAAGRDTIGSALSWFFYLLTKNPHVASKILEELDSVERATTTPDGMVTFDPDELKSLVYLHAAVCESLRLYPPVPLDHKGVVAADVMPSGHKVRPGDKIVVSIYAMGRTESVWGSDCMEFRPERWISDHGKLRYVPSYKFTPFITGPRTCLGKDMALVQLKVVAATVVKNFEAEAVPGHIVEPKLSMVLHMKNGLMVRVKRR |
| CYP96C1 | MALASIEKVATGLICFILLIFSLKRIGHPRDWALVGILSVWFPSLGHIYEKLAKSLAKNDKTFVLKGSFLSKQDVIFTCDPANMHHVMSTNFSNYPKGPENRNVFDVYGEMLFTADHEKWKSHRKVTNAYFHDQRFNGFSQKVNKEVIEKELFPFLDHAAEEALVFDLQDVFQRLMLDSSSILTTGQNHRSLRVGLPYDETLEAINIANYQIFVRHILPAKIWKFQKWLGIMGEKKIKKAWRILDDISVEYMNRRKKEISSTISSQEDMDVVKFSEEDHVVLKSVDASDNLLRDTVKGILLAGTDTTATVLSWFFWLILKNPRVEQKIREEIELYLKQKNGEHGLYTNPEELNELMYLHAAIYETMRLYPAAPFTSRKSIQADVFPTGHQVNPNTTIVMAYYAVGRMKSIWGEDCLEFKPERWLSDKGKLIPVQTNKFLAFGTGPRICPGKELGLNRVKAVAAAIIPKYSFKIMRNKPVMPAACATLYLKDGLIVRVNKII |
| CYP96D1 | MGPLWTFILLYPEIFLAIICFFWFSLFRPIRQRQKSNLPVNWPVFGMLPFLVQNLHYIHDKVADVLREAGCTFMVSGPWFLNMNFLITCDPATVNHCFNANFKNYPKGSEFAEMFDILGDGLLVADSESWEYQRRMAMYIFAARTFRSFAMSTITRKTGSVLLPYLDHMAKFGSEVELEGVFMRFSLDVTYSTVFAADLDCLSVSSPIPVFGQATKEAEEAVLFRHVIPPSVWKLLRLLNVGTEKKLTNAKVVIDQFIYEEIAKRKAQASDGLQGDILSMYMKWSIHESAHKQKDERFLRDTAVGFIFAGKDLIAVTLTWFFYMMCKHPHVEARILQELKGLQSSTWPGDLHVFEWDTLRSAIYLQAALLETLRLFPATPFEEKEALVDDVLPNGTKVSRNTRIIFSLYAMGRIEGIWGKDCMEFKPERWVSKSGRLRHEPSYKFLSFNTGPRSCLGKELSLSNMKIIVASIIHNFKVELVEGHEVMPQSSVILHTQNGMMVRLKRRDAA |
| CYP96E1 | MELLPWLLGFVVKYPEIMASAACFLLLFCRFRRRSKRIPTNWPVVGALPAIVANAGRVHDWVTEFLRAAAMSHVVEGPWGSPGDVLITADPANVAHMFTANFGNYPKGEEFAAMFDVLGGGIFNADGESWSFQRRKAHALLSDARFRAAVAASTSRKLGGGLVPLLDGVAASGAAVDLQDVFMRLTFDLTAMFVFGVDPGCLAADFPTVPFAAAMDDAEEVLFYRHVAPVPWLRLQSYLKIGHYKKMAKAREVLDASIAELIALRRERKAADANATGDADLLTAYLACQDEIGMDGAAFDAFLRDTTLNLMVAGRDTTSSALTWFFWLLSNHPGVEARILAELRAHPPSPTGAELKRLVYLHAALSESLRLYPPVPFEHKAAARPDTLPSGAAVGPTRRVIVSLYSMGRMEAVWGKGCEEFRPERWLTPAGRFRHERSCKFAAFNVGPRTCLGRDLAFAQMKAVVAAVVPRFRVAAAAAPPRPKLSIILHMRDGLKVKVHRRQED |
| CYP96F1 | MAILEYFHIIIALVCILLFCHWCRNTVTPVTNWPVVGMLPGLLFKAQNIHEYATQLLKQSGGTFEFKGPWFANMNILLTADPLNVRHISTTNFVNYPKGPEYKKIFEPYGDGVLNSDFESWKSFRKLIHSMIKDNKFQVSLERSLREKIVEGLIPVLEHASRQEIELDMQDVFQRFTFDNICLLVLGFDPQSLSVDLPEIAYKTAFDDVEEAVFYRHIVPESIWKLQKWLNVGEEKKLSQAMDTIDNFLEQCISSKKEEIRQRKAQNMVQVEDNDQDDYDLITACIKEGEEAEQMDASKRTDKYLRDIGFNFIAAGKDTVNAALTWFFWLVATHHEVEEKIVEEIRANMKSKGDHTINGMFFNLEELNKLVYLHGAICETLRLYPAVPFNYRVSVEADTLPSGHLVKENTKVMFSLYSMGSMEEIWGDDCLAFKPERWISERGGIIHVPSYKYIAFNTGPRSCLGKEITFIQMKTIATAILLNFHLQVVEGHPVSPGLSVMLHMKHGLKLRVTKRCV |
| CYP96G1 | MAILTLIILFVATIFSIFFLPFIKKNSSPWILVRSLVNFYRMHDNQAEMLEQNNGTILVKRSWFGGKDILLTSDPANVRHIMSTNFSNYPKGPEWKKQFEFFGDSVFTLDFEEWKHHRKVIRSYISHRSFQQFAGKIVRDCIEIELSSVLDRVSNQQIVVDFEGLLRRYIYYFACCISTGYKPKFIDLAFSEDKFLKATDDACDAITVRYLVPESIWKLQRWFGLGKEKRLSEARKTIDKIIDDYISMKQEEMSKGEIRNDEEDFSALKSYTTGNEIFEQADHKVIKDGTMSLIFAIEDTTSSSLSRFFWIFTKNPKVETKIRQELEKIRPVTEARKSSSFFSEEEVSKMVYLQAALLETLRLFPPASMVSKTAVEADTLPSGHHISQNTMVVISAYAMGRMRTIWGQDCLEFKPERWIMEDGRIRHEPPHKFSAFGSGPRICPGKDLGLTLLKTFAATIIYNYHIQVVEDRVGAPKNNFMLHLDHGLMVRLNKRWT |
| CYP96H1 | MVAESILAIAFFLVLICLFRSKNGLPWNWPLLGMSPTLLLNSHRLYELADEILEISGGTYLFKGLWFSNMDMWFTSDPENVHYITTTNYWNYPKGPESMQVFDTLGNSLFNLDFEEWTYYRGLLHGFFSHQKFHQFVPKVLVDNVNKGLVPFLEDVAKQALVVDLQDMFKRHIYDAACAIATGYNPKTLSIGFEENAFVRAMDDACVAMLTRHILPGRCWKLLRWLQIGSEKRLSVAKGTLRQIVTNYMATKREELSAGAKTKEDEETFDVLRSFLTINDVNDKEHPDEIVRDSTIGIIFAAYDTSSATLSWFFWLLSKNPHVETKIREELDSNFSVKEGQNWQLNSRKELSKLVYLHATLCETLRLYPPVPLQRRTPVRPDIFPSGHHVDPKAIVVLSGYAIGRMARVWGQDCHEFKPERWINEKGDLKYERSAKFFTFNAGPRICPGKEMAFSIMKAAATTILYNYHVQVVETRPVTPKASIILQMKHGLRARICSRWT |
| CYP96J1 | MQFANIHFSKTTMSIIQCIGGFVTILIFLYIYYSRRNRDELLLINWPIIGILPSFLCHLSDYHDYSTIVLKRYGGTCRFQGPWFTNTSFIALADQMNVNYITKKNCGNYRKGSKYHDIFEVLGGSIFNSDSDDVWKQEKTMFHLVLGRKSFKNMFEQSIQKKVENYLIPFLNDVSEAGAHVDLQDAFNRFTFDSSCMILFGFDPNCLPNKFNQLRKIPYKESLPVMEEVILYRHFIPSSLWKLQKWLNVGQEKKFKVAQEYLDRFLYESITFSHGEEQSKCSDEEMDQCFLGMVKALKKEGHGKGEISEKYLRDTAFTMIFAGNGTISSALSWFFWLLSTYPIVEEKIIQEIKDNWLTQEGNRITLRHVDLDKLVYLHGAICETLRLYPPIPFEHICSIKSDILPSGYHVSPNTTLIYSLYSMGRMEQIWGEDCMEFKPERWISERGDII |
| CYP96K1 | MMAVLFVYLGFMVFGIIVLRFLYRFIDNNGLPRNWPFVGMIPTLLLNIHRPHDKVAQVLRRSNGTFFYRGLWFTNTSFLATSDPENVRYILSSNSSVYLKGPEWLKQFDIFGEALFNSDGEAWKCHRRVFHAFLNHPQYRQSLSKVLHQRIEEALVKVLEYVSGREMVVNLQDLLAGHAFDIGCITGVGFDPGLLSIEFPENRFQKAMSDTLEAAFYRYVVPDSLWKLQSWPQIGKGKKRSDAWKALDDLLTQFISTQRHKSTKSVASSGSNEEHDFNFLNCYLTGHEITGPTPKESLIRDNLIHFLFASDGTYSLTLTWFFYLISKAPVVENKIREEIKRHLSMKQVEGSLQIPSNYDELSKLTYLHAALCETLRLYPPIPFDFRTCTKQEYLPSGHRVDQNTRIIIGIHAMGRMESLWGEDCYAFKPERWIGEDGKIKRESPTKFSAFLAGPRICPGKEVSFLLMKATATAIIHNYNVHVVEGQNIGPKNSVVYQMKKGLMVRIKKRWS |
| CYP97A3 | MAMAFPLSYTPTITVKPVTYSRRSNFVVFSSSSNGRDPLEENSVPNGVKSLEKLQEEKRRAELSARIASGAFTVRKSSFPSTVKNGLSKIGIPSNVLDFMFDWTGSDQDYPKVPEAKGSIQAVRNEAFFIPLYELFLTYGGIFRLTFGPKSFLIVSDPSIAKHILKDNAKAYSKGILAEILDFVMGKGLIPADGEIWRRRRRAIVPALHQKYVAAMISLFGEASDRLCQKLDAAALKGEEVEMESLFSRLTLDIIGKAVFNYDFDSLTNDTGVIEAVYTVLREAEDRSVSPIPVWDIPIWKDISPRQRKVATSLKLINDTLDDLIATCKRMVEEEELQFHEEYMNERDPSILHFLLASGDDVSSKQLRDDLMTMLIAGHETSAAVLTWTFYLLTTEPSVVAKLQEEVDSVIGDRFPTIQDMKKLKYTTRVMNESLRLYPQPPVLIRRSIDNDILGEYPIKRGEDIFISVWNLHRSPLHWDDAEKFNPERWPLDGPNPNETNQNFSYLPFGGGPRKCIGDMFASFENVVAIAMLIRRFNFQIAPGAPPVKMTTGATIHTTEGLKLTVTKRTKPLDIHPYRYFQWILTG |
| CYP97B3 | MAFPAAATYPTHFQGGALHLGRTDHCLFGFYPQTISSVNSRRASVSIKCQSTEPKTNGNILDNASNLLTNFLSGGSLGSMPTAEGSVSDLFGKPLFLSLYDWFLEHGGIYKLAFGPKAFVVISDPIIARHVLRENAFSYDKGVLAEILEPIMGKGLIPADLDTWKLRRRAITPAFHKLYLEAMVKVFSDCSEKMILKSEKLIREKETSSGEDTIELDLEAEFSSLALDIIGLSVFNYDFGSVTKESPVIKAVYGTLFEAEHRSTFYFPYWNFPPARWIVPRQRKFQSDLKIINDCLDGLIQNAKETRQETDVEKLQERDYTNLKDASLLRFLVDMRGVDIDDRQLRDDLMTMLIAGHETTAAVLTWAVFLLSQNPEKIRKAQAEIDAVLGQGPPTYESMKKLEYIRLIVVEVLRLFPQPPLLIRRTLKPETLPGGHKGEKEGHKVPKGTDIFISVYNLHRSPYFWDNPHDFEPERFLRTKESNGIEGWAGFDPSRSPGALYPNEIIADFAFLPFGGGPRKCIGDQFALMESTVALAMLFQKFDVELRGTPESVELVSGATIHAKNGMWCKLKRRSK |
| CYP97C1 | MESSLFSPSSSSYSSLFTAKPTRLLSPKPKFTFSIRSSIEKPKPKLETNSSKSQSWVSPDWLTTLTRTLSSGKNDESGIPIANAKLDDVADLLGGALFLPLYKWMNEYGPIYRLAAGPRNFVIVSDPAIAKHVLRNYPKYAKGLVAEVSEFLFGSGFAIAEGPLWTARRRAVVPSLHRRYLSVIVERVFCKCAERLVENVAALCKRRNSCKYERNFSSQMTLDVIGLSLFNYNFDSLTTDSPVIEAVYTALKEAELRSTDLLPYWKIDALCKIVPRQVKAEKAVTLIRETVEDLIAKCKEIVEREGERINDEEYVNDADPSILRFLLASREEVSSVQLRDDLLSMLVAGHETTGSVLTWTLYLLSNSSALRKAQEEVDRVLEGRNPAFEDIKELKYITRCINESMRLYPHPPVLIRRAQVPDILPGNYKVNTGQDIMISVYNIHRSSEVWEKAEEFLPERFDIDGAIPNETNTDFKFIPFSGGPRKCVGDQFALMEAIVALAVFLQRLNVELVPDQTISMTTGATIHTTNVCQWIVYEGEPKVKTRIYVFMIIDWCEWTCFIVLLRNNHKKMNYGK |
| CYP97E5 | MVARARVHASRGVDARRVRARGRARVDVIARAVKEPSSAPEEALPDENFKPEQLKFQDIVSLWVTQILQTYGGKESKDNAPVCEGVIDDLVGGPIFLALYPYFRRYGGVFKLAFGPKVFMVLSDPVIVREVLKEKPFSFDKGVLAEILEPIMGQGLIPAPYAVWKNRRRQLVPGFHKAWLDHMVGLFGHCSNELVRNLDKSAEDGEVVDMEERFCSVSLDIIGLAVFNYDFGSVTKESPIISAVYNCLQEAAHRSTFYFPYWNIPFATDIVPRQREFKQNMKIINETLNGLIQKAQKFEGTEDLEELQNRDYSKVKDPSLLRFLVDIRGADVTDSQLRDDLMTMLIAGHETTAAVLTWGLFCLMQNPELMKRIQADIDEVMGDDDRTPTYDDIQKLESVRLCIAEALRLYPEPPILIRRCLEDVTLPKGAGDAEVTLIKGMDIFISVWNLHRSPECWENPEEFDPFRFKRPFANPGVKDWAGYNPELFTGLYPNEVASDFAFIPFGAGARKCIGDQFAMLEATIAMAMVLRRYDFELTTDPKDIGMTMGATIHTEKGLPCRVRRRQPVTTATAAAV |
| CYP98A3 | MSWFLIAVATIAAVVSYKLIQRLRYKFPPGPSPKPIVGNLYDIKPVRFRCYYEWAQSYGPIISVWIGSILNVVVSSAELAKEVLKEHDQKLADRHRNRSTEAFSRNGQDLIWADYGPHYVKVRKVCTLELFTPKRLESLRPIREDEVTAMVESVFRDCNLPENRAKGLQLRKYLGAVAFNNITRLAFGKRFMNAEGVVDEQGLEFKAIVSNGLKLGASLSIAEHIPWLRWMFPADEKAFAEHGARRDRLTRAIMEEHTLARQKSSGAKQHFVDALLTLKDQYDLSEDTIIGLLWDMITAGMDTTAITAEWAMAEMIKNPRVQQKVQEEFDRVVGLDRILTEADFSRLPYLQCVVKESFRLHPPTPLMLPHRSNADVKIGGYDIPKGSNVHVNVWAVARDPAVWKNPFEFRPERFLEEDVDMKGHDFRLLPFGAGRRVCPGAQLGINLVTSMMSHLLHHFVWTPPQGTKPEEIDMSENPGLVTYMRTPVQAVATPRLPSDLYKRVPYDM |
| CYP98A3 | MSWFLIAVATIAAVVSYKLIQRLRYKFPPGPSPKPIVGNLYDIKPVRFRCYYEWAQSYGPIISVWIGSILNVVVSSAELAKEVLKEHDQKLADRHRNRSTEAFSRNGQDLIWADYGPHYVKVRKVCTLELFTPKRLESLRPIREDEVTAMVESVFRDCNLPENRAKGLQLRKYLGAVAFNNITRLAFGKRFMNAEGVVDEQGLEFKAIVSNGLKLGASLSIAEHIPWLRWMFPADEKAFAEHGARRDRLTRAIMEEHTLARQKSSGAKQHFVDALLTLKDQYDLSEDTIIGLLWDMITAGMDTTAITAEWAMAEMIKNPRVQQKVQEEFDRVVGLDRILTEADFSRLPYLQCVVKESFRLHPPTPLMLPHRSNADVKIGGYDIPKGSNVHVNVWAVARDPAVWKNPFEFRPERFLEEDVDMKGHDFRLLPFGAGRRVCPGAQLGINLVTSMMSHLLHHFVWTPPQGTKPEEIDMSENPGLVTYMRTPVQAVATPRLPSDLYKRVPYDM |
| CYP99A1 | RLISAVILAVCSLISRRKPSPGSKKKRPPGPWRLPLIGNLLHLATSQPHVALRDLAMKHGPVMYLRLGQVDAVVISSPAAAQEVLRDKDTTFASRPSLLVADIILYGSMDMSFAPYGGNWRMLRKLCMSELLNTHKVRQLAAVRDSETLSLVRKVVYAAGAGGGGRGQRGEAPVVNLGRLVLSCSMAITGRATLGKLCGDEIMSVVDVAVLYGSGFCAGDLFPSLWFVDVVTGLTRRLWTARRRLDAIFDRILAECEARQRQEEKMTGDDGFLGVLLRIRDDDGEPETGGISTTSIKAILFDMLAGGTETTSSAAEWIMSELMRKPEAMAKAQAEVRGALDGKSPEDHEGQMDKLSYTRMVVKEGLRLHPVLPLLLPRSCQETCDVGGFEVTKGTKVIVNAWALARSPERWHDPEEFRPERFADDDGSSAAVAVDYRGSQFEYIPFGSGRRMCPGNTFGLAALELMVARLLYYFDWSLPDGMRPEELDMDTVVGSTMRRRNHLHLVPSPYKETELTVGI |