

Figure S3. Amino-acid alignment of cluster C GH18 catalytic domains.

	10	20	30	40	50	60
621070_B._cenocepaci	TLAFVVG	..NGCVP	SWGGVQPI	NGASG	LLTALST	SIASYRAKGG
ZP_01331104_B._pseud	MLAFVVS	GG.NQCTP	SWGGVQPI	NGATG	DLLDKIATS	SVTAYRAKGG
ZP_00739603_B._thuri	TLSFIVAD	..KNGNP	VWGGSH	T.PIGDGN	LD.....	DQIKQIRKIG
ChiK_S._coelicolor	NLAFAISS	G.DDCVP	WRWNGVQ	DIDDA	S.VAS.....	RVEKLRESG
YP_124481_L._pneumop	HLAFITDS	..GQCQP	PAWGAQ	QNYSV	AKGWGK	.....KQFDTL
NP_901110_C._violace	TLAFVVA	K..GGCAP	SWGGVLA	IPGSGS	DQQLSAIR	NGINNFRGK
ChiA_B_P._kodakarae	TLAFVLY	SS.VYNGP	AWAG..	SIPLDA	FVDE.....	VKGLREAGG
ZP_01137245_A._cellu	MLAFILAN	GS.SCSP	AWDG.T	NPVSSD	TTVAN....	VINQVRS
ZP_00570566_Frankia_	TLAFVVAG	G.GGCTP	KWGGV	DLTMD	G.VPG.....	QIGRFREL
ZP_00923356_E._coli	TLAFVVS	KDANTCL	PTWGT	AYGMH	NYAQY	SK.....IK
ZP_01199781_X._autot	TLAFVLGT	G.PDQIG	.WGGLG	SIDND	T.LANGTT	ISSMVAAL
ZP_01191795_M._flave	TLGFMQAT	P.DGKLA	.WAGLS	ALT	PDSD	FQARAINQ
ChiH_S._coelicolor	TMAFLQT	ATPGS	CPTPW	NGDT	SMPIAQ	STFGA.....
	70	80	90	100	110	120
621070_B._cenocepaci	NGTPLMQ	.....	ACST...	VPALKS	AYQTVID	TYGLTHID
ZP_01331104_B._pseud	AGQPLMQ	.....	ACSS...	VAALKG	AYQTVID	TYSLTHV
ZP_00739603_B._thuri	NAGNIPG	LADLAA	AITD...	VNKLK	DAYKSV	INTLHLTH
ChiK_S._coelicolor	SGTELA	A.....	ACGS...	ASALAA	YGTALD	AAGSTRAD
YP_124481_L._pneumop	SGTDIS	.....	YHCD...	KNQLIN	RFNQV	VNQYHANV
NP_901110_C._violace	NGTPLQQ	.....	ACTT...	NASLQA	AYQTVL	DTYNLSR
ChiA_B_P._kodakarae	VGPYLQ	C.....	QAKT...	PEQLAQ	WYIQVI	DYNTATYL
ZP_01137245_A._cellu	AGTKLG	Q.....	VCSS...	PQATAA	AYQAVI	DKYALKAI
ZP_00570566_Frankia_	SGTELAS	.....	ACGS...	AGDLAA	YRKVV	DVYGVT
ZP_00923356_E._coli	NNAPLAA	.....	SCKN...	VDDL	MQHYD	IVDNLNL
ZP_01199781_X._autot	YGQEPAL	.....	SFTN...	VAQLTA	AYQSV	MDKYNVT
ZP_01191795_M._flave	SGTSLAQ	.....	WYAAH	GLGPQ	ALADAY	AAVADTY
ChiH_S._coelicolor	TGTEIAD	.....	SCTD...	VQQIAA	AYEKV	ITTYDVS
	130	140	150	160	170	180
621070_B._cenocepaci	QDTAAV	..ARNFQ	AVAQLQ	ADYAAK	GKPLH	VTLTLP
ZP_01331104_B._pseud	QDSAAV	..ARNFQ	AVAQLQ	ADYAAK	GKPLH	VTLTLP
ZP_00739603_B._thuri	AHPESI	..ERRSK	AIALLO	KELKAE	GKDV	KIGYTL
ChiK_S._coelicolor	TDTGSV	..ALRSE	AIALLO	.EQRDG	...LEVS	FTLPVMP
YP_124481_L._pneumop	NIPNLL	..QS....	LKLFQ	KEHP...	DVLLS	FTLPVMP
NP_901110_C._violace	TDTAAN	..NRNFA	VVAALQ	KNYKAK	GKTLH	VSLTLP
ChiA_B_P._kodakarae	ADKLA	.....	DALLIV	QRER	PN...V	RFSFTLP
ZP_01137245_A._cellu	ENLTAV	..SNEVG	AAQILQ	...RNNP	GLYIS	ITLPGTA
ZP_00570566_Frankia_	PDVAAN	..TRRAQ	AIARLQ	REAAAG	GRPLE	VSF
ZP_00923356_E._coli	ADQASI	..ERRNL	AVKKVQ	DKWKE	GKDIA	IWYTL
ZP_01199781_X._autot	TNTAAS	..HLRNE	ALVALE	QANPD	...LT	VSF
ZP_01191795_M._flave	AEPASI	..ALNAQ	ALRL	LQQLR	PD...L	EIWYTL
ChiH_S._coelicolor	DNTAGI	..DRRNK	AIKL	VQDWA	AANG	RDL
	190	200	210	220	230	240
621070_B._cenocepaci	NAAIAN	KTTFD	AVNVM	AMDYG	PANID	.....
ZP_01331104_B._pseud	NAALANN	VTLDA	VNIMT	MDYGP	SGID	.....
ZP_00739603_B._thuri	QSAIKH	DVDL	NSVN	IMTDY	G.QQNQ	Q.....
ChiK_S._coelicolor	ASANDH	GVQV	SAVN	LMTM	NYGES	YTAD.....
YP_124481_L._pneumop	TSAA	TGLH	FN.VN	IMAM	DYGP	AYNGD
NP_901110_C._violace	ASALAN	GVALD	TVNIM	AMDY	GQSN	PN.....
ChiA_B_P._kodakarae	ETMAKK	GVIV	DRVN	PMTD	MYWTP	PAN.....
ZP_01137245_A._cellu	NTAKGL	GFTPN	NYSI	MPFD	GGFNG	.....
ZP_00570566_Frankia_	ANAREN	GVTV	NAVNI	AMDY	GDAAP	NP.....
ZP_00923356_E._coli	SDAKAK	GVEL	AGVNV	MTDY	GNAIC	QSANT

ZP_01199781_X._autot AQAKADGVEIDTVNIMVMNYGAYYDSG.....D..MGKDAIDAAEATIAQLHQLG.....
 ZP_01191795_M._flave RKAI EAGVTL DGVNIMAMDYGESAAPTS.GPNAKTMGAWAIQAAESTHAQLSTLYSGYG.
 ChiH_S._coelicolor ENAVKNGTKVDVVNLMTFDYYDNQQHD.....MARDTQTATQGLHDVLRARLHPGKS.

250 260 270 280 290 300
|....|....|....|....|....|....|....|....|....|....|....|....|
 621070_B._cenocepaci P.....KTNAQLWQMVGVTTPMIGVNDVQG.....ETFTLANAQTVLNAAIANG.
 ZP_01331104_B._pseud P.....QTDAQLKQLVGVTTPMIGVNDVAG.....EIFTLANAQSVQTTAANN.
 ZP_00739603_B._thuriDSDIWKMIAVTPMIGKNDTQN.....ETFTLNNAKELFQFAKEKG.
 ChiK_S._coelicolorDADAWRGMALTSMLGVNDVAG.....ETFTLADAAEVRAFAEEKG.
 YP_124481_L._pneumopPEALWQMI E VTPMIGVNDVNT.....EQFTLSNAAQLKQFAQKNL.
 NP_901110_C._violace T.....LTDAQLWQKVGVTTPMVGLNDTQP.....ETFTVDNAKDLYGMANSNR.
 ChiA_B_P._kodakaraeDDEIWGMIGLTPMIGTNDKKS.....VFSLQDAEKLVDWAIQHK.
 ZP_01137245_A._celluSATAWAHEGISQMNGRSDTG.....EYFYQADFQSNLDFARSVG.
 ZP_00570566_Frankia_DAQAWGRVAVTPMIGVNDVAS.....EVFTLADARRLVRFASEVD.
 ZP_00923356_E._coliDAEIDAMMGTTTPMVGNDVQG.....EVFYLSDARLVMQDAQKRN.
 ZP_01199781_X._autotLDAK..VAITPMIGQNDVPG.....EVFTLDDARQLLDYAEENDH
 ZP_01191795_M._flaveQTFAWNQLGVTPMIGVNDVLT.....EVFTVADSQALED FARARG.
 ChiH_S._coelicolorSADLW H M I G V I E M I G V D D F G P.....AETFTLDNARTVYDWALDQG.

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|....|....
 621070_B._cenocepaci ..YGFFGNWSVGRD
 ZP_01331104_B._pseud ..YGFVGIWSITRD
 ZP_00739603_B._thuri ..IGEISMWSVYRD
 ChiK_S._coelicolor ..IAWVSMWAAFRD
 YP_124481_L._pneumop ..LGGLSMWSFNRD
 NP_901110_C._violace ..FGLLSMWSISR
 ChiA_B_P._kodakarae ..IRSLAFWSVDRD
 ZP_01137245_A._cellu ..LGRYTFWSVNRD
 ZP_00570566_Frankia_ ..LAWLSMWSLTRD
 ZP_00923356_E._coli ..LGMVGIWSIARD
 ZP_01199781_X._autot ..IAYIAMWSLGRD
 ZP_01191795_M._flave ..LGMLSMWSLNRD
 ChiH_S._coelicolor ..INTLSFWALQRD