

	1008	1020	1030	1040	1050	1060	1070	1080	1090	1098
Q9UKV3_1008_1098		GKISNIVHI	SNLVRPFTLGQLKELLG-RTG	-----T-L-V-EE	-AFWIDKIKSHCFV	-----TYS	TVVEEAVATRALHGVK-WPQ	----	SNPKFLCADYAEQDELDFHRL	
H9GCG6_903_993		GKVGNIIVHI	CNLVRPFTLGQLKELLG-RTG	-----T-L-V-EE	-AFWIDKIKSHCFV	-----TYS	TVVEEAVATRALHGVK-WPQ	----	SNPKFLSADFAEQDELDFHRL	
UPI00072E54CB_1006_10		GKISNIVHI	SNLVRPFTLGQLKELLG-RTG	-----T-L-V-EE	-AFWIDKIKSHCFV	-----TYS	TVVEEAVATRALHGVK-WPQ	----	SNPKFLCADYAEQDEERKLR---	
UPI0006B177FE_105_195		GKISCVHI	CNLVRPFTLGQLKELLG-RTG	-----T-L-V-EE	-AFWIDKIKSHCFV	-----TYS	TVVEEAVATRALHGVK-WPQ	----	SNPKFLSADFAEQDELDFHRL	
AOA0P7WSH2_279_369		GKITNIVHI	CNLVRPFTLGQLKELLN-RTG	-----T-V-V-EE	-GFWIDKIKSHCFV	-----TYS	STEEAVATRALHGVK-WPQ	----	SNPKFLSVDVSEQDELDFHRL	
F1C7H3_22_112		GKVSNIIVHI	SNLVRPFTLGQLKELLG-RTG	-----T-L-V-EE	-GFWIDKIKSHCFV	-----TYS	SSEEAVATRALHGVK-WPQ	----	SNPKVLNVDFCQQDELDFHRL	
UPI000644135A_441_530		-KVSNIHI	SNLVRPFTLGQLKELLH-RTG	-----T-V-L-EE	-SFWIDKIKSHCFV	-----TYAS	VVEAVATRALHGVK-WPQ	----	SNPKFLSVDVSEQDELDFHRL	
AOA151NQ65_453_542		-KPSHIVHI	CNLVRPFTLGQLKELLS-RTG	-----T-L-V-EE	-GFWIDKIKSHCFV	-----TYS	TLEEAVLTRNSLHGVK-WPQ	----	SNPKFLSADFAEQDELDFHRL	
H2M9R2_962_1052		GKVSNIIVHI	CNLVRPFTLGQLKELLS-RTG	-----T-L-V-ED	-GFWIDKIKSHCFV	-----TYS	SVEEAVATRALHGVK-WPQ	----	SNPKVLSVDVFCQQDELDFHRL	
UPI00085413F7_262_350		--PSCIVHV	CNLVRPFTLGQLKELLS-RTG	-----T-L-V-EE	-NFWIDKIKSHCFV	-----TYS	TLEEATATRNSLHGVK-WPQ	----	SNPKFLSVDFAEQDELDFHRL	
AOA1S3R3X4_1731_1821		GKVSNIIVHI	SNLVRPFTLGQLKELLS-RTG	-----T-V-L-ED	-GFWIDKIKSHCFV	-----TYS	SAAEAVATRALHGVK-WPQ	----	SNPKFLSVDVSEQDELDFHRL	
UPI000814A1FB_1213_13		GKVSNIIVHV	CNLVRPFTLGQLKELLN-RTG	-----T-I-V-EE	-GFWIDKIKSHCFV	-----TYS	SAAEQATRALHGVK-WPQ	----	SNPKFLNVDFCQQDELDFHRL	
UPI0007AD4283_1397_14		GKLSNIIVHV	CNLVRPFTLGQLKELLN-RTG	-----T-V-V-EE	-GFWIDKIKSHCFV	-----TYS	SAAEAMATRALHGVK-WPQ	----	SNPKFLSVDVFCQQDELDFHRL	
H3B6Z2_916_1006		GKVTIIVHI	CNLVRPFTLGQLKELLN-RTG	-----T-L-I-EE	-TFWIDKIKSHCFV	-----TYS	SVEEAVATRALHGVK-WPQ	----	SNPKLLTVDFAEQDELDFHRL	
UPI00084D6AB9_1751_18		-KISCIVHI	CNLVRPFTLGQLKELLS-RSG	-----T-I-V-EE	-NFWIDKIKSHCFV	-----TYS	TVEEAVATRNSLHGVK-WPQ	----	SNPKFLSVDFAEQDELDFHRL	
UPI0006B38F76_1730_18		GKVSNIIVHV	CNLVRPFTLGQLKELLS-RTG	-----T-L-V-ED	-GFWIDKIKSHCFV	-----TYS	SCIEEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
UPI00094EB2C0_1367_14		GKVSNIIVHI	SNLVRPFTLGQLKELLG-RTG	-----T-L-V-ED	-GFWIDKIKSHCFV	-----TYS	SSEEAATRALHGVK-WPQ	----	SNPKVLNVDFCQQDELDFHRL	
AOA1A7WMS9_756_846		GKVSNIIVHI	CNLVRPFTLGQLKELLG-RTG	-----T-L-V-DN	-GFWIDKIKSHCFV	-----TYS	SDEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
UPI00099F6FAC_220_310		GKVSNIIVHV	SNLVRPFTLGQLKELLG-RTG	-----T-V-H-ED	-GFWIDKIKSHCFV	-----TYS	SAESIATRALHGVK-WPQ	----	SNPKFLSDFIQDELDFHRL	
AOA1W5AKJ0_1350_1440		GNTIIVHI	CNLVRPFTLGQLKELLN-RTG	-----A-M-L-EE	-GFWIDKIKSHCFV	-----TYP	STEEAVATRALHGVK-WPQ	----	SNPKFLNVDFCQQDELDFHRL	
UPI0004952D10_1422_15		GKVSNIIVHV	CNLVRPFTLGQLKELLS-RTG	-----T-L-V-EE	-GFWIDKIKSHCFV	-----TYS	SIEEAVATRALHGVK-WPQ	----	SNPKVLSVDVFCQQDELDFHRL	
UPI0008F9EFBA_230_320		GKTSNIIVHI	YNLVRPFTLGQLKELLN-RTG	-----K-L-V-EE	-GFWIDKIKSHCFV	-----TYS	TVEEAVATRALHGVK-WPT	----	SNPKVLRVDVFCQQDELDFHRL	
AOA1S3N950_1104_1194		GKVSNIIVHV	CNLVRPFTLGQLKELLN-RTG	-----S-V-V-EE	-GFWIDKIKSHCFV	-----TYS	STEEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
UPI0009734431_1428_15		GKVSNIIVHI	SNLVRPFTLGQLKELLS-RTG	-----T-M-L-EE	-GFWIDKIKSHCFV	-----TYG	CTEEAVATRALHGVK-WPQ	----	SNPKVLSVDVFCQQDELDFHRL	
UPI00097CEA79_1433_15		GKVSNIIVHV	CNLVRPFTLGQLKELLS-RTG	-----T-L-V-ED	-SFWIDKIKSHCFV	-----TYS	CSSEAVATRALHGVK-WPQ	----	SNPKVLSVDVFCQQDELDFHRL	
UPI0009B26987_991_108		GKVSNIIVHI	TNLVRPFTLGQLKELLN-RTG	-----S-L-L-EE	-GFWIDKIKSHCFV	-----TYA	TTEEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
UPI0007429D9E_837_927		GKISNIIVHI	TNLVRPFTLGQLKELLN-RTG	-----T-V-V-EE	-GFWIDKIKSHCFV	-----TYT	TTEEAVATRALHGVK-WPA	----	SNPKVLSVDVFCQQDELDFHRL	
UPI000874C358_882_972		GKVSNIIVHI	TNLVRPFTLGQLKELLN-RTG	-----T-M-V-ED	-GFWIDKIKSHCFV	-----TYA	TTEEAVATRALHGVK-WPP	----	SNPKVLRVDVFCQQDELDFHRL	
UPI000329F967_1332_14		GKVSTIIVHI	CNLVRPFTLGQLKELLS-RTG	-----S-L-M-EE	-GFWIDKIKSHCFV	-----TYS	SVEEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
UPI00097DD28A_873_963		GKISNIIVHI	TNLVRPFTLGQLKELLN-RTG	-----T-V-V-EE	-GFWIDKIKSHCFV	-----TYA	TTEEAVATRALHGVK-WPS	----	SNPKVLSVDVFCQQDELDFHRL	
UPI000B3CDADE_8_95		---TNIVHI	CNLVRPFTLGQLKELLG-RTG	-----T-L-R-ED	-GFWIDKIKSHCFV	-----TYAS	VVEEAATRALHGVK-WPQ	----	SNPKVLAADFAEQDELDFHRL	
G3PLU1_930_1020		GKVSNIIVHI	SNLVRPFTLGQLKELLS-RTG	-----T-L-L-EE	-GFWIDKIKSHCFV	-----TYS	CPPEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
M7B0L8_1113_1201		-KPSPIVHI	CNLVRPFTLGQLKELLG-RTG	-----T-L-V-EE	-AFWIDKIKSHCFV	-----TYS	TVEEAVLTRNSLHGVK-WPQ	----	SNPKFLSADFAEQDELDFHRL	
Q4S0T2_201_291		GKLSNIIVHI	TNLVRPFTLGQLKELLN-RTG	-----T-V-V-EE	-GFWIDKIKSHCFV	-----TYA	TTEEAATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
UPI000900FFC4_1389_14		GKVSNIIVHI	SNLVRPFTLGQLKELLS-RTG	-----T-L-V-EE	-GFWIDKIKSHCFV	-----TYS	CSDEAVATRALHGVK-WPQ	----	SNPKVLSVDVFCQQDELDFHRL	
UPI000BBD5ECE_1275_13		GKISNIIVHV	CNLVRPFTLGQLKELLS-RTG	-----T-I-V-EE	-DFWIDKIKSHCFV	-----SYS	SLEEATRALHGVK-WPQ	----	SNPKFLSVDVFCQQDELDFHRL	
UPI00077D03B4_1331_14		GKVSNIIVHI	CNLVRPFTLGQLKELLG-RTG	-----T-L-L-ND	-GFWIDKIKSHCFV	-----TYS	SSEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
UPI000661C41E_2269_23		GKLSNIIVHV	CNLVRPFTLGQLKELLN-RTG	-----T-V-V-ED	-GFWIDKIKSHCFV	-----TYS	STEEAVATRALHGVK-WPQ	----	SNPKVLSVDVFCQQDELDFHRL	
H2SL09_969_1059		GKVSNIIVHI	SNLVRPFTLGQLKELLS-RTG	-----S-L-V-EE	-GFWIDKIKSHCFV	-----TYS	CSSEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
V9KUF8_400_490		GKVSPIIVHI	CNLVRPFTLGQLKELLH-RTG	-----S-L-L-EE	-GFWIDKIKSHCFV	-----TYS	SVEEAVATRNSLHGVK-WPT	----	SNPKFLSVDVFCQQDELDFHRL	
UPI000BBDEC61_1001_10		GKISNIIVHI	CNLVRPFTLGQLKELLN-RTG	-----T-V-L-EE	-GFWIDKIKSHCFV	-----TYS	SKEEAVATRALHGVK-WPS	----	SNPKVLRVDVFCQQDELDFHRL	
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M3ZHA8_949_1039		GKVSNIIVHI	TNLVRPFTLGQLKELLN-RTG	-----S-V-V-EE	-GFWIDKIKSHCFV	-----TYT	TTEEAVATRALHGVK-WPP	----	SNPKVLRVDVFCQQDELDFHRL	
UPI000A1C471E_206_296		GKVSNIIVHI	TNLVRPFTLGQLKELLS-RTG	-----S-V-V-ED	-GFWIDKIKSHCFV	-----TYS	TTEEAVATRALHGVK-WPQ	----	SNPKVLSVDVFCQQDELDFHRL	
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UPI0007B92203_913_100		GKTSNIIVHI	CNLVRPFTLGQLKELLN-RTG	-----T-L-V-EE	-GFWIDKIKSHCFV	-----TYS	TIEEAVATRALHGVK-WPT	----	SNPKVLRVDVFCQQDELDFHRL	
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UPI0002A4A609_812_902		GKVSNIIVHV	TNLVRPFTLGQLKELLN-RTG	-----T-M-V-EE	-GFWIDKIKSHCFV	-----TYS	ATEEAVATRALHGVK-WPP	----	SNPKVLRVDVFCQQDELDFHRL	
UPI0009B34807_858_946		GKVSNIIVHI	TNLVRPFTLGQLKELLS-RTG	-----S-V-V-EE	-GFWIDKIKSHCFV	-----TYA	TTEEAVATRALHGVK-WPQ	----	SNPKVLRVDVFCQQDELDFHRL	
UPI000B8F92B5_912_100		GKVSNIIVHI	TNLVRPFTLGQLKELLN-RTG	-----S-V-V-EE	-GFWIDKIKSHCFV	-----TYA	TSEEATRALHGVK-WPT	----	SNPKVLRVDVFCQQDELDFHRL	
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UPI000814B190_958_104		GKVSNIIVHI	CNLVRPFTLGQLKELLN-RTG	-----T-V-V-EE	-SFWIDKIKSHCFV	-----TYS	SKEEAVATRALHGVK-WPS	----	SNPKVLRVDVFCQQDELDFHRL	
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F1Q511_909_999		GKTSNIIVHI	LHLVRPFTLGQLKELLN-RTG	-----T-M-V-EE	-GFWIDKIKSHCFV	-----TYS	TVEEAVATRALHGVK-WPA	----	SNPKVLRVDVFCQQDELDFHRL	
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UPI000554C5C1_263_353		GKVSTIIVHI	TNLVRPFTLGQLKELLN-RTG	-----S-V-L-ED	-CFWIDKIKSHCFV	-----TYG	TTEEAVATRALHGVK-WPS	----	SNPKVLRVDVFCQQDELDFHRL	
UPI0007DC9524_1329_14		GKVSNIIVHV	CNLVRPFTLGQLKELLS-RTG	-----T-L-V-DD	-GFWIDKIKSHCFV	-----TYS	SSEAVATRALHGVK-WPQ	----	SNPKVLSVDVFCQQDELDFHRL	
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1008 1020 1030 1040 1050 1060 1070 . * 1080 1090 1098
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 UPI0007429473_1298_13 GQASNIVHINLVNLRPFTLQQLKELLS-RTG-----T-L-V-ED-GFWINKIKSHCYV-----TYSITEEAVATQALHGVR-WPQ--SNPKFLRVDFCQQEELDFHQR--
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 A0A1A8E557_207_297 GKVSNIIHVNLVLRPFTLQQLKELLN-RTG-----S-V-V-EE-GFWIDKIKSHCYV-----TYASTEAVSTRNALHGVR-WFA--SNPKVLSVDFCQKQAEELDFHKGII
 UPI00064418ED_927_101 GKVSKIIHVNLVLRPFTLQQLKELLS-RTG-----A-V-V-EE-GFWIDKIKSHCYV-----TYSSTEAVATRALHGVR-WFL--SNPKVINVDVFEQEEELDFQKGL
 UPI000802B86F_967_105 GKTSNIIHVNLVLRPFTLQQLKELLN-RTG-----A-V-V-ED-GFWIDKIKSHCYV-----TYASTEAVATRALHGVR-WFS--SNPKVLRVDFCEQKELDFHKKVL
 A0A0F8C817_928_1017 -KISNIIHVNLVLRPFTLQQLKELLK-RTG-----V-V-M-EE-GFWIDKIKSHCFV-----TYTTTKEAFASRAALHGVR-WPQ--SNPKVLSVEFCEQAEELDFHKKV
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 UPI000948218F_837_925 ---VSQIVHILHLVLRPFTLQQLKELLG-RTG-----T-I-V-EDK-GFWIDKIKSHCFV-----KYESEEEAVKTRQALHGVR-WFS--SNPKTLVDFADQDELDIHLG-
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 UPI000719AFA5_609_695 ---STLVHVRNLVLRPFTLQQLKELLG-RSG-----K-L-V-DS-SFWIDKIKSHCFV-----EFETVDEAMALRADHGVR-WFS--SNPKVIRVDFTEPAELDFHRE-
 UPI000BAF2231_796_880 ---VSNIIHVRNLVLRPFTLQQLKELLK-RTG-----N-L-V-DD-GFWIDRIKSHCFV-----TYNEEGAATRALHGVR-WPQ--SNPKILRVEYATKDELDLDR---
 K1QEG1_472_556 ---VSNIIHVRNLVLRPFTLQQLKELLK-RTG-----S-L-V-EE-SFWIDRIKSHCFV-----TYNEEQATATRASLHGVR-WPQ--SNPKILKVEYASKDELELDR---
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 T1JN81_147_234 ---VNRIVHVRNLVLRPFTLQQLKELLG-RTG-----T-L-V-DG-GFWIDRIKSHCFV-----TYEQEQAMKTRQALHGVR-WPP--SNPKLIVDFADDELELDFHMS-
 UPI0009E51C95_603_684 ---SEVLHVKNLVRPFTLQQLKELLG-KHG-----T-L-V-EG-GFWIDKIKSHCFV-----VYSVVEEAAACRALHGVR-WPQ--TSPKILVDFADQDELELDR---
 A0A210PFD3_828_914 ---VSKIIHVNRNLVLRPFTLQQLKELLR-RTG-----N-I-V-EN-EFWIDKIKSHCFV-----TYETEENAVQTRKALHGVR-WFS--SNPKLLWLEFASPEEIEFNK-
 UPI00077FA035_1613_17 GPISKIVFQNLVLRPFTLQQLKELLR-QTG-----N-F-I-ED-DFWIDKIKSHCFV-----TYTTEEAAIKTRNALHGVR-WFS--SNPKILSVEFASPEEIEFHRR-
 UPI000B90D3B4_803_890 ---SAVVHVNLVLRPFTLQQLKELLG-RSG-----Q-LEA-ED-GFWIDRIKSHCFV-----VFTSVEEAVACRDLHGVR-WFS--SNPKMLRVDFASKDELDRLTKG-
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 A0A067RGG4_866_953 -KASNVLFIHNLVLRPFTLQQLKELLA-RTG-----N-I-V-EG-GFWIDKIKSHCFV-----QYETEETARETRHALHGVR-WPQ--SNPKQLVDFGKKEDEMDLAQ-
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 F6LVT0_57_143 ---SKILHVMNLVLRPFTLQQLKELLG-RFG-----T-L-A-EE-GFWIDRIKSHCFV-----TFHVSVEEAAKCRDLHGVR-WPQ--SNPKTLNIEFATKDELELDRHLN-
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 UPI000B98F975_607_688 ---SDVLFITNLVLRPFTLQQLKELLA-RTG-----K-I-A-EN-GFWIDKIKSHCFV-----QYSDVEEAAIKTRNALHGVR-WPQ--SNPKTLVDFANHDDM-
 A0A0A1WG15_359_443 -KTSNVLFIHNLVLRPFTLQQLKELLA-RTG-----K-L-V-ED-GFWIDRIKSHCFV-----TYETEQAQKTRQALHGVR-WPQ--SNPKCLIVDFAKRAMD-
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 UPI000A2A9C61_664_741 ---IHVNLVLRPFTLQQLKELLG-KHG-----T-L-V-DD-GFWIDKIKSHCFV-----VYSDIDGAKTRALHGVR-WPP--TSPKILSVEFATEDDIEYHK-
 R7VLC9_312_398 ---VTKIVHVRNLVLRPFTLQQLKELLS-QHG-----T-L-A-EE-GFWIDRIKSHCFV-----SYETEQAQKTRALHGVR-WFS--SNPKILRVEYATKDELELDR-
 UPI000B926133_520_603 ---SNIIYITNLVLRPFTLQQLKELNQ-RTG-----R-I-T-EN-GFWIDRIKSHCFV-----IYENEQAQKTRALHGVR-WPQ--SNPKSLVDFSTQEDDFDK-
 UPI0005CEF3FA_683_766 ---ATNILLIKNLVLRPFTLQQLKELLS-RTG-----T-I-V-EN-GFWIDRIKSHCFV-----EYANEDQAEETRALHGVR-WPQ--SNPKLIVDFATKDELELDR-
 E0VVJ6_632_711 -KPSNIIYITNLVLRPFTLQQLKELLA-RTG-----T-I-V-ED-GFWIDRIKSHCFV-----KYETEQAQKTRALHGVR-WPQ--SNPKQLVDFGTE-
 A0A182H862_457_537 ---SNIIYITNLVLRPFTLQQLKELLA-RTG-----K-I-V-EN-GFWIDRIKSHCFV-----KYETEQAQKTRALHGVR-WFA--SNPKCLHVDGFTESA-
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 K7IQ96_683_766 ---TNVLLIKNLVLRPFTLQQLKELLS-RTG-----T-I-V-EN-GFWIDRIKSHCFV-----EYTNEDQAEETRALHGVR-WPQ--SNPKLIVDFATKDELELDR-
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 A0A0N8AW84_345_427 ---SSVLNVSNLVLRPFTLQQLKELLA-RTG-----H-L-V-EG-KFWIDRVKSSCLV-----QYATEQAQKTRALHGVR-WPQ--SNPKTLVDFSTVDELE-
 UPI000811588E_419_501 ---STVLFITGLVLRPFTLQQLKELLC-LNG-----L-I-N-EE-KFWIDRIKSHCFV-----VYSTVEEAVKTRALHGVR-WPQ--SSPKLIVDFATKDELELDR-
 UPI0006C99DD_685_768 ---ATNILLIKNLVLRPFTLQQLKELLS-RTG-----T-I-V-EN-GFWIDRIKSHCFV-----QYANEDQAEETRALHGVR-WPQ--SNPKLIVDFATKDELELDR-
 A0A1S4H0J7_601_683 ---SNIIYITNLVLRPFTLQQLKELLA-RTG-----K-I-V-EN-GFWIDRIKSHCFV-----KYETEQAQKTRALHGVR-WPQ--SNPKCLVDFGSEEMD-
 A0A1J1I2N1_466_549 ---SSNIIYITNLVLRPFTLQQLKELLL-RTG-----K-I-V-EN-GFWIDRIKSHCFV-----KYETEQAQKTRALHGVR-WFS--SNPKCLNVDGKDELELDR-
 A0A194R348_632_718 -KQSNIIYITNLVLRPFTLQQLKELNQ-RTG-----R-I-T-EN-GFWIDRIKSHCFV-----IYENEDQAEETRALHGVR-WPQ--SNPKTLVDFSTQEDDFDK-
 A0A158NJU1_618_703 -KPTNILLIKNLVLRPFTLQQLKELLS-RTG-----T-I-V-EN-GFWIDRIKSHCFV-----EYANEDQAEETRALHGVR-WPQ--SNPKLIVDFATKDELELDR-
 A0A0B7AQS8_916_995 ---RVVRIITGLVLRPFTLQQLKELLK-RTG-----E-L-D-DE-YFWINAIKSHCLA-----AYKTQEEASATRALHGVR-WPQ--SNPKLIVDFATVDE-
 E9HGW7_916_998 ---SSVLNVSNLVLRPFTLQQLKELLA-RTG-----H-L-I-DG-KFWIDRVKSSCLV-----QYETEQAQKTRALHGVR-WPQ--SNPKTLVDFSTVDELE-
 UPI0006253782_644_731 -KPTNILLIKNLVLRPFTLQQLKELLS-RTG-----T-I-V-EN-GFWIDRIKSHCFV-----VYSDIDGAKTRALHGVR-WPQ--SNPKLIVDFATKDELELDR-
 UPI0006C9B195_635_718 ---ATNILLIKNLVLRPFTLQQLKELLS-RTG-----T-I-V-EN-GFWIDRIKSHCFV-----EYKNEEDQAEETRALHGVR-WPQ--SNPKLIVDFATKDELELDR-
 A0A1B6C4K4_157_239 ---SSVLYITNLVLRPFTLQQLKELLL-RTG-----T-I-A-EN-GFWIDRIKSHCFV-----EYTTEDAQAEETRALHGVR-WPQ--SNPKTLVDFSTHDDMA-
 UPI0006CEBDF5_581_665 -KATNIIYITNLVLRPFTLQQLKELLA-RTG-----T-L-A-PN-GFWIDRIKSHCFV-----KYTTVEEAVKTRALHGVR-WPQ--SNPKLIVDFATKDELELDR-
 UPI0004CDBC05_721_804 ---SLLIKNLVLRPFTLQQLKELLS-RTG-----S-I-V-EN-GFWIDRIKSHCFV-----EYSDNEEDQAEETRALHGVR-WPQ--SNPKLQVEYATKDELELDR-
 UPI0007E8658D_460_544 ---ASHVLYITNLVLRPFTLQQLKELLA-RTG-----K-I-V-DED-GFWIDRIKSHCFV-----AYSTEQAQKTRALHGVR-WPQ--SNPKCLNVDGFSRTDMD-
 A0A1B6MCH3_322_405 ---TSVLYITHLVLRPFTLQQLKELLL-RTG-----T-I-T-DN-GFWIDRIKSHCFV-----EYTTEDAQAEETRALHGVR-WPQ--SNPKTLVDFSTHDDMA-
 UPI000771E011_602_684 ---SLLIKNLVLRPFTLQQLKELLS-RTG-----T-I-T-EN-GFWIDRIKSHCFV-----EYANEDQAEETRALHGVR-WPQ--SNPKLIVDFATKDELELDR-
 A0A1E1WU44_526_610 -KQSNIIYITNLVLRPFTLQQLKELNQ-RTG-----K-I-V-EN-GFWIDRIKSHCFV-----QYDNEDQAEETRALHGVR-WPQ--SNPKTLVDFSTHDDMA-
 A0A1Q3F462_462_540 ---SSVLYITNLVLRPFTLQQLKELLA-RTG-----K-I-V-EN-GFWIDRIKSHCFV-----KYDNEDQAEETRALHGVR-WPQ--SNPKCLHVDGFTESA-

1008 1020 1030 1040 1050 1060 1070 : * 1080 1090 1098
 A0A218XBD4_529_608 ---TNSLRIDRFLRPFTIKAVQELLG-KTG-----T-V---K-SFWMQIKTHCYV-----TYSSVEEAVETRNNAVYNLQ-WPP--NGGRLLVAEFVPEEV-----
 A0A1X7V4K9_702_782 ---SRLLHVENLKRPFITLQKDFLQ-EDG-----P-M-I-EG-GFWTNKIKSHCIA-----IFTSTETAVAAARMHGLIK-WPS--INPQHKKVDFLSNQE-----
 UP100090CEDDE_538_616 ---NSLRIDRFLRPFTIKAVQELLG-KTG-----N-V---S-SFWMQIKTHCYV-----TYSSTEEAETRNNAVYNLQ-WPP--NGGRLLVAEFVPEEV-----
 D5ACP8_24_99 ---KERFLRPFTIKALKKELLS-ETG-----T-I---R-YFWIDQIKTHCYV-----TYSSVEEATATRNALYNLQ-WPI--IGGRLLIAEFVDPPEEV-----
 UP100057AAF58_462_541 ---LRIDRFLRPFTIKAVQELLA-KTG-----T-V---C-SFWMQIKTHCYV-----TYSSVEEAVATRNNAVYNLQ-WPT--NGGKLLAEFVDPQEVKHH-----
 UP10004E5A783_456_535 ---LRIDHFLRPFTIKAVQELLA-KTG-----T-V---C-SFWMQIKTHCYV-----TYSSVEEAVATRNNAVYNLQ-WPP--NGGKLLAEFVDPQEVKQH-----
 D8RWQ6_432_508 ---LRIDRFVVRPFTIKALKDILLA-DTG-----N-F---T-DFWMQIKTHCYV-----TYSSVDEAVATRNALHNLK-WPV--IGGKQLVAEFVPEEV-----
 A0A0K9PH74_440_521 ---NSLRIDNFRPFTIKAVQELLG-KTG-----T-V---C-SFWMQIKTHCYV-----TYSSEEEAVKTRDAVYNLQ-WPA--NGRLLMADFDPQEVKHH-----
 A0A0M3JWR1_592_676 ---NQVLMIRQLTRPFTSKQLQQLA-TYG-----T-I-V-EN-GFWIDNIKSTCIV-----KYSTIEEAIVARGRLHNVV-WPI--HSPKALKVDYSDDPGLAKH-----
 A0A0C2MY96_112_190 ---YVHVSNLVRPFTIGDLOEFLS-EGE-----G-L-D-TD-HFWIDSIKSHCYV-----KYKSIESAAKVVERCNGVQ-WPD--HNPKRLLVDFADIER-----
 J9B3J9_106_191 ---VNQVIMIRQLTRPFTVKQLQQLS-TFG-----T-V-V-EG-GFWIDNIKSTCIA-----KYSTVEEAVVARGRLHNVV-WPP--CSPRTLKIDYSDDANLTKH-----
 A0A1D1XQ91_216_295 ---LRIDRFLRPFTIKAVQELLA-KTG-----T-V---C-SFWMQIKTHCYV-----TYSSVEEATATRNNAVYNLQ-WPP--NGGRLLTADFVDPQEVKMH-----
 A0A176W2N2_556_631 ---KIDRFVVRPFTIKAVKELLE-QTG-----T-V---K-DMWMQIKTHCFV-----TYSAVVEEAVATRNALYHLQ-WPV--AGGKLLVAEFVPEEV-----
 A0A1E5WC87_606_682 ---LRIDRFVVRPFTIKAVQELLG-KTG-----S-I---C-SFWMQIKTHCYV-----TYSSVEEAVTTRDAVYNLQ-WPP--NNHNLVAEFVDPQEV-----
 UP100098DBDAD_514_593 ---TNSLRIDRFLRPFTIKAVQELLG-KTG-----N-V---S-SFWMQIKTHCYV-----TYSSVEEAEIETRNNAVYNLQ-WPP--NGGRLLVAEFVDPPEEV-----
 A0A251S9X5_413_489 ---LRIDRFLRPFTIKAVQELLG-KTG-----T-V---V-SFWMQIKTHCYV-----TYSSVEEAEIETRNNAVYNLQ-WPT--NGGRLLIAEFVDPSEV-----
 A0A022Q8V8_68_147 ---SNSLRIDRFLRPFTIKAVQELLG-KTG-----T-V---T-SFWMQIKTHCYV-----SYSSVEEAEIETRNNAVYNLQ-WPP--NGRLLAEFVDPQEV-----
 A0A1U8NTI2_513_589 ---LRIDHFLRPFTIKAVQELLG-KTG-----T-V---T-SFWMQIKTHCYV-----TYSSVEEAEIETRNNAVYNLQ-WPP--NGGRLLVADFVDPQEV-----
 A0A0N4UCY2_5_81 ---VIIRQLTRPFTVKQLQQLS-KFG-----Q-I-A-EN-GFWIDNIKSTCIV-----KYSTVEEAVIARGRLHNVV-WPS--CSPRMLKVDYTDTE-----
 A0A0N5D521_435_520 ---VNQVIMIRQLTRPFTVKQLQQLS-IFG-----T-I-V-EG-GFWIDNIKSTCIA-----KYSTVEEAIVARGRLHNVV-WPP--CSPRTLKIDYSDDANLAKH-----
 UP10004E54C21_446_525 ---LRIDRFLRPFTIKAVQELLA-KTG-----T-V---C-SFWMQIKTHCYV-----TYSSVEEAMATRNNAVYNLQ-WPP--NGGKLLVAEFVDPQEVKMH-----
 UP100098E3031_571_647 ---LRIDHFLRPFTIKAVQELLA-KTG-----T-V---V-DFWMQIKTHCYV-----TYSSVDEEATATRNALYNLQ-WPT--NGRLLVAEFVDPQEV-----
 A0A0E0LNK8_711_787 ---LRIDRFVVRPFTIKAVQELLG-KTG-----S-V---C-SFWMQIKTHCYV-----TYSSVEEALATRNNAVYNLQ-WPP--NGSYLVAEFVDPHEV-----
 V4A0P6IPW8_48_129 ---TSKVLFTNLVVRPFTI VALRELLS-RTG-----T-V---E-DLWIDSIKSKCFV-----IFSTEDQAYETRQALHGK-VPE--HSLKTLNVFSTEEEMN-----
 A0A0PD6_523_602 ---NSLRIDHFLRPFTIKAVQELLG-KTG-----T-F---T-SFWMQIKTHCYV-----TYSSVEEAEIETRNALYNLQ-WPP--NGGRLLVAEFVDPQEV-----
 A0A0D2WU61_161_233 ---TLHIANFSRPLTIQVNEELLA-RTG-----K-V-V-PD-TFWMDSIKSQCYA-----TFETVEEANATFEALNGIN-WPA--HNMKKLVVQ-----
 UP100078901DB_534_612 ---NSLRIDRFLRPFTIKAVQELLG-KSG-----S-I---T-SFWMQIKTHCYV-----TYSSVEEAEIETRNNAVYNLQ-WPP--NGGRLLVAEFVDPQEV-----
 UP100074FOCE6_524_602 ---NSLRIDQFLRPFTIKAVQELLG-KTG-----N-V---V-SFWMQIKTHCYV-----TYSSVEEAEIETRNNAVYNLQ-WPP--NGRLLVAEFVDPQEV-----
 A0A103XK13_529_605 ---LRIDRFLRPFTIKAVQELLG-KTG-----T-V---V-SFWMQIKTHCYV-----TYSSVEEAVETRNNAVYNLQ-WPV--NGGRLLAEFVDPSEV-----
 A0A0E0D1G3_327_403 ---LRIDRFVVRPFTIKAVQELLG-KTG-----S-L---C-SFWMQIKTHCYV-----TFSSVEEAVATRDVAVDQ-WPP--NGNRLVAEFVDPQEV-----
 A0A251S6M2_394_470 ---LRIDNFRPFTIKAVQELFLG-KTG-----T-V---V-SFWMQIKTHCYV-----TYASVEEAEIETRNNAVYNLQ-WPV--NGRLLMADFVDPQEV-----
 UP1000901EF53_679_757 ---NSLRIDNFRPFTIKAVQELLG-RTG-----K-I---C-NFWMQIKTHCFV-----KFSVEEAEIETRNNAVYNLQ-WPT--NGRLLMADFVDPQEV-----
 A0A1D5Y2H8_499_575 ---LRIDRFVVRPFTIKAVQELLG-KTG-----S-V---C-SFWMQIKTHCYV-----TFSSVEEATATRDVAVYNLQ-WPP--NNGNYLVAEFVDPQEV-----
 A0A1J7H743_502_578 ---LRIDRFLRPFTIKAVQELLG-KTG-----K-V---N-SFWMQIKTHCYV-----TYSSIEEAEIETRNNAVYNLQ-WPP--NGRLLVAEYVPEEV-----
 G7LAF9_517_595 ---NSLRIDRFIRPFTIKAVQELLG-KSG-----N-I---I-SFWMQIKTHCYV-----SYSTVEEATETRDVAVYNLQ-WPP--KGGKLLVAEYVPEEV-----
 UP100077659FE_466_542 ---LRIDRFVVRPFTIKAVQELLG-KTG-----S-V---C-SFWMQIKTHCYV-----TYSSLEEAVATRDVAVYNLQ-WPP--NNGNRLVAEFVDPQEV-----
 UP1000B8C7FA6_550_627 ---NSLRIDRFLRPFTIKAVQELLG-KTG-----T-A---T-SFWMQIKTHCYV-----TYSSVEEAVETRNNAVYNLQ-WPP--NGGRLLVAEFVDPQD-----
 A0A1S2YBQ1_540_618 ---NSLRIDQFLRPFTIKAVQELLG-KTG-----C-V---S-SFWMQIKTHCYV-----TYSSIEEATETRNNAVYNLQ-WPP--NGRLLVAEYVDPPEEV-----
 UP10002C31E11_542_620 ---NSLKDHFVVRPFTIKAVHELLG-KTG-----K-V---T-DFWMQIKTHCFV-----TYSSVEEAVETRNNAVYNLQ-WPT--NGRLLVADFVDPQEV-----
 A0A0N4VIW8_206_284 ---SEYLLIRQLTRPFTVKQLKAMLG-NYG-----A-L-D-EQ-GFWIDNIKSKCIV-----KYSSKEEAVVARGRLHNLV-WPV--GNPKELKVDIFIDE-----
 UP100053B04C9_466_544 ---NSLRIDRFLRPFTIKAVQELLG-KTG-----N-V---T-SFWMQIKTHCYV-----SYSSVEEAAATRQAVYNLQ-WPP--NGGRFLTAEFVGPPEEV-----
 A0A1U8GE11_598_676 ---TNSLKIENFVRPFTIKAVQELLA-RTG-----E-V---C-SFWMQIKTHCYV-----TYSSVEEAEIETRNNAVYNLQ-WPP--KGGRLVTFVDPQO-----
 B8LLW2_463_541 ---LRIDRFLRPFTIKAVQELLA-KTG-----V-V---T-SFWMQIKTHCYV-----TYSSIEEAVATRNALYNLQ-WPS--NGGRQLIAEYVDPPEEVKHH-----
 A0A0F5CSK2_50_131 ---TVVHMRCLVRPFTILPQLRAEIG-KHG-----S-I---KDGRFWDPLKSHCIF-----EMETVDQATSVCSALHGQH-WPP--ANPKTLVSNYSTEDLD-----
 A0A0K9PIS0_452_533 ---NSLRIDRFLRPFTIKAAQELLG-KTG-----T-V---C-SFWMQIKTHCYV-----TYSSEEEAVETRNNAVYNLQ-WPP--NGRLLVAEFVDPQEVKHH-----
 W9RB93_521_599 ---NSLRIDRFLRPFTIKAVQELLG-KTG-----N-I---T-SFWMQIKTHCYV-----TYSSVEEAEIETRNNAVYNLQ-WPP--NGRLLAEFVDPQEV-----
 M8BM86_648_722 ---LRIDRFVVRPFTIKAVQALLG-RTG-----S-V---C-SFWMQIKTHCYV-----TYSSVDEAVATRNNAVYNLQ-WPL--NNGSYLAEFVDPDL-----
 G7J4D9_527_605 ---NSLRIDQFLRPFTIKAVQELLG-KTG-----S-V---S-SFWMQIKTHCYV-----TYSSTEEAEIETRNNAVYNLQ-WPT--NGRLLIAEFVDPPEEV-----
 UP100057B5482_500_580 ---LTNSLRIDRFLRPFTIKAVQELLG-KTG-----S-V---T-SFWMQIKTHCYV-----TYSSVEEATETRNNAVYNLQ-WPP--NGRLLVAEFVDPQEV-----
 WLNWH5_494_570 ---LRIDRFLRPFTIKAVQELLA-KTG-----T-F---C-SFWMQIKTHCYV-----TYSSVEEAVETRNALYNLQ-WPP--NGRLLAEFVDPEDV-----
 UP1000901E0A4_438_520 ---TNSLRIDRFLRPFTIKAVQELLG-KTG-----T-V---T-SFWMQIKTHCYV-----SYSSVEEANETRNALYNLQ-WPS--NGRLLVAEFVDPLEVKMH-----
 A0A067LQNS_510_588 ---NSLRIDRFVVRPFTIKAVQEFLG-KTG-----T-I---T-SFWMQIKTHCYV-----SYSSVEEAVETRNNAVYNLQ-WPP--NGRLLVAEFVDPHEV-----
 V4LRJ7_462_541 ---TNSLRIDHFLRPFTIKAVQELLG-KTG-----N-V---V-SFWMQIKTHCYV-----SYSSVEEAAATREAVYNLQ-WPP--NGRLLAEFVGPPEEV-----
 K4A6D5_530_606 ---LRIDRFVVRPFTIKAVQELLG-KTG-----S-V---Q-NFWMQIKTHCFV-----TFSSVDEAVATRDVAVYNLQ-WPP--NNGNKLIAEFVDPQEV-----
 A0A0K9QK57_566_646 ---TNSLRIDRFLRPFTIKAVQELLA-KTG-----T-V---T-SFWMQIKTHCYV-----TYSAVEEAEIETRNNAVYNLQ-WPP--NGRQLTAEYVDPPEVQ-----
 UP100053C910B_462_540 ---NSLRIDRFLRPFTIKAVQELLG-KTG-----N-V---A-SFWMQIKTHCYV-----SYSSIEEATATRNNAVYNLQ-WPP--NGRLLVAEFVDPPEEV-----
 A0A199VMY1_473_549 ---LRIDRFVVRPFTIKAVQELLA-KTG-----S-V---C-SFWMQIKTHCYV-----TYSSVEEAAATRDVAVYNLQ-WPP--NNGNHLIAEFVDPNEV-----
 A0A0U9HKG1_390_470 ---SVRVNVLVRPFTERALRALLS-ETG-----T-I-E-EN-GFWMDSIKTHCFV-----MFKSVEDAVTRREALFNLQ-WPP--LGGKHLVSVVAESEVE-----

1008 1020 1030 1040 1050 1060 1070 :* 1080 1090 1098

UPI00053C4F72_480_558 ---NSLRIDRFLRPFTIKAVQELLG-ETG---N-V-T-SFWMDOIKTTCYV---SYSSVEEAMATRNATYSLQ-WPP---NGGRLLVAEFVGPPEV---

AOA0A8Z6E8_731_805 ---LRIDRFVLRPFTIKAVQELLG-KTG---S-V-C-SFWMDHIKTTCYV---TYSSVEEAVDTRNAVYNLQ-WPP---NNHSCLVAEFVDPDL---

UPI0004989003_547_625 ---NSLRIDRFLRPFTIKAVQELLG-KTG---S-V-N-DFWMDHIKTTCYV---TYSSVEEALETNRNAVYNLQ-WPP---NGGRLLVAEFVDPQEV---

AOA0N5A175_685_760 ---LLIROLTRPFTIKQLKGMIS-NYG---T-L-V-ED-GFWIDNIKSKCIV---KYSKKEEATVARGSLHNLV-WFF---GNPKELKVDIFIDE---

AOA1U8JGY7_357_435 ---SLRVDNFLRPFTIKAVQELLG-KTG---I-I-T-SFWMDHIKTTCYV---TYLSEEALETNRNAVYNLQ-WPP---NGGRLLVAEFVDPHEVE---

UPI00077EBE04_536_614 ---NSLRIDRFLRPFTIKAVQELLG-KTG---K-V-T-NFWMDHIKTTCYV---TYSSVEEAIKTRNAVYNLQ-WPP---NGGRLLVAEFVDAQEV---

UPI000B9384ED_577_655 ---NSLRIDRFLRPFTIKAVQELLG-KTG---N-V-T-SFWMDHIKTTCYV---TYSSVEEAMKTRDAVYNLQ-WPP---NGGRLLMAEFVDPQEV---

AOA200QW37_535_613 ---NSLRIDRFLRPFTIKAVQELLA-KTG---T-V-S-SFWMDHIKTTCYV---TYSSVEEAKETRNALYNLQ-WPA---NGGRLLVAEFVDPQEV---

AOA1I8BWY4_454_534 ---RWVHIRGLKRPYTORALLELLG-KFG---T-V-D-EG-AFWIDSIKSNICIV---TFDTVEQAEELARERLHNV-I-WPT---ASTDALCEVFSTDEKKL---

A9TNC4_510_585 ---KIDKFLRPFTIKAVKELLA-QTG---T-V-E-DVWMDQIKTTCYV---TYSSVEEATATRNALYNLQ-WPP---QGGRLLTAEFVDPSEV---

UPI00084AE5FC_3008_30 ---SCVVIKNLTRPFTIKRLQTLQ-RTG---R-I-VQPD-GFVNVNVKSVCI A---RFENEDQAEETRAHLHGILQ-WFS---SNPKTLFVDFTTQEELELRH---

MICMR4_684_759 ---LKIENFLRPFTIKAVQELLA-RTG---E-V-C-CFWMDOIKTTCYV---TYSSVEEATETRNNAVYNLQ-WPP---NGGRLLVADFVDPQQ---

UPI000B78E54B_493_572 ---TNSLRIDRFLRPFTIKAVQELLS-KTG---T-V-T-SFWMDHIKTTCYV---TYSSVEEAMETRNNAVYNLQ-WPP---NGGRQLLAEFVDPPEV---

AOA166G2E4_508_585 ---LRIDRFLRPFTIKAVQELLG-KTG---T-V-T-KFWMDHIKTTCYV---NFSSIEEALETNRNAVYNLQ-WPA---NGGRLLVAEFVDPQEVQ---

AOA0D3BJI6_442_518 ---LRIDRFLRPFTIKAVQELLG-KTG---N-V-T-SFWMDSIKTTCYV---SYSSVEEAAATREAVYNLQ-WPT---NGGRLLTAEFVGSSEV---

MOSA51_147_223 ---LRIDKFLRPFTIKAVQELLA-KTG---T-V-C-SFWMDHIKTTCYV---TYSSVEEANATRNNAVYNLQ-WPP---NGGNLLIAEFVDPQEV---

AOA0Q3NDB0_758_822 ---LRIDRFVLRPFTIKAVQELLG-RTG---S-V-C-GFWMDOIKTTCYV---TYSSVEEAVATRNNAVYNLQ-WPP---NNVQ---

UPI0005817327_575_653 ---NSLRIDRFLRPFTIKAVQELLG-KTG---N-V-T-SFWMDHIKTTCYV---SYSSVEEAVETRNNAVYNLQ-WPL---NGGRLLVAEFVDPQEV---

E0CRG0_476_654 ---NSLRIDRFLRPFTIKAVQELLA-KTG---N-V-C-SFWMDHIKTTCYV---TYSSVEEAKETRNALYNLQ-WPP---NGGRLLVAEYVDPQEV---

MOSGK0_533_508 ---LRIDRFLRPFTIKAVQELLA-KTG---T-V-C-SFWMDHIKTTCYV---TYSSVEEATATRNNAVYNLQ-WPP---NGGNLLVAEFVDPQD---

F6H4N5_465_543 ---NSLRIDRFLRPFTIKAVQELLG-KTG---S-V-T-SFWMDHIKTTCYV---SYASVEEAMETRNNAVYNLQ-WFS---NGGRLLVAEFVDPQEV---

AOA166BQ88_546_623 ---LRIDRFLRPFTIKAVQELLG-KTG---K-V-T-NFWMDHIKTTCYV---SYSATVEEAVETRNNAVYNLQ-WPA---NGGRLLVAEFVDPQEVQ---

AOA200PYK4_615_691 ---LRIDHFLRPFTIKAVQELLA-KTG---A-V-C-SFWMDHIKTTCYV---MYSVEEAELETNRALYNLQ-WPP---NGGKLLVAEFVDPQEV---

M5W712_461_539 ---NSLRIDRFLRPFTIKAVQELLG-KTG---K-V-T-DFWMDHIKTTCYV---TYSSAEAELETNRNAVYNLQ-WPP---NGGRLLVAEFVDPQEV---

AOA0M3HTV5_169_257 ---LVVMIRQLTRPFTISERLKRMLLS-TFG---T-I-V-EG-GFWIDTIKSTCIKVIETVYLSSYSIEEAAVARDALHNTF-WFH---GNPKLKVVDYSNESEL---

AOA0D3A0Z8_365_443 ---NSLRIDRFLRPFTIKAVQELLG-KTG---N-V-T-SFWMDTIKTTCYV---SYGSVEEAAATREAVYNLQ-WPP---NGGRLLTAEFVGPPEV---

UPI0009F1D314_650_726 ---LRIDNFLRPFTIKAVQELLA-QTG---N-V-C-DFWMDHIKTTCYV---TYSSVEEAAETRKAVYNLQ-WPP---NGGRLLLAAEFVDPQEV---

W1NFM1_563_639 ---LRIDQFLRPFTIKAVQELLA-KTG---T-V-S-KFWMDOIKTTCYV---TYSSDEEAMATRNALYNLQ-WFS---NGGRCLTAEFVDPPEV---

AOA1U8AMV4_457_533 ---LRIDRFLRPFTIKAAQELLA-KTG---N-V-C-SFWMDHIKTTCYV---TYSSVEEALETNRALYNLQ-WFS---NGGRLLVAEFVDPQEV---

O65655_457_535 ---NSLRIDRFLRPFTIKAVQELLG-KTG---N-V-T-SFWMDHIKTTCYV---SYPVEEAAATREAVYNLQ-WPP---NGGRHLIAEFVRAPEV---

AOA1S4BES0_477_551 ---NSLLIGNFLRPFTIKAVQELLS-KTG---T-V-T-NFWMDHIKTTCYV---SFSSVEEALETNRNAVYNLQ-WPP---HVGLLVAEFVDPQEV---

AOA10924U1_138_214 ---LRIDNFVRPFTILPAVKEWVQ-QVQ---N-F-VDDT-GFWIDSIKTTCYV---TFPTLELATATRELRHQV-WPT---PHGKVISCDYSAE---

UPI000644D74D_221_302 ---VSRTELLVNFIRPFRV-EHAKQLMS-ETG---T-V-E-QFWMNDIHSYCFV---TFATEEAEATRNRLHGLV-WPE---LNRKTLSEVYSSEKFEF---

AOA1U8A2D2_462_538 ---LRIDRFLRPFTIKAVQELLA-KTG---K-V-C-SFWMDHIKTTCYV---TYSSVEEATETRNALYNLQ-WPP---NGGRLLVAEFVDPQEV---

A9SKT2_533_607 ---KIDRFLRPFTIKAVKELLA-LTG---T-V-Q-DIWMDOIKTTCYV---TYSSVEEATATRNALYNLQ-WPP---QGGRLLTAEFVDPQSD---

AOA199V3C3_568_643 ---LRIDRFVLRPFTIKAVQELLA-KTG---S-V-C-SFWMDHIKTTCYV---TYSSAEAEATRNNAVYNLQ-WPP---NGGNLLIAEFVDPQD---

UPI0009051E64_682_756 ---NSLLIENFLRPFTIKAVQELLS-KTG---T-V-T-NFWMDAIKTTCYV---SFASVEEAELETNRNAVYNLQ-WPP---HGGKLLVAEFVDPQEV---

T0QL75_175_253 ---SCTLRIDNFVRPFTILPAVHALVQ-ADG---S-F-V-EDH-GFWIDGIKTTCYV---TFATPEIATATRQLRHGVV-WPA---HHGKTLSDVYSA---

UPI00053F6312_522_598 ---LRIDRFLRPFTIKAVQELLA-KTG---T-V-T-SFWMDHIKTTCYV---SYSSVEEATETRNNAVYNLQ-WPP---NGGRQLVAEFVDPPEV---

UPI0008DCB91A_507_585 ---NSLRIDRFLRPFTIKAVQELLQ-KTG---S-V-A-SFWMDHIKTTCYV---TYSSVEEALETNRNAVYNLQ-WPP---KGGRLLLAEFVDPQEV---

V9FJ94_173_250 ---TLRIDNFVRPFTILNAVKTIVQ-ELG---N-F-V-ED-GFWMDAIKTTCYV---TYPSTSEIAEKTSALNCKV-WPP---ENGRSLSVKLDADHT---

H3GQ66_190_266 ---NTRIDNFIRPFTILNAVKALVQ-ECG---D-F-V-ED-GFWMDAIKTTCYV---TYSTPEIAEKTTAALNCKV-WPP---ENGRSLKTIPTTE---

DONGE4_164_243 ---LRIDNFIRPFTILNAVKALVQ-ELG---N-Y-V-ED-GFWMDAIKTTCYV---TYPSTSEIAKKTSAALNCKV-WPP---ENGRSLRVKPADHSAME---

AOA225WZM4_143_221 ---LRIDNFVRPFTILNAVKALVQ-ELG---N-F-V-ED-GFWMDOIKTTCYV---TYSSPEVAKKTSSALDCKV-WPP---ENGRALSVKPADHTAM---

UPI0009E2B69C_628_704 ---LRIDNFLRPFTIKAVQELLA-QTG---K-V-C-DFWMDHIKTTCYV---TYSSAEAELETNRNAVYNLQ-WPP---NGGRLLVAEFVDPQEV---

AOA0V1MCH8_593_675 ---SPVIYVRLTRPFTIALHNLG-SFG---S-Y-S-KK-NFWINNIKSSCLV---KYDDIESAVKARDALHNV-R-WPA---SNPKTLHVDFTTQEELE---

AOA0P1A467_167_242 ---LRIDNFIRPFTILNAVKTIVQ-ELG---N-F-V-EN-GFWMDAIKTTCYV---TYPSTSEIAVKTSKSLNCKV-WPP---ENGRSLQVKFVDH---

A8XEJ9_279_360 ---VSNVHIRGLTRPFTERQLRNEIE-KHG---CEI-T-DFWIDKVKSHCFA---KLTNEDAGNVRNAMHDIV-WPD---GNPKLVAIVFESSENM---

G4YV57_217_294 ---LRIDNFVRPFTILNAVKALVQ-ELG---S-F-V-ED-GFWMDAIKTTCYV---TYPSSDIAEKTKAALNCKV-WPP---ENGRSLKVEFVDHTA---

AOA0B1SY92_223_307 ---SDLVHIRGLTRPFTDRALKAEIIL-KSG---QI-V-GFWIDSVKSHCIV---QMGSIEEAREVRLAMHNTQ-WPA---ANPKTLVQDFTKENMERHR---

AOA024TNU6_162_241 ---LRIDNFIRPFTILNAVKAIVQ-EEA---A-F-V-EN-GFWMDAIKTTCYV---TYATDDAAIARCRITYCTT-WPE---LSGRRLTVEFSAETAMD---

AOA1I7TJZ6_288_368 ---VSNVHIRGLTRPFTERQLRNEIE-KHG---CEI-V-DFWIDKVKSHCFA---KFNSSENAKSVLEAMHNTV-WPD---GNPKLVAIVFETEEN---

U5D2R9_350_411 ---RIDQFLCPFTIKAVQELLA-KTG---T-V-S-KFWMDHIKTTCYV---TYSSVEEAMATRNALYNLQ-WFS---NG---

AOA0D8XTR4_334_418 ---SEIHIRGLTRPFTDRALKGEIV-KCG---QI-V-DFWIDSVKSHCIV---QMGSIEEAREVRLAMHNTQ-WPA---ANPKTLVQDFTKENMERHR---

E3MG12_299_380 ---VSNVHIRGLTRPFTERQLRNEIE-RHG---CEI-T-DFWIDKVKSHCFA---QLNTDADAGKVLDAHMDIV-WPD---GNPKLVAIVFDTEDNM---

W2TVR7_343_427 ---SDIHIRGLTRPFTDRALKAEIIL-KCG---QI-T-DFWIDSVKSHCIV---QMRSVDEAREVRLAMHNTQ-WPT---ANPKTLVQDFTKENMERHR---

P91156_292_377 ---VSNVHIRGLTRPFTERQLRAEIQ-KNC---CEI-V-DLWMDKVKSHCIV---KLNSDADAGNVISAMNVV-WPD---GNPKRLSIVYDTEENLIKHR---

W4GA29_179_255 ---TIRIDNFIRPFTILNAVKAIVQ-VDA---S-F-V-DD-GFWMDAIKTTCYV---TYATDDAAIDARSRIYCTT-WPE---LSGRQLTVDFSTD---


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1008      1020      1030      1040      1050      1060      1070      :*      1080      1090      1098
AOA158R9A6_1371_1448  ---SSLVYIRCLVRFPTAAQLATMLETHFG-----R-A--S--ELWLDRIKSTAVA-----RFSNEVAAKCREGLDGR-WPS--INPRILQCEFASE-----
AOA0B7MPJ3_107_177    ---AIYVKGFIRPLIKHVQELFG-KYG-----T-V--K--RFWMDSIKTHCYV-----TYE'RLQKAEAFANVDIK-FPA--DTGRILITVG-----
AOA1C7NMC0_299_376    ---LYVKGFIIRPLIRHVQELFS-KHG-----T-V--K--RFWMDMIKTHCYV-----IYENESEAKEAFNHINGIV-FPP--ETGRLELTAGYLTQDAE-----
AOA0F7TQ9_354_408     ---KVV--K--EFWLDPIKTHCFV-----QFDDIASASRVSRAIHGTV-WPN-ERNRKSILWADFIPDDR-----
AOA1I8IAH0_392_447     ---S-AIIVKGFVRPLIRQAQDLFA-KYG-----N-V--K--RFWMDSIKTHCYV-----IYETIEEAKKAYNQVNGII-FPS--DTGRKL-----
AOA0A1N6S4_230_298    ---LYIRELLRPLQPNALREHLE-TIS-----QSAI--E--DFHLDKIRTHAFV-----LFESVDAATRVAALHDNK-WPD-EAMRKLWIDYIPEDKV-----
N1PPY4_230_309        ---TTSVYICNLHRPIATAVFRARLE-KIA-----QEEV--T--LFWISKLRTHCFV-----TLPSTEAARVRDTFHNHG-YPD-RDSPTKLFADYIPPEK-----
AOA1F5LU82_347_410    ---SAPGT-ADSDTI-----I--DFYLDISKTHCFV-----SFTSVAAASRVSRAVHGTW-WPN-ERNRKSILWADFIPDDQI-----
AOA1V6QH08_357_417    ---GL-PGSDTI-----I--DFYLDISKTHCFV-----SFTSVAAASRVSRAVHGTW-WPN-ERNRKSILWADFIPHDKI-----
AOA1X2HHM6_40_108     ---SNAIITNLVRLPIITRRVQEVYS-QHG-----T-V--K--RFFLDAIKTHAFV-----IYENNEQAVAAAYRGMDGIQ-FPK--DTGRN-----
AOA1V6SEU1_332_416    ---YIDGLMRPLQPTALRKHLA-SLASAPGT-TSDAI-----I--DFYLDIAIKTHCFV-----SFTSVAAASRVSRAVHGAV-WPN-ERNRKSILWADFIPDEK-----
X6LLK7_289_354        ---VEGFKRPLNPTKLLHRFG-EFG-----P-V--K--RFWINNVKTHCYV-----VFSVDDAVKCRAMDTY-YPT-DQPKIHA-----
G0S6C9_235_323        ---LYIKNFMRLREPVLDYLV-ELALPGTSPDSCI-----V-SFYLDPIRTHSFV-----QFSTVAAASRVSRAIHGTV-WPN-ERNRKLWVDFIPEGKVD-----
AOA0M8P832_330_415    ---LYIDGLMRPLQPAALRKHLA-SLASTLET-TSDAI-----V--DFYLDISKTHCFV-----SFTSLAAASRVSRAVHGTW-WPN-ERNRKNLRADFIPDEK-----
AOA139HG41_197_281    ---TRALYINNLIRPLKPEHLREHLL-AAS-----SSDDSVI--E--IFHLDKIRTHAFV-----LFSSNLVAVQVRAALHDKV-WPD-EPQRKALWVDYIPNEK-----
FOZUS1_240_321        ---LLITKLVRFPRDAFEKLLIN-QYG-----QGT--E--HYWLNNIKSKAYV-----TFNSNDAAIAMKSLDGLT-WPE--LNRKTLVVSSTLESESEYQK-----
AOA1V6UN99_331_415    ---YIDGLMRPLQPSALRKHLA-SLASAPGT-TSDDI-----I--DFYLDIAIKTHCFV-----SFTSLAAASRVSRAVHGTW-WPN-ERNRKNLRADFIPPEK-----
B6HNU5_351_415        ---LACAPGT-TSDAI-----V--DFHLDISKTHCFV-----SFNSITAAASRVSRAVHGTW-WPN-ERNRKNLRADFIPPEK-----
R7Z368_456_511        ---E-SFFLDSIKTHCFV-----RFSSITAAARVRAALHGAV-WPP-ERTRKPLFVDFIPEEKLE-----
UPI000711CA4E_33_99  ---LYIDGFIIRPFTMEVVKQLVS-RTV-----SPI-NLDE-HFFMNVAKTFCYV-----TYPSEAAARKAKEVIEETK-FPE-SF-----
AOA061RBR7_362_436    ---LRIDNFVRPFTKQLLEQMLS-AFG-----E-L--K--GIWLAPIKTHCYA-----IFESEVAEKCRQGTVDLE-WPE--GHGKRLVPRFVALB-----
AOA197JFR3_359_426    ---ALTIITNFVRPLVISOVKRMLS-EYG-----E-I--E--TLWLDISKTHCYV-----VFKETAEAEKAYNHTNMMV-FPQ--ETGKAL-----
AOA0W4ZM81_132_219    ---IYVGNFTRPLQIPQLKSYLL-DVIKIDD-SNDDIL-----K--KIWMDFRTHAFV-----VFS'TIKQKRVREVLHNSI-WPC-EKGRKPLWVDYIPENKVD-----
AOA0G4PGV7_330_414    ---LYIDGLMRPLQPAALRKHLA-SLASTPET-TSDAI-----I--DFYLDISKTHCFV-----SFTSLAAASRVSRAIHGTV-WPN-ERNRKNLRADFIPDE-----
AOA168D288_352_408    ---STDII--Q--NFFLDQIRSHCFV-----TFDVASAVRARSLLHDEV-WPN-ESMRKPLWIDFIPDDR-----
AOA135LLG5_330_415    ---LYIDGLMRPLQPAALRKHLA-SLASASGT-TSDPI-----I--DFHLDIAIKTHCFV-----SFTSLAAASRVSRAVHGTW-WPN-ERNRKNLRADFIPDEK-----
S8BXU4_360_446        ---LYIRDVLRPLQESQLRTHLV-QLASKSA-DDDSVL-----E--MIYLDGIKTHCFA-----IFSSVQACSRARNGVHGKL-FPN-EKNRKLVLADYVPEEKID-----
F9X577_224_309        ---ALYICNLVRLPLQPSALREHLL-SIATPQS-NDAPFI-----E--TFFLDRIKTHAFV-----LFTLPAAIRARSSIHQV-WPD-EPQRKPLFADFIPPEQ-----
UPI0001BF7357_347_434 ---LYIKNLMRPLRPDFLRQYLE-ELAPPGLRDPDSV-----Q--DFHLDHIKTHAFV-----SFTSVAAARARVALHGKI-WPN-ERNRKLWVDFIPEPDRV-----
G2Q2J2_296_363        ---ELALPGAALPDDCL-----V--RFYLDQVIRTHAFV-----RFTSVAAASRVRTALHGTW-WPN-ERNRKLWVDFVPEKVD-----
G9MZ12_257_346        ---AIYISNLMRPLRPDDLQNHV-SLATHDSNKGDAT-----A--RFYLDQIRTHAFV-----AFDSVATQQRV'TALHDTW-WPN-ESNRKALSDFIPEPERVD-----
AOA084RLV5_298_387    ---ALYISNLMRPLRPQDVRDHL-SLATRPGDFINDDVI-----S--NFFLDQIRTHAFV-----VDSVYASRVRTALHAHV-WPN-ESNRKALWDFVPEEKVD-----
G1XC72_440_495        ---TL--E--SIYLDGIKTHCFA-----VFSVQACSRARNGMHGKI-FPN-ERNRVLADYVPEKVD-----
J4WJ00_296_352        ---CVI--V--QFHLQIRTHAFV-----VLSVQAAARVRSKLDHRV-WPN-ESNRKALCVDVFPPEKID-----
AOA225AA89_324_412    ---IYIRNLMRPLQPLNLKNHLL-SLAPAERQPDAEVL-----L--DFFLDSIKTHCFA-----IFDSVSTASRVSRAVHGTW-WPN-ERDRKPLWVDFIPEKVD-----
AOA0K0EYT9_475_542    ---KNVIYINNLTRPFCALQLKAMLQ-VHN-----T-ML--ED--HFHLMDKKSKCIA-----VYKNEEATAISAVLAENK-FPQ--DE-----
AOA090LB46_470_536    ---KNVIYINNLTRPFCALQLKAMLQ-VHN-----T-ML--ED--HFHLMDKKSKCIA-----VYKNEEATAISAVLAENK-FPQ--D-----
AOA0N4Z9Q3_429_495    ---KNVVYINNLTRPFCALQLKAMLQ-SHN-----T-ML--DE--HFYEMDKKSKCVA-----VYRSENAATAICEVLAENK-FPQ--D-----

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