

	1	10	20	30	40	50	60
U5WHY8_9CHIR	MSGSSW	LLLSLVAV	TTAOST	TEDEAK	MFLEK	FNTKAE	DLSSHQSS
E2DHI4_9CHIR	MSGSPW	FLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
E2DHI7_9CHIR	MSGSSW	LLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
E2DHI9_9CHIR	MSGSSW	LLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
E2DHI3_RHIMR	MSGSSW	LLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
B6ZGN7_RHIFE	MSGSSW	LLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
E2DHI2_RHIFE	MSGSSW	LLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
A4PIG8_ROULE	MSGSPW	FLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
D8WU01_ROULE	MLGSFW	FLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
Q9BYF1_HUMAN	MSSSSW	LLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
Q9BYF1-2_HUMAN	MSSSSW	LLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS
G1PXH7_MYOLU	MSGSSW	LLLSLVAV	TTAOST	TEDEAK	IFLEK	FNTKAE	DLSSHQSS

	70	80	90	100	110	120
U5WHY8_9CHIR	KMDEAG	AKWSAFYEE	OSKLAKNY	SLEQIQ	NVTVKL	QLQLQILQO
E2DHI4_9CHIR	KMDEAG	AKWSAFYEE	OSKLAKNY	SLEQIQ	NVTVKL	QLQLQILQO
E2DHI7_9CHIR	KMDEAG	AKWSAFYEE	OSKLAKNY	SLEQIQ	NVTVKL	QLQLQILQO
E2DHI9_9CHIR	KMDEAG	AKWSAFYEE	OSKLAKNY	SLEQIQ	NVTVKL	QLQLQILQO
E2DHI3_RHIMR	KMDEAG	AKWSAFYEE	OSKLAKNY	SLEQIQ	NVTVKL	QLQLQILQO
B6ZGN7_RHIFE	KMDEAG	AKWSAFYEE	OSKLAKNY	SLEQIQ	NVTVKL	QLQLQILQO
E2DHI2_RHIFE	KMDEAG	AKWSAFYEE	OSKLAKNY	SLEQIQ	NVTVKL	QLQLQILQO
A4PIG8_ROULE	KMSKAR	ATWSAFYEE	OSKLAKTY	QLDEIQ	DPPELKL	QLQLQILQO
D8WU01_ROULE	KMSKAR	ATWSAFYEE	OSKLAKTY	QLDEIQ	DPPELKL	QLQLQILQO
Q9BYF1_HUMAN	NMNNAG	DKWSAFYEE	OSKLAKTY	QLDEIQ	DPPELKL	QLQLQILQO
Q9BYF1-2_HUMAN	NMNNAG	DKWSAFYEE	OSKLAKTY	QLDEIQ	DPPELKL	QLQLQILQO
G1PXH7_MYOLU	KMNEAD	SKWSAFYEE	OSKLAKTY	QLDEIQ	DPPELKL	QLQLQILQO

	130	140	150	160	170
U5WHY8_9CHIR	NAMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
E2DHI4_9CHIR	NAMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
E2DHI7_9CHIR	NAMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
E2DHI9_9CHIR	NAMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
E2DHI3_RHIMR	NAMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
B6ZGN7_RHIFE	NAMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
E2DHI2_RHIFE	NAMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
A4PIG8_ROULE	NTMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
D8WU01_ROULE	NTMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
Q9BYF1_HUMAN	NTMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
Q9BYF1-2_HUMAN	NTMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN
G1PXH7_MYOLU	TTMSTI	YSTGKVC	KPNKPQ	ECCLLE	PPGLDN

	180	190	200	210	220	230
U5WHY8_9CHIR	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
E2DHI4_9CHIR	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
E2DHI7_9CHIR	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
E2DHI9_9CHIR	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
E2DHI3_RHIMR	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
B6ZGN7_RHIFE	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
E2DHI2_RHIFE	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
A4PIG8_ROULE	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
D8WU01_ROULE	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
Q9BYF1_HUMAN	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
Q9BYF1-2_HUMAN	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP
G1PXH7_MYOLU	YEEYV	VLKNEMAR	GHYEDY	G DYWR	DYETE	ESP

	240	250	260	270	280	290
U5WHY8_9CHIR	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
E2DHI4_9CHIR	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
E2DHI7_9CHIR	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
E2DHI9_9CHIR	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
E2DHI3_RHIMR	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
B6ZGN7_RHIFE	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
E2DHI2_RHIFE	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
A4PIG8_ROULE	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
D8WU01_ROULE	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
Q9BYF1_HUMAN	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
Q9BYF1-2_HUMAN	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL
G1PXH7_MYOLU	LHAYVR	AKLMDT	YFPHIS	PTGGLPA	HLLGDMWGRFW	ENLYPL

	300	310	320	330	340	350
U5WHY8_9CHIR	QGWDA	DRIFKEAEKFFVSVGLPNMTEGF	WNN	SMLTE	PGDGRKVV	CHPTAWDLGKGFRIK
E2DHI4_9CHIR	QGWDA	DRIFKEAEKFFVSVGLPNMTEGF	WNN	SMLTE	PGDGRKVV	CHPTAWDLGKGFRIK
E2DHI7_9CHIR	QGWDA	DRIFKEAEKFFVSVGLPNMTEGF	WNN	SMLTE	PGDGRKVV	CHPTAWDLGKGFRIK
E2DHI9_9CHIR	QGWDA	NRIFKEAEKFFVSVGLPNMTEGF	WNN	SMLTE	PGDGRKVV	CHPTAWDLGKGFRIK
E2DHI3_RHIMR	QGWDA	NRIFKEAEKFFVSVGLPNMTEGF	WNN	SMLTE	PGDGRKVV	CHPTAWDLGKGFRIK
B6ZGN7_RHIFE	QNWDA	KRIFKEAEKFFVSVGLPNMTEGF	WNN	SMLTE	PGDGRKVV	CHPTAWDLGKGFRIK
E2DHI2_RHIFE	QNWDA	KRIFKEAEKFFVSVGLPNMTEGF	WNN	SMLTE	PGDGRKVV	CHPTAWDLGKGFRIK
A4PIG8_ROULE	QNNWA	KRIFKEAEKFFVSVGLPNMTE	TFWEK	SVLTE	PDNDQKVA	CHPTAWDLGKGFRII
D8WU01_ROULE	QNNWA	KRIFKEAEKFFVSVGLPNMTE	TFWEK	SVLTE	PDNDQKVA	CHPTAWDLGKGFRII
Q9BYF1_HUMAN	QAWDA	QORIFKEAEKFFVSVGLPNMT	QGFWE	N	SMLTE	PDGNVQKAV
Q9BYF1-2_HUMAN	QAWDA	QORIFKEAEKFFVSVGLPNMT	QGFWE	N	SMLTE	PDGNVQKAV
G1PXH7_MYOLU	QSWDA	EKIFKEAEKFFVSVGLPSMT	P	GFWE	N	SMLTE

	360	370	380	390	400	410
U5WHY8_9CHIR	MCTKV	TMEDFLTAHHEMGHIQYDMAYAS	OPYLLR	NGANEGFHEAVGE	VMSLS	VATPKHLK
E2DHI4_9CHIR	MCTKV	TMEDFLTAHHEMGHIQYDMAYAS	OPYLLR	NGANEGFHEAVGE	VMSLS	VATPKHLK
E2DHI7_9CHIR	MCTKV	TMEDFLTAHHEMGHIQYDMVYAS	OPYLLR	NGANEGFHEAVGE	VMSLS	VATPKHLK
E2DHI9_9CHIR	MCTKV	TMEDFLTAHHEMGHIQYDMAYAS	OPYLLR	NGANEGFHEAVGE	VMSLS	VATPKHLK
E2DHI3_RHIMR	MCTKV	TMEDFLTAHHEMGHIQYDMAYAS	OPYLLR	NGANEGFHEAVGE	VMSLS	VATPKHLK
B6ZGN7_RHIFE	MCTKV	TMEDFLTAHHEMGHIQYDMAYAS	OPYLLR	NGANEGFHEAVGE	VMSLS	VATPKHLK
E2DHI2_RHIFE	MCTKV	TMEDFLTAHHEMGHIQYDMAYAS	OPYLLR	NGANEGFHEAVGE	VMSLS	VATPKHLK
A4PIG8_ROULE	MCTKV	TMEDFLTAHHEMGHIQYDMAYAT	OPYLLR	DGANEGFHEAVGE	VISLS	VATPNHLK
D8WU01_ROULE	MCTKV	TMEDFLTAHHEMGHIQYDMAYAT	OPYLLR	DGANEGFHEAVGE	VISLS	VATPNHLK
Q9BYF1_HUMAN	MCTKV	TMEDFLTAHHEMGHIQYDMAYAA	QPELLR	NGANEGFHEAVGE	IMSLS	AATPKHLK
Q9BYF1-2_HUMAN	MCTKV	TMEDFLTAHHEMGHIQYDMAYAA	QPELLR	NGANEGFHEAVGE	IMSLS	AATPKHLK
G1PXH7_MYOLU	MCTKV	TMEDFLTAHHEMGHIQYDMAYAT	OPYLLR	NGANEGFHEAVGE	VMSLS	VATPKHLK

	420	430	440	450	460	470
U5WHY8_9CHIR	TMGLL	SPDFRED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
E2DHI4_9CHIR	TMGLL	SPDFRED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
E2DHI7_9CHIR	TMGLL	SPDFRED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
E2DHI9_9CHIR	TMGLL	SPDFRED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
E2DHI3_RHIMR	TMGLL	SPDFRED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
B6ZGN7_RHIFE	TMGLL	SPDFRED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
E2DHI2_RHIFE	TMGLL	SPDFRED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
A4PIG8_ROULE	NMGLL	PPDFYED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
D8WU01_ROULE	NMGLL	PPDFYED	NETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE
Q9BYF1_HUMAN	SIGLL	SPDFQED	NETEINFLKQALT	IVGTLP	FTYMLEKWR	WMVFKEIPKE
Q9BYF1-2_HUMAN	SIGLL	SPDFQED	NETEINFLKQALT	IVGTLP	FTYMLEKWR	WMVFKEIPKE
G1PXH7_MYOLU	GMGLL	PPDFS	EDNETEINFLKQALN	IVGTLP	FTYMLEKWR	WMVFKEIPKE

	480	490	500	510	520	530
U5WHY8_9CHIR	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
E2DHI4_9CHIR	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
E2DHI7_9CHIR	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
E2DHI9_9CHIR	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
E2DHI3_RHIMR	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
B6ZGN7_RHIFE	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
E2DHI2_RHIFE	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
A4PIG8_ROULE	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
D8WU01_ROULE	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	HEALCR
Q9BYF1_HUMAN	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTLYQFQF	QEAALC
Q9BYF1-2_HUMAN	MKRK	IVGVVEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTLYQFQF	QEAALC
G1PXH7_MYOLU	MKRK	IVGVMEP	VPHDETYCDPASLFHV	ANDYSFIRY	YTRTIFEFQF	QEAALC

	540	550	560	570	580	590
U5WHY8_9CHIR	HKCD	ISNST	DAGK	KLHQMLS	VGKSKA	WTETL
E2DHI4_9CHIR	HKCD	ISNST	DAGK	KLHQMLS	VGKSKA	WTETL
E2DHI7_9CHIR	HKCD	ISNST	DAGK	KLHQMLS	VGKSKA	WTETL
E2DHI9_9CHIR	HKCD	ISNST	DAGK	KLHQMLS	VGKSKA	WTETL
E2DHI3_RHIMR	HKCD	ISNST	DAGK	KLHQMLS	VGKSKA	WTETL
B6ZGN7_RHIFE	HKCD	ISNST	DAGK	KLHQMLS	VGKSKA	WTETL
E2DHI2_RHIFE	HKCG	ISNST	DAGK	KLHQMLS	VGKSKA	WTETL
A4PIG8_ROULE	YKCD	IANSTE	AAGK	KLHQMLS	LGKSKP	WTLA
D8WU01_ROULE	YKCD	IANSTE	AAGK	KLHQMLS	LGKSKP	WTLA
Q9BYF1_HUMAN	HKCD	ISNST	EAGK	KLHNML	RLGKSEP	WTLA
Q9BYF1-2_HUMAN	HKCD	ISNST	EAGK	KLHNML	RLGKSEP	WTLA
G1PXH7_MYOLU	HKCD	ISNST	EAGK	KLHNML	RLGKSEP	WTLA

	600	610	620	630	640	650
U5WHY8_9CHIR	RK	SYVGWNTDWS	PS	DQSIKVRISLKSALGE	NAYEWN	DNEMYLF
E2DHI4_9CHIR	RK	SYVGWNTDWS	PS	DQSIKVRISLKSALGE	NAYEWN	DNEMYLF
E2DHI7_9CHIR	RK	SYVGWNTDWS	PS	DQSIKVRISLKSALGE	NAYEWN	DNEMYLF
E2DHI9_9CHIR	RK	SYVGWNTDWS	PS	DQSIKVRISLKSALGE	NAYEWN	DNEMYLF
E2DHI3_RHIMR	RK	SYVGWNTDWS	PS	DQSIKVRISLKSALGE	NAYEWN	DNEMYLF
B6ZGN7_RHIFE	RK	SFVGWNTDWS	PS	DQSIKVRISLKSALGE	NAYEWN	DNEMYLF
E2DHI2_RHIFE	RK	SFVGWNTDWS	PS	DQSIKVRISLKSALGE	NAYEWN	DNEMYLF
A4PIG8_ROULE	RN	SFVGWNTDWS	PS	DQSIKVRISLKAALGE	NAYEWN	DNEMYLF
D8WU01_ROULE	RN	SFVGWNTDWS	PS	DQSIKVRISLKAALGE	NAYEWN	DNEMYLF
Q9BYF1_HUMAN	KN	SFVGWNTDWS	PS	DQSIKVRISLKSALGD	NAYEWN	DNEMYLF
Q9BYF1-2_HUMAN	.....	.....	.....	.....	.....	.....
G1PXH7_MYOLU	GN	SVG.WNSDWS	PS	EQSIKVRISLQ	SALGE	KAYKWN

	660	670	680	690	700	710
U5WHY8_9CHIR	H	QTTILFGA	EN	VWVS	N	LKPRISFNF
E2DHI4_9CHIR	H	QTTILFGA	EN	VWVS	N	LKPRISFNF
E2DHI7_9CHIR	H	QTTILFGA	EN	VWVS	N	LKPRISFNF
E2DHI9_9CHIR	N	QTTILFRD	EN	VWVS	N	LKPRISFNF
E2DHI3_RHIMR	N	QTTILFGD	EN	VWVS	N	LKPRISFNF
B6ZGN7_RHIFE	N	QTTILFGE	ED	VWVS	N	LKPRISFNF
E2DHI2_RHIFE	N	QTTILFGE	ED	VWVS	N	LKPRISFNF
A4PIG8_ROULE	N	LTIIPFGE	ED	VWVS	D	LKPRISFNF
D8WU01_ROULE	N	LTIIPFGE	ED	VWVS	D	LKPRISFNF
Q9BYF1_HUMAN	N	QMIILFGE	ED	VRVAN	LKPRISFNF	FTAPK
Q9BYF1-2_HUMAN	.....	.....	.....	.....	.....	.....
G1PXH7_MYOLU	N	QTTILFGE	EN	VRVND	LKPRVSF	KFYVTSP

	720	730	740	750	760	770
U5WHY8_9CHIR	DDNSLEFLGIQPTLGPPYQPPVTIWLIVFGVVM	AVVVVGIVVLI	ITGIRD	RRK	TD	QARSE
E2DHI4_9CHIR	DDNSLEFLGIQPTLGPPYQPPVTIWLIVFGVVM	AVVVVGIVVLI	ITGIRD	RRK	TD	QARSE
E2DHI7_9CHIR	DDNSLEFLGIQPTLGPPYQPPVTIWLIVFGVVM	AVVVVGIVVLI	ITGIRD	RRK	TD	QARSE
E2DHI9_9CHIR	DDNSLEFLGIQPTLGPPYQPPVTIWLIVFGVVM	AVVVVGIVVLI	ITGIRD	RRK	AD	QARSE
E2DHI3_RHIMR	DDNSLEFLGIQPTLGPPYQPPVTIWLIVFGVVM	AVVVVGIVVLI	ITGIRD	RRK	TD	QARSE
B6ZGN7_RHIFE	DDNSLEFLGIQPTLGPPYQPPVTIWLIVFGVVM	AVVVVGIVVLI	ITGIRD	RRK	KD	QARSE
E2DHI2_RHIFE	DDNSLEFLGIQPTLGPPYQPPVTIWLIVFGVVM	AVVVVGIVVLI	ITGIRD	RRK	KD	QARSE
A4PIG8_ROULE	DDDTLEFLGIEPTLGTTPYQPPVTIWLIVFGVVM	GLVVVGIVLLI	FTGIRD	RRK	KN	QERSE
D8WU01_ROULE	DDDTLEFLGIEPTLGTTPYQPPVTIWLIVFGVVM	GLVVVGIVLLI	FTGIRD	RRK	KN	QERSE
Q9BYF1_HUMAN	NDNSLEFLGIQPTLGPPNQQPPVSIWLIVFGVVM	GVIIVVGIVILI	FTGIRD	RRK	KN	KARSG
Q9BYF1-2_HUMAN	.....	.....	.....	.....	.....	.....
G1PXH7_MYOLU	DDNTLEFLGIQPTLGPPNQQPPVTIWLIVFGVVM	GVAIVIGIAVLI	FTGIRD	RRK	KK	QAGNE

	780	790	800
U5WHY8_9CHIR	ENPY	SSVDLSKGENNPGFQNG	DDDVQTSF
E2DHI4_9CHIR	ENPY	SSVDLSKGENNPGFQNG	DDDVQTSF
E2DHI7_9CHIR	ENPY	SSVDLSKGENNPGFQNG	DDDVQTSF
E2DHI9_9CHIR	ENPY	PSSVDLSKGENNPGFQNG	DDDVQTSF
E2DHI3_RHIMR	ENPY	PSSVDLSKGENNPGFQNG	DDDVQTSF
B6ZGN7_RHIFE	ENPY	SSVDLSKGENNPGFQNG	DDDVQTSF
E2DHI2_RHIFE	ENPY	SSVDLSKGENNPGFQNG	NDDVQTSF
A4PIG8_ROULE	ENPY	SSVDLSKGENNAGFQNG	NDDVQTSF
D8WU01_ROULE	ENPY	SSVDLSKGENNAGFQNG	NDDVQTSF
Q9BYF1_HUMAN	ENPY	ASIDISKGENNPGFQNT	DDDVQTSF
Q9BYF1-2_HUMAN	.....	.....	.....
G1PXH7_MYOLU	ENPY	SSVNLSKGENNPGFQNG	DDDVQTSF