

**S1 Fig.** Detail of all MIP protein sequences used in this work.

**>Triasperellum\_64497**

MESSEEEKAPPASGDRAATQARAASAVLSVPNSSTPPTATNKMALATFDGSGFAPLVRPQDVRLTPWYRRKDYYMGQ  
WFEPALWRS AIVELIATCCQVFVSGQIAATI QSYGTPQIGAYIGISNLVMISTFIYAVAPASGGHINPTITFASV  
LTGLCPVPRGILYMIGQTAGGALAGGILLGIWGEERAKAVHGGGCWYDPSQANPGQIYLNETFASFVLLFLAFGV  
GLDPRQAALFGPRLGPVLVGASLGLVSFSTSGIIPGYAGAQMNPAPKCLGNGIARLDLSYQWIYWFGPAVGGIMMG  
IFYNLIPPHHVELCKLSREMSRQITSDSMAERAEAPVVGTV\*

**>Triasperellum\_60030**

MSPSLEEEQLAWSKIREYCLDAFSEFFGTMTVLILFGDGVAQVVLSSGSGTKGDYQSI SWGWGIAVMFGVFVGGKSG  
GHLNPAVTFANCLYRGHPWRKLPVYALAQLLGAMAGAAIVYGNYSKSAFDAFEGGAGIRTVTGSTATAGIFCTYPA  
PFMTRTGMFFSEFIASSILMFCIFALVDPNNINAAHMMPLALFFLIFGIGACFGWETGYAMNLARDFGPRLVSYM  
IGYGHEVWSAGGYFWIPMVAPFFGTAFGGFLYDVFLYTGNSPINTPMLGVTRLFRPRKNVWSNTRPSAIDTKV\*

**>Triasperellum\_79784**

MDQSSDTNEAVSSSRGRVSENQEDQDYGLRRRSRASRRSTLRSTAPITTAGQGTQFNLAGPSDSQQRLRSAHEPF  
VHPGYGDLNPSYEQPNNAKPIWSLAKPLPRVVRPGMVPTKNELLENCVNAELPAENSQKLGLDIDPNELEKGRID  
KSADVRKMAAQVTDARVQRENNFIKTILASDAESTTGEIPQLVKTRSSQRRPTITRPSVQSPLYTVEEGESEHAS  
TASKKRLSRESQRLDEGEGEIDLGPDELIEGNRSLETLRIDQEAYPEDLHPLVQNLVEDEIHNHNTVWSVVRTHH  
REALAESLAVFIQLTVGFCA DIAVTVANAGNPNTTAWAWGFATMIGIYISGGVSGAHLNPTITIMLWFYRGPFRK  
KMPEYFLAQFIGAFCACFAAYGVYVSIQHYLSTSTGTDQDIMNCFVTNQRSAYINVPTALFNEFVGTMCCLTVVV  
LALGDDQNAPPAGMNSLIIGLVITCLTISFANQTGAALNPSRDFGPRLALLALGYGSELFTNPYWFYGPFGAGTL  
MGSFTGAFLYDFFIFTGGESPVNYPDLRTQRALRKSRMKWRRRLHLTPKEGEDKIV\*

**>Triasperellum\_150529**

MVAQDLDRDLHLDLELGTTEATQKHIPRNVPPRRVSQRRLD FEHSRPRWLRECIAEATGVFMYVLPGLGAIATF  
TLNATSPIGASAYGSLLAIGFAFALGIAFAIITCAPTSGGHFNPAITICLCIWQGFPLKKVPRYILSQIFGGFIA  
ALVLMGIYHQQIGEMKELLLAAGKPLVANGAPASILCSFPNPGQSMGYVFLTEFICDFVGFIIWAAIDPANPFI  
SPALAPLMIGMGYAVMAWSFGDVTLTMMNARDLGPRIVAAIFFGKEAFTYMNYSPIAILASIPATLVSSAFYEFV  
FRDSVSVIQSGHAVHEDGDDEALRHITRTTTVEGFEDKH\*

**>Triasperellum\_142240**

MANRIHTLSVRYEKALVIGVEFCGTFMFLLLSFMGAQVALDNNPTGQRDPATLLYIASSFGTALAVNVWVFYR  
VTGGMFNPAVTLGLVLVGAVKPLRALIIVPTQIVAGIAAAVVSGLLPGLHDVTNSLGSNTAQLFIEMFLTA  
QLVLTVYFLAVEKHRATFLAPVGIGVSFVIAHMAGTNFTGTGINPARSFGPAVVTGRFQAYHWIYWLGPCLGALL  
SFAVYTLLKMLEYQIANPGQDAGDPETANEEALAAAEEMQOGLAMVRSRTRSGSAPSDDLRFKRDSAMRRSSAPD  
GSAVSAADAV\*

**>Triasperellum\_170459**

MRQPSISRDSMRNELVVVFGEFCGTFMFLMSYIGTQAAIDNNSPGNPDAPLFPFSLMYIAASFGTALAVNVWVF  
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TSQLVITVYFLAVEKHRATFLAPLGIGLSVFI AHLCGTNFTGTGINPARSFGPCVVTSTFTGYQWIYWAGPFGAL  
LAFAYVSIKWMYHNANPGQDDDS

**>Triatroviride\_319992**

MDLAAFDGSGFAPLVRPQAVRLTPWYRRRDYFVGQWFEPALWRS AVELIATCCQVFVSGQIVATISTYGTPQLGA  
YIGISNLVLIATFIYAVAPASGGHMNPTITFAAVLTGLCSVPRLLYLVGQTAGGALGGGILLGIWGKERAI AVR  
GGGCWYDPSQANPGQIYLNETFASFVLLFLAFGVGLDPRQAALFGPRMG PALVGASLGLVSFSTSGIIPGYAGA Q  
MNPACKFCNGIARMDLSYQWIYWFGPAVAGIMMGILYNLIPPHHAELCKRKSREMSREMTSDSMAERAEASVIAS  
A\*

**>Triatroviride\_283564**

MCHEAIGGSLWEDRLPHAGIDETISSSRQNVGRSQEDTERGSLRRRSRTSRRSTFRSVAPLTTAGQGTQFNLAGP  
SESQQLRSAHEPFVHPGYGDLNPSYEQPNNTKPIWSLAKPLPRVVRPGMVPTKNELLESCINAE LPAENSQKLGL  
DVPDNELEKGRIDKSADVRKMAAQVTDARVQRENNFIKTILASDAESASGDVAQLVQTRSSQRRATITRPPVQSP  
LDTVEESVSDHLSTASKKRRSRESQRLDEAEGEIDLGPDELIEGNRSLETLRIDQEAYPEDLHPLVQNLVEDEIH  
NNHTVWSVVRTHHREALAESLAVFIQLTVGFCA DIAVTVANAGNPNTTAWAWGFASMMGIYISGGVSGAHLNPTI  
TVMLWFFRGPFRKMKPEYFLAQFIGAFCACFAAYGVYVSIQHYVSSGTGTDQEI MNCFVTNQRNPYINVPTALF  
TEFVGTMCCLTVVVLALGDDQNAPPAGMNSLIIGLVIVCLTISFANQTGAALNPSRDFGPRLALLALGYGSELFT  
NPYWFYGPFGAGTLMGSFTGAFLYDFFIFTGGESPVNYPDLRTQRALRKSGMKWRRRLHLTPKEEEDKVV\*

**>Triatroviride\_39327**

MSPSLEEEQLAWSRIREYCMDAFSEFFGTMTVLILFGDGVAQVVLSSGSGTKGDYQSI SWGWGIAVMFGVFVGGKSG  
GHLNPAVTFANCLYRGHPWRKLPVYALAQLLGAMVGAAIVYGNYSKSAFDAFEGGAGIRTVTGPTASAGVFCTYPA  
PFMTRTGMFFSEFIASSILMFCIFALVDPNNVNAGHMMPLALFFLIFGIGACFGWETGYAINLARDFGPRLVSYM  
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**>Triatroviride\_90169**

MTTRELNRLHTHDLELGTTEATQKHVPRNVVPPRRISQRRLD FEHRRPRWLRECIAEATGVFMYVLP GIGAIATF  
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ALVLMGIYHQQINEMKELLLAAGKPLVANGAPASILCSFPNPDQSMGYVFFTEFICDCFVGFIIWAAIDPANPFI  
SPAVAPLMIGLAYAAMAWGFGDVTLTMMNARDLGPRIVAAIFFGKEAFSYKNYSPIAILVSIPATMVSSAFYEFV  
FRDSVSVIQSGHAVHEDGDEALVRHITRTTTVEGIDERRGDYKS\*

**>Triatroviride\_6990**

MRRPSASRDTVRNELVVVFGEFYGTFFMFLMSYIGTQAAIDNNSPGNPEAPLFFPFSLMYIAASF GTALAVNVVVF  
YRVTGGFLNPAVTLGLVLVRAITPLRGLLVFPTQIVAGIAAAAVTDALLPGPLL VANKLSSGTSISRGLFIEMFL  
TAQLVITVYFLAVEKHRATFLAPLGIGLAVFIAHICGTNFTGTGINPARSFGPCVVTSFTGYQWIYWAGPFMGAL  
LAFVYSILKWLEYHNANPGQDDDSNVKRNPA GFAITSNDRQYSSSTTGSKPHTPTGHNPRDSGIAQTNSAPQGF  
QAV\*

**>Triatroviride\_31598**

MDSLRIKFQRSVSGDNRRNRDRFHPSTIQKHLIASAGEFVGTFFFFLWFAYAGSMQYIKQATLSPPSGGISD TTVF  
FIAHVYSFSLLVNVWAFYRISGGLFNPAVTLGMCLAGTLPWVRAAFLVPAQIIASMCAGGLARCMFPGDLAVANS  
VLSSDTSIVRGLFIEMFFTAFLVFVVLMLSAERSKDTFIAPIGIGLALFVAMLAGTSYTGASLNPVRSFGCAVAT  
PSFPGYEWIYWLGPFGMALVAAGFYRFVKLSHYE EANPNREETDHPTGDDP\*

**>Triatroviride\_43816**

MPANRIHTLSKRYEKALVIGVGEFCGTFFMFLLLSFMGAQVALENNPAADGHKLEPATLLYIASSFGTALAVNVV V  
FYRVTGGMFNPAVTLGLVLVGAVKPLRALIILPTQIIAGIAAAATVSALLPGHLDVTNSLGGGTSTAQGLFIEMF  
LTAQLVLTVYFLAVEKHRATFLAPVGIGVSVFIAHLAGTNFTGTGINPVRS LGPAVVTRGFEGYHWIYWLGPCLG  
ALLSFVYSLKALEYQIANPGQDAGDPETANEEALAVEEMGTEGLAIVRSRTRSGSAASEARYKRDVAMRRGSA  
VDGSAVSAADAV\*

**>Tricitrinoviride\_1108082**

MDLATFDGSFAPAVRPRGVRLTPWYRSRDYFVGQWLDVSVVWKS AVVEMIATSCLVFISGQITATIEGYGTPQVGG  
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GGGCWYDPSQASPGQVYLNEAFSSFVLLFLSFGVGLDPRQAALFGPRMGPLL VGASLGLVTFSSSGIIPGYAGA Q  
MNPSRCLAYGIARRNMTYQVWWWF GPAVGALMMAVFYNLIPPHHTELTKQKSKETEPDTMAGHTDIPVV\*

**>Tricitrinoviride\_161710**

MREPFSEFFGVLILVLFGDGSIAQVVLGQAKGDWQININWG WALGLMLGVYSAGVSGAHLNPAVTLANC VFRKFP  
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LLFCLYALQDDGNIGAGNFLPLGLFFVYFYGIGACFGSNTGYAVNPARDLGPRIMT WAVGYGHQVWTAGDYFVWP  
VIAPFLGCLFGGFLYDTFIYTGDSPINAPYMGFTRVLGKRVKAGKPV MV\*

**>Tricitrinoviride\_1115377**

MGNPTFNDAERAIFLSHSLEEEEEQLAWSKIRGYCQDFFSEFLGT MILILFGDGVAQVVLSSGGTKGDYQSISWG  
WGIAMVLGVYVGGKSGGHLNPAVTLANCLYRGHPWRKLPVYALAQLLGAMAGAAIVYGNYSKSAF DAFEGGPGIRT  
VTGPTATAGVFCTYPAPFMTRTGMFFSEFVASSILMFCIFALADPN NIGAGNLMPLCLFFLIFGIGACFGWETGY  
AINLARDFGPRLVSFMIGYGHEVWSAGGYYFWIPMVAPFLGC AFGGFLYDVFI FTGQSPINTPMLGLQRLLRPRK  
SVWSNTHQSAIETKV\*

**>Tricitrinoviride\_1172378**

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TFNATNPVGSTAFGSLFSIGFAFALGIAFAIITCAPTSGGHFSPAVTIALCIWQGFPLKKVPYYIFS QLLGGFLA  
ALVLMGIYHQQVVMKEALLAAGEPLVANGAPASILCSFPNPDQTMGYVFMTEFFCDCFVSLIIWACLD PANPFV  
SPAIALLVIGLAYGAMAWGFGANTLSMNTARDLGPRVVA AIFFGSEAFSYKNYAPIGILVSIPAMLVATAFYELV  
MKDSLNI IETGHAVHADGEEALVRHITRTTTVDEKH\*

**>Tricitrinoviride\_61920**

MAFSGISKRLSASNGDGRSREHFHPSPMQOHLIAATGEFVGTFFFFLWFGYAGSMQYVKLETLS PSSGGMPD TTVF  
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LLSSDTSIARGLFIEMFFTAFLVFVVLMLAVERSKDTFIAPIGIGLALFVAMLAGTSFTGASLNPVRSFGCAVAT  
PHFPGYEWIYWLGPFGMAVVAAGFYKFVKWSHYE EANPQRDATDYDHGQESQPAQHSEV\*

**>Tricitrinoviride\_1143547**

MPNRLSGSFKTALVVAVGEFCGTFFMFLLLSFMGAQTALNTSGGLLDASTLLYIASSFGTALAVNVVVFYRVTGGM  
FNPAVTLGLVLVGAVKPIRALYIFPSQLIAAIAAAAVTDGLLPGALGVTNGLSGSTS VVQGLFIEMFLTAQLVLT  
VYFLAVEKHRATFLAPVGIGVSVFIAHMAGTNFTGTGINPVRS LGPAIVTGHYHGYHWIYWLGPCLGALLSFGVY  
SLLKVLLEYQIANPGQDAGDPEEANE EALAAEMGTEGLAMFRSRSRSGSTAPGGVGLRKDLRRGSAADGGRPVSA  
AEAV\*

**>Tricitrinoviride\_1171100**

MARILSSRDKIRNELIVVFGEFCGTFFMFLLMAFIGTQAAIENNSPGNPDA PLFFPFSLMYIAASF GTAVAVNVVVF  
YRITGGMFNPAVTLGLVLVGAVSPLRGILIFPTQLVAGIAAAAVTDALLPGPLL VANKLSSGTSISRGLFIEMFL  
TAQLVITVYFLAVEKHRATFLAPLGIGLAVFIAHICGTNYTGTSINPARSFGPAVVTDFTGYQWIYWLGPFLG SF  
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AV\*

>Trigamsii\_JPDN01000001.1

MDLAAFDSGFAPLVRPQAVRLTPWYRRRDYFVGQWFEPALWRSVAVVEMIATCCQVVFVSGQIVATISTYGTPQLGA  
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GGGCWYDPSQANPGQIYLNETFASFVLLFLAFGVGLDPRQAALFGPRMGPALVGASLGLVTFSTSGIIPGYAGA Q  
MNPACKFCNGIARLDLSYQWIYWFGPAVGGIMMGILYNLIPPHHAELSKRKSREMSREITSDSMAERAEASVIAS  
S\*

>Trigamsii\_ANCB02000213.1

MSPSLEEEQLAWSRIREYCMDAFSEFFGTMVLILFGDGVVAQVVLSGNTKGDYQSI SWGWGIAMVFGVFVGGKSG  
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AFMTRTGMFFSEFIASSILMFCIFALADPNVNAGHMMPLALFFLIFGIGACFGWETGYAINLARDFGPRLVSYM  
IGYGHEVWSAGGYFWIPMVAPFLGTAFGGFLYDVFLYTGDSPINTPMLGLTRLFRPRKNVWSNTRPSAIDTKV\*

>Trigamsii\_JPDN01000042.1

MDQSPSPHRSSSNDGAGDTTSPTRPHAGSQEDQERGLRRRSRTSRRSTFRSVAPLTTAGQGTQFNLAGPSESQQ  
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ELEKGRIDKSSDVRKMAAQVTDARVQRENNFIKTILASDAESASGDVAQLVKTRSSQRRATITRPPVQSPLDTVE  
EGVSELGSTTSKKRLSRESQRPDEAEGEVDLGPDELIEGSRSLLETLRIDQEAYPEDLHPLVQNLVEDEIHNHNTV  
WSVIRTHHREALAESLAVFIQLTVGF CADLAVTVANAGNPNTTAWAWGFASMMGIYISGGVSGAHLNPTITIMLW  
FFRGFPKRKMPEYFLAQFIGAFACFAAYGVYVYSIQHYLSSDTGTDQEIMNCFVTNQRYPIINVPTALFTEFVG  
TMCLTVVVLALGDDQNAPPGAGMNSLIIGLVIVCLTISFANQTGAALNPSRDFGPRLALLALGYGSELFTNPYWF  
YGPFAGTLMGSFTGAFLYDFFIFTGGESPVNYPDLRTQRAIRKSGIKWRRRLHLTPKEEEDKVV\*

>Trigamsii\_JPDN01000071.1

MTTRELNLRLHTHDLELGTTEATQKHIPRNVPPRRISQRRLD FEHRRPRWLRECIAEATGVFMYVLPGIGAIATF  
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ALVLMGIYHQQINEMKELLLAAGKPLVANGAPASILCSFPNDQSMGYVFLTEFICDCFVGFIIWAAIDPANPFI  
SPAIAPLMIGLAYAAMAWGFGDATLTMNTARDLGPRIVAAIFFGKEAFTYMNYSPIAILASIPATLVSSAFYEFV  
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>Trigamsii\_JPDN01000006.1

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VANSVLSRDTSIVRGLFIEMFFTAFLVFVVLMLSAERSKDTFIAPIGIGLALFVAMLAGTSYTGASLNPVRSFGC  
AVATPSFPGYEWIYWLGPFMGALVAAGFYRFVKWSHYEEANPNREETDYPNGDQPOQTAQHSSV\*

>Trigamsii\_JPDN01000108.1

MAANRAHALSRRYEKALVIFVGEFCGTFMFLLLSFMGAQVALDNNPATDGOQLDPATLLYIASSFGTALAVNVWV  
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LTAQLVLTVYFLAVEKHRATFLAPVGIGVSFIAHLAGTNFTGTGINPARSFGPAVV TGRFRGYHWIYWLGPCLG  
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VDGGSVSAADAV\*

>Trigamsii\_JPDN01000082.1

MHRPAISRERFRNEFVVVFGEFCGTFMFLLTAYIGTQAAIDNNSPGNPDAPLFPFSLMYIAASF GTALAVNVWVF  
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TAQLVITVYFLAVEKHRATFLAPLGIGLAVFIAHICGTNFTGTGINPARSFGPCVVT SFTGYQWIYWAGPFMGAL  
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QAV\*

>Triguizhouense\_LVVK01000017.1

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YPAAFMTRTGMFFSEFIASSILMFCIFALADPNNIGAGNLMPLCLFFLIFGIGACFGWETGYAINLARDFGPRLV  
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KV\*

>Triguizhouense\_LVVK01000019.1b

MREPFSEFFGVMILVLF GDGSVAQVVLGKGAKGDWNNINWG WALGVMLGVYCGGVSGAHLNPAVTLANCIFRKFP  
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LMFCLYALLDDGNVGAGNLTPLGLFFVIYIGIGACFGSNTGYAINPARDLGPRIMSHAVGYGHQVW TAGDYFVWP  
VIAPFLGCTFGGFLYDTFIYTGDSPINAPYMGFTRSMGVRAKASRPTMV\*

>Triguizhouense\_LVVK01000013.1

MTSSRRVLNETREDQDRSSLRRRSRASRRSTFRSVAPITTAGQGTQFNL AGPTDNPQLRTAHEPFVHPGYSDLNP  
SYEQPNNAKPIWSLAKPLPRVVRPGMVPTKNELLENCVNAELPAENSQNLGLDVPNEIEKGRIEKSADLRKMGA  
QVTDARQORENNFIKTILAADEAQSDGVAQLVKMRSSQRRATITRPSIQSPLYTVQ EGLSEHTSERRKDSHESQ  
RSGQVEGEFDPGPDELIEGNRSLETLRLEDAYPEDLHPLVQELVEEEIHNHNTIWSVIRTHHREALAESLAVFV  
QLTIGFCADLSVTVAKAGNPNTTDWAWGFATMIGIYISGGVSGAHLNPTITIMLWFFRGFPKRKMPEYFLAQFLG  
AFCACFAAYGVYVYSIKHYLLTGVD DDIINCFVTSQRSSYINAPTALFNEFIGTMCLTIVVLALGDDQNAPPGAG

MNSLIIGLIITCLSMSFANQTGAALNPSRDFGPRLALLALGYTSELFNTNPYWFYGPWAGTLLGSFMSGAFLYDFFI  
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**>Triguizhouense\_LVVK01000015.1**

MSSPTEQLNRLHTHDVELGTTDAVQKHISRNVPVPRRVSQRRLDFEHRPRWLRECIAEATGVFMYVLPGIGAIT  
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IAALVLMGIYHQQLDEMKAIVLLAAGEPLVANGAPASVLCSPNPGQSMGYVFMTEFFCFCDFVGLI IWACLDPANP  
FVSPSLAPLVIGLAYGAMAWGFGANTLTMTNMARDFGPRVVAIIFYGREAFSYMNYAAIGIFTSIPATLVSSAFYE  
FVMRDSL SVIGTGHAVHADGDEALVRHITRRTTTVDGIEERRGEYKS\*

**>Triguizhouense\_LVVK01000015.1**

MASSGIFKQHSFGSDNGRSRDGFHPSTIQKHLIASAGEFVGTFFFLWFAYAGSMQYVKQATLSPLSGGISDTTVF  
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VLSSDTSIVRGLFIEMFFTAFLVFVVLMLAAERSKDTFIAPIGIGLALFVAMLAGTSYTGASLNPVRSFGCAVAT  
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**>Triguizhouense\_LVVK01000004.1**

MHRQYAPPREPIRNEIVVVFGEFCGTFMFLLMSFIGTQAALDNDPTNP NAPLFPFSLLYVASSFGAALAVNVWV  
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AV\*

**>Triguizhouense\_LVVK01000020.1**

MASLQEKTHPAGDESPPAARISTASDQRPATSKMDLAAFDGSAFPGVVRPGAVRLTPWYRRRDYFVGQWVDISVWK  
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RGILYMCAQTLGGALAGGILLGVWGPKRATSLQGGGCWYDPSQANPGQIY LNEVFASFVLLFLSFVGGLDPRQAA  
LFGPRMGPLLVGASLGLVSFATSGIIPGYAGAQMNP SRCLAFGIARRDMTCQWVYWF GPAVGCLMMGVFYNLIPP  
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**>Triguizhouense\_LVVK01000018.1**

MAKPLRRFTERFKTALVIGLGEFCGTFMFLLLSFMSGAAALDNGPDGGKLDASTLLYIASSFGTALAVNVWVFYR  
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EESPMASADVV\*

**>Trihamatum\_ANCB02000213.1**

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GGGCWYDPSQANPGQIY LNETFASFVLLFLAFGVGLDPRQAALY GPRMG PVLVGASLGLVSFSTSGIIPGYAGAQ  
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**>Trihamatum\_ANCB02000044.1**

MSPSLEEEQEQLAWSRIREYCMDFEFSEFLGTMVLILFGDGVVAQVVL SGGTKGDYQSI SWGWGIAVMFGVFVGGK  
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PAPFMTRTGMFFSEFIASSILMFCIFALVDPNNINAGHMMPLALFFLIFGIGACFGWETGYAINLARDFGPRLVS  
YMIGYGHEVWSAGGYFWIPMVAPFCGCAFGGFLYDVFLYTGNSPINTPMLGLTRLFRPRKNVWSNTRPSAIDTK  
V\*

**>Trihamatum\_ANCB02000079.1**

ELGTTEATQKHIPRNVPPRRISQRRLDFEHSRPRWLRECIAEATGVFMYVLPGIGAIATFTLNATSPIGASAYG  
SLFAIGFALGIAFAIITCAPTSGGHFSPAFTICLCIWQGFPLKKVPYYIFSQLVGGFLAALVLMGIYHQQISE  
MKELLVAAGKPLVANGAPASILCSFPNPGQSMGYVFFTEFICDFVGFI IWA AIDPANPFVSPALAPLMIGLAYA  
CMAWGFGDVTLTMTNMARDLGPRIVAAIFFGKEAFTYMNYSPIAILVSIPATMVSSAFYEFVFRDSVSVIQSGHAV  
HEDGDEALVRHITRRTTTVEGIEERAGGDYKS\*

**>Trihamatum\_ANCB02000059.1**

MDQSSDPAHSSSNDGAGNPTSPIRQATDEAVSSSRDISENQDDQDYGSLRRRSRASRRSTIRSTAPIITTAGQGT  
QFNLAGPSDSQQLRSAHEPFVHPGYGDLNPSYEQANNAKPIW SLAKPLPRVVRPGMVPTKNELLENCINAELPAE  
NSQKLGLDVPNELEKGRIDKSSDVRKMAAQVTDARVQRENNFIKTILASDAESASGDLASVVKTRSSQRRLTLQ  
QPSVHSHLSTVQEGASETGSTVSKKKRPSRESORLDEAEGEIDLGPDELIEGNRSLETLRLDQEAYPEDLHPLIQ  
NLVEDEIHNNHTVWVSVRTHREALAESLAVFIQLTIGFCADIAVTVANAGNPNTTAWAWGFATMIGIYISGGVS  
GAHLNPTITMMLWFYRGFPKRKMPEYFLAQFLGAFCAFAAYGVVYVSIQH YLSSDTGTDQEIMNCFVTNQ RSAFE  
ISVPTALFNEFVGTMCLTVVVLALGDDQNPAGGMNSLIIGLVITCLTISFANQTGAALNPSRDFGPRLALLAL  
GYGSELFNTNPYWFYGPFA GTLMGAFTGAFLYDFFIFTGGESP VNYPLDRTQRALRKSRMKWRRRLHLTPREGEDK  
VV\*

**>Trihamatum\_ANCB02000398.1**

MARLSERYEKALVICLGEFCGTFMFLLLSFMSGAAALDNNPTGQKLDPATLLYIASSFGTALAVNVWVFYRVTTG  
MFNPAVHEYPMSIKVTLGLALVGAVTPLRALIIVPTQIVAGIAAAAVVSGLLPGHLDVTNSLGSSTNTAQGLFIE

MFLTAQLVLAVYFLAVEKHRATFLAPVGIGVSVFIAHMAGTNFTGTGINPARSFGPAVVVTGKFPRIYHWIYWLGPC  
LGALLSFVVYTLLKLLLEYP IANPGQDAGDPETANEEALAAQMQQGLALVRSRTKSGSAPSDLRFKRDSTAMRG  
GSVPEGS AVSAADAV\*

**>Trihamatum\_ANCB02000229.1**

MRRPPTPREKIRNELVVVFGEFCGTFMFLMSYIGTQAAIDNNSPGNPDAPLFPFSLMYIAASFGTALAVNVVWF  
YRVTGGMFNPAVTVGLVLVGAVKPLRGLCIFPTQIVAGIAAAAVTDALLPGPLL VANKLSSGTSISRGLFIEMFL  
TSQLVITVYFLAVEKHRATFLAPLGIGLSVFI AHL CGTNFTGTGINPARSFGPAVVTDFTGYQWIYVWGPFLGAL  
LAFVVYTILKWM EYHTANPGQDDDSHVKRNPAGLAISSNDRQYSNSTNGSKPQTPGEHNPRDSGIAQTNSTPQGF  
QAV\*

**>Triharzianum\_488926**

MDLAAF DG SFAPGVRPGAVRLTPWYRRRDYFVGQWVDISVWKS AVVEFVATSCLVFLSGQITATLESYQTPQVGG  
YIGISNIIL IATFIYATAPASGGHLNPMITFSAILTGLCSVPRGILYMCAQTLGGALAGGILLGVWGPKRATSLQ  
GGGCWYDPSQANPGQIYLNEVFASFVLLFLSFGVGLDPRQAALFGPRMGPLL VGASLGLVSFATSGIIPGYAGAQ  
MNPSRCLAFGIARRDMTYQWVWWFGPAVGCLMMGIFYNLIPPHVELSKQKSKE SRMNSMAGNTEVPEV\*

**>Triharzianum\_90014**

MELLSPPLEEEQLAWSKIRSYCQDFFSEFLGTMTLILFGDGVVAQVVLSSGGTKGDYQSI SWGWGI AVMLGVYVGG  
KSGGHLNPAVTFANCLYRGHPWRKLPVYALAQLLGAMTGAAIVYANYKSAFDAFEGGAGIRTVTGPTATAGVFCT  
YPAAFMTRTGMFFSEFIASSILMFCIFALADPNNIGAGNLMPLCLFFLI FGIGACFGWETGYAINLARDFGPRLV  
SFMIGYGHEVWSAGGYFWIPMVAPFCGCAFGGFLYDVFI FTGNSPINTPMLGLQRLMRPRKSVWSNTHPAAIEN  
KV\*

**>Triharzianum\_490850**

MREPFSEFFGV LILVLFGDGSVAQVVLGKGAKGDWNNINWG WALGVMLGVYCGGVSGAHLNPAVTLANCIFRKFP  
WKKLPVYALAQLLGAMAASLIVYGNYS AIDVFEGGQ GIRTVGLDTSTAGIFCTYPAPFLTKTGQFFDECIGSSI  
LMFCLYALLDDGNIGAGNLTPLGLFFVIYIGIGACFGSNTGYAINPARDLGPRIMSHAVGYGHQVWTAGDYFWVP  
VIAPFLGCTFGGFLYDTFIYTGDS PINAPYMGFTRFMGVHAKARRTAMV\*

**>Triharzianum\_82211**

MTSSRRVLNETREDQDRSSLRRRSRASRRSTFRSVAPITTAGOQTQFNLAGPTDTPQLRTAHEPFVHPGYSDLNP  
SYEQPNNAKPIWSLAKPLPRVVRPGMVPTKNELLENCVNAELPAENSQNLGLDVPNEIEKGRIEKSADLRKMGA  
QVTDARQORENNFIKTILAADAE AQSDGLPQLVKTRSSQRRATITRPSIQSPLYTVQEGLSEHTSERHKDSHESQ  
RSGQGEGEFDPGPDELIEGNRSLETLRLDQDAYPEDLHPLVQDLVEEEIHNNHTIWSVIRTHREALAESLAVFV  
QLTIGFCADLSVTAKAGNPNTTDWAWGFATMIGIYISGGVSGAHLNPTITIMLWFFRGGFPKRKMPEYFLAQFLG  
AFCACFAAYGVYYSIKHYLLTGVD DDI INCFVTSQRSSYINAPTALFNEFIGTMCLTIVVLALGDDQNAPPGAG  
MNSLIIGLIITCLSMSFANQTGAALNPSRDFGPRLALLALGYTSELFTNPYWFYGPWAGTLLGSFMGAFLYDFFI  
FTGGESPINYPLERTQRAFHKSGMKWRRRLHLTPKQEEERIV\*

**>Triharzianum\_92358**

MSSPTEQLNRLHTHDLELGTDDAVQKHISRNVPPRRVSQRRLD FEHRRRPRWLRECIAEATGVFMYVLP GIGAIT  
SFTINATNP IGSTAFGSLFSIGF AFALGIAFAIITCAPTSGGHFS PAVTIALWFWQGFPLKKVPYYIFSQLLGGF  
IAALVLMGIYHQQLDEM KQVLLAAGEPLVANGAPASVLC SFPNPGQSMGYVMTEFFC DCFVGLI IWACLDPANP  
FVSPSLAPLVIGLAYGAMAWGFGANTLT MNMARDFGPRVVA AIFYGREAFSYMNYAAIGIFTSIPATLVSSAFYE  
FVMRDSLSVIGTGHAVHADGDEALVRHITRTTTVDGIEERRGEYKS\*

**>Triharzianum\_99286**

MASSGIFKQHS GSGDNGRSRDGFHPSTIQKHLIASAGEFVGTFFFLWFAYAGSMQYVKQATLSPLSGGISD TTVF  
FIAHVYSFSLLVNVWAFYRISGGLFNPAVTLGMCLAGTLPWVRAAFLVPAQIIASMCAGGLARCMFPGDLAVANS  
VLSSDTSIVRGLFIEMFFTAFLVFVVLMLAAERSKDTFIAPIGIGLALFVAMLAGTSYTGASLN PVR SFGCAVAT  
PSFPGYEWIYWLGPFGAVVAAGFYRFIKWSRYEEVNPNREETDHPNGDQPQPAQHSSV\*

**>Triharzianum\_98742**

MHRQYAPPREPIRNEIVVVFGEFCGTFMFLMSFIGTQAA LDNNDPTNP NAPLFPFSLLYVASSFGAALAVNVWV  
FYRVTGGMFNPAVTLGLVLVGAVKPIRGLLIFPAQIVAGIAAAAVTDALLPGPLL VANKLASGTSISRGLFIEMF  
LTAQLVITVYFLAVEKHRATFLAPLGIGLAVFIAHICGTNFTGTGINPARSFGPAVVTDFTGYQWIYVWGP LLGS  
LLAFAVYTILKWLEYHNANPGQDDDNFVKKTPAGFNIPTGDRQYSNSTNGAKEHTPSEPRDSGVVQTN SGPQGFQ  
AV\*

**>Triharzianum\_485859**

MAKPLRKFTERFKTALVIGLGEFCGTFMFLLSFMGAQAALDNGPDGGKLDASTLLYIASSFGTALAVNVVWFYR  
VTGGMFNPAVTLGLVLVGAVKPLRALIILPMQIAAGIAAAATVSGLLPGLSVTNSLSSGTSIVQGLFIEMFLTA  
QLVLTVYFLAVEKHRATFLAPVGIGVSVFIAHMAGTNFTGTGINPVRS LGPAVVVTGSFRGYHWIYWLGPC LGALL  
SFTVYSLKGLYQIANPGQDAGDPETANEEAIAAAEMQGEGLAMVRSR SRSMSVPNDMMFFKKEREAMRRASVP  
EESPMSAADVV\*

**>Trikoningii\_BCGH01000004.1a**

MELLSPPLEEEQLAWSKIRNYCQDFFSEFLGTMTLILFGDGVVAQVVLSSGGTKGDYQSI SWGWGI AVMLGVYVGG  
KSGGHLNPAVTLANCLYRGHPWRKLPVYALAQLLGAMAGAAIVYGNYS AFDADFEGGAGIRTVTGPTATAGVFCT  
YPAPFMTRTGMFFSEFVASSILMFCIFALADPNNIGAGNLMPLCLFFLI FGIGACFGWETGYAINLARDFGPRLV

SYMIGYGHEVWSAGGYFWIPMVAPFCGCAFGGFLYDVFIYTGNSPINTPMLGLQRLMRPRKSVWSNTHPSAIES  
KV\*

**>Trikoningii\_BCGH01000004.1**

MREPFSEFFGVILILVLFGDGSLAQVVLGQAKGDWQININWGVALGLMLGVYCAGASGAHLNPAVTLANCVFRKFP  
WNKLPVYILAQLLGAMIASLIVYGNYSKSAIDVYEGGQGI RTVGLSTSTAGIFCTYPAPFLTKAGQFFDEFTGSAI  
LLFCLYALQDDGNIGAGNLLPLGLFFVYFYGIGACFGSNTGYAVNPARDLGPRIMTSAVGYGHQVWTAGDYFVWP  
IIAPFLGCLFGGFLYDTFIFTGDSPINLPYMGLTRGLGNRTKTGKPI MV\*

**>Trikoningii\_BCGH01000008.1**

MSSPTEQLNRLHTHDVELGTTDVVQKHATRNVPVPRRVSQRRLD FEHARPRWLRECIAEATGVFMYVLP GIGAIAS  
SFTFNATNPVGSTAFGSLFSIGFAFALGIAFAIITCAPTSGGHFSPAVTIALCVWQGFPLKKVPHYIFSQLLGGF  
IAALVLMGIYHQQIVEMKEALLAAGEPLVANGAPASILCSFPNPQDTMGYVFLTEFFCDCFVSLIIWACIDPANP  
FVSPAIAPLVIGLGYGAMAWGFGANTLSMNMARDLGPRIVAAIFFGGEAFTYKKNYAPIGILVSI PAMMVATAFYE  
LVMKDSLNI IETGHAVHEDGEEALVRHITRTTTVDGLEERSGEYKS\*

**>Trikoningii\_BCGH01000002.1**

MAFPGLSKRHAAANGDGRSREQGFHPSPMQKHLIAAAGEFVGTFFFLWFAYAGSMQYTKLATLSPPSGGMADTTV  
FFIAFVYSFSLLVNVWAFYRISGGLFNPAVTLGMCLAGTLPWARAAFLVPAQIIASMCAGGLASAMFPGNIAAAN  
SLLSSDTSIVRGLF IEMFFTAFLVFVVLMLAAERSKDTF IAPIGIGLALFVAMLAGTSYTGASLNPVRSFGCAVA  
TPHFPGYEWIYWLGPFGMAALAAAGFYKFKVWSHYEEANPORDATDYDHDPRSQPAQHS AV\*

**>Trikoningii\_BCGH01000009.1**

MHRQYAPPREPIRNELIVVFGEFCGTFMFLLMAFIGTQAAIENNSPGNPDAPLFPFSLMYIAASF GTAVAVNVWV  
FYRITGGMFNPAVSVELLLVGAVSPLRGLLI FPTQLVAAIAAAAVTDALLPGPLL VANKLSPGTSISRGLFIEMF  
LTAQLVITVYFLAVEKHRATFLAPLGIGLAVFIAHICGTNYTGTSINPARSFGPAVVTDFTGYQWIYWLGPFLGS  
FLAFVVYTI LKWM EYHTANPGQTVCLLSPRILA AKLKQVSALRKYDSITGVICII L\*

**>Trikoningii\_BCGH01000003.1A**

MESLQEKEPQ PAGHDTTAARVQTTVDLPPSSSDTAASGRRSATSKMDLATFE GSFAPAVRPRGVRLTPWYRSRDY  
FIGQWLDVSVWKS AVVEMVATSCLVFVSGQITATIEGYGTPQVGGYIGISNII LLSTFIYATAPASGGHLNPMIT  
FSAILTGLCSVPRGMVLYLCGQTLGGALAGG LLLGVWGRERATSLQGGGCWYDPSQASPGQIYLNEVFSSFVLLF  
LSFGVGLDPRQAALFGPRMGPLL VGASLGLVTFSSSGIIPGYAGAQMNP SRCLAFGIARRNMSDQVWWF GPAVG  
GLIEAIVYNLI PPHH MELVKQKSKETEPDTMVGHTDIPTV\*

**>Trikoningii\_BCGH01000003.1B**

MPNRLSGSFKTALVVAVGEFCGTFMFLLLSFMGAQTALNSSGGTLDAP TLLYIASSFGTALAVNVWVFYRVTGGM  
FNPAVTLGLVLVGAVKPLRALYIFPSQLIAAIAAAAVTDG LLLPGPLGVTNGLSGTSVVQGLFIEMFLTAQLVLT  
VYFLAVEKHRATFLAPVGIGVSVFIAHMAGTNFTGTGINPVRS LGPAIVTGRFN GYHWIYWLGPVLGALLSFGVY  
SLLKVLEYQVANPGQDAGDPEEANE EAIAAAEMGTEGLAMFRSRSRSGSAPGGVGLRKDSALRRGSAPEGGRPV S  
AAEAV\*

**>Trilongibrachiatum\_1343482**

MDLATFE GSFAPAVRPRGVRLTPWYRSRDYFIGQWLDVSVWKS AVVEMVATSCLVFVSGQITATIEGYGTPQVGG  
YIGISNII LLSTFIYATAPASGGHLNPMITFSAILTGLCSVPRGVLYLCGQTLGGALAGG LLLGVWGRERATSLQ  
GGGCWYDPSQASPGQIYLNEVFSSFVLLF LSFVGLDPRQAALFGPRMGPLL VGASLGLVTFSSSGIIPGYAGA Q  
MNPSRCLAFGIARRNMSYQVWWF GPAVGGLIEAIVYNLI PPHH MELVKQKSKETEPDTMVGHTDIPTV\*

**>Trilongibrachiatum\_1439288**

MREPFSEFFGVILILVLFGDGSLAQVVLGQAKGDWQININWGVALGLMLGVYCAGASGAHLNPAVTLANCVFRKFP  
WNKLPVYILAQLLGAMIASLIVYGNYSKSAIDVYEGGQGI RTVGLSTSTAGIFCTYPAPFLTKAGQFFDEFTGSAI  
LLFCLYALQDDGNIGAGNLLPLGLFFVYFYGIGACFGSNTGYAVNPARDLGPRIMTSAVGYGHQVWTAGDYFVWP  
IIAPFLGCLFGGFLYDTFIFTGDSPINLPYMGLTRGLGNRTKTGKPI MV\*

**>Trilongibrachiatum\_1339918**

MGNPSLHDAEGAIFLATSLEEEELLAWSKIRNYCQDFFSEFLGTMTLILFGDGVVAQVVL SGGTKGDYQSISWG W  
GIAVMLGLVYVGKSGGHLNPAVTLANCLYRGHPWRKLPVYAL AQLLGAMAGAAIVYGNYSKSAFDAFEGGAGIRTV  
TGPTATAGVFCTYPAPFMTRTGMFFSEFVASSILMFCIFALADPN NIGAGNLMPLCLFFLIFGIGACFGWETGYA  
INLARDFGPRLVSYMIGYGHEVWSAGGYFWIPMVAPFLGCAFGGFLYDVFI FTGTPSPINTPMLGLQRLMRPRS  
VWSNTHKSAIETKV\*

**>Trilongibrachiatum\_1362869**

MSSPDLDRLHTHDLELGTDDVVQKHATRNVPVPRRVSQRRLD FEHARPRWLRECIAEATGVFMYVLP GIGAIASF  
TFNATNPVGSTAFGSLFSIGFAFALGIAFAIITCAPTSGGHFSPAVTIALCVWQGFPLKKVPHYIFSQLLGGFIA  
ALVLMGIYHQQIVEMKEALLAAGEPLVANGAPASILCSFPNPQDTMGYVFLTEFFCDCFVSLIIWACIDPANPFV  
SPAIAPLVIGLGYGAMAWGFGANTLSMNMARDLGPRIVAAIFFGGEAFTYKKNYAPIGILVSI PAMMVATAFYELV  
MKDSLNI IETGHAVHEDGEEALVRHITRTTTVDEKS\*

**>Trilongibrachiatum\_1340117**

MPNRLSGSFKTALVVAVGEFCGTFMFLLLSFMGAQTALNSSGGTLDAP TLLYIASSFGTALAVNVWVFYRVTGGM  
FNPAVTLGLVLVGAVKPLRALYIFPSQLIAAIAAAAVTDG LLLPGPLGVTNGLSGTSVVQGLFIEMFLTAQLVLT  
VYFLAVEKHRATFLAPVGIGVSVFIAHMAGTNFTGTGINPVRS LGPAIVTGRFN GYHWIYWLGPVLGALLSFGVY

SLLKVLEYQVANPGQDAGDPEEANEAAIAAAEMGTEGLAMFRSRSRSGSAPGGVGLRKDSALRRGSAPEGGRPVSAEAV\*

**>Trilongibrachiatum\_51184**

MAFPGLSKRHAAANGDGRSREQGFHPSPMQKHLIAAAGEFVGTFFFFLWFAYAGSMQYTKLATLSPPSGGMADTTVFFIAFVYSFSLLVNVWAFYRISGGLFNPALTLGMCLAGTLPWARAAFLVPAQIIASMCAGGLASAMFPGNIAAANSLSSDTSIVRGLFIEMFFTAFLVFVVLMLAAERSKDTFIAPIGIGLALFVAMLAGTSYTGASLNPVRSFGCAVATPHFPGYEWIYWLGPFGMAALAAGFYKFKVWSHYEEANPQRDATDYDHDPRSQPAQHSV\*

**>Trilongibrachiatum\_22769**

MPRLSSRDITRNELIVVFGEFCGTFMFLLMFAFIGTQAAIENNSPGNPDAPLFFPFSLMYIAASFGTAVAVNVWVYRITGGMFNPAVTLGLVLVGAVSPLRGLLIFPTQLVAAIAAAAVTDALLPGPLLANKLSPGTSISRGLFIEMFLTAQLVITVYFLAVEKHRATFLAPLGIGLAVFIAHICGTNYTGTSINPARSFGPAVVTDFTGYQWIYWLGPFLGSLAFVVYITILKWMEYHTANPGQDDDTAAKKTPAGLAVATNDROYRSGSEGGKYRSPSGPRDSGIAHTSSGPQGFAAV\*

**>Trichoderma\_pleuroti\_MDJU01000355.1**

MELLSPPLEEEQLAWSKIRNYCQDFFSEFLGTMTLILFGDGVVAQVVLSSGGTKGDYQSSISWGWGIAVMLGVYVGGKSGGHLNPAVTFGNCLYRGHPWRKLPVYVLAQLLGAMTGAAIVYGNYSKSAFDAFEGGAGIRTVTGPTATAGVFCTYPAPFMTRTGMFFSEFIASSILMFCIFALADPNNIGAGNLMPLCLFFLIFGIGACFGWETGYAINLARDFGPRLVSFMIGYGHEVWSAGGYFWIPMVAPFCGCAFGGFLYDVFIYTGNSPINTPMLGLQRLMRPRKSVWSNTHPSAIESKV\*

**>Trichoderma\_pleuroti\_MDJU01000027.1**

MREPFEFFGVMLVLFGDGSVAQVVLGKGTGKDWNINWGWALGVMLGVYCSGVSGAHLNPAVTLANCIFRKFPWKKLPVYALAQLLGAMAASLIVYGNYSKAIDVFEGGQGIRTVGLDSTAGIFCTYPAPLLTKTGQFFDEFIGSSILMFCLYALLDDGNGAGNLTPLGLFFVIYIGIGACFGSNTGYAINPARDLGPRIMSHAVGYGKQVWTAGDYFWVPVIAPFLGCTFGGFLYDTFIYTGDSPINAPYMGFTRFMGVRAKARRSTMV\*

**>Trichoderma\_pleuroti\_MDJU01000063.1**

MTSSRRALNESREDQDRSSLRRRSRTSRRSTFRSVAPITTAGQGTQFNLGASTDTPQLRTAHEPFVHPGYSDLNPSYEQPNNAKPVWSLAKPLPRVVRPGMVPTKNELLENCVNAELPAENSONLGLDVPNEIEKGRIEKSADLRKMGAQVADARQORENNFIKTILAADEAAASDGLPQLVKTRSSQRRATITRPSIQSPLYTVQEGELSEHTSERHKGSSESQRSAQGEGEFDPGPDDELIEGNRSLETLRLDQDAYPEDLHPLVQELVEDEIHNNHTIWSVIRTHHREALAESLAVFVQLTIGFCADLSVTVAKAGNPNTTDWAWGFATMIGIYISGGVSGAHLNPTITIMLWFFRGGFPKRKMPEYFLAQFLGAFCACFAYGVYVYSIKHYLLTGVDDDIVNCFVTSQRSSYINAPTALFNEFIGTMCLTIVVLALGDDQNAPPAGMNSLIIGLIITCLSMSFANQTGAALNPSRDFGPRLALLALGYTSELFTNPYWFYGPWAGTLLGSFMAFLYDFMIFTGGESPINYPLERTQRAFHKSGMKWRRRLRMTPKQEEERIV\*

**>Trichoderma\_pleuroti\_MDJU01000041.1**

MSSPTEQLNRLHTHDVELGTTDAVQKHISRNVPVPRRVSQRRLDFEHRRPRWLRECIAEATGVFMYVLPYGIGAITSFTINATNPIGSTAFGSLFSIGFALGIAFAIITCAPTSGGHFSPAVTIALWFWQGFPLKKVPYYIFSQLLGGFIAALVLMGIYHQQLDEMKEVLLAAGRPLVANGAPASVLCSPNPGQSMGYVFMTEFFCDCFVGLI IWACLDPANPFVSPSLAPLVIGLAYGAMAWGFAGANTLTMMNARDFGPRVVAIFYGREAFSYMNYAAIGIFTSIPATLISSAFYEFVMRDSLSVIGTGHAVHADGDEALVRHITRTTTVEGLEERSGEYKS\*

**>Trichoderma\_pleuroti\_MDJU01000371.1**

MHRIYSPRAPREPIRNEIVVVFGEFCGTFMFLLSMFIGTQAAIDNNDPGNPDAPLFFPFSLLYVASSFGAALAVNVWFYRVTGGMFNPAVSVLELLVGAVKPIRGLLIFPTQIVAGIAAAAVTDALLPGPLLANKLASGTSISRGLFIEMFLTAQLVITVYFLAVEKHRATFLAPLGIGLAVFIAHICGTNFTGTGINPARSFGPAVVTDFTGYQWIYWVGPFGLSLLAFAYVYILKWLEYHTANPGQDDNTVKKTPAGFSIPTGDRQYSNGGNGAKEHVPSDPRDSGVAQTSSAPQGFQAV\*

**>Trichoderma\_pleuroti\_MDJU01000245.1**

MASLQEKTTTHPAGDDSPPAARVSTASDQKPATSRMDLAADFDSFAPGVRPGAVRLTPWYRRRDYFVGQWADMSVWKSAAVEFVATSCVFLSGQIAATLEGYGTPOVGGYIGISNIILITATFIYATAPASGGHLNPMITFSAILTGLCSVPRGILYMCQGTLGGALAGGILLGVWGPKRATSLQGGGCWYDPSQANPGQIYLNEVFASFVLLFLSFGVGLDPRQALFVGPRMGPLLVGASLGLVSFATSGIIPGYAGAQMNPSCRCLAFGIARRDMSCQWVWVWFGPAVGGLMMGVFYKLIPHVELSKQKSKESSLNSMAGNTEVPEV\*

**>Trichoderma\_pleuroti\_MDJU01000029.1**

MANHLHRFTDRFKTALVIGLGEFCGTFMFLLSFMGAQAALDNRSDDGGKMDAATLLYIASSFGTALAVNVWVYRVTGGMFNPAVTLGLVLVGAVKPLRALIIVPMQIAAGIAAAGTVSGLLPGLGVNTSLGNSNTSIVQGLFIEMFLTAQLVLTVYFLAVEKHRATFLAPVGIGVSVFIAHMAGTNFTGTGINPARSLGPAVVVTGSFRGYHWIYWLGPCLGALLSFSVYSLKGLYQIANPGQDAGDPETANEEAIAAAEMGQEGLAMVRSRSMSPVNDTLLKKDRDAAMRRASIPEEGPVSAAEAV\*

**>Trireesei\_128546**

MDLAADFDSFAPAVRPREVRLAPWYRSRDYFVGQWLDVSVWKSAAVEMVATSCLVFLSGQITATIEGYGTPOVGGYIGISNIILLSTFIYATAPASGGHLNPMITFSAILTGLCSVPRGILYMSAQTLGGALAGGLLLGVWGHERRATSLQ

GGGCWYDPSQASPGQVYLNEVFSSFVLLFLSFGVGLDPRQAALFGPRMGPLLVGASLGLVTFSSSGIIPGYAGAQMNP SRCLAFGIARRNMSYQVWWF GPAVGGLIEALLYNLIPPHHTEL VKKQIGNDPDTMVGHTDIPTV\*

>Trireesei\_92240

MGNPNIHDAERAIFLTSPSLEEEELLAWSKIRNYCQDFFSEFLGTMTLILFGDGVVAQVVLSSGGTKGDYQSI SWGW  
GIAVMLGVYVGGKSGGHLNPAVTLANCLYRGHPWRKLPVYALAQLLGAMAGAAIVYGNYSAFDAFEGGAGIRTV  
TGPTATAGVFCTYPAPFMTRTGMFFSEFVASSILMFCIFALADPNNIGAGNLMPLCLFFLIFGIGACFGWETGYA  
INLARDFGPRLVSYMIGYGHEVWSAGGYFWIPMVAPFLGCAFGGFLYDVFI FTGPSPINTPMLGLQRLMRPRRS  
VWSNTHQSTIETKV\*

>Trireesei\_141480

MREPFSEFFGVILVLFGDGSIAQVVLGQGA GDWQNNINWG WALGLMLGVYCAGASGAHLNPAVTLANCYVRKFP  
WKKLPVYVLAQLLGAMIASLIVYGNYSKSAIDVYEGGQIRTVGLSTSTAGIFCTYPAPFLTKAGQFFDEFTGSAI  
LLFCLYALQDDGNIGAGNLLPLGLFFVYFYGIGACFGSNTGYAVNPARDLGPRIMTSAVGYGHQVWTAGDYFWVP  
IVAPFLGCLFGGFLYDTFLFTGDS PNMNLPYMGLTRVWGNRTKTGKPVMDSVISHKHS\*

>Trireesei\_102402

MSSPDLNRLHTHDLELGTTEVVQKHATRNVPPRRVSQRRLD FEHARPRWLRECIAEATGVFMYVLP GIGAIASF  
TFNATNPIGSTAFGSLFSIGFAFALGIAFAIITCAPTSGGHFSPA VTIALCVWQGFPLKKVPHYIFSQLLGGFIA  
ALVLMGIYHQQIVEMKEALLAAGEPLVANGAPASILCSFPNPNQTMGYVFLTEFFC DCFVSLI IWACLDPANPFV  
SPAIAPLVIGLAYGAMAWGFGANTLSMNTARDLGPRVVA AIFFGSEAFYKKNYAPIGILASIPAMLVATAFYELV  
MKDSLNI IETGHAVHEDGDEALVRHITRTTTTVDEKH\*

>Trireesei\_67036

FKTALVIAVGEFCGTFMFLLLSFMGAQTALNSSGGNLDAP TLLYIASSFGTALAVNVVVFYRVTGGMFNPAVTLG  
LVLVGAVKPLRALYIFPSQLIAAIAAAAVTDGLLPGPLGVTNGLSGSTS VVQGLFIEMFLTAQLVLT VYFLAVEK  
HRATFLAPVGIGVSVFI AHMAGTNFTGTGINPVRS LGPAIVTGNFHGYHWIYWLGPVLGALLSFGVYSLLKVLEY  
QVANPGQD

>Trireesei\_129514

MAFPGLSKRQHSAPNGGESRDREHFHPTPMQKHLIAAVGEFVGTFFFLWFGYAGSMQYTKLATLSPSSPGGMDDT  
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ANSLSSDTSIAQGLFIEMFFTAFLV FVVLM LAVERSRYTFIAPVGIGLALFVVMLAGTSYTGASLNPARSFGCA  
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>Trireesei\_143256

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TAQLVITVYFLAVEKHRATYLA PLGIGLAVFIAHICGTNFTGTSINPARSFGPAVVTDFTGYQWIYWLGPFLGSF  
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V\*

>Trivi\_8824

MDLAAFDSFAPGVRPHAVRLTPWYRSRDYYIGQWLDLSVWKS AVVEFIATCCMVFLSGQITATLESYGTPQVGG  
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GGGCWYDPSQANPGQIYLNEVFASFVLLFLSFGVGLDPRQAALFGPRMGPLLVGASLGLVSFSTSGIIPGYAGAQMNP  
SRCLAFGIARQNMAYQWIWWF GPAVGGLMMGVLYNLIPPHHTELSKQKS KESHSSSIVGHTEIPTV\*

>Trivirens\_160074

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ATFFARLATLPRCILYVGFTFGGAMAGLLLRASFDTRSFSVPGCYFDSTIVSTGS AFAIEFITDFALIFLSFGV  
GLDPRQRSVFGPALGP I FVGLVLGMCTFVTGFSRVGYTGFSGNPARCFGAMVGSHFAPYHWIYWVAPLSASAIHG  
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>Trivirens\_87413

MREPFSEFFGVMI LVLFGDGSVAQVVLGKGAKGDWNNINWG WALGVMLGVYCGGVSGAHLNPAVTLANCIFRKFP  
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LMFCLYALLDDGNIGAGNLTPLGLFFVIYIGIGACFGSNTGYAINPARDLGPRIMSHAVGYGHQVWTAGDYFWIP  
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>Trivirens\_140684

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KV\*

>Trivirens\_41159

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**>Trivirens\_66182**

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FTVNATNPVGSTAFGSLFSIGFAFALGIAFAIITCAPTSGGHFSPAVTICLCIWQGFPLKKVPHYILSQLFGGFI  
AALVLMGIYHQOLEEMKEVLLAAGKPLVANGAPASVLCSPNPGQSMGYVFMTEFFCD CFVGLIIWACLD PANPF  
VSPSLAPLLIGLAYGAMAWAFGANTLTMTNMARDFGPRVVA AIFYGREAFSYMNYAAIGIFTSIPATLISSAFYEF  
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**>Trivirens\_228188**

MHRIASPRAPREGIRNEIVVVFGEFCGTFMFLLSMFIGAQAAIENNDPGNP NAPLPFPFSLLYIAASFGSALAVNV  
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QAV\*

**>Trivirens\_6760**

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**>Necha2\_72760**

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**>Necha2\_67872**

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**>Necha2\_90431**

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VLT VYFLAVEKHRSTYLAPIGIGISVFISHICGTNWTGTSINPARSFGPAVV TGFVGYHWIYWVGPFMG TLLAFG  
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**>Necha2\_51592**

MATSDEAGVLDGPHHQYQLSPVGRHLVAASGEFVG TFFFLYFGYAGNLMAALQAPDTAPNGGLASTTDI WIAVS  
YGFSLLVNAWAFYRISGGLFNPAVSLGLCVGGQLSWTRAAFLFPAQVLG SICAGGLVDAMFPGRVEQANTLLGLN  
TSIAQGVFLEMFFTAQLVFVVLMLAAEKSRDTFLAPVGIGLALFVALIPGVSVTGG SANPVRSFGCAVAGASFP  
G YHWIYWVG PALGATLAALYYRLVKRLHYEEANPGQDSPHEV\*

**>Necha2\_93338**

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SRRSNCPSPAFMNRRTAAHDSDEDLYNDDLRYAKDPFEITRGRRLTDEEMGYHPGRINHQR RPSSSHGVNLASG  
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KSPSIRS\*

**>Fusacuminatum\_CBMG010003518.1**

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**>Fusacuminatum\_CBMG010003683.1**

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**>Fusacuminatum\_CBMG010000926.1**

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LLVTNALGNGT SIAQGVFIEMFLTAQLVLT VYFLAVEKHRSTHLAPIGIGISV FIAHICATNWTGTSINPARSFG  
PSVVAGFNGYDWIYYVGPFGMSLLAFGCYKIFKVLEYQTANPGQDDDDLERNSSGGHHFFKREKEEPPVSHSHTDMI  
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**>Fusacuminatum\_CBMG010000883.1**

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**>Fusacuminatum\_CBMG010000225.1**

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LASVIVRYLFPETFNVRTTLGGGASLVQGVFIEALLTAELVFTIFMLAKEKHRATFIAPVGIGLALFIAEMVGVO  
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**>Fusacuminatum\_CBMG010002146.1**

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CVAIFLGLTGTLSVNL SAKQSQGYGTYETSCWAWGFAWMFGIYLG GGVSGAHMNP AISISLSLFRGFPWKQCLVY  
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**>Fusavenaceum\_JQGD01000013.1**

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**>Fusavenaceum\_KIL87348.1**

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**>Fusavenaceum\_KIL88092.1**

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PSVVAGFNGYDWIYYIGPFGMSLLAFGCYKIFKVLEYQTANPGQDDDDLERNSSGGHHFFKHEKEEPPVSHSHTDMI  
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**>Fusavenaceum\_KIL87632.1**

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MCAGGLVDAMFPGNLSLANTVLGPDTSVVQGVFLEMFFTAQLVFVVLMLAAEKSRDTFMAPIGIGLALFVALIPG  
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**>Fusavenaceum\_KIL89865.1**

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FTGGS LNPARSFGPCVITGTFDSEHWIYWVGPF IGSLI AVCFYWFIKTLEYEMANPGADGDDLNDPTKNPEKRAE  
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**>Fusavenaceum\_JPYM01000003.1**

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**>Fuscircinata\_AYJV01002164.1**

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VSATLLLF LAFGVGLDPRQAKIIGPALGPFMVGLSVGTMSFASAFARYGYGGAGMNP ARCMGAFVGS RFPSWHW  
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**>Fuscircinata\_AYJV01002992.1**

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LMPLGLFFLIFGIGACFGWETGYAINLARDFGPRLVSYMIGYGSEVWSAGGYFWIPMVAPFMGCAFGGLLYDVF  
IYTGPSPI NTGMLPRLSPRRSTWSNTYSASSPV\*

**>Fuscircinata\_AYJV01001480.1**

MVQFTRADTGMSGLPTEEAVADRRAGSPIPNRVRNAIVIVLGEFCGTFMFLLLSFIGAQTALVTN NPTNSTAPLE  
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SVVAGFHGYDWIYYLGPFGMSFLAFGCYKIFKVLEYQTANPGQDDDDL ERGSKHHFFDHHEKEPIAHSQTD TLEP  
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**>Fuscircinata\_AYJV01003071.1**

MANAAEVQGAN GHQH HHKQOR THLSEFGTHMVAASGEFVGTFFFFLYFGYAGNIIAVLQEPATGPNGTLANNTIIW  
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**>Fuscircinata\_AYJV01000611.1**

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**>Fuscircinatum\_JRVE01000048.1**

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**>Fusculmorum\_CBMH010000861.1**

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CFGAVSGAHFNPLITFATFCARLCSLPRMILYIPAQVGGAA LAGLLVRASWGRDFKAGGCWLFTEVVPAREAFV  
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**>Fusculmorum\_CBMH010000823.1**

MPISTIND SISESSVHKSSIPTKVEMSQNEKYSEAPSEAPTIPPPPEQYAWSRIRENCQDAFSEFFGT FVLLLF  
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AAVVYGNYSKSAIDAYEGGPGIRTVIGENATAGVFCTYPAEFMTRTGMFFSEFIASTILQFVIFAMADSANIGAGP  
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GRSILWLFCFWWFSV\*

**>Fusculmorum\_CBMH010000147.1**

MVQFGSRANTNMTGLPTEQAVADRRVGNPKRDRMRNAIVIVIGEF CGTFMFLLLSFIGTALVTNSPSDAGSPLLP  
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VTNALGNGTSVAQGVFIEMFLTAQLVLT VYFLAVEKHRSTHLAPIGIGISV FIAHICATNWTGTSINPARSFGPS  
VVAGFHGYDWIYYIGPFMGSLLAFGCYKIFKVLEYQTANPGQDDDNLDRSGHHHFFGHGKEPMPRTHDTTIEPKD  
HGVPQRNDSVIDDQMV\*

**>Fusculmorum\_CBMH010000781.1**

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LVNAMFPGSASIAN TT L GPDTSIAQGVFLEMFFTAQLVFVVLMLAAEKSRDTFLAPVGIGLALFVALIPGVFVTG  
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**>Fusculmorum\_CBMH010001238.1**

MSSSILNRSARSTPAGANPAFNPPAEASSSSTQSGVPYIRENSPEAESIPSNPAMTPIITHGDSL ASPGGRNSEA  
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TSTLNGFNITTTGKLQWNLRSQEKSEIMRLPLTQWMNSNFKNH FVAGVGEF IGTTMFLFFAFAGTEVANI QADTT  
NRTTGTGESTGLNVSKLLYISIIFGFSLMVNVWVFFRISGGLFNPAVTMAMLMVKAISVTRAI VLF LAQILGSML  
ASVVVRYLFPETFNVRTTLGGGASLVQGVFIEALLTAELVFTIFMLAKEKHRATFIAPVGIGLALFIAEMVGVQF  
TGGSLNPARSFGPCVITGSFDETHWIIYWGPAIGSLIACVFWFIKTLEYEMANPGADGDDLNDPTKNPEKRAEI  
QASKPVPTAAFGSGKTASILS\*

**>Fusculmorum\_CBMH010000770.1**

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VDEEMAIVKEETINEPHPGYASRTTSGQPYRVETQSSSLPSRDIQRQQSRTTAAGVAHNDRRNDAGQPVFEYIPGE  
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VQFIASIVAGALAYAMYADSINHVD PMTKMSMTFFSTPREWVTLKSAFFNQVVGSAIMMIAVFALGDDQNNPPG  
AGMHALVLGFLVTTLKFTLGYNIGSALNPASDFGPRVIAYAVGFRGDNV FHSWWFYGPWAATLIGSILGCTLYD  
GFVFGSESPINFRLDKRVKLLN\*

**>Fusequiseti\_CBMIO10004636.1**

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MRTIANINLWKAALIEGIGTLMFVYITSWANASPDVIPTRPTAQLGNFDNAAFLGPLIGGILNFLFVTLF IASFG  
AISGAHFNPLITFATFCARLCSLPRMVLYISAQVGS SALAGLLVRASWGG RDFKVGGCWLYTDVVP PREIFVVEL  
VSATLLFLAFGVGLDPRQAKVIGPSLGPFLVGLSVGTMSFATAFTRYGYGGAGLNPARCMGAFVGS RFPGWHWI  
HWVADGIACIVHGLCYFIPPWAEVRN\*

**>Fusequiseti\_CBMIO10002872.1**

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AFIVYGNYSKSAIDAYEGVGVRTVIGENATAGIFCTYPAEFMTRTGMFFSEFIASTILQFVIFAMADSANIGAGPL  
MPLGLFLIFIGIGACFGWETGYAINLARDFGPRLVSYMLGYGSEVWSAGGYFWIPMVAPFLGCAFGALLYD VFI  
YTGPSPINTPGMGLPRLLSRRSTWSNTYSANSPV\*

**>Fusequiseti\_CBMIO10000078.1**

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LVTNALGNGTSVAQGVFIEMFLTAQLVLT VYFLAVEKHRSTHLAPIGIGISV FIAHICATNWTGTSINPARSFGP  
SVVAGFHGYDWIYYIGPFMGSLLAFGCYKIFKVLEYQTANPGQDDDDIERASRHHFFHHGKEPVSHSHTDTTIEPK  
DHGVPQRNDSVIDGQMAPV\*

**>Fusequiseti\_CBMIO10004009.1**

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TSIVQGVFLEMFFTAQLIYVVLMLAAEKSKDTFMAPIGIGLALFVALIPGVPTGGSANPARSFGCAVAGTDFPG  
YHWIYWVGPCLGAGLAAGYFRLVKRLHYEEANPGQDDAYDA\*

**>Fusequiseti\_CBMIO10004298.1**

IVFRSARSTPAVANSAFSPPAEAPSSSTQERGSIVRDN SPEAESLPSNPAVTP IITHGDNLASPNGRSSEADTVV  
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YYRTEGRNDRERYTRRGYPYPPPSHMNRRRAPPHDSDEEFYSSDDPRLPPNGGRRMMDEELGYSGRPYAFRRSTL  
NGFNITTTGKLQWNLRSQEKSEIMRLPLTQWMNSNFKNH FVASMGEF IGTTMFLFFAFAGTEVANI QADTNNRTT  
TGESTGSLNVSKLLYISIIFGFSLMVNVWVFFRISGGLFNPAVTMAMLMVKAISITRAICLFLAQILGSMLASVV  
VRYLFPETFNVRTTLGGGASLVQGVFIEALLTAELVFTIFMLAKEKHRATFIAPVGIGLALFIAEMVGVQFTGGS

LNPARSFGPCVITGSFDESHWIYWVGPAIGSLIAVCFYWFIKTLEYEMANPGADGDDLNDPTKNPEKRAEIQAAK  
PAVVPTAAFGTGKTASILS\*

**>Fusequiseti\_CBM1010001576.1**

MPGPQEQNHDFYSKPTTPSTPGQVHLGNVANRIPSTISDREGTDRSKSTNSKRHVLHGLPTSFMSRMSRRPATSN  
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EEMAIVKEEPTNEPHPGYTSRTNSGOPYRMOTQSSLOSREMQRQSRRTASGVANDKRNDAQOPVFDYVPSEAA  
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FLGLTGTLNVLSAKQSQSYGTYETSCWAWGFAWMFGIYLGGSVGAHMNPAISVLSIFRGGFPWKQCGIYIIAQ  
FVASIAAGALAYAIYADSIHYVDPDMTGLSMTFFSTPREWVTLKSAFFNQVVGSAIMMIAVFALGDDQNNPPGAG  
MHALVLGFLVTTLKFTLGYNIGSALNPASDFGPRVVAYAVGYRQENVFHSWWFYGPWAATLIGSILGCALYDSF  
VFVGSESPVNRFRGKRVKLL\*

**>Fusfujikuroi\_ANFV01000069.1**

MAVTNRRKARDSGDVEARPSSEPSGPHYRSNSQPFAGRLGANQAYVVEGGTSEDDHLLHHAPDATPHMSFWELMD  
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AISGAHFNPLITFATFCARLCSLPRILYVAAQLGGGALAGLLVRASWGGRDFKVGGCWLFTDIVPPREIFVVEL  
VSSTLLLFLAFGVGLDPRQAKIIGPALGPFMVGLSVGTMSFASAFARYGYGGAGLNPARCMGAFVGSFSPSWHWI  
HWVADGTACIIHGVCYYFIPPWTEVRQ\*

**>Fusfujikuroi\_ANFV01000060.1**

MPIPTMNDISIESSVHKSSIPTKVEMSQNEKYSEAPSEPTIPPPPEQYAWSRVREYCQDAFSEFFGTFFILLFG  
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**>Fusfujikuroi\_CCT62977.1**

MVQFTRTDTGMSGLPTEEAVADRRAGSPIPNRVRNAIVIVLGEFCGTFMFLLLSFIGAQ TALVTNNPTNSTAPLE  
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LVTNALGNGTSLAQGVFMMFLTAQLVLTVYFLAVEKHRSTH LAPIGIGISVFI AHICLTNWTGTSINPARSFGP  
SVVAGFHGYDWIYYLGPFGMSFLAFGCYKIFKVLEYQTANPGQDDDLERGSKHFFDHEKEPIAHSQTDLTLEP  
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**>Fusfujikuroi\_CCT74579.1**

MASAAEVQGANFGNGHHQHRQRTHLSEVGTHMVAASGEFVGTFFFLYFGYAGNIVAVLQEPATGPNGLTNNTI  
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TTLGPNTSLAQGVFLEMMFTAQLVFVVLMLAAEKSRDTFLAPIGIGLSVFVALIPGVFVTGGSLNPVRSFGCAVG  
GRDFPGYHWLYWVGPLLGGALAAGYFRLVKMMHYEEANPGQDSPVDV\*

**>Fusfujikuroi\_CCT71530.1**

MSSSIQSR SARSTPAINASAFNPPEANGSSNERVPFMRDNSPEADSLPSNPALTPVITHGDNPPVSNRNSEADTV  
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WRNEGRNDRYTARRGPYPPTFMNRRRAHPHDSDEEFYSSDDPRMPPTGGRRMMDEEMGYPHRPFHRRASTLNG  
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YLFPETFNVRTTLGGGASLVQGVFIEALLTAELVFTIFMLAKEKHRATFIAPVGIGLALFIAEMVGVOFTGGSLN  
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SIAFGGKTPSIRS\*

**>Fusfujikuroi\_JRVG01000144.1**

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DEEMAIVKEDSEDTPAGYASRTTSGOPYRMHTQTSIGSRDMQNQQSRRTAAGVAHNEKRNDAQOPVFDYVPGEAT  
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IFLGLTGTLNVLSAKQSQTYGTYETSCWAWGFAWMFGIYLGGSVGAHMNPAISISLSLFRGGFPWRQCFIYILA  
QFIASIVAGALAYGIYADSIHYVDPMDGMSKTFSTPREWVSLQSAFFNQVVGSAIMMIAVFALGDDQNNPPGA  
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**>Fusgraminearum\_HG970333**

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ISGAHFNPLITFATFCARLCSLPRMILYIPAQIGGAALAGLLVRASWGGRDFKTGGCWLFTTEVVPAREAFVIELV  
FSTVLLFLAFGVGLDPRQAKIIGPALGPFLVGLSVGTMSFGSAFTRYGYGGAGMNP ARCMGAFVGSRRFSPSWHWIH  
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**>Fusgraminearum\_XP\_011322503.1**

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AAVVYGVNYKSAIDAYEGGPGIRTVIGENATAGVFCTYPAEFMTRTGMFFSEFIASTILQFVIFAMADSANIGAGP  
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**>Fusgraminearum\_XP\_011316524.1**

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**>Fusgraminearum\_XP\_011322016.1**

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LVNAMFPGSASIANNTLGPNTSIAQGVFLEMFFTAQLVFVVLMLAAEKSRDTFLAPVGIGLALFVALIPGVFVTG  
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**>Fusgraminearum\_XP011325579.1**

MSSSILNNRSARSTPAGANPAFNPPAEASSSSTQSGVPYIRENSPEAESIPSNPAMTPIITHGDSLASPGRNSE  
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LASVVVRYLFPETFNVRTTLGGGASLVQGVFIEALLTAELVFTIFMLAKEKHRATFIAPVGIGLALFIAEMVGVQ  
FTGGS LNPARSFGPCVITGSFDTHEHWIYWVGPAIGSLIAVCFYWF IKTLEYEMANPGADGDDLNDPTKNPEKRAE  
IQASKPVPTAAFGSGKTASILS\*

**>Fuspseudograminearum\_EKJ77666**

MGITMRQANSHEARDGEIESRPSFEPTGPRFQSNDLPFAGRLGANQAYVVDGTTSEDEKLLEHQDPATPHMSFRE  
LVDVRPITNIDLWKAAMIEGIGTLLSVFVTIWASSSPDVIPAQPTRQLGNFDNAAFIGPLVGGIINVILITLFTIT  
CFGAVSGAHFNPLITFATFCARLCSLPRMILYIPAQVGGAAALAGLLVRASWGGRDFKTGGCWLTFEVVPAREAFV  
IELVFSTVLLFLAFGVGLDPRQAKIIGPALGPFVLVGLSVGTMSFGSAFTRYGYGGAGMNPARCMGAFVGSRRFPWS  
HWIHWVANFIACIAHGICYFYFIPPWTQVKG\*

**>Fuspseudograminearum\_XP\_009259022.1**

MPISTINDSISESVHKSSIPTKIEMSQNEKYSEAPSEAPTIPPPPEQYAWSRIRENCQDAFSEFFGTFVLLLLFG  
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AAVVYGVNYKSAIDAYEGGPGIRTVIGENATAGVFCTYPAEFMTRTGMFFSEFIASTILQFVIFAMADSANIGAGP  
LMPLGLFFLIFGIGACFGWETGYAINLARDFGPRLVSYMLGYGSEVWSAGGYFWIPMVAPFFGCAFGGFLYDVF  
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**>Fuspseudograminearum\_XP009261345.1**

MVQFGSRTDASMTGLPTEQAVADRRVGNPKRDRIRNAIIVILGEFCGTFMFLLLSFIGAQ TALVTNSPSDPGSAL  
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LLVTNALGNGTSVAQGVFIEMFLTAQLVLTVYFLAVEKHRSTHLAPIGIGISVFI AHICATNWTGTSINPARSFG  
PSVVAGFHGYDWIYYIGPFMGSLLAFCGYKIFKVLEYQTANPGQDDDDLKSGHHHFFGHGKEPMPHTHTDTTIEP  
KDHGVPQRNDSVIDDQMV\*

**>Fuspseudograminearum\_XP\_009253247.1**

MADTYGMNGHNGHAKHRRSSMNGRNRLYAQQEPQRTSHLSEFGKHMVAASGEFVGTFLLYFGYAGNIVAVLQE  
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LVNAMFPGSASIANNTLGPNTSIAQGVFLEMFFTAQLVFVVLMLAAEKSRDTFLAPVGIGLALFVALIPGVFVTG  
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**>Fuspseudograminearum\_XP\_009260256.1**

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IQASKPVPTAAFGSGKTASILS\*

**>Fuspseudograminearum\_JTGC01000315.1**

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IFLGLTGTL SVNLSAKQSQPYGTYETSCWAWGFAMWFGIYLGGSVSGAHMNP AISVSLSIFRGFPWKQCAIYV FV  
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GMHALVLGFLVTTTLKFTLGYNIGSALNPASDFGPRVIAAYAVGFRGDNVHSGWWFYGPWAATLIGSLLGCTLYDG  
FVFVGSESPVNFRVDKRVKKLFN\*

**>Fusoxysporum\_5361**

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AISGAHFNPLITFATFCARLCSLPRLLILYVAAQIGGAALAGLLVRASWGGRDFKVGGCWLFTDIVPPKEIFVVEL  
VSATLLLLFLAFGVGLDPRQAKIIGPALGPFMVGLSVGTMSFASAFARYGYGGAGLNPARCMGAFVGSRRFPSWHWI  
HWVADGIACIIHGVCYFYFIPPWTEVRQ\*

**>Fusoxysporum\_3231**

MNDSISESSVHKSSIPTKVEMSQNEKYSEAPSEPPTIPPPPEQYAWSRVREYCQDAFSEFFGTFILLLLFGDGVVA  
QVVLRSRGTGKDYQSIISWGWLGVMLGVYVGGKSGGHLNPAVTLANCIFRGHPWRKFPVYAVAQVLGAMCAAHVY  
GNYKSAFDAYEGGPGIRTIVIGENATAGVFCTYPAEFMTRTGMFFSEFIASITLQFVIFAMADSANIGAGPLMPLG  
LFFLIFGIGACFGWETGYAINLARDFGPRLVSYMIGYGSEVWSAGGYFWIPMVAPFMGCAFGGLLYDVFIYTGP  
SPINTPGMGLPRLLSPRRSTWSNTYSASSPV\*

**>Fusoxysporum\_1148**

MVQFTRADTGMSGLPTEEAADRRAGSPIPNRVRNAIVIVLGEFCGTFMFLLLSFIGAQ TALVTNNPTNSTAPLE  
PFSLMYIAASFGTALAVNVWIFYRVSGGMFNPAVTLGLVLVGAVPPLHALAIIPTQLVAAIAAGVTDGLIPGPL  
LVTNSLGNGTSLAQGVFLEMFLTAQLVLTVYFLAVEKHRSTHLAPVGIGISVFI AHICLTNWTGTSINPARSLGP  
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**>Fusoxysporum\_2910**

MASAAEVHGANGFNHHHHHKQORTHLSEFGTHMVAASGEFVGTFFFFLYFGYAGNIIAVLQEPATGPNGTLASNT  
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NTTLGPNTSLAQGVFLEMFFTAQLVFVVLMLAAEKSRDTFLAPIGIGLSVFVALIPGVFVTGGSLNPVRSFGCAV  
GGRDFPGYHWLYWVGPLLGGALAAGYFRLVKVMHYEEANPGQDSPVDV\*

**>Fusoxysporum\_5739**

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FYSSDDPRMPPTGGRMMDEEMGYPHRPFHRRASTLNGFNISTGKLEWSNLSPEKKEIMRLPLTQWMNSNFKN  
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FNPAVTIAMLMVKAISMTRAICLFLSQILGSMLASVMVRYLFPETFNVRTTLGGGASLVQGVFIEALLTAELVFT  
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**>Fusoxysporum\_12344**

MTGHQDQONQNDHYFSKPTTPSTPGQVHLGNVASRIPSTISDRETGEPRAKSTHSRRRGHGLPSSFVSRMSKRP  
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KVDEEMAIVKEESEDTPAGYASRTTSQGOPYRTHQTSTISREMQNQQSRRTAAGVAHNEKRNDAGQPVFDYVPGE  
ATPAAIPSYRDPASRVASHQQSNNQPDYKIDGEPLGQOQEKPEVEAGETDPNEMRNWWARIRAKHPEPLAEFLATS  
VAIFLGLTGTL SVNLSAKQSQSYGTYETSCWAWGFAWMFGIYLGGGVSGAHMNPASISLSLFRGFPWRQCFIYI  
LAQFIASIVAGALAYGIYADSIHYVDPEMDGMSKTFSTPREWVSLQSAFFNQVVGSAIMMIAVFALGDDQNNPP  
GAGMHALVLGFLVTTTLKFTLGYNIGSALNPASDFGPRVVAYAVGYRGSN\*

**>FusLycopersici\_AAXH01000716**

MTATNRRKARDSGDVEARPSSEPSGPHYQSYSQPFAGRLGANQAYVVEGGTSEDDHLLHHAPDATPHMSFWELMD  
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AISGAHFNPLITFATFCARLCSLPRLLILYVAAQIGGAALAGLLVRASWGGRDFKVGGCWLFTDIVPPKEIFVVEL  
VSATLLLLFLAFGVGLDPRQAKIIGPALGPFMVGLSVGTMSFASAFARYGYGGAGLNPARCMGAFVGSRRFPSWHWI  
HWVADGIACIIHGVCYFYFIPPWTEVRQ\*

**>Fuslycopersici\_EXL45426.1**

MLDDANPLSVTCLSCIRQTSPLSISRSSSQAHSRMPIPTMNDSESSVHKSSIPTKVEMSQNEKYSEAPSEPPT  
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LNPAVTLANCIFRGHPWRKFPVYAVAQVLGAMCAAHVYGYNYKSAFDAYEGGPGIRTIVIGENATAGVFCTYPAEF  
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YGSEVWSAGGYFWVSPTTIPRLSISTDSEIQIPMVAPFMGCAFGGLLYDVFIYTGPSPINTPGMGLPRLLSPRR  
STWSNTYSASSPV\*

**>Fuslycopersici\_AGBH01000103.1**

MVQFTRADTGMSGLPTEEAADRRAGSPIPNRVRNAIVIVLGEFCGTFMFLLLSFIGAQ TALVTNNPTNSTAPLE  
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SVIAGFHGYDWIYYLGPFGMSFLAFGCYKIFKVLEYQTANPGQDDDDLERGSKHHFFGHHEKEPISHSQDTDTLEP  
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**>Fuslycopersici\_EWZ86261.1**

MASAAEVHGANGFNHGPHHHKQORTHLESEFGTHMVAASGEFVGTFFFLYFGYAGNIIAVLQEPATGPNGLTANNT  
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NTTLGPNTSIAQGVFLEMFFTAQLVFVVLMLAAEKSRDTFLAPIGIGLSVFVALIPGVFVTGGSLNPVRSFGCAV  
GGRDFPGYHWLYWVGPLLGGALAAGYFRLVKMMHYEEANPGQDSPVDV\*

**>Fuslycopersici\_AAXH01000387.1**

MGPTAEKNGHDDLGHPRGHLSTFNAHLVAASGEFVGTFFFLYFGYAGNMAVLQSPYPAINGGLASTTDTWIAIS  
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TSIAKGVFLEMFFTAQLIFVVLMLAAEKSRDTFLAPIGIGLALFVALIPGVFVTGGSLNPVRSFGCAVGGRDFPG  
YHWLYWVGPLLGGALAAGYFRLVKMMHYEEANPGQDSPVDV\*

**>Fuslycopersici\_AAXH01000729.1**

MSLDPLPTIETTLTSSSPSDMSSSIQSRARSTPAINASAFNPPEANGSSNERVPFMRDNSPEADSLPSNPALTP  
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EDYDFDQAADYPTVSDYERYWRNEGRNDRYTARRGPYPPTFMNRRRAHPHDSDEEFYSSDDPRMPPTGGRMMD  
EEMGYPHRPFHHRRASTLNGFNIISTGKLEWSNLSPEKSEIMRLPLTQWMNSNFKNHVFASLGELIGTTFMFLFFA  
FAGTEVANIQAQTDSTTTGESTGSLNVSKLLYISIIIFGFSLMNVVWVFFRISGGLFNPAVTIAMLMVKAISMTR  
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GLALFIAEMVGVQFTGGSLNPARSFGPCVITGTDFDEHWHYWVGPGIGSLIACVCFYWFIKTLEYEMANPGADGDD  
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**>Fuslycopersici\_MALP01000202.1**

MTGHQDQNHDFYSKPTTPSTPGQVHLGNVASRIPSTISDRETGEPRDRAKSTHSRRRGLHGLPSSFVSRMSKRPI  
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GMHALVLGFLVTTLKFTLGYNIGSALNPASDFGPRVVAYAVGYRGSNVFHSWWFYGPWAATLIGSVVGCALYDG  
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**>Fusvasinfectum\_AGNC01000296.1**

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VSATLLLLFLAFGVGLDPRQAKIIGPALGPFMVGLSVGTMSFASAFARYGYGGAGLNPARCMGAFVGSRFPSSWHWI  
HWVADGIACIIHGVCYFYFIPPWTEVRQ\*

**>Fusvasinfectum\_EXM16766.1**

MLDDANPLSATCLSCIROTSPLSVSRSSSQAHSRMPIPTMNDISSESVHKSSIPTKVEMSQNEKYSEAPSEPPT  
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LNPAVTLANCIFRGHPWRKFPVYAVAQVLGAMCAAAVYVGNYSKSAFDAYEGGPGIRTIVIGENATAGVFCTYPAEF  
MTRTGMFFSEFIASITLQFVIFAMADSANIGAGPLMPLGLFFLIIFGIGACFGWETGYAINLARDFGPRLVSYMIG  
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**>Fusvasinfectum\_AGNC01000077.1**

MVQFTRADSGMSGLPTEEAVADRRAGSPIPNRVRNAIVIVLGEFCGTFMFLLLSFIGAQ TALVTNNPTNSTAPLE  
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LVTNSLGNSTSIYQGLFLEMFLTAQLVLTVYFLAVEKHRSTHLAPVGIGISVFIHICLTNWTGTSINPARSLGP  
SVIAGFHGYDWIYYLGPFGMSFLAFGCYKIFKVLEYQTANPGQDDDDLERGRKHHLFGHHEKEPISHSQDTLEP  
KDHGVAPRNDSDIDGQMSNA\*

**>Fusvasinfectum\_AGNC01000348.1**

MASAAEVHGANGFNHGHHHHKQORTHLESEFGTHMVAASGEFVGTFFFLYFGYAGNIIAVLQEPATGPNGLTANNT  
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**>Fusvasinfectum\_EXM26604.1**

MSLDPLPTIETTLTSSSPSDMSSSIQSRARSTPAINASAFNPPEANGSSNERVPFMRDNSPEADSLTSNPALTP  
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EDYDFDQAADYPTVSDYERYWRNEGRNDRYTARRGPYPPTFMNRRRAHPHDSDEEFYSSDDPRMPPTGGRMMD  
EEMGYPHRPFHHRRASTLNGFNIISTGKLEWSNLSPEKSEIMRLPLTQWMNSNFKNHVFASLGELIGTTFMFLFFA  
FAGTEVANIQAQTDSTTTGESTGSLNVSKLLYISIIIFGFSLMNVVWVFFRISGGLFNPAVTIAMLMVKAISMTR  
AICLFLSQILGSMLASVMVRYLFPETFNVRTTLGGGASLVQGVFIEALLTAELVFTIFMLAKEKHRATFIAPVGI  
GLALFIAEMVGVQFTGGSLNPARSFGPCVITGTDFDEHWHYWVGPGIGSLIACVCFYWFIKTLEYEMANPGADGDD  
LNDPTKNPEKRAEIQSNAAPSIAGGGKTPSIRS\*

**>FusVasinfectum\_AGNC01000196.1**

MTGHQDQNHDFYSKPTTPSTPGQVHLGNVASRIPSTISDRETGEPRDRAKSTHSRRRGLHGLPSSFVSRMSKRPI  
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DEEMAIVKEESEDTPAGYASRTTSGQPYRMHTQTSIASREMQNQQSRTTAAGVAHNEKRNDAGQPVFDYVPGEAT  
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IFLGLTGTLNVLSAKQSQSYGTYESCSAWGFAWMFGIYLGGSVSGAHMNPASISLSLFRGFPWRQCFIYILA  
QFIASIVAGALAYGIYADSIHYVDPEMDGMSKTFSTPREWVSLQSAFFNQVVGSAIMMIAVFALGDDQNNPPGA  
GMHALVLGFLVTTLKFTLGYNIGSALNPASDFGPRVVAYAVGYRGSNVFHSWWFYGPWAATLIGSVVGCALYDG  
FVFGSESPINFRFSKEIKNRAN\*

**>Fusverticilliioides\_AAIM02000133.1**

MAVTNRRNARDSSDVEARPSLEPSGPRYRSNSQPFAGRLGANQAYVVEGGTSKDDHLLHHAPDATPHMSFRELM  
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AISGAHFNPLITFATFCARLCSLRLILYVAAQIGGGALAGLLVRASWGGGRDFKVGGCWLFTDIVPPREIFVVEL  
VSATLLFLAFVGGLDPRQAKIIGPALGPFMVGLSVGTMSFASAFARYGYGGAGLNPARCMGAFVGSRFPGWHWI  
HWVADGTACIIHGVCYFIFPPWTEVRQ\*

**>Fusverticilliioides\_EWG48857.1**

MNDSISESSVHKSSIPTKVMESQNEKYSEAPSEPPTIPPPPEQYAWSRVREYCQDAFSEFFGTIFILLFSGDVVA  
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GNYKSAFDAYEGGPGIRT VIGENATAGVFCTYPAEFMTRTGMFFSEFIASITLQFVIFAMADSANIGAGPLMPLG  
LFFLIFIGIGACFGWETGYAINLARDFGPRLVSMIGYSEVWSAGGYFWIPMVAPFLGCAFGGLLYDVFIYTG  
SPINTPGMGLPRLSPRRSTWSNTYSASSPV\*

**>Fusverticilliioides\_EWG36264.1**

MVQFTRANSGMSGLPTEEAVADRRAGSPIPNRVRNAIVIVLGEFCGTFMFLLLSFIGAQTALVTNNPTNSTAPLE  
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LVTNALGNGTSIAQGVFMEMFLTAQLVLTVYFLAVEKHRSTHLAPIGIGISVFI AHICLTNWTGTSINPARSFGP  
SVVAGFHGYDWIYYLGPFGMSFLAFGCYKIFKVLEYQTANPGQDDDDLERGSKHHFFEHHEKEPIAHSQTDLTLEP  
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**>Fusverticilliioides\_EWG49201.1**

MANAAEVQAANGFNHGHKKQKTHLSEFGTHMVAASGEFVGTFFFFLYFGYAGNIIAVLQEPATGPNGTLANNT  
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**>Fusverticilliioides\_EWG52904.1**

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**>Fusverticilliioides\_AAIM02000170.1**

MTGHQEQNHDFYSKPATPSTPGQVHLGNVASRIPSTISDREAQPDRAKSTHSRRRALHGLPSSFVSRMSKRPISS  
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FIASIVAGALAYGIYADSIHYVDPEMDGMSKTFSTPREWVSLQSAFFNQVVGSAIMMIAVFALGDDQNNPPGAG  
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FVFGSESPINFRFSKEIKHRAN\*

**>Fusvirguliforme\_AEYB01001170.1**

MAGPVSGDVESRPPVELGSPPRYHSSSHPFAGRLGANQAFTVDRRTSEDEKLLEREPDATPHMPFRELLDCRPIL  
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NPLITFATFCARLCSLRLILYVGAQISGGVLAGLLVRASYGTRDFKVGGCWLDPDIVPVREIFVVELVSATILL  
FLAFGLGLDPRQAKIVGPTLAPFLVGLASGTLTFSTAFTRYGYGGAGLNPARCMGAFVGTTRFPTWHWIHWVGDGI  
ACIIHGAVYFVPPWTKETD\*

**>Fusvirguliforme\_AEYB01000058.1**

MARFASFQSNYSTQHDGPPHPGEVGHPLPSTARNSAVIVLGEFCGTFMFLLLSYIGAQTALVTNNPSDPSAPLEP  
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LVTNTLNGNGTSKAQGVFIEMFLTAQLVLTVYFLAVEKHRSTHLAPIGIGISVFI SHICATNWTGTSINPARSFGP  
AVVTMFVGYHWIYWVGPFMGALLAFGCYKVFKWLEYQTANPDQDDDDLEKGRRHFFGLHGHAQEKAVMPREQVET  
IPPKDASPHQRNDSMIDGQMSPI SP\*

**>Fusvirguliforme\_AEYB01001186.1**

MGPSADTNGHDGPGHRRRHLSTVKAHLVAASGEFVGTTTTFLYFGYAGNMMAVLQSPYPAVNGGLASTTDIWIAMS  
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TSIAKGVFLEMFFTAQLVFVVLMLAAEKSRDTFIAPIGIGLALFVALIPGVFVTGGSANPVRSGCAVAGTDFPG  
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**>Fusvirguliforme\_AEYB01000674.1**

MATSDEAGVLDPPHQRYQLSPVGRHLVAASGEFVGTTTTFLYFGYAGNLMALQAPYTAPDGGIASSTDIWIAMS  
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TSIARGVFLEMFFTAQLVFVVLMLAAEKSRDTFLAPVGIGLALFVALIPGVSVTGGSANPVRSGCAAAGASFP  
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**>Fusvirguliforme\_AEYB01000247.1**

MPLSSLPSIETSLRSPPTDFDMSLHTPSVTRSARSTPAANVSASFSPGAEISSPNNESVPFAPPASPTDHSPPR  
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QILGAMLASVVVLYLFPEAFNVRTTLGGGASLVQGVFIEAILTAELVFTIFMLAKEKHRATFIAPVGIGLALFIA  
EMVGVQFTGGSNLNPARSFGPCVVTSTFDTEHWIYCVGPFVGSIAVGFYWFIKTLEYEMANPGADGDDANDPTKN  
PEKRAEIQASKPPSMQFGIGKSPSNRS\*

**>Lacbi2\_317173**

MSGQHQITEQSSRNPLSRVSTLLPEKPLSPTSTYAGTQKHPEAPROSSFLIQLQNIRNAIRKPMAEFFGVALLII  
FGAGSACQVVLSTNPDVASSARGSFLSINFGWAIGIAMGVVWSGGISGGHINPAITIAMATYRGFPWRKVPSYIL  
AQVLGGVVGAGLVYANYIHAIDIFEGGHHIRTQATASLFATYALPYMTQASCFFSEFLATAVLSMMVFALTDKRN  
HSPTNGLLPFALFILFVGLGASLGMETAYALNPARDFGPRLFLAMAGYGKALFNYSQYWLWAPIIAPVLGAQAG  
GLLYDTFLNDGDNSPIKWRCASSQEHQLAEVV\*

**>Lacbi2\_443240**

MDDKFDDDALPNSKTTTPEDYGDKLAEYDYTNFTFNTWMRLREPFREYIAEFVGVAVLIIFGVGADCQVVLSTANTG  
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YIHAIDIVEGGRHVRLDTAGLFATYAADHMTNVSCFFSEFLATAVLIVVIHAMNDKRNAPPPAGLAPLVLFLLI  
LGIGASLGMETGYAINPARDLGPRMLTAMVGYGRQVFAFRNQYWIWCPVIAPFLGAQVGTIFYDLFFYKQDNV  
FGRGSHIHISPA\*

**>Lacbi2\_576801**

MFTLAHHRHAIRKPMAEFFGVALLVIFGAGAACQVVLSTNPNSSFLSINFGWAIGIAMGAWISGSISGGHINPAIT  
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FLATAVLLAMVLAALTDNRNGAPTNGLSPPALFVLFILGLGASLGMETAYALNPARDFGPRLFLAMAGYGKALFN  
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**>Lacbi2\_568479**

MKLTISHHKCAIRKVMAEFVGVALLVIFGAGTACQVVLSTNPNSSFLSINFGWAIGIATGAWVSAGISGGHINPAI  
TIAMATYRGFPWREVPGYIFAQALGGFVGAALVYANYFHAIDIFEGGHHIRTQATASLFATFALPYMTQASCFFSE  
FLATAVLFIIVFLALNDKHNGALTNGLLPFALFILFGLGASLGMQTYAVNPARDFGPRLFLAMAGYGKAVFN  
RQYWIWAPIIAPILGAQAGGLLYDTSIYNGDDSPIKWR\*

**>Lacbi2\_671860**

MSATPIIHLRDVKKRTGVLNAWERVRNKPQVHWAMECFEALGVFFYVYFGLGSTAAWVIGNILKQSGLSSVFQI  
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KQAGVYETTMFTPNGPAGIFALYLLPGAQTLPRAFLEFVNCVFLALVIWAALDPTSMIPPVMAFFIIAAAYAG  
SIWGYAVPAISLNSARDIGCRLFALTIWGKSAAGGSYSAITALVNIPATLLAAVVYELFLVDSDRVVAGSHLEFM  
NVAANHRRHRHQAEDDNHGDADDSSQEKPV\*

**>Lacbi2\_482072**

MSNAPLVHLSDLQKRLRVFAVWEKVRNDGKVHWAIECFEAMFGVFLYVYFGLGSTAGWVIGNIIKETNLSSILQI  
GLAYAFGIWFAIGLCSSSSGGHFNPCVTLFVVFVKGFPKLKACRYIIAQILGAYIASALVYSQWNVLIIECTLGL  
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VIWGFATPAVALNTARDLGARLFAMSIWGTKAAGSGYSAIACLINIPATLLGVFLYEVFFTDSDRVVSPAALTIM  
NAHANHRRLLHHGHGEADKRDSTEKPTITTYEHAGNGVEVSHV\*

**>Lacbi2\_456764**

MHPQVASLFDNVYEDLAAATLEFIGTAFFLLFGLGGIQASTAEDTASGQPPASGIEHVLYISTCMGLSLVVS  
AWLFFRVGTGGLFNPNISFALLLVGLKPLRFVLFCAIQLTGAIAGAAIVRGLTSAPLSVNNVLQOQTSAAQGVFIEMF  
ITAALVLSVLMMLAAEKHEATPFAPVGIGLTLFACHLFVAVYTTGAAMNSARAFGPAVISGFPEPQHWVYVWVG  
PFLGSLGAGFYATLKHYKYWHLNPDQATSDYRKSPSDPVALLKSTAETFINVGDEETRNGCASNEEGVRATGDEKSS  
NATSSRTNFSPV\*

**>Mycfi2\_173306**

MSKVTTCSARNDPASFQLHFQGAQVREHPFAGRIGGNQELCLDPDDEAVKKQPDAAPIISLSQSLDPPGFLVFEY  
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HGVFYHTVPPYKSSGKARREALPSFSIMQVKKARFGPSVILGRDGENGRALKHDQVSSRSPDCMEDDLIVEIWE  
ASLDMTVSCLRCTFTSMVL\*

#### >Mycfi2\_108013

PRRAATVAARRFRSPQRPSTALQPETSNHSSLRRRSTAASKRSQGAEARSSSTAAGRSKLQTLAGPEITPQVEATY  
QPYVNPGYAELNPEYEQPANAKPVWSLAKPLPRVVRPGMVPTSSEIFQSRQHPQLPGGNTQKLGIEADPNLEAG  
RIQPAINPAKVSAQLKDSRAQREENFLSSQIGRRGTVTGRGRATSRASQYQVSFGEPEKSHTQQGQDGKAGEEVP  
LVSPGMERTPSAPDELGATPLEAIPERHEPPTRPASLAEGEDDDASQATLHEDEEPDLWVDMDFIKPIDNPPLVA  
EVHNNHTWWSIVRTQHREFLAFLATFVQLTTGFCADTQTTLNNGNPNSTAWAWGFSTMIGIYISGGISGAHLN  
PAITLMLWFYRGFPKRKVPEYVLAQLLAAFLAALVAYGLYFAGIQNYINTSSTTDPASDILNGFVTSRRFTFIDT  
ATAFFNEFLGIAFLGCTILALGDDQNAPPGAGMNSLIIGLVITGLSLSFVYNTGLAMNPTRDLGPRLAMLALGYG  
KELFTNPYWFYGPVIVAPILGAFAGGALYDIAIFTGGESPINYPWTRTKRSYRKGNAKWKRRLRL\*

#### >Mycfi2\_33768

NTWSAIRLHLQRLAELGTTIFIFLGIAGNLSVLTSSYQTGTMQSIYWCWGFVAMLAIYIAGGGSGAFLNPALT  
IMLTIFRFGFPARRVPVYVQVLGAFVGGMLMAFGVYRDGLVHLGGGGGLISETTGSAFYTEPKWVSNSTAFFTE  
VLGTAVIACSILALGDSSNSPPGAGMHAFIIGLLTTAVTMSLWSTGGCFNPVRDLGPRLATIAAGYPVSSFSAR  
DHWWIAGPWCATITGALVGGLVYDVCIFKGGESPVNYSFGRWKVEGLKREQGLAGMFGMHEKEGEIERKLESGLDI  
HDDPKLTEM\*

#### >Mycfi2\_133800

MTAELKKEANSALTWSRIRRTWREPLSEFMGTFILIMFGDGVVAQVVLRSRGTGQDYQSIISWGWGIGVMLGVYASG  
ISGAHINPAVTFANCVFRKFPWKKFPVYAVAQVLGAMCAAUVVYGNYSKSAIDTFEGGAGIRTVPGYSENASAGIF  
CTYPAAFMSNTGQFFSEFIASLTLLMFLIYAIKDDHNIGAKNLTPALFFIIFGIGACWGWETGYAINLARDFGPR  
LVSYMVGYPNVWRAGNYFVWPMVAPFCGCTFGGFLYDVLFTGQSPINTPYWGFYRFPISLRQYKGMRWDEE  
NAQEDDEDVSVH\*

#### >Mycfi2\_99980

MATLDEELDHAGHNHLLWPKVKIALKEPIAEFWGTFILVLFGDAAIAQTMLSGTAAGRASSPGGAGFGAWDTISW  
AWGLGLMLGVYVAGDSGAFLNPAICLASCIFRKLPRWRLPMYWLAFLGAFVAAGVVYGNVNGINQYEGHGIRS  
VASADNPTGTAGIFATFPASDLTKASQFFDQFIGSALLVFLIWTCLKDDSNKGKFVASGAWFPLGLFFVMMGIATA  
FGWQTGFAINPARDLGPRVMIAAIGYSGVWSAGGYFFWVPIVAPFCGAVVGAFLYDIFIYTGETPVNTPWMGLKK  
LLNPKRTIQERLEHQQQSIV\*

#### >Mycfi2\_165933

MSDNSHMERLQTLDELGATEAVVQHYARHVVAATKPVQSQRKLNFRSRRPWLRECMAEATGVFFYVFPGIAAVAS  
MVLNKANPAYGSFFEVGWAFALGIAFAIITCAPTSGGHFNPAITICFAVWQGFPPWKKVPSYIFSQIFGAFIAGLF  
LMGLYHQQLSAFQALRAAGESSVPTMSSILCAYPLPNQTNLGYLFLIEFFVDSYIGIIWACLDPANPFITGAS  
APFVIGLAYAAMVWGFAPITISTNLARDLGTRIVAAIFYGGEAFSYHEYSWIAILVNVPATLFATGYEFLMRDS  
LAKIGKGAARHEHGEGLGLHLTKSGISRVTEGNFKPGSSSTSEHEKV\*

#### >Mycfi2\_99603

MQQSSRNNGGKGDVASSARSSPIRSHLIACMGEFGGTFFMLFFAFMLHITATAQSDPTKPPDTITVLTIAFAYAF  
FYGLWLLINALILOGINGGMFNPAVTLGLTFSGVLSSTRAALLIPIQLLAGVTAAAVVRIVLPIGNMGRVYTSLT  
AGTSVAQGLFLEMFLTSLLVIVAIIFVPRTGALSFMAPLGIGLALFVGIFAGLGYTGASLNPVRSFAPCAVTSDF  
PRSHWIYWAGPFLGALLASVYSQFARIIRTGKVRPNISQDNLGERYAHEE\*

#### >Mycfi2\_134906

FVATLGEFFGTMMFLFFAFAGTQVANIGSSGNQDQTTTNASTGFSPIVLLYISLSFGFSLMVNVWVFFRISGGFL  
NPAVTLAMVIVQGVGVRAVLLVGAQICGAIFSSYIVSVLFPTTFNVRTTSLSDGTSVVRGVFIEALLTAELVFTI  
YMLANEKHKATFMAPIGIGLALFIAEMVGVIYTTGSLNPARSFGPCVISGVWDSEHWIYWIGPCAGAFIAFGFYR  
FIKMLEYEMANPGQESSKKEEAAAEAAEMTPKKESV\*

#### >Mycfi2\_120962

MLANQTSTPSWQTNVLTNFLVQVGEFIGTFLFLFFAFAATQVANAAATGSTNTTSIVQVPNTSALVYISLAFGF  
SLAVNAWVFFRISGGFLNPAVTLGMALIGAVTWVRAGLIFVAQILGAMASAGVVSALFPGLAVSTTLGGGTSIT  
RGLFIEMFLTAELVFTIFMLAAEKHKSFLAPIGIGLSLFIHLSGVYFTGASLNPARSFGPCVALRSFPGYHWL  
YWVGPAALGALVAVGFYRFVKILEYETANPGQDFNEHEAA\*

#### >Mycfi2\_76398

MEDKLSFGRPMAGIFQPREHAKQSPARNHFVAATGEFVGTFMFLFFAYLGHSMSVATASDTSRIGTNSNSTIYYI  
SMSYGLSLLVTAWALYRVSGGLFNPAVTLGLVITGQLPAVRGAIFFPTQIIGGIAAAAVASAIIPGDIIVTQTTL  
ANGMNQAQGVFLEMFLTAYLVFVILMLAAEKSKATFIAPIGIGMALFVAQIAGVYYTGASLNPARSFGPCVAAAK  
FQGYHWIYWIGPFLGAIAGGYFHFVKFFNYEANPGQDSAGGAFADDINVSVSLGR\*

#### >Mycfi2\_100823

MSNRSSWLVPQMDKPLGYIEPRNAYRQPAWRNHVFACTGEFVGTFLLFAFLGHSTAVYQAPATGPNGLHTN  
ETLMYIALSYGFSLLVNAWTMYRVSGGLFNPAVTLGLVLGGGLSAVRGLLFFPVQLLAAISAAAVVEALIPGSIR

QVQTTLAPEVNVAQGLFLEMFLTSLLVFTVLMMLAAEKWRATFVAPVGIGIALFIAELAGAVYTGASLNPVRSFAP  
CVVSPNFQSYHWIYWVGPLLGALLSGSYHFVKFFNFWQANPGQDS\*