

**Supporting information 2 Fig: MAFFT Sequence alignment without gaps**

Hsa1C	LRSWKRSRFV	NDFLTGVFPA	SPLSWLFLFS	AIQLAWLFLQ	DPSLGLMEKI	KELLPDWRLA	AALFASCLWG	ALIFLLEPHG	AMSSPTKTWL	ALVRFISGRH	100
Ssc1C	.....I.....	.....C.....	.....C.....	.....C.....	.....C.....	.....C.....	.....C.....	.....T.....	.....V.....	.....S.....	100
MmulC	.....W.V.	.....A.V.	.....T.....	.....T.....	.....CL.....	.....Q.S.	.....V.....	.....T.....	.....V.....	.....N.....	100
Hsa1A	.H..KI..K	.GII..Y.	.S...IVVV	GVMSTMYAKI	....IIA..	NRT.ETAKVS	GV..GTG..V	..VMFTE..	K..RA..I	M GM.K....K	100
MmulA	.H..KI..K	.GII..Y.	.S...IVVV	GVISSMHTKV	....MIA..	NRT.DTTKVS	GV..GTG..V	.I.MFPAE..	K..RS.RI	M .M.KV....K	100
MdolA	.H..KI..K	.GII..Y.	.S...IVVV	GVMSTMYAKV	....IIA..	NQT.DMTKVS	GI..GTG..V	T..VMFAEY.	KL.RG.RI	M GM.K....K	100
GgalA	VH..KI..K	.GII..Y.	.S...IVVV	GVMSTMYAKI	....IIA..	NRT.DTTQVS	GI..GTG..V	..VMFAE..	KL.AG..L	M T..KL....K	100
FpelA	VH..KI..K	.GII..Y.	.S...IVVV	GVMSTMYAKI	....IIA..	NRT.DTTQVS	GV..GTG..V	..VMFAE..	KL.AG..F	M .KL....K	100
AcalA	.Y..KI..K	.GII..Y.	.S...IVVV	GVMSTMYAKI	....IIA..	NRT.DITQVS	GV..GTG..V	....MFPAE..	KL.TG..I	M T..KL....K	100
XtrlA	.H..KI..K	.GI.....	.S...IVVV	GVTSSMYTKV	....F.II..	NNA.SATQVS	GV..GTG..V	S..AMF.E..	KL.AS.RI	M GM.KLL...K	100
LchlA	.H..KI..K	.GII..Y.	.S...VVV	GVVSTMYTRV	....MIAR.	SQR..VTQVS	GV..GTG..V	.F.MFIE..	KVPFG.RI	I R..KL..VCK	100
Ler1A	....KR.YK	.GI.....	.S...VVV	VIATMYARV	....MI..	RCH..TNE.S	GL..STG..I	.V.MFV..	KTPTS.V	L.M LI.K....K	100
XtrlC	....KA.VK	.S.I.....	.S...VVVI	.MGTLYARV	....M.MI..	..H..ASQVS	.L..STG..F	..MMY.Q..	K..AT..L	..S..K....N	100
Ler1C	I...KN.IK	.N.M...Y.	.S...IVVL	TVVGTMYTRV	....M.IAML	R.HI.LRQVS	.M...TG..L	....MF.E..	KV..T..V	F T..K....K	100
CmilC	V..A..KA	.IR NIV...Y.	.S...IVVL	TVVGTMYTRV	....M.MIG..	..H..VKQMS	.L..TV..L	....YMF.E..	KA.NM.RI	F TM.K....K	100
AcalC	V...KNQLR	.G.V...Y.	.S...MVT	.LVTQYSR.	....M.MID..	..H..VSM.S	..T..STV..L	....MMY.E..	K..NT..I	..S..KM.A..K	100
LchlC	Q...KA.LK	.S.I..MY..	.S...VI	..MATLYARV	....M.MID..	..H..VKI.C	TN.YQCGIYS	EILLMF.Q	N RV.LT..I	I T..K....K	100
Tn1A	.H..KI..K	.GVM..Y.G	..AGFMIVVG	SYMSNKYNR.	....M.VV.L	GQYI.IGQVG	GV..VGTG..V	TI.MMH.R	SV.WTSRA	M L..KV....K	100
TrulA	.H..KI..K	.GVM..Y.G	..GGFMIVVG	SYMSNKYN..	....M.FVV.L	GQYI.ISQVG	GV..VGTG..V	TI.MMY.R	SI.WTSRA	M L..KV....K	100
On1A	IH...KV..K	.GIM..Y.G	..AGFSIVVG	SYMANK..K	....M.FT.L	GQHI.ISQVG	GI..VGTG..V	TI.MMQ.R	SL.WSSRI	M V..KV....K	100
Gac1A	.H..KI..K	.GVM..Y.G	..GGFMVIVV	SYMSNKYQ..	....M.IA.L	GQHM.ISQVG	GV..VGTG..V	SI.MMYTS..	SVAWS.RL	M V..KV....K	100
DrelAa	IH...KI..K	.GVM..Y.G	..SGLVVVLV	GYMSTKYAKI	....ILT.L	STH..VSQVG	GV..VGTG..I	.VT.MFNQ..	TL.LK..I	.S..V..KL..PK	100
TfulA2	.H..KI..K	.GVM..Y.G	..TGL.GVVG	GYLITKYANI	....T.VVA.L	APH..VCQVG	GI..VGTG.V	V..MYNR..	T..IR..I	..S..KL..PK	100
DrelAb	IH...KI..K	.GI..N..Y.G	..APGFVLVLA	GYLQ.YY.KV	....M.LF.L	GNYV.ISQVG	GVMVGTG..I	.I..MFAS..	R.TWKIRL	..V.F.KV...QT	100
TfulA1	.H..KI..K	.GIM..Y.G	..APGLMLVLA	GVMG.KYA.V	....M.VFR.	GKYV.ISQVG	GI..VGTG..V	VI..MR.R	SLTWQ.QI	.S..V..KV...MK	100
OlalCa	V...KL.IK	.SVI...Y.	.S...VVVI	.LATMYTRS	....M.IIA..	Q.H..VSQVS	.V..STM..L	..MF.Q..	K..TT..I	V.....K	100
On1Cb	M...KV.VK	.SVI...Y.	.S...VVVI	.LATMYTRS	....M.IA..	Q.H..VSQVS	.V..STM..L	..MF.Q..	K..TT..I	V.....K	100
AmelC	....KV.LK	.NVI...Y.	.S...VVVI	.LATMYTRS	....M.IA..	Q.H..ASQVS	.V..STM..L	..MF.Q..	NV..T..V	V M.....Q	100
Gac1C	V...K.IK	.IGLK.SV	..V.VV	.LATMYTRS	....M.IA..	Q.H..RPYS	.S.AVTM..L	..MF.K..	K..NT..V	V VS.ASHPS.K	100
TrulC	VN...KI.IK	.SVIR..Y.	.F...VVVI	.LATMYTRS	....M.IA..	Q.N..VSK.S	.VI.STM..L	..MF..	K..TT..V	V.....K	100
Tn1C	VH...KI.IK	.SVIK..Y.	.F...VVVI	.LATMYTRS	....M.IA..	Q.N..VSK.S	.VI.STM..L	..MF..	K..TT..V	V.....K	100
OlalCb	V...K..MR	.RVIK..Y.	.S...VVAI	G.LATIYM.S	....M.IAB.	QOR..LSQVS	.LV.STL..L	S..LMF.Q..	RV.NT..V	V T.L.LL...K	100
On1Ca	V...K..VR	.SLIK..Y.	.S...VVAI	G.LATIYM.S	....M.IT..	QOH..LSQVS	.LV.STL..L	S..LMF.Q..	RI.NT..V	V P..LL.S.K	100
Gac_0	V...K..MR	.RVIK..Y.	.S...VVVI	.LATMYMRS	....M.IKM.	QOH..LRQS	.LV.STL..L	S..LMF.Q..	RV.NT..V	V T.L.LL.S.K	100
TrilC	V...K..VR	.SLIK..Y.	.S...VSI	.LATMYMRS	....M.IT..	QHH..LSQ.S	.LV.STL..L	S..LMF.Q..	RV.NF..V	V T.LGLL.S.K	100
DrelC	....K..IK	.RIIK.AY	.S...IVI	.LATMYM.S	....M.IA..	Q.H..LSQS	.L..STM..M	S..LMF.Q..	H..TK..V	A T..KLL.S.K	100
DrelB	VT...K.I.K	.SV...Y.	.S...VVVI	.MSTMYARI	....M.TID..	..TS..VSQS	.I..TG..L	SV..IF.S.	K..YS..V	.S..KLL...R	100
On1B	VTA..KIQ.K	.GV.A..Y.	.S...IVVI	MMSSLYIHI	....M.DA.	..N.YR..S	.I..TG..L	F..YIF.S.	K..TS..V	C..KM...R	100
Gac1B	VTA..KIQ.K	.GV.A..Y.	.S...IVVI	MMSSLYIRI	....M.AL	Q.N..HR..S	.I..TG..L	F..YIF.S.	K..RS..V	S..KM...R	100
OlalCa	.TV..KIQ.K	.SV..Y..Y.	.S...IVVI	MMSSLYTNT	....M.IDA.	..N..HR..S	.I..GTG..L	F..YIF.S.	K..S..L	.Y..KM...R	100
TrulB	.TA..KIQ.K	.GV.A..Y.	.S...IVVI	MMSSLYTRV	....M.IAM	..N.YR..S	.I..TG..L	F..YIF.S.	K..TS..V	T..KM...R	100
Tn1B	.TA..KIQ.K	.GV.A..Y.	.S...IVVI	MMSSLYI.V	....M.IAM	..N.YR.VS	.I..TG..L	F..YIF.S.	K..TS..V	T..KM...R	100
Hsa1B	IN...KI.IK	.GI.R..Y.G	.T...VVVM	TMGSS.CNV	....I...VSC.	QRC..QG..S	M.I.STGV.V	TG..MF.M.	KT.NL.RI	A MCI.LL.S.	100
MmulB	IN...KI.IK	.GI.R..Y.G	.T...VVVM	TVGSSYCKV	....I..M.VDC.	QRC..ERE.S	MVI.STGV.A	TG..MF.M.S	KT.HA..I	A IC..LL.S.R	100
MdolB	IN...KI.IK	.GI.R..Y.G	.T...VVVM	TMGSSYCNV	....I..M.MICC.	RKYI.EG.IS	VGI.STGV.V	TG..MF.M.	QT.RT..I	A IC..LL.N.R	100
ShalB	IN...KI.IK	.GI.R..Y.G	.T...VVVM	TMGSSYCNV	....I..M.MICH.	RKYI.EG.IS	VGI.STGV.V	TG..MF.M.	QT.RT..I	A IC..LL.N.R	100
AcalB	VS...KA.LK	.S.I...G	T.SG..AVVA	VTVG.TYFGI	..V.V.IFR.	QKR..NS.S	.LI.S.GA.M	LGVLMF...	KTRPS..I	A SM..VM...100	
FpelB	IS...KV.AK	.S.I...G	T.S.MVVVM	TAGSFYCV	....M.MIAR.	RHC..ES.VS	TVI.STGA.L	SAVLMF...	K.RS.RI	V .MKVL.I.K	100
XtrlB	.VACRKITLK	SSV.S..Y.	..ST.FAVVA	MTLGSLYGK	....I..T..	NSI..GK..S	.VI.S.GV.V	SG.LMF..K	KT.MK..I	A GCMK.M.S.Q	100
LchlB	.MN.LHVFQ	.SL...Y.	.S...VVVV	TIGTRYVKM	....I.IDY.	RSAR.RS.S	.T..TGV.V	TG.LMF...	STRIR.RI	A T..K....100	
Dm	V...KA.AR	.GVRN..Y.	..HIQ.LWLISA	IALGLH.AGY	QAQPFN.TNR.	LVH..SNWT.	CF.A.LVV.L	SIC.MV.SRS	RV.L..ML	V .V..VL.SNK	100
ci	V...RKT..R	.RV.S...V	KYT.LVG.TA	IVL..S..SY	..ITW.FKNNR	TNII.PRNTS	YLVSSTL..L	LAVLMF..R	K..LK..L	A SYLQLLCYTQ	100

Hsa1C	PMLFSYQRSL	PRQPVPVQD	TVRKYLESVR	PILSDEDFDW	TAVLAQEFRL	LWYLRLKSWW	ASNYVSDWWE	EFVYLRSRNP	LVNSNYMMD	FLYVTPPLQ	200
Ssc1C	.....A.....	.....A.....	.....V.CE..E	ISA..R..K	...Q..Y..	.....S.....	.....S.....	.....S.....	.....N.....	.....V.....	200
MmulC	.R...F.A.	.....A.E	.....V.GD.A	R.ATA..ND..	..L.Q...C	T.....T.....	.....T.....	.....G.....	.....I..T.....	.....S.....	200
Hsa1A	..Y.F.T.	..L..A.K	..NR..Q...	..LMKE..KR	MTA..D.AV	..G..K....	..T.....	..YI..G.G	.....I..A	..L..L..HI	200
MmulA	..Y.F.T.	..L..A.K	..SR.....	..LMKEG..QR	MTA..D.AV	..N..K....	..T.....	..YI..G.G	.....I..A	..E.M..I..HI	200
MdolA	..Y.F.T.	..L..A.K	..NR.....	..L.NKDN.QR	MKG..ED.ST	..N..K....	..T.....	..YI..G.G	.....I..A	..L..L..TI	200
GgalA	..Y.F.T.	..L..A.K	..NR.....	..LMN..E.KR	MEG..KD.AF	..N..K....	..T.....	..YI..G.G	.....I..A	..HLS..TI	200
FpelA	..Y.F.T.	..L..A.N	..NR.....	..LMD..E.RR	MEG..KD.AF	..N..K....	..T.....	..YI..G.G	.....I..A	..LS..T.	200
AcalA	..Y.F.T.	..L...KN	..NR.....	..H.LMNE.Q	KR.MEA.GKD.AT	..N..K....	..T.....	..YI..G.G	.....I..A	..F..F..SV	200
XtrlA	..Y.F.T.	..L..P.K	..KR..D..K	..LMDK.K.ER	MEG..KD.AN	..N..K....	..T.....	..YI..G.G	.....I..A	..L..HI	200
LchlA	..Y.F.T.	..L..A.K	..MTR.....	..LMD..Q.RR	MTK..KD.EL	..K..K....	..T.....	..YI..G.G	.....I..A	..L.....	200
Ler1A	..LTY..F.T.	..L..T.K	..M.....	..L.N.KE.QR	MQA..KD.EL	..K..K....	..T.....	..YI..G.G	.....I..A	..Y..IV..V	200
XtrlC	..Y..AV	..L..G.KE	..QR..D..	..LMN..EYKR	MTG..KD.EV	..N..K....	..T.....	..YI..G.G	.....I..A	..V.....	200
Ler1C	..Y.F.N.	..L..P..	..L.RF.....	..LMN...RR	KA..KD.E	..N..I.....	..T.....	..Y..QG.E	.....I..A	..TS.....	200
CmilC	..Y.F.A.	..L..TI..	..MQR.....	..LMN..E.HR	MEA..KD.EV	..K..K....	..T.....	..Y...G.E	.....I..A	..I.....	200
AcalC	..Y...A.	..L..ALK.	..MQ...I..	..LTT.AE.QR	M.A..RD.EQ	..T..K....	..T.....	..Y...G.G	.....I..A	..I..V..V	200
LchlC	..Y...AC	..L..PIAK	..MQR.....	..LMD..K.KR	MTA..KD.EV	..N..K....	..T.....	..YI..G.G	.....I..A	..I.AS..YI	200
Tn1A	..Y.F.N.	..L..DIS	..C.RH.....	..ALMD..Q.ER	MTA.TKD.EK	..N..K....	..T.....	..YI..G.G	.....I..A	..I.SI	200
TrulA	..Y.F.N.	..L..A.S	..C.R.....	..H.LMDE.R.ER	MTA..KD.EK	..N..K....	..T.....	..YI..G.G	.....I..A	..F..SI	200
On1A	..Y.F.N.	..L..IK	..CER.....	..LMD..QQ.ER	MKG.T.D.EK	..N..K....	..T.....	..YI..G.G	.....I..A	..F..SI	200
Gac1A	..Y.F.N.	..L..IK	..CKR.....	..LME..QYQR	MEG.TKD.EK	..N..K....	..T.....	..YI..G.G	.....I..A	..F..SI	200
DrelAa	..Y.F.S.	..L..P.K	..R...A..	..LMD..QYKR	MEG..KD.EK	..N..K....	..T.....	..YI..G.G	.....I..A	..N.S..	200
TfulA2	..Y.F.S.	..L..P.EH	..KR.....	..LMD..QYKR	MEA..KD.QS	..N..K.AF	..T.....	..DY..V.G.G	.....I..A	..F..H..	200
DrelAb	..Y.F.N.	..HLF...KE	..T.R...Q	..L...EHQR	MQR..LD.E	..N..K....	..T.....	..YI..G.G	.....I..A	..AF..NI	200
TfulA1	..N.Y.F.T.	..NL.L..K	..MKR.....	..L.D.TEYKK	MEE..SD.QK	..T..K....	..T.....	..YI...G.G	.....I..A	..H.L.H.	200
OlalCa	..L.Y..G.	..NL...AIK	..KR.....	..L.MD.BEYER	MTK..T..ES	..S..K..AL	.....T.....	..Y...G.G	.....I..A	..I.....	200
On1Cb	..L.Y..G.	..NL...TIK	..KR.....	..LMD.KEYER	MTK..A..ES	..S..K..AL	.....T.....	..Y...G.G	.....I..A	..I.....	200
AmelC	..L.Y..G.	..NL...AIK	..KR.....	..LKD..SE.ER	MTN..K..ED	..S..K..AL	.....T.....	..YI..G.G	.....I..A	..I.....	200
Gac1C	..L.Y..G.	..NL...LIK	..NRH.....	..LMD.TEYER	MTS.SED.ES	..G..K..AL	..T.....	..Y...G.G	.....I..A	..M...I..	200
TrulC	..R.Y...A	..NL...A.K	..KR.....	..LMD.AQYEH	VTK..A..ES	..S..K..AL	..VT.....	..Y...G.G	.....I..A	..I.....	200
Tn1C	..R.Y...G	..NL...A.K	..KR.....	..LMD.AQYER	V.K..A..ES	..S..K..AL	..VT.....	..Y...G.G	.....I..A	..I.....	200

Table with columns: Identifier (e.g., OlalCb, OnilCa), Source (e.g., HL, SR), Target (e.g., LTR, LE), and Score (e.g., 200). Rows include various identifiers like Gac\_0, TrilC, Dre1C, etc.

Table with columns: Identifier (e.g., Hsa1C, SSc1C), Source (e.g., AARAGNAVHA), Target (e.g., LLLYRHLNLR), and Score (e.g., 300). Rows include various identifiers like MmulC, Hsa1A, MmulA, etc.

Table with columns: Identifier (e.g., Hsa1C, SSc1C), Source (e.g., EEHLAALTA), Target (e.g., PRGTWAQVRT), and Score (e.g., 400). Rows include various identifiers like MmulC, Hsa1A, MmulA, etc.

Ler1C .KY.....G K.IP..K.K .YFSSGKT.M DS..K..... T..EDTPE.F VDNQK...Q. .KS..H.KCY .....F ...A...V.. NA.....A 400
CmilC .....G N.IP.GKA.K .FFSNRGRSS. DC..K.....L T..GDKP..Q V..K..... .KL..H.KCY .....E...V.. NA.....A 400
AcalC .K.P.....G E.DP..RA.N AFFQTGEQS. SI..K..... T..TSEQ..R EPN.Q..... .KS..H..CC .....YR...S.. NA.....A 400
LchlC .....P.....G D.VP..KA.R DYFQSGRQS. DL..K..... T..DTEQRYD TKN.K...I. .KS..H.KCY .....V..K...TM.. NA.....A 400
Tn1A .K.....G T.TP..NA.D TYFSRQKQ.. D.I.K..... T..DTEQRYD TNN.V...S. .KC..H.KCY .....N...K...TM.. NA.....A 400
Tr1A .R.....G D.TP..NA.D TYFSRQKQ.. D.I.K..... T..DTEQRYD TNN.T...S. .KS..H.KCY .....N...K...TM.. NA.....A 400
On1A .....G D.TP..KA.E .FFSRGKQS. D...K.....L T..DTEQRYD TKN.K...I. .KS..H.KCY .....LNM...YK...TM.. NA.....A 400
Gac1A .K.....G D.TP..NA.E TYFSRQKQS. D.I.K...C. T..DTEQRYE SDN.Q..VS. .KS..H.KCY .....N...YK...TM.. NA.....A 400
DrelAa .....G D.VP..KA.S QFFIRGKQS. D..K..... T..DTEQRYE PDN.Q...S. GKS..H.KCY .....LN...K...TM.. NA.....A 400
TfulA2 .T.....G D.VP..KA.E .EFFSTGRKS. D...K..... T..DTEQRYE PDN.Q...S. .KS..H.KCY .....N...I...K...TM.. NA...T...A 400
DrelAb .T.....G D.VP..CA.N AYLRHGKKS. DS..K..... T..DTEQRPD QKN.E...R. .KS..H.KCY .....IN...I...K...TM.. NA.....A 400
TfulA1 .K.....G D.VP..CA.D AYLR.GRQS. D..K..... T..DTEQRHN SDS.E...RSF GKS..H.KCY .....N...IYK.ATI.. NA.....A 400
OlalCa .AK.G....D.VS..EA.V KYFSSGKRS. DVI.R..... T..D.EQ.TM .D.Q...N. .KS..H.KCY .....SV.YYK...S.I NG.....A 400
On1Cb .AK.G....D.IP..KA.. KYFSSGKRS. DCI.K..... T..D.EQ.MM GD...R. .KS..H.KCY .....V.VYK...N.I NA.....A 400
Ame1C .K.G.F..G.D.IP..KA.K .EFFSSGKRS. DCI.K..... T..DDEQ.MM GD...NV.R. .KS..H.KCY .....SV.VI...K...N NA.....A 400
Gac1C .AK.G....D.IP..KA.A KYFSSGKRS. DFI.K..... T..DDEQ.GV AD..TRI.S. .KS..H.KCY .....SV.VY.K...M. NG.....A 400
TrulC .AR.G....D.IP..KA.A KHFNSSGKRS. DCI.K..... T..D.EQS.V GDNLE...C. IKS..H.KCY N.....SV.VFYK...S.. NG...G.A 400
Tn1C .AK.G....D.TP..RA.A KYFSSGKRS. DCI.K..... T..D.EQ.IM GDNLE..H. IKS..H.KCY K.....SV.VFYK...S.. NG...G.A 400
OlalCb .K.G....G.D.VP...I.K .EHFSSGKRS. DII.K..... T..D.AQ.MK GD...GN.R. .KS..H.KCY .....SI.VIYK...S.. NA.....A 400
On1Ca .K.G....G.D.IP...M.K QYFSSGKRS. DCI.R..... T..D.EQ.MR GD...GN.S. .KS..H.KCY .....SV.VIYK...S.. NA.....A 400
Gac\_0 .K.G....G.E.VP..F.M.E RHFSSGKRS. DCI.R..... T..D.EQ.MR G...GN.R. .KS..H.KCY .....SI.VIYK...S.. NA.....A 400
Tr1C .K.G....G.D.IP...K QYFSSGKRS. DVI.K...I.T. D.EQ.MR G...GN.R. .KS..H.KCY .....SI.VIYK...N.. NA.....A 400
DrelC .K.G....G.N.TP..R.K QYFSSGKQS. DCI.K..... T..DQAE.MK G.N.EN.R. .KS..H.KCY .....SV.V.YK...N.. NA.....A 400
DrelB .LK.PS..G.N.VP..RA.L KYFEGGRAS. .I.T...L T..D.AH.YD P.NIR...L. .KS..H.KCY .....N...YK...M.V NT.....S 400
On1B .LK.....G.Y.IP...A.I KYFS.GKVS. D.I.S...L T..D.Q.YD PAKSN...S. .KS..H.KCY .....SYP...M.V N.. NA.....A 400
Gac1B .LK.....G.H.VP...S.I KYFG.GKVS. D.I.S...L T..D.Q.YD PAKAK...S. .KS..H.KCY .....SYP...V.V NA.....A 400
OlalB .LK.....G.N.VP...A.I KHFSHGKTS. D.I.S...L T..D.SQ.YD GVKK...S. .KS..H.KCY .....SYP...M.V N.. NA.....A 400
TrulB .LK.....G.N.VP..RA.S KYFS.GKVS. D.I.S...L T..D.Q.YD QAR.R...S. .KS..H.KCY .....SYP...M.I N.. NA.....A 400
Tn1B .LK.....G.N.VP...A.A KYF..GKAS. D.I.S...L T..D.Q.YD HARSR...S. .KS..H.KCY .....SYP...M.I N.. NA.....A 400
HsalB .K.....G.G.VE...A.Q AFFSSGKA.. .I.R..... A.E.SYSYD P..E..SL. GK..H.NCY N.....S.K.Q... NA..A..A 400
MmulB .K.....G.G.VE..EA.Q TFFSSGKMS. D.I.R..... T..EDSHCYN PD.ET..SL. GK...H.NCY N.....SCK..L... NT.....A 400
McolB .K...F..G.G.VQ..EA.Q TYFNTGKAS. .I.K..... T..E.SH.D P.NE...SL. GKS..H.NCY N.....N..S.K.A... NT.....A 400
ShalB .K.....G.G.VQ..EA.Q TYFNTGKAS. .I.K..... T..E.SH.YD P..E..SL. GK...H.NCY N.....VA.K... NT..A..A 400
AcalB .R.....G.E.LP..EA.E KYFSRQKAS. DC..R..... T..E.EH.FD PDKED...R. SKS..H.QCC .....S.V.YR...A NA.....A 400
FpelB .R.....G.E.VP..EA.A RHFSSGKVS. D.I.R...L T..E.EH.YV AGKEGCM.T. .KS..H.QCY .....V.YK...A NA.....A 400
Xtr1B .K.....G.N.VH...A.. NFFSNGRT.. SC..R.V..I .E.E..YD E..K.S..S. SK...H.NCY N.....S.V.R... NA.....A 400
LchB RKGSVRISLS C.IP..KA.S .EFFSHGKIS. T.I.R...M T..D.EQAV K.N.TT.S. .KS..H.KCF .....F...K...I NT.....A 400
Dm .....W.N.SK..EA.N TFFSWGQTS. RTI.S...VL .D..FEPD LAR.EL..NF GKK..H.N.Y N.....C.V.C.GT..RV.F NA..T.S.AA 400
ci .....G.E.IP..KA.N TYFVDGKKS. H.I.K...IL V..D.EHVVS D..S...SK. GRS..H.KCY N.....T.NC...K..RW.I NA.....A 400

HsalC ISGHMWEFTL ATECQLGYST DGHCKGHPDP TLPQPQRLQW DLPDIHSSIS LALRGAKILS ENVDCHVVPF SLFGKSFIR CHLSSDSFIQ IALQLAHPRD 500
Ssc1C .....A .....S.....H.....L.....QA.A I...F... .H.....K..... T..... 500
MmulC V...L.....A .....E.QP...T...G.I...F... .H.....KC...V.....LV..... 500
HsalA .VA.L..YVM SIDS...AE .....DIN. NI.Y.T... .I.GCQEV.E TS.NT.NL.A ND..F.SF.. VA...GI.KK .RT.P.A.V. L.....YK. 500
MmulA .V..L..YVM .DV...E .....DKN. NI.K.T... .I.GCQEV.E TS.SS.SF.A ND..L.SF.. DT...GL.KK .RT.P.A.V. L.....YK. 500
McolA .V..L..YVM .D...TE .....DTN. NI.Y.T... EI.ECQDV.E ES.SL.ST.A ND..F.SF.. DA...EL.KK .RT.P.A.V. L.....YK. 500
GgalA .V..L..NVM .YE...LE .....DTNQ NI.I.TK... EI.ECQDV.E RS.ST.RA.A DD..FYSFY. DV...GL.KK .AKT.P.A.V. L.....Y. 500
FpelA .V..L..NVM .YE...E .....DINQ NI.I.TK... EI.ACQEV.E RS.ST.IA.A DD..FYSFF. DA...GL.KK .AKT.P.A.V. L.....Y. 500
AcalA .V..L..NVM FSD...E...TE .....ESSS GILM.S..... EILECQEV.E RS.AV.RP.A DD..F.SF.. DT...GLMKK .AKT.P.A.V. L.....Y. 500
Xtr1A .V..L..YVM .DKE...NE .....DVNG NI.P.S... .I.ECQNVVE ES.TV..A.A DD..F.SF.. NS...GL.KK .RT.P.A.V. LS.....Y. 500
LchlA .V..L..YV .DS...TE E...E.K. SI.F...R. EI.ECQEV.E IS.KV..A.A DD..F.SF.. DS...GL.KK .RT.P.A.V. L.....YV. 500
Ler1A .I..L..YV .DQ...TD E.N...E.N. QIQP..... .IEECQEV.H QS.SV.QQ.A DD..F.SF.. DK...GV.KK .WI.P.A.V. M.....Y. 500
Xtr1C .V...YV .D...NE E.N...QV.S N..V... .EISECQEV.Q SS.AV.QA.A DD..F.TF.. KE...GL.KK .RT.P.A.V. ....Y. 500
Ler1C .I..L..YA .DT...KE .N...D.A. NV.L... .I.KCQEV.M SS.KV.QT.A ND..FYAF.. TR...GV.KK .RT.P.A.V. ....NY. 500
CmilC .I..L..YV .DS...ND Q...DAES .VLS... .I.ECQEV.. GS.KV.QS.A ND..F.TF.. TK...GL.KK .RT.P.A.V. L.....N.. 500
AcalC .V..L..YV .DAT...DA Y.N...DM.. NV.P..K... EI.PCEAV.M QSF.V.YN.A SDI.F.AFT. KD...GL.KK .RT.P.G... L.....Y. 500
LchlC .I..L..YV .DT.I..KP .....EA.S .ILP... .I.ACREEV.K MS.AV.QT.A ND..F.FT. KD...GL.KK .RT.P.A.V. ....Y. 500
Tn1A .V..L..QV .SMDPN...TE .....R.A.H. N..G... .ISTCQOV.Q SS.TV.QK.A DD..S.II.. .E...GK.KK .RT.P.A.V. ....Y. 500
Tr1A .V..L..HV .SMDPN...TE E...R.V.H. N..G..K... .I.ACQEV.E SS.TV.QN.A DD..S.II.. .E...GK.KK .RT.P.A.V. ....Y. 500
On1A .V..L..HV .SMDPK...TE .....V.K.H. N..G... .TI.ACQEA.E SS.TV.RA.A DD...II.. TD...GL.KK .RT.P.A.V. ....Y. 500
Gac1A .V..L..HV .SMDPK...TE A...E.H. N..G..K.S. .I.ACQEV.Q SS.KV.RT.A DD..S.IM.. .D...GL.KK .RT.P.A.V. ....Y. 500
DrelAa .V..L..QV .SSDR...TE E...N.H. NM.G... .I.ECQTV.. SS.KV.NT.A DD..M.IF.. ND...GL.KK .KT.P.G... L.....Y. 500
TfulA2 .V..L..HV .SMDPT...TE .....R.K.H. N..G..L... .ISVQ.V.R SS.KV.NA.A DD..M.IF.. NN...GL.KK .KT.P.G... 500
DrelAb .V..L..QV .SMDPK...TE .....E.H.A N..G... .NI.TCQTM.T NS.SV.EA.A DD..S.II.. .D...GL.KK .RT.P.A.V. L.....Y. 500
TfulA1 .I..L..NV .S.DAK...TD .....A.QTHR N..G... .NI.PCQTM.A NS.SV.QA.A DD..MVII.. QE...GL.KK .KI.P.A.V. ....N.K. 500
OlalCa VVA.V..YV .DS...NE E...EV.A S...K.N. EISPCEEQ.. RS.AV.QA.A DD..F.LS. RD...GQ.KK .KV.P.A.V. MT...YY.E 500
On1Cb VLA.V..Y.. .NDS...NA E...DV.. S..R.VK.S. EI.PCEEQ.A QS.AV.QA.A DD..F.FS. QE...GKVKK .RV.P.G... M...Y..E 500
Ame1C .VS...YA .DS...NE E...DVN. S...T... .I.KCQEV.A QC.AV.QP.A DDI.F.FA. RD...GS.KK .IKM.P.G... L...FY. 500
Gac1C VLS.A.QYV .T.D...NA E...EV.S S..G..K.N. EI.PCEEQ.. GS.AV.QA.A DD..V.FS. EE...GK.KK .RV.P.A.V. LT...Y.N 500
TrulC VLT.L..Y.. .NDS...NA E...EV.A S.AE..K.N. EISSCEEQ.. QS.EV.QA.A ND..M..V. RD...AKVKK .RVNP.A... ..YY. 500
Tn1C VLS.L..Y.. .NDS...NA E...EV.A S..K..K.N. EI.ECQEV.C QS.AL.QA.A DD..M..V. RD...AKVKK .RVNP.A... ..Y. 500
OlalCb TVA.L..Y.. .DA...TE .....EV.R S..P.H.S. EI.SVQDV.F SS.TL..A.A DD...F. RD...GK.KK .LRV.P.A.V. .S...Y.. 500
On1Ca TVA.L..Y.. .DA...TE .....EVE. S...V. NI.AVQAQV. SS.AV.QA.A DD...F. RE...GR.KK .RI.P.A.V. .S...YY. 500
Gac\_0 TVA.L..Y.. .DA...TE .....DV.R S..P..A. .I.SVQAQA. SS.TV.RA.A DD...F. RD...GR.KK .LRV.P.A.V. .G...Y.. 500
Tr1C TVA.L..Y.. .DAH...TE .....EVE. L..H...L. .I.LCNTQVQ. SS.AV.QA.A DD...I.H. RD...GR.KK .LRV.P.A.V. .S...YY. 500
DrelC .VA.L... .DTH...NS .N.R.DV.H S.H...S. .I.FVQTQ.. ES.AV.QA.A DD...F. RK...GL.KK .MK.P..V. L...YY. 500
DrelB .I...YV .D.H...TA E...DVNK .S.P...T... .I.KCQEI.E GSY.I..GIA DD..F.GCL. NE...GL.KK .RT.P.A.V. L...QY. 500
On1B .V...YI .D.H...TE E...DVNK N..H..T... .QI.NCQNV.E TSYLS..QIA DD..F.GYL. AE...GL.KK .RT.P.A.V. L...Q. 500
Gac1B .V...YV .D.H...TE E...DVNK G..H..S... .QI.NCQEV.E TSYLS..LIA DD..F.GYL. HE...GL.KK .RT.P.A.V. L...Q. 500
OlalB .V...YV .D.H.C.E E...DANR G..F.T... .QISKQDV.E ASYLS..KIA DD..F.GHL. TE...GL.KK .RT.P.A.V. L...Q. 500
TrulB .V...YV .S.D.H...TE E...DVNK G..Y..S... .QI.VCK.I.E ASYVS..RIA DD..FYGCL. HE...GL.KK .RT.P.A.V. M...Q. 500
Tn1B VV...V. .D.H...TE E...DVNK G..Y..S... .QI.VCQ.I.E ASYVS..QIA DD..F.GCL. HE...GL.KK .RT.P.A.V. M...Q. 500
HsalB .I..L..V. G.DSH...TE T...L.K.N. A.AP...T... .I.KCQAV.E SSYQV..A.A DD.ELYCFQ. LP...GL.KK .RT.P.A.V. 500
MmulB .I..L..V. G.DTH...TE T...V.E.NT .P...P... .I.ECREA.E NSYQV..A.A DD.ELYCFQ. LP...GL.KK .RT.P.A.V. 500
McolB .V..L..V. .DAH.D.TD A...Q.K.NH S.AP...L. .I.ECQEL.E SSYQV..T.A DD.ELYCFH. AT...GL.KK .RT.P.A.V. 500
ShalB VV..L..V. .DAH.D.NE S...Q.K.NH S.AP... .EI.ECQKI.E SSYEV..A.A DD.ELYCFQ. LP...GL.KK .RS.P.A.V. 500
AcalB .I..L..M. .DAH..CS .....H.V.NT A.P...T... .I.ECCND.E ASYAV.RA.A DDI.F.SFR. VE...GR.KK .RT.P.A.V. 500
FpelB .I..L..A. .K...TD R...R.E.NT Q.AP... .I.QCRDT.E SSYL.R.A.A DD..FCCFQ. .E...GL.KK .RT.P.A.V. .S..... 500

XtrlB .I.L.....D.E...TE .N.R.DAGS P.P.Y....I.PCREVE.E RSYVT..AIA DD..F.CLC. .D...GL.KK .RS.P.A.F. ....Y.E 500  
LchB VI..L...V. .D.E.S.TE S....EMNK K..P.....ECKEM.Q QSYKV..A.A DD.NFCCF..MS...GM.K. FKT.P.A... 500  
Dm .AS...NLI VDDLSD..DE T.NT..T.AF QP.T.T..T. .Q.KPCLAQ.E E.TIDVTK.I NE.NLRILVH QDY..G.MKK .RT.P.AY..M...YY.. 500  
ci .MSYVV.EA. GF.YS...TQ .RV..R.TV QPIT.H....Q.TPCQEV.E TS.SV.NN.A DD.HLN.SA. KH...GLVKK FKM.P.A...A...I..L.. 500

Hsa1C RGQFCLTYES AMTRLFLEGR TETVRSCTRE ACNFVRAMED KKTDPQCLAL FRVAVDKHQQA LLKAAMSSGGQ VDRHLFALYI VSRFLHLQSP FLTQVHSEQW 600  
Ssc1C .R.....S.....H Q.....L.....Q..R.....D..... 600  
MmulC .Q.....DN .E..QH.....I.....M..L..M.....Q..Q.. 600  
Hsa1A M.K.....A S.....R.....T. S.D.....V. PQ.VE.R.K. .KL.SE..H MYRL..T.S. I.....C..V ..KY.AVE...KE.L.P. 600  
MmulA M.K.....A S.....R.....T. S.....L..M. PT.AE.RFK. .KI.CE...H .YRL..T.A. I.....C..V ..KY.AVD...KE.L.P. 600  
Mdo1A M.K.....A S.....R.....M. S.....L..VN PESVENK.K. L.I.AE...H MYRL..T.A. I.....C..V ..KY.AVD...KE.L.P. 600  
GgalA M.K.S...A S.....R.....I. S.....QT..N PESNENKMKKS .L.AT...H .YRL..T.A. I.....C..V ..KY.SVD...KE.L.P. 600  
FpelA M.K.S...A S.....R.....V. S.....T... PESSENK.KF .I.AA...H .YRL..T.A. I.....C..V ..KY.AVD...KE.L.P. 600  
AcalA M.K.....A S.....R.....TQ S.K.K..D. PE.LEKKI...KA.ATH..L .YRL..T.N. I.....C..V ..KY.AVE...KE.L.P. 600  
XtrlA KEK.....A S.....R.....I. S.D..L..S. PQ.NEKR.Q. .KE.AE...Q MYRL..T.S. I.....C..V ..KY.GVD...KE.L.P. 600  
LchlA K.K.Y...A S.....R.....V. S.....LS.V. PQ.NE.R.K. .KI.SE...N MYRL..T.A. I.....C..V ..KY.GVD...KE.L.P. 600  
Ler1A K.K.....A S.....R.....SQ STQ..L..VN SQ.NEEK.K. .L.A...S MYRH..T.E. I.....C..V ..KY.GMD...KE.L.P. 600  
XtrlC K.K.....A S.....R.....V. SSQ..K..MN PQ.NEER.K. .L.AE...M .YRH..T.G. I.....C..V ..KY.GVD...KE.L.P. 600  
Ler1C K.T.....S.....R.....V. T...T.LDG .HSNEE..N. .I.AKN..H ISRL...C. I.....C..V ..KY.GVS...QE.L.P. 600  
CmilC K.K.....S.....R.....IQ SS.....HLSASE..K. .HL.AKT..H ISRLS.A.C. I.....C..V ..KY.GVH...QE.L.P. 600  
AcalC KKK.....A S.....R.....I. S.....K..M. PQD.SAR.H. .AE...N .YRQ..T.A. I.....C..V ..KY.G.D...RE.L.P. 600  
LchlC K.K.....A S.....R.....S. S.A..K..V. AY.NAAR.K. .K.AE...Q MYRL..T.A. I.....C..V ..KY.GVD...NE.L.P. 600  
TrilA K.K.....A S.....R.....V. S.A...S.IR DE.TEER.R. LKK.AE...N .YRL..T.E. I.....C..V ..KY.GED...KE.L.P. 600  
TrulA K.K.....A S.....R.....M. S.A...S.IR DE.TEER.R. LKK.AE...N MYRL..T.E. I.....C..V ..KY.GEE.A...KE.L.P. 600  
OnilA K.K.....A S.....M.R.....T. T.A...V.G DE.REER.R. LKL.AE...N .YRL..T... I.....C..V ..KY.GED...KE.L.P. 600  
Gac1A KKK.....A S.....R.....S. S.A...IK GE.RDE..R. LKQ.AE...N MYRL..I.E. I.....C..V ..KY.GED...KE.L.P. 600  
DrelAa K.K.....A S.....R.....N. T.A..H..M. EA.REER.K. LKA.TE...N .Y.L..T.K. I.....C..L ..KY.GED...KE.L.P. 600  
TfulA2 KKK.....A S.....R.....M. T.D...M. EQ.REEK.R. LKL.AE...E .YRM..T.K. I...I.C..V ..KY.GDD.A...KE.L.P. 600  
DrelAb K.K.....A S.....R.....T. S.A...NS NH.RE.K.Q. LKN.AE...Q MYRL..T.H. I.....C..V ..LKY.GQD...KE.L.P. 600  
TfulA1 K.K.....A S.....R.....I. TSA..K..VN NE.REKK.R. L.H.AGN..H MYQM..T.K. I.....C..V ..QY.QQD...KK.L.P. 600  
OlalCa .T.....A S.....R.....N. SSA...L.N. GQPADV.RR. .G.SE...Q .YRM..T.A. I...I.C..V ..KY.G.E...KE.L.P. 600  
OnilCb .T.....A S.....R.....N. SSA..I..L.G GEATDV.KC. .SE...L .YRL..T.A. I.....C..V ..KY.GVE...KE.L.P. 600  
Ame1C .M.....A S.....R.....SS. S.A..K..F.N GEDVEV.RR. I.N.SE...M .YRL..T.A. I.....C..V ..KY.GIE...KEAL.P. 600  
Gac1C Q.R.....A S.....K.....N. S.A...L.G GEDADV.RR. .HE.SE...Q .YRM..T.A. I.....C..V ..KY.QVE...KE.L.P. 600  
TrulC QKR.S...S.....R.....N. S.A..I..L.G GE.TDV.RR. .T.SE...R .CRM.ST.A. I.....C..V ..KY.GVE...KELE.A. 600  
TrilC QKR.S...S.....R.....N. S.A..I..L.G GE.TDV.RR. .T.CE...R .CRM.ST.A. F.....C..V ..KY.GVE...KE.L.A. 600  
OlalCb .S.....A S.....R.....SNQ S.A..K..L.G GEGAD..KR. .Q.SE...N .YRM..T.A. I.....C..V ..KY.GVD...KE.L.P. 600  
OnilCa .SG.....A S.....R.....SN. S.A..K..L.S GE.EEE.RR. .QL.SE...N .YRM..T.A. I.....C..V ..KY.GVE...KE.L.P. 600  
Gac\_0 .G.....A S.....R.....SN. SSA...L.T. EAVD..RH. .L.SER..N .YRM..T.A. I.....C..V ..KY.GVD...KE.L.P. 600  
TrilC .S.....A S.....R.....N. SAA..K..L.N GEDEES.RH. .L.SET..N .YRM..T.A. I.....C..V ..KY.GVD...KE.L.P. 600  
DrelC .T.....A S.....R.....SN. S.A..L..L.G GEDRE..RK. L.KTAE...N .YRL..T.S. I.....C..V ..KY.GVE...KE.L.P. 600  
DrelB K.E.....S.....M.R.....C. STA...DT.NE.R...KQ.AE...N MYRL..T.A. I.....C...KVMGID...K.L.P. 600  
OnilB QRV.....S.....M.RD.....S. .VA.....AA.NA.R...K.AE...N MYRL..T.S. I.....C...KY.GVD...K.L.P. 600  
Gac1B Q.V.....S.....M.RD.....T. .VA.....EA.KA.R...K.AE...N MYRL..T.S. I.....C..L ..KY.GVD...KK.L.P. 600  
OlalB Q.V.....S.....M.RD.....S. .VA.....VA.NA.R.S. .QK.AE...N MYRL..T.S. I.....C...KY.GAD...NK.L.P. 600  
TrulB Q.L.....S.....M.RD.....S. .VA...K..S AS.NA.R...K.A...N MYRL..T.S. I...LC...I.KY.NVD...KK.L.P. 600  
TrilB Q.L.....S.....M.RD.....S. .VE...S AA.NA.R...K.A...N MYRL..T.S. I...LC...KY.GVD.L...KK.L.P. 600  
HsalB .K.....A S.....M.R.....STA.Q..ME GH.KADLRD. .QK.AK...N MYRL..T.A. I.....C..L ..KY.GVS...AE.L.P. 600  
MmulB K.K.....A S.....M.R.....N. SAA..Q..MK GHKKQDLQD. .K.SE...N MYRL..T.A. I.....C...KY.GVS...AE.L.P. 600  
Mdo1B K.K.....A S.....M.RD.....T. .TA..Q..M. SYMK.DLQD. .K.AE...L .YRL..T.A. I.....C..V ..KY.G.H...A.L.P. 600  
ShalB K.N.....A S.....M.RD.....T. TTA...T..M. SYMK.DLQD. .K.AE...H .YRL..T.A. I.....C..V ..KY.G.H...A.L.P. 600  
AcalB K.R.....A S.....R.....S. .TA...S.A. PCSSSER.E. .H.AE...H .YRL..T.S. L.....C..V ..Y.GVE...DK.L.P. 600  
FpelB K.C.....A S.....R.....A. STA...S.G. A.VTERQR. .KL.A...H MYRL..T.A. I.....C..V ..Y.GI...A.L.P. 600  
XtrlB K.H.....A S.....RD.....TQ TSD..K... PQSQEKR...Y.A.AEH..L MYRW..T.K. I.....C...KY.GTD.A...QK.L.P. 600  
LchB K.A.....S.....RD.....N. T.A..Q..L. T...KER.S. .K.SE...Y .YRL..T.A. I.....C..V ..K.GVH...N.LA.P. 600  
Dm A.R.S...A S.....R.....P..I. SSAW..K..QN PT.NDERVKM MQA.C.R..L GYQD..C.R. I.....C..V ..KY.EVD...NE.L.P. 600  
ci K.R.S...A S.....R.....S. M.A.AKS... DF.NKDRY. LKK...R.IN GY.E..T...I...I.C..V ..KY.K.E...QK.LQ.P. 600

Hsa1C QLSTSQIPVQ MDDPYVSSGG GFGPADDHGY GVSYIFMGDG MITFHISKK SSTIT 655  
Ssc1C .A.....E.....T.ED T.....R. 655  
MmulC L...V...T...H...I...EN A...E 655  
Hsa1A R...T.Q.V.E...VA.D...LV.EN L.N...F .CPE. 655  
MmulA R...T.Q.V...C...VA.D...IV.EN F.H...F .PE. 655  
Mdo1A R...T.Q.VN.E...VA.D...IV.EN L.N..V..F .PE. 655  
GgalA R...T.QH I..EML...VA.D...ILDEN S.H..V..F .CSE. 655  
FpelA R...T.QH I..EML.C...VA.D...ILDEN S.H..V..I .CSE. 655  
AcalA R...T.QH I..GME...VA.D...IV..N L.N..V..Y .CPE. 655  
XtrlA R...T.Q.VQ.EN...VA.D...IV.EN L.N...F .PE. 655  
LchlA R...T.Q.V.E...VA.D...LV.EN L.NL.V..L .LE. 655  
Ler1A K...T...K...VA.D...MV.EN L.NM...F .PE. 655  
XtrlC R...T.I.V.E...C...VA.D...IV.EN L.N...F .HE. 655  
Ler1C C...T.I.I.E.I.I...VA.D...IV..H L.N...C.V .PL. 655  
CmilC S...T.L.V.E.I.C...VA.D...FIV.EN L.N...C.V .QY. 655  
AcalC R...T.I.L...V..N...IV.ED L.N..V.C.V .PE. 655  
LchlC R...T.I.A.E...C...VA.D...IV.ED L.N...G.I .GLD. 655  
TrilA R...T.L.L.E.E.T...VA.D...IL.EN L.N...R .PE. 655  
TrulA R...T.V.E...VA.D...IV.EN L.N...R .PE. 655  
OnilA K...T.L.V.E...VA.D...IL.EN H.N...R .PE. 655  
Gac1A R...T.L.V.E...A...VA.D...IL.EN L.N...H .PE. 655  
DrelAa R...T.L...E..T...VA.D...IL.ED L.N...H .HE. 655  
TfulA2 R...T.L.I.E..T...VA.D...IL.ED L.N...Y .IE. 655  
DrelAb R...T.L.G.E..T...VA.D...A.VIV.EK L.N...R .PE. 655  
TfulA1 R...T.L.P.E...VA.D...A..IV.EN L.N...C.Y .PEA. 655  
OlalCa R...T.SI.V.E.I.C...VA.D...N.I.EN V.N...C.H .CPS. 655  
OnilCb R...T.I.V.E...C...VA.D...CVL.EN .N...C.H .CPD. 655  
Ame1C R...T.F.L...ITC...VA.D...SLI.EK I.S..V..H .CPD. 655  
Gac1C R...T.L.V.E...C...VA.D...CAL.EK .L.S...TC.H .CPN. 655  
TrulC R..S.H..YM I..E.LCY...VT.D...C.LML.GD VL.L...C.N .CPD. 655

<b>Tn1C</b>	..AS.HV.HM	I..E.LCY..	....VT.G..	..C.LML.GD	VL.L.V.C.N	.CPA.	655
<b>OlalCb</b>	R.....T...	....F.L.L..	....VA.D..	.....IV.ED	..N..V...H	.CGE.	655
<b>OnilCa</b>	R.....T...	....FI.L..	....VA.D..	.....IV.ED	.VN..V...Y	.CSQ.	655
<b>Gac_0</b>	R.....T...	....FI.L..	....VA.D..	.....IV.ED	..N..V...H	.CSE.	655
<b>TrilC</b>	R.....T.I.	I.....L..	....VA.D..	.....IT.ED	..N..V...H	.CNQ.	655
<b>Dre1C</b>	R.....T...	....EFI.L..	....VA.D..	.....I..ED	..N..V.C.H	.CKE.	655
<b>Dre1B</b>	R.....T.Q.	L..K...A..	....VA.D..	.....IV.EN	L.....F	..PE.	655
<b>OnilB</b>	K.....T.Q.	L..K..GG..	....VA.D..	.....IV.EN	L.....F	..PD.	655
<b>Gac1B</b>	R.....T.Q.	L..K...A..	....VA.D..	.....IV.EN	L.....F	..PD.	655
<b>OlalB</b>	R.....T.Q.	L..K..GA..	....VA.D..	.....IV.EN	L.....F	..PN.	655
<b>Tru1B</b>	R.....T.Q.	L..K..GA..	....VA.D..	.....IV.EN	L.....F	.CPH.	655
<b>Tn1B</b>	R.....T.Q.	L..K..GA..	....VA.D..	.....II.EN	L.....F	.CPH.	655
<b>HsalB</b>	R.....Q.	I..NHLGA..	....VA.D..	....MIA.EN	T.F.....F	..SE.	655
<b>MmulB</b>	S.....Q.	I..NHLGA..	....VA.D..	....MIA.EN	TMF.....Y	..SE.	655
<b>MdolB</b>	R.....AQ.	I..NHIAA..	....VA.D..	....MIA.EN	T.F..V...F	..SE.	655
<b>ShalB</b>	R.....TAQ.	I..NHLAA..	....VA.D..	....MIA.EN	T.F.....F	..SE.	655
<b>AcalB</b>	R.....T.Q.	I..ECA.....	....VA.D..	.....IA.EN	LV...V...F	..PE.	655
<b>FpelB</b>	R.....T.Q.	L...H.....	....VA.D..	.....IA.EN	L...V...F	..SE.	655
<b>XtrlB</b>	R.....T.Q.	L...H...A..	....VA.D..	.....A.EN	L..L.....F	..PE.	655
<b>LchB</b>	A.....T.Q.	TN.....	....VAED..	.....IV.ED	L.....Y	..PE.	655
<b>Dm</b>	R.....T.H.	T..NCI.A..	....VA.D..	.....IA.EN	L.F....A.T	TCQQ.	655
<b>ci</b>	R.....T.H.	A..NFL.G..	....VA.D..	.....ICHEN	L.M..V...Y	..SE.	655