

Fig 1: Ribbon representation OAH; structurally conserved superfamily specific core regions are in yellow; OAH specific variable regions are in blue.

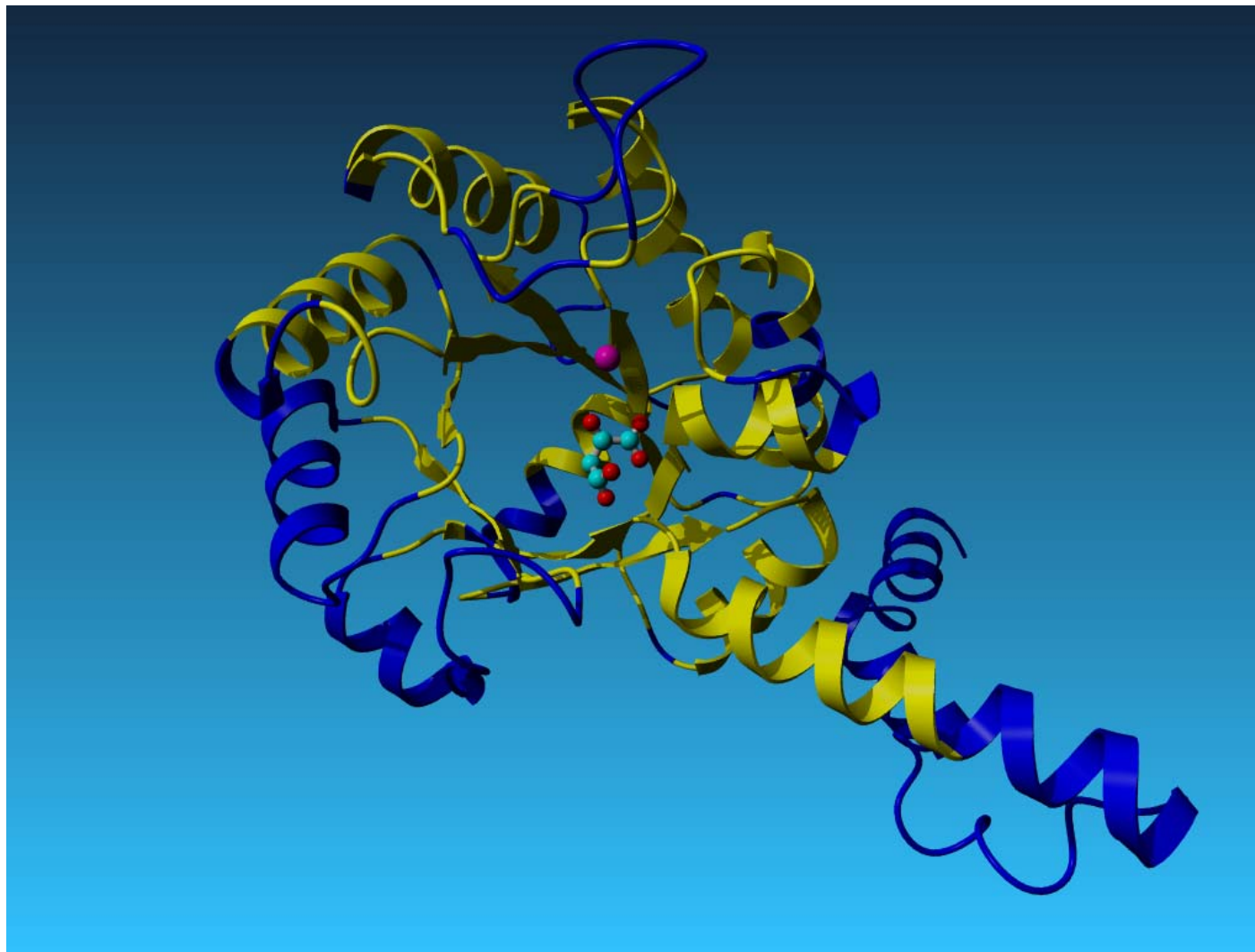
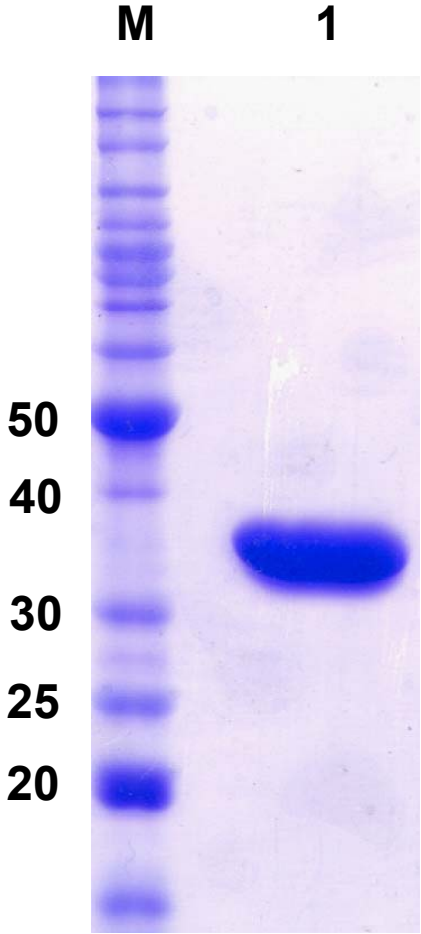


Fig. 2: SDS-PAGE results of purified OAH from *Botryotinia fuckeliana*.



Lane M: Standard molecular weight marker; Lane 1: purified OAH

Fig. 3: Structural multiple sequence alignment of the Isocitrate Lyase/PEP Mutase Enzyme Superfamily.

Alignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Position	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Number	0	0	0	1	2	2	2	3	4	4	4	5	5	6	6	7	8	9	9
	1	6	7	0	0	6	7	0	0	1	9	0	6	7	0	9	0	0	4
Consensus	GAKKLR DYVQALGALDGNQALQAAGA FKAIYLSGWQVAAD DLGLYPLNS RRINNAL LP I I ADADTGF GG ALNVARLVKAMIEAGAAGVHIEDQL																		
Alignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Position	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number	0	0	0	1	2	2	2	3	4	4	4	5	5	6	6	7	8	9	9
	1	6	7	0	0	6	7	0	0	1	9	0	6	7	0	9	0	0	4
1DQUA	QAKKLV TASFTFGALDPVQVTQMAKY LDTIYVSGWQSSST DLADYPYDT EHLFFAQ RPIIADADTGHGG LTAVMKLTKLFVERGAAGIHI EDQA																		
1DQUA	QAKKLV	EASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NHLWMAQ	RPIIADADTGHGG	LTAVMKLTKLFVERGAAGIHI EDQA												
40743537	QAKKLV	EASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NHLWMAQ	RPIIADADTGHGG	LTAVMKLTKLFVERGAAGIHI EDQA												
Q5B1E6	QAKKLV	EASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NHLWMAQ	RPIIADADTGHGG	LTAVMKLTKLFVERGAAGIHI EDQA												
P28298	QAKKLV	EASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NHLWMAQ	RPIIADADTGHGG	LTAVMKLTKLFVERGAAGIHI EDQA												
S2685	QAKKLV	EASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NHLWMAQ	RPIIADADTGHGG	LTAVMKLTKLFVERGAAGIHI EDQA												
2317	QAKKLV	EASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NHLWMAQ	RPIIADADTGHGG	LTAVMKLTKLFVERGAAGIHI EDQA												
Q4WQP2	QSKKLV	VASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NQLFMAQ	RPIIADADTGHGG	LTAVMKLTKLFI ERGAAGIHI EDQA												
38259306	QSKKLV	VASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NQLFMAQ	RPIIADADTGHGG	LTAVMKLTKLFI ERGAAGIHI EDQA												
Q6T267	QSKKLV	VASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NQLFMAQ	RPIIADADTGHGG	LTAVMKLTKLFI ERGAAGIHI EDQA												
16304093	QSKKLV	TASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NQLWMAQ	APIIADADTGHGG	LTAVMKLTKLFI ERGAAGIHI EDQA												
Q96TP5	QSKKLV	TASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPMNT	NQLWMAQ	APIIADADTGHGG	LTAVMKLTKLFI ERGAAGIHI EDQA												
14134098	QAKKLV	TVSYTYGCLEPTMVTQMAKY	LDTIYVSGWQSSST	DLADYPMNT	NQLFMAQ	RPIIADADTGHGG	LTAVMKLTKLFVERGAAGIHI EDQA												
Q96WZ5	QAKKLV	TVSYTYGCLEPTMVTQMAKY	LDTIYVSGWQSSST	DLADYPMNT	NQLFMAQ	RPIIADADTGHGG	LTAVMKLTKLFVERGAAGIHI EDQA												
23664452	QSKKLV	DVSYTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPYTT	GHLFMAQ	RPIIADADTGHGG	LTAIMKLTCLFIEKGAAGIHI EDQA												
Q86ZF1	QSKKLV	DVSYTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPYTT	GHLFMAQ	RPIIADADTGHGG	LTAIMKLTCLFIEKGAAGIHI EDQA												
SS1G_04975	LSKKLV	DASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPYTT	AHLFMAQ	RPIIADADTGHGG	LTAVMKLTKLFVEKGAAGIHI EDQA												
23345281	QSKKLV	DASYTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPYTT	SHLFMAQ	RPIIADADTGHGG	LTAVMKLTKLFI EKGAAGIHI EDQA												
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2971	QAKKLV	DASYTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPYTT	GHLFMAQ	RPIIADADTGHGG	LTAVMKLTKLFI EKGAAGIHI EDQA												
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10178959	QAKKLV	TASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPYTT	EHLWFAQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHI EDQA												
Q9HFN2	QAKKLV	TASFTYGCLEPTMVTQMAKY	LDTVYVSGWQSSST	DLADYPYTT	EHLWFAQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHI EDQA												
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P20014	QSDKLF	SVSFTTFGALDPIHVAQMAKY	LDSIYVSWGQCSST	DLADYPMDD	EHLWFAQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHIEDQA
WZCK	QSDKLF	SVSFTTFGALDPIHVAQMAKY	LDSIYVSWGQCSST	DLADYPMDD	EHLWFAQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHIEDQA
46433605	QADKLF	TVSFTTFGALDPIHVAQMAKY	LDSIYVSWGQCSST	DLADYPMDD	EHLWFAQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHIEDQA
Q59RB8	QADKLF	TVSFTTFGALDPIHVAQMAKY	LDSIYVSWGQCSST	DLADYPMDD	EHLWFAQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHIEDQA
6980002	QADKLF	TVSFTTFGALDPIHVAQMAKY	LDSIYVSWGQCSST	DLADYPMDD	EHLWFAQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHIEDQA
Q9P8Q7	QADKLF	TVSFTTFGALDPIHVAQMAKY	LDSIYVSWGQCSST	DLADYPMDD	EHLWFAQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHIEDQA
49654703	QAKKLY	SASFTTFGALDPVQVTQMAKY	LDSIYVSWGQCSST	DLADYPMDD	EHLWFAQ	RPIIADADTGHGG	ITAILKLTCLFVERGAAGIHIEDQA
Q6BRY4	QAKKLY	SASFTTFGALDPVQVTQMAKY	LDSIYVSWGQCSST	DLADYPMDD	EHLWFAQ	RPIIADADTGHGG	ITAILKLTCLFVERGAAGIHIEDQA
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46100101	QAKKLV	TTSHTYFALDPVQVTQMAKH	LETVYVSWGQCSST	DLADYPSNT	EHLFMAQ	RPIIADADTGHGG	LTAVMKLTKMFVEKGAAGIHIEDQA
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S3995	QADKLF	TASFTYASLDPVQVTQMAKY	LDSIYVSWGQCSST	DLGGYPMDD	EHLWFAQ	RPIIADAETGHGG	LTAVVKLTKMFIERGAAGIHIEDQA
13397903	QAQKLF	TASFTTFGALDPIHITQMAKY	LDTIYVSWGQCSST	DLADYPMDD	RLILRRQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHIEDQA
Q9C124	QAQKLF	TASFTTFGALDPIHITQMAKY	LDTIYVSWGQCSST	DLADYPMDD	RLILRRQ	RPIIADADTGHGG	ITAIKLTCLFIERGAAGIHIEDQA
50255921	QAKKLV	GCTATYFALDPVQVTQMAKY	LETVYVSWGQCSST	DLADYPSNT	AQLFTAQ	RPIIADADTGHGG	LTAVMRLTKMMVESGAAGIHIEDQA
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18030082	QAKKLV	GCTATYFALDPVQVTQMAKY	LETVYVSWGQCSST	DLADYPSNT	AQLFTAQ	RPIIADADTGHGG	LTAVMRLTKMMVESGAAGIHIEDQA
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P28240	MARKLF	TVSKTFGALDPVQISQMAKY	LDTIYISGWQCSST	DLADYPMDD	EHLFKAQ	TPIVADADAGHGG	LTAVFKLTKMFIERGAAGIHMEDQT
50290809	MAKKVY	TVSRTFALDPVQVSMMAKY	LDTIYVSWGQCSST	DLADYPMDD	EHLFKAQ	TPIVADADAGHGG	LTAVFKLTKMFIERGAAGIHMEDQT
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44982568	MADKLV	TVSQTFGVLDPVQMTQMVKY	LDTIYVSWGQCSST	DLADYPMDD	EHLFMAQ	RPIIADADTGHGG	LTAVFKLTKMFIERGAAGIHMEDQS
094198	MADKLV	TVSQTFGVLDPVQMTQMVKY	LDTIYVSWGQCSST	DLADYPMDD	EHLFMAQ	RPIIADADTGHGG	LTAVFKLTKMFIERGAAGIHMEDQS
50305203	MSQKLF	TVSKTFGALDPVQVTQMSKY	LDTIYVSWGQCSST	DLADYPMDD	EHLFKAQ	TPIVADGDAGHGG	LTAVFKLTKMFIERGAAGIHIEDQT
Q8NJ72	MSQKLF	TVSKTFGALDPVQVTQMSKY	LDTIYVSWGQCSST	DLADYPMDD	EHLFKAQ	TPIVADGDAGHGG	LTAVFKLTKMFIERGAAGIHIEDQT
P25248	MAKKLV	TASRTFALDPVQVTMMMAKH	LDTIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
WZRP	MAKKLV	TASRTFALDPVQVTMMMAKH	LDTIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
P93110	LAKKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
2143227	MAKKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
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34098915	MAKKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
P49296	LAKKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
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P15479	LAKKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
12005499	MAKKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	QHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
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Q41084	LAKKLV	TASRTFALDPVQVAMMAKY	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	RPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQA
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P17069	MAKKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIEDQS
P49297	LAQKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	ATATVKLCKLFVERGAAGVHIEDQS
T0635	LAQKLV	TASRTFALDPVQVTMMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	ATATVKLCKLFVERGAAGVHIEDQS
50937953	MAKKLV	TASRTFALDPVQVAMMAKH	LDSIYVSWGQCSST	DLADYPYDD	EHLFFAQ	KPIIADGDTGFGG	ATATVKLCKLFVERGAAGVHIEDQS

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P45456	MAKKLW	TASRTFGALDPVQVTQMAKH	LDTIYVSWGQCSAT	DLADYPYDT	EHLFFAQ	RPIIADGDTGFGG	TTATVKLCKLFVERGAAGIHIHEDQS
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553043	MAKKLW	TASRTFGALDPVQVTMMAKH	LDTIYVSWGQCSST	DLADYPYDT	EHLFFAQ	KPIIADGDTGFGG	TTATVKLCKLFVERGAAGVHIHEDQS
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49651987	QAEKLF	LPVHTTGSVDPVQMTQSAPH	QEVVYISGWACSSSL	DFGDYPYDT	DRIFRAQ	RPIIADADTGHGG	LSAVMKLAKLFAERGAAGIHIHLEDQL
Q6BZP5	QAEKLF	LPVHTTGSVDPVQMTQSAPH	QEVVYISGWACSSSL	DFGDYPYDT	DRIFRAQ	RPIIADADTGHGG	LSAVMKLAKLFAERGAAGIHIHLEDQL
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46097540	AADKLF	TPAHTMGALDPVQSSQMAHN	QEVVYVSWGACSSV	DLADYPYTT	QRLFKAQ	RPIIADADTGHGG	LSTVFKLAKLFAEQGAAGIHIHLEDQL
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Q7SG83	MARKLW	KPIHTLGAIDPVQMTQQAPH	QEVLYISGWACSSV	DFGDYPYNT	QRLHKAQ	RPIIADGDTGHGG	LTAVMKLAKLFAENGAAGVHFEDQM
Q4WCY6	MARKLF	KPVHTMGALDPVQMTQQAPN	QEVLYISGWACSSSL	DFGDYPYNT	QRLFKAQ	RPIVADGDTGHGG	LSAVLKLAKLFAENGAAGVHFEDQL
42544429	MAQKLF	EPIHTMGALDPVQMTQQAPH	QEVLYISGWACSSSL	DFGDYPYNT	QRLAKAQ	RPIIADGDTGHGG	LSAVLKLAKLFAENGAAGVHFEDQL
38100211	MARKLW	KPIHTLGAIDPIQMTQQAAH	QEVLYVSWGACSSV	DFGDYPYNT	QRLAKAQ	RPIIADGDTGHGG	LTAVTKLAKLFAEAGAAVHFEDQM
Q51MC5	MARKLW	KPIHTLGAIDPIQMTQQAAH	QEVLYVSWGACSSV	DFGDYPYNT	QRLAKAQ	RPIIADGDTGHGG	LTAVTKLAKLFAEAGAAVHFEDQM
61657961	MARKLF	KPVHTMGALDPVQMTQQAPN	QEVLYVSWGACSSV	DFGDYPYNT	QRLFKAQ	RPIIADGDTGHGG	LTAVLKLAKLFAENGAAGVHFEDQM
Q599M3	MARKLF	KPVHTMGALDPVQMTQQAPN	QEVLYVSWGACSSV	DFGDYPYNT	QRLFKAQ	RPIIADGDTGHGG	LTAVLKLAKLFAENGAAGVHFEDQM
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Q750K8	QAERLH	EAVSTLGVDPVQMTQLARC	IEAAYVSWGACSSST	DFGDYPYDT	ERIFRAQ	KPIIADGDMGHGG	STTVMKLAKLFAEKGAAGIHIHLEDQM
6325263	QARKLF	TPLHTLGVDPVQMSQLARC	IKVAYISGWACSSST	DFGDYPYDT	ERIFKAQ	KPIIADADMGHGG	PTTVMKVAKLFAEKGAAGIHIHLEDQM
Q12031	QARKLF	TPLHTLGVDPVQMSQLARC	IKVAYISGWACSSST	DFGDYPYDT	ERIFKAQ	KPIIADADMGHGG	PTTVMKVAKLFAEKGAAGIHIHLEDQM
49528492	PSRKLH	KPLHTLGVLPVQMTQLSRC	LKVAYVSWGACSSST	DFGDYPYNT	ERIMKAQ	KPIIADGDMGHGG	PTTVMKVAKLFAEKGAAGVHFEDQL
Q6FKR5	PSRKLH	KPLHTLGVLPVQMTQLSRC	LKVAYVSWGACSSST	DFGDYPYNT	ERIMKAQ	KPIIADGDMGHGG	PTTVMKVAKLFAEKGAAGVHFEDQL
094099	MARKLF	KPIHTMGALDPVQMTQQAAN	QEVLYISGWAYSSV	DFGDYPYNT	QRLAKAQ	RPIIADGDTGHGG	LSAVLKLAKLFAENGAAGVHFEDQM
3282211	MARKLF	KPIHTMGALDPVQMTQQAAN	QEVLYISGWAYSSV	DFGDYPYNT	QRLAKAQ	RPIIADGDTGHGG	LSAVLKLAKLFAENGAAGVHFEDQM

Alignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Position	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number	0	0	0	1	2	2	3	4	4	5	5	6	6	7	8	9	9
	1	6	7	0	0	6	7	0	0	1	9	0	6	7	0	9	0

1F61A
Consensus GAEKLW PYVNALGALTGNQAVQQVRA LKAIYLSGWQVAGD DQSLYPANS RRINNAL APIVADAEAGFGG ALNAFELMKAMIEAGAAGVHWEDQL

1F61A	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F61B	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F8MA	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F8MB	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F8MC	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F8MD	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F8IA	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F8IB	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F8IC	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
1F8ID	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
57116734	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
P0A5H3	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
P0A5H4	GAEVLW	EWNALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKALIAAGVAGSHWEDQL
41410059	GAEVLW	EYINALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVFELQKAMIAAGVAGSHWEDQL

Q73SW2	GAEVLW	EYINALGALTGNMAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVFELQKAMIAAGVAGSHWEDQL
54027204	GSEILW	DYINSLGALTGNQAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKAMIAAGVAGSHWEDQL
Q5YP09	GSEILW	DYINSLGALTGNQAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKAMIAAGVAGSHWEDQL
15822684	GSEILW	DYINSLGALTGNQAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKAMIAAGVAGSHWEDQL
Q938W9	GSEILW	DYINSLGALTGNQAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKAMIAAGVAGSHWEDQL
496654	GSEILW	DYINSLGALTGNQAVQQIRA	LQAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	ALNAYELQKAMIVAGAAGVHWEDQL
P41554	GSEILW	DYINSLGALTGNQAVQQIRA	LQAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	ALNAYELQKAMIVAGAAGVHWEDQL
P42449	GSEILW	GYINALGALTGNQAVQQVRA	LKAVYLSGWQVAGD	DQSLYPANS	RRINNAL	VPIVADGEAGFGG	ALNVYELQKAMIAAGAAGTHWEDQL
21325102	GSEILW	GYINALGALTGNQAVQQVRA	LKAVYLSGWQVAGD	DQSLYPANS	RRINNAL	VPIVADGEAGFGG	ALNVYELQKAMIAAGAAGTHWEDQL
Q6F5A3	GSEILW	GYINALGALTGNQAVQQVRA	LKAVYLSGWQVAGD	DQSLYPANS	RRINNAL	VPIVADGEAGFGG	ALNVYELQKAMIAAGAAGTHWEDQL
Q8RQN6	GAEILW	DYINALGALTGNQAVQQVRA	LKAVYLSGWQVAGD	DQSLYPANS	RRINNAL	VPIVADGEAGFGG	ALNVYELQKAMITAGAAGTHWEDQL
19912873	GAEILW	DYINALGALTGNQAVQQVRA	LKAVYLSGWQVAGD	DQSLYPANS	RRINNAL	VPIVADGEAGFGG	ALNVYELQKAMITAGAAGTHWEDQL
25028788	GAEILW	DYINALGALTGNQAVQQVRA	LKAVYLSGWQVAGD	DQSLYPANS	RRINNAL	VPIVADGEAGFGG	ALNVYELQKAMITAGAAGTHWEDQL
Q4NLQ3	GSEKLW	GYTNALGALTGNQAVQQVKA	LRAIYLSGWQVAAD	DQSLYPANS	RRINNAL	VPIVADAEAGFGG	PLNAYELMKSMIQAGASGVHWEDQL
48835839	GAERLW	DYINALGALTGNQAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	VLNAYELMKAMIAAGAAGVHWEDQL
52783628	GSEILW	DYINSLGALTGNQAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKAMIAAGVAGSHWEDQL
Q5XTP4	GSEILW	DYINSLGALTGNQAVQQVRA	LKAIYLSGWQVAGD	DQSLYPANS	RRINNAL	APIVADGEAGFGG	ALNVYELQKAMIAAGVAGSHWEDQL
14970647	GAERLW	DYVHALGALTGGQAVQQIKA	LQAIYLSGWQVAAD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	PLNAFELAKAMIAAGAAGIHYEDQL
Q93J62	GAERLW	DYVHALGALTGGQAVQQIKA	LQAIYLSGWQVAAD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	PLNAFELAKAMIAAGAAGIHYEDQL
29605689	GAERLW	DYVHALGALTGGQAVQQVKA	LQAIYLSGWQVAAD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	PLNAFELTKAMIAAGAAGIHYEDQL
Q82LG7	GAERLW	DYVHALGALTGGQAVQQVKA	LQAIYLSGWQVAAD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	PLNAFELTKAMIAAGAAGIHYEDQL
19070369	GADRLW	DYVHALGALTGGQAVQQVRA	LQAIYLFGWQVAAD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	PLNAFELTKAMIEAGAAGIHYEDQL
Q8RPZ0	GADRLW	DYVHALGALTGGQAVQQVRA	LQAIYLFGWQVAAD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	PLNAFELTKAMIEAGAAGIHYEDQL
53761421	GSEKLW	PFVNSLGALTGNQAMQQVKA	LKAIYLSGWQVAGD	DQSLYPANS	KRINNTF	APIVADAEAGFGG	VLNAFELMKSMIEAGAAGVHFEDQL
48768139	GAEKLW	PFVNTLGALTGNQAMQQVKA	LKAIYLSGWQVAGD	DQSLYPANS	KRINNTF	APIVADAEAGFGG	VLNAFELMKSMIDAGAAGVHFEDQL
48787724	GQAKLW	PFVNSLGALTGNQAMQQVKA	LKAIYLSGWQVAGD	DQSLYPANS	KRINNTL	APIVADAEAGFGG	VLNAFELMKAMIEAGAAGVHFEDQL
46199787	GAEKLW	PYVHTFGAYTGAMAVEMVRA	LEAIYLSGWQVAAD	DQSLYPYNS	KRINNAL	VPIVADAEAGFGG	ALNVFELTKAMIEAGAAGIHYEDQL
Q5SH94	GAEKLW	PYVHTFGAYTGAMAVEMVRA	LEAIYLSGWQVAAD	DQSLYPYNS	KRINNAL	VPIVADAEAGFGG	ALNVFELTKAMIEAGAAGIHYEDQL
Q72HK2	GAEKLW	PYVHTFGAYTGAMAVEMVRA	LEAIYLSGWQVAAD	DQSLYPYNS	KRINNAL	VPIVADAEAGFGG	ALNVFELTKAMIEAGAAGIHYEDQL
17428373	GAEKLW	PFVNALGALTGNQAMQQVKA	LKAIYLSGWQVAGD	DQSLYSVDS	KRINNTF	APIVADAEAGFGG	VLNAFELMKAMIEAGAAGVHFEDQL
Q8XZN7	GAEKLW	PFVNALGALTGNQAMQQVKA	LKAIYLSGWQVAGD	DQSLYSVDS	KRINNTF	APIVADAEAGFGG	VLNAFELMKAMIEAGAAGVHFEDQL
17402487	GSEKLW	PFVNSLGALSNGQAMQQVKA	LKAIYLSGWQVAGD	DQSLYPANS	KPINNTF	APIVADAEAGFGG	VLNAFGLMKSMIEAGAAGVHFEDQL
Q8VM96	GSEKLW	PFVNSLGALSNGQAMQQVKA	LKAIYLSGWQVAGD	DQSLYPANS	KPINNTF	APIVADAEAGFGG	VLNAFGLMKSMIEAGAAGVHFEDQL
51891728	AAEKLW	PYVPALGALTGNQAVQMVKA	LKAIYLSGWQVAAD	DQSLYPANS	QRINNAL	VPIVADAEAGFGG	PLNAFELMKAMIEAGAAVHFEDQL
Q67RW8	AAEKLW	PYVPALGALTGNQAVQMVKA	LKAIYLSGWQVAAD	DQSLYPANS	QRINNAL	VPIVADAEAGFGG	PLNAFELMKAMIEAGAAVHFEDQL
21106322	GAEKLW	PFVNALGALTGNQAMQQIKA	LKAIYLSGWQVAAD	DQSLYPADS	KRINNTL	QPIVADAEAGFGG	VLNAFELMKAMIEAGAAGVHFEDQL
Q8PQR5	GAEKLW	PFVNALGALTGNQAMQQIKA	LKAIYLSGWQVAAD	DQSLYPADS	KRINNTL	QPIVADAEAGFGG	VLNAFELMKAMIEAGAAGVHFEDQL
Q9RW41	GANKLW	PFVNALGALTGNQAMQQVKA	LKAIYLSGWQVAGD	DQSLYPASS	KRINNTL	VPIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
6458545	GANKLW	PFVNALGALTGNQAMQQVKA	LKAIYLSGWQVAGD	DQSLYPASS	KRINNTL	VPIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
45915033	GANQLW	NFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	RRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
15073642	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
Q92RX6	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
23348470	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
Q8FZ78	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
Q57BR0	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLDAFELMKAMIEAGAAGVHFEDQL
17934518	GANRLW	NFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
Q8UHS2	GANRLW	NFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
17982313	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGD	PLDAFELMKAMIEAGAAGVHFEDQL
Q8YIN4	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGD	PLDAFELMKAMIEAGAAGVHFEDQL
Q988Z4	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
13475453	GANRLW	DFVNALGALSNGQAMQMVRA	LKAIYLSGWQVAAD	DQSLYPANA	KRINRTL	APIVADAEAGFGG	PLNAFELMKAMIEAGAAGVHFEDQL
Q4NUA8	GALRLW	PYVNALGALTGNQAVQQVKA	LKAIYLSGWQVAAD	DQSLYPANS	RRINNAL	APIVADAEAGFGG	ALNVFELMKAMIEAGAAGVHFEDQL
46106790	GAERLW	PFVNRALGALTGNQAVQQVKA	LEAIYVSGWQVAAD	DQSLYPANS	RRINQAL	APIVADAEAGFGG	ALNVFEITKAMIEAGAAGVHFEDQL

2811131	GAKKLW	DYINALGSLTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPVDS	RKINNAL	APIIADAEAGFGG	PLNAFELMKGMIEAGAAGVHFEDQL
P95328	GAKKLW	DYINALGSLTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPVDS	RKINNAL	APIIADAEAGFGG	PLNAFELMKGMIEAGAAGVHFEDQL
53795211	GAERLW	PYINALGALTGNQAMQVKVA	LKAIYLSGWQVAAD	DQSLYPANS	RNINNAL	APIVADAEAGFGG	PLNVFEIMKAYIEAGAAGVHFEDQL
26251682	GANKLW	PFVPALGAQTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPANS	KRINRSL	APIVADAEAGFGG	ALNCFELMKAYIEAGAAGVHYEDQL
5921579	GANKLW	PFVPALGAQTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPANS	KRINRSL	APIVADAEAGFGG	ALNCFELMKAYIEAGAAGVHYEDQL
Q8IA71	GANKLW	PFVPALGAQTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPANS	KRINRSL	APIVADAEAGFGG	ALNCFELMKAYIEAGAAGVHYEDQL
E8894	GANKLW	PFVPALGAQTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPANS	KRINRSL	APIVADAEAGFGG	ALNCFELMKAYIEAGAAGVHYEDQL
Q10663	GANKLW	PFVPALGAQTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPANS	KRINRSL	APIVADAEAGFGG	ALNCFELMKAYIEAGAAGVHYEDQL
Q55857	GAEKLW	NWVPALGALSNGQAVQMVRG	LRAIYLSGWQVAAD	DQSLYAVNS	RRINNAL	TPIVADAEAGFGG	PLNAYELMRSMIEAGASGVHWEDQL
60473198	GAEKLW	NWVPALGALSNGQAVQMVRG	LRAIYLSGWQVAAD	DQSLYAVNS	RRINNAL	TPIVADAEAGFGG	PLNAYELMRSMIEAGASGVHWEDQL
Q7KWP8	GAEKLW	NWVPALGALSNGQAVQMVRG	LRAIYLSGWQVAAD	DQSLYAVNS	RRINNAL	TPIVADAEAGFGG	PLNAYELMRSMIEAGASGVHWEDQL
42733942	GAEKLW	NWVPALGALSNGQAVQMVRG	LRAIYLSGWQVAAD	DQSLYAVNS	RRINNAL	TPIVADAEAGFGG	PLNAYELMRSMIEAGASGVHWEDQL
27527690	GAEKFW	DYVPALGALTGHQAVEMISA	LKAIYLSGWQVAGD	DQSLYPADS	KRINNAF	APIVADAEAGFGG	VLNAYELMLGMIEAGAACVHFEDQL
Q8GU31	GAEKFW	DYVPALGALTGHQAVEMISA	LKAIYLSGWQVAGD	DQSLYPADS	KRINNAF	APIVADAEAGFGG	VLNAYELMLGMIEAGAACVHFEDQL
746438	GANKLW	PFVPALGAQTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPANS	KRINRSL	APIVAHAEGFGG	ALNCFELMKAYIEAGAAGVHFEDQL
58737087	TSNKLW	PYVAALGAQTGNQAVQMIKA	LKAIYLSGWQVAAD	DQSLYPSNS	KRINKSL	APIVADCEAGFGG	SLNCFEITKAYIESGVAGVHFEDQL
Q5FBD5	TSNKLW	PYVAALGAQTGNQAVQMIKA	LKAIYLSGWQVAAD	DQSLYPSNS	KRINKSL	APIVADCEAGFGG	SLNCFEITKAYIESGVAGVHFEDQL
6003666	TSNKLW	PYVAALGAQTGNQAVQMIKA	LKAIYLSGWQVAAD	DQSLYPSNS	RRINKSL	APIVADCEAGFGG	SLNCFEITKSYIESGVAGVHFEDQL
Q9U6D8	TSNKLW	PYVAALGAQTGNQAVQMIKA	LKAIYLSGWQVAAD	DQSLYPSNS	RRINKSL	APIVADCEAGFGG	SLNCFEITKSYIESGVAGVHFEDQL
30145763	GANKLW	PFVPALGAQTGNQAVQMVRA	FTAIYLSGWQVAAD	DQSLYPVNS	RRINKSL	APIVADAEAGFGG	ALNCFELMKAFIEAGTSGVHFEDQL
Q9U3Q5	GANKLW	PFVPALGAQTGNQAVQMVRA	FTAIYLSGWQVAAD	DQSLYPVNS	RRINKSL	APIVADAEAGFGG	ALNCFELMKAFIEAGTSGVHFEDQL
39592662	GANKLW	PFVPALGAQTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPANS	RRINRSL	APIVADAEAGFGG	ALNCFELMKAYIEAGAAGVHYEDQL
Q61S36	GANKLW	PFVPALGAQTGNQAVQMVRA	LKAIYLSGWQVAAD	DQSLYPANS	RRINRSL	APIVADAEAGFGG	ALNCFELMKAYIEAGAAGVHYEDQL
17538588	GANKLW	PFVPALGAQTGNQAVQMVRA	FTAIYLSGWQVAAD	DQSLYPVNS	RRINKSL	APIVADAEAGFGG	ALNCFELMKAFIEAGTSGVHFEDQL
559906	AATAFY	KSVTTFGPYSPGQAVSLKRM	IEAIYLGWATS	DLASYPLSQ	AVLVRAL	PFIIADADTGHGG	DSHVRNLIRRFVEIGVPGYHIEDQR
39937454	RADMAA	KYTQSLGCWHGFIGQQKLIS	RRYIYLSGWMIAAL	DQSMHEKTS	EELYTFL	VPIIADIDAGFGN	AEATYLLAKKMIIEAGACALQIENQV
Q6N1L1	RADMAA	KYTQSLGCWHGFIGQQKLIS	RRYIYLSGWMIAAL	DQSMHEKTS	EELYTFL	VPIIADIDAGFGN	AEATYLLAKKMIIEAGACALQIENQV
27377566	RADMAA	KYTQSLGCWHGFIGQQKLIS	RTYLYLSGWMIAAL	DQSMHEKTS	EELYTFL	VPVIADIDAGFGN	AEATYLLAKKMIIEAGACALQIENQV
Q89SE5	RADMAA	KYTQSLGCWHGFIGQQKLIS	RTYLYLSGWMIAAL	DQSMHEKTS	EELYTFL	VPVIADIDAGFGN	AEATYLLAKKMIIEAGACALQIENQV
23105369	RKDMAE	VYTQSLGCWHGFIGQQKLIS	KKYLYLSGWMVAAL	DQSMHEKTA	EELYTFL	VPIIADIDAGFGN	AEATYLLARKMIIEAGACCIQIENQV
48771654	RADMAA	KYTQSLGCWHGFIGQQKMIS	RRYLYLSGWMVAAL	DQSMHEKTS	RELYTFL	VPIIADIDAGFGN	AEATYLLAKQFIEAGACCIQIENQV
48851159	RADMAA	NYTQSLGCWHGFIGQQKMIS	GRYLYLSGWMVAAL	DQSMHEKTS	EELYTFL	VPIIADIDAGFGN	AEATYLLAKKFIEAGACCIQIENQV
Q8RME3	RADMAA	KYTQSLGCWHGFIGQQKMIS	RRYLYLSGWMVAAL	DQSMHEKTS	RELYTFL	VPIIADIDAGFGN	AEATYLLAKQFIEAGACCIQIENQV
20269962	RADMAA	KYTQSLGCWHGFIGQQKMIS	RRYLYLSGWMVAAL	DQSMHEKTS	RELYTFL	VPIIADIDAGFGN	AEATYLLAKQFIEAGACCIQIENQV
46313250	RADMAA	KYTQSLGCWHGFIGQQKMIS	RRYLYLSGWMVAAL	DQSMHEKTS	RELYTFL	VPIIADIDAGFGN	AEATYLLAKQFIEAGACCIQIENQV
46321829	RADMAA	KYTQSLGCWHGFIGQQKMIS	RRYLYLSGWMVAAL	DQSMHEKTS	RELYTFL	VPIIADIDAGFGN	AEATYLLAKQFIEAGACCIQIENQV

Alignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Position	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number	0	0	0	1	2	2	3	4	4	4	5	5	6	6	7	8	9
1IGWA	1	6	7	0	0	6	7	0	0	1	9	0	6	7	0	9	0

Consensus GAEKLW GYVNSLGALTGGQAVQQA I EAIYLSGWQVAAD DQSLYPANS KRINNTF LPIVADAEAGFGG VLNAFELMKAMIEAGAAGVHFEDQL

1IGWA	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAVHFEDQL
1IGWC	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAVHFEDQL
1IGWD	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAVHFEDQL
1IGWB	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAVHFEDQL
16131841	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAVHFEDQL
556177	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAVHFEDQL
P05313	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAVHFEDQL
P0A9G6	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAVHFEDQL

P0A9G7	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAAVHFEDQL
26250784	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAAVHFEDQL
13364409	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAAVHFEDQL
Q7A953	GAAKMW	GYINSLGALTGGQALQQAKA	IEAVYLSGWQVAAD	DQSLYPANS	ERINNTF	LPIVADAEAGFGG	VLNAFELMKAMIEAGAAAVHFEDQL
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	1	6	7	0	0	6	7	0	0	1	9	0	6	7	0	9	0	0	0	4

1MUMA	PGARFR	NPLQIPGAINANHALLAQRA	FQAIYLSGGGVAAG	DLGITLDD	RRITDVC	LPLLVDADTGF	AFNVARTVKS	SMIKAGAAVH	IEDQV
1MUMA	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
16128316	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1MUMB	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
10QFA	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
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P77541	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1XG4D	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
12513159	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
Q8X695	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1XG3A	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1XG3C	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1XG4C	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1XG3B	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1XG4A	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1XG4B	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
26246347	PGKAFR	TPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
Q8FKH3	PGKAFR	TPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1XG3D	PGKAFR	NPLQIVGTINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	SMIKAGAAGLH	IEDQV
1UJQD	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
29142882	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
56414476	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
62126612	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
Q57SJ6	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
Q5PFW6	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
Q8Z905	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
16418870	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
Q56062	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
1UJQC	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
105QC	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
105QA	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
1UJQA	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
105QD	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
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1UJQB	PGQAFR	NPLQIVGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVKS	IAKAGAAALH	IEDQV
37527415	AGLAFR	SPLQVVGTINANHALLAKRA	YKAIYLSGGGVSAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVRS	SMIKAGAAGLH	IEDQV
Q7N1D4	AGLAFR	SPLQVVGTINANHALLAKRA	YKAIYLSGGGVSAG	DLGISTLDD	RRITDVC	LPLLVDADIGFGS	AFNVARTVRS	SMIKAGAAGLH	IEDQV
9946688	PGQRFR	HPLQVVGTINANHALLAKRA	FKAIYLSGGGVAAG	DLGISGLDD	RRITDVC	LPLLVDVDTGFGS	AFNVARTVKS	SMIKFGAAAMH	IEDQV
Q9I5E2	PGQRFR	HPLQVVGTINANHALLAKRA	FKAIYLSGGGVAAG	DLGISGLDD	RRITDVC	LPLLVDVDTGFGS	AFNVARTVKS	SMIKFGAAAMH	IEDQV
50085814	AGQKFR	RPLQVVGAINANHALLAKRA	YKAIYLSGGGVAAG	DLGISNLDD	RRITDVC	LPLLVDADTGFGA	AFNIARTT	TKSLIKFGAAAMH	IEDQV
Q6F8W3	AGQKFR	RPLQVVGAINANHALLAKRA	YKAIYLSGGGVAAG	DLGISNLDD	RRITDVC	LPLLVDADTGFGA	AFNIARTT	TKSLIKFGAAAMH	IEDQV
15624086	AGARFR	HPLQVVGTINANHALLAKRA	YRAIYLSGGGVAAG	DLGISNLDD	RRITDVC	TPLLVDVDTGFGA	AFNVARTT	TKSLIKFGAAAMH	IEDQV
Q937P0	AGARFR	HPLQVVGTINANHALLAKRA	YRAIYLSGGGVAAG	DLGISNLDD	RRITDVC	TPLLVDVDTGFGA	AFNVARTT	TKSLIKFGAAAMH	IEDQV
17429018	PGARFR	SPLQIVGAINANHALLAKRA	YRVIYLSGGGVAAG	DLGISGLDD	RRITDVC	VPLLVDVDTGFGA	AFNVARTT	RSLSIKFGAAAMH	IEDQV
Q8XXW3	PGARFR	SPLQIVGAINANHALLAKRA	YRVIYLSGGGVAAG	DLGISGLDD	RRITDVC	VPLLVDVDTGFGA	AFNVARTT	RSLSIKFGAAAMH	IEDQV
23468856	PGQRFR	QPLQVVGAINANHALLARRA	FKAIYLSGGGVAAG	DLGITGLED	RRITDVC	LPLLVDVDTGFGS	AFNVARTVRS	SMIKAGAAAIH	IEDQV

Q4ZUP4	PGQRF	QPLQVVGAINANHALLARRA	FKAIYLSGGGVAAG	DLGITGLED	RRITDVC	LPLLVDVDTGFGS	AFNVARTVRSMIKAGAAAIHIEDQV
4768432	AGARFR	SPLQIPGTINANHALLAKRA	YRAIYLSGGGVAAG	DLGISNLD	RRITDVC	TPLLVDVDTGFGA	AFNVARTTRSLIKFGAAAMHIEDQV
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45515200	AGARFR	HPLQVVGTTINANHALLAKRA	YRAIYLSGGGVAAG	DLGISGLED	RRISDVC	VPLLVDVDTGFGS	AFNVARTTRSLIKAGAGAMHIEDQV
28869487	PGQRF	QPLQVVGAINANHALLARRA	FKAIYLSGGGVAAG	DLGITGLED	RRITDVC	LPLLVDVDTGFGS	AFNVARTVRSMIKAGAAAIHIEDQV
Q883R3	PGQRF	QPLQVVGAINANHALLARRA	FKAIYLSGGGVAAG	DLGITGLED	RRITDVC	LPLLVDVDTGFGS	AFNVARTVRSMIKAGAAAIHIEDQV
26989058	PGQRF	HPLQVVGAINANHALLAKRA	FKAIYLSGGGVAAG	DLGITGLDD	RRITDVC	LPLLVDVDTGFGA	AFNVARTVRSMSKFGAAAIHIEDQV
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Q4URR4	AGARFR	SPLQVIGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGINTLED	RRITDVC	LPLLVDVDTGFGP	AFNIERTIKSLIKAGAAGCHIEDQV
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33597758	PGALFR	QPLQIIGAINANHALLAKRA	YRAIYLSGGGVAAG	DLGINTLDD	RRITDVC	VPLMVDIDTGF	AFNIARTVKSILKFGAAACHIEDQV
Q7W5Q7	PGALFR	QPLQIIGAINANHALLAKRA	YRAIYLSGGGVAAG	DLGINTLDD	RRITDVC	VPLMVDIDTGF	AFNIARTVKSILKFGAAACHIEDQV
Q7WD93	PGALFR	QPLQIIGAINANHALLAKRA	YRAIYLSGGGVAAG	DLGINTLDD	RRITDVC	VPLMVDIDTGF	AFNIARTVKSILKFGAAACHIEDQV
58580515	AGTRFR	SPLQVIGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGINTLED	RRITDVC	LPLLVDVDTGFGP	AFNIERTIKSLIKAGAGGCHIEDQV
Q5H4H5	AGTRFR	SPLQVIGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGINTLED	RRITDVC	LPLLVDVDTGFGP	AFNIERTIKSLIKAGAGGCHIEDQV
21107276	AGTRFR	SPLQVIGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGINTLED	RRITDVC	LPLLVDVDTGFGP	AFNIERTIKSLIKAGAGGCHIEDQV
Q8PND6	AGTRFR	SPLQVIGAINANHALLAQRA	YQAIYLSGGGVAAG	DLGINTLED	RRITDVC	LPLLVDVDTGFGP	AFNIERTIKSLIKAGAGGCHIEDQV
34103367	PGQRF	KPLQVVGAINAYAARLAEHS	FKALYLSGGGVAAS	DLGITLLED	RRITDNT	LPLLVDIDTGWGG	AFNIARAVRSLEKAGVAAVHIEDQV
Q7NWD3	PGQRF	KPLQVVGAINAYAARLAEHS	FKALYLSGGGVAAS	DLGITLLED	RRITDNT	LPLLVDIDTGWGG	AFNIARAVRSLEKAGVAAVHIEDQV
7225654	AGARFR	NPLAVAGCVNAYFARLATQS	FKAIYLSGGGVAAC	DLGITTMED	RRITDNV	TPLLVDIDVGGWG	AFNIARTIRNFERAGVAAVHIEDQV
Q9K0X5	AGARFR	NPLAVAGCVNAYFARLATQS	FKAIYLSGGGVAAC	DLGITTMED	RRITDNV	TPLLVDIDVGGWG	AFNIARTIRNFERAGVAAVHIEDQV
7380683	AGARFR	NPLAVAGCVNAYFARLATQS	FKAIYLSGGGVAAC	DLGITTMED	RRITDNV	TPLLVDIDVGGWG	AFNIARTIRNFERAGVAAVHIEDQV
Q9JT03	AGARFR	NPLAVAGCVNAYFARLATQS	FKAIYLSGGGVAAC	DLGITTMED	RRITDNV	TPLLVDIDVGGWG	AFNIARTIRNFERAGVAAVHIEDQV
59801862	AGARFR	NPLAVAGCVNAYFARLATQS	FKAIYLSGGGVAAC	DLGITTMED	RRITDNV	TPLLVDIDVGGWG	AFNIARTIRNFERAGVAAVHIEDQV
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28898422	PGAKFR	NPLQIVGTINPYCAMMAKNL	HQAIYLSGGGIANA	DLGITTLND	DRITNAC	LPLLVDIDTGF	AFNIARTIKQMEKAGAAAVHMEDQV
Q87P70	PGAKFR	NPLQIVGTINPYCAMMAKNL	HQAIYLSGGGIANA	DLGITTLND	DRITNAC	LPLLVDIDTGF	AFNIARTIKQMEKAGAAAVHMEDQV
54301915	PGKRF	NPLQIVGTINPYCAMMAEQV	HQAIYLSGGGIANA	DLGITTLND	RRITAAAT	LPLLVDIDTGF	AFNIARTVKEMERAGAAAHMEDQV
Q6LKY7	PGKRF	NPLQIVGTINPYCAMMAEQV	HQAIYLSGGGIANA	DLGITTLND	RRITAAAT	LPLLVDIDTGF	AFNIARTVKEMERAGAAAHMEDQV
46322811	AGAKFR	QPLQVVGAI TAYAAKMAQAV	FKAVYLSGGGVAAN	DLGISTMED	NRITNAT	LPLLVDIDTGWGG	AFNIARTVRSFIKAGVAAVHLEDQV
9655827	PGAKFR	HPLQIVGTINPYCAMMAKSI	HQAIYLSGGGIANA	DLGITTLND	ERITNAC	LPLLVDIDTGF	AFNIARTIKAMEKAGAAAVHMEDQV
Q9KSC2	PGAKFR	HPLQIVGTINPYCAMMAKSI	HQAIYLSGGGIANA	DLGITTLND	ERITNAC	LPLLVDIDTGF	AFNIARTIKAMEKAGAAAVHMEDQV
Q7ML98	PGAKFR	DPLQIVGTINPYCAMMAKRL	HQAIYLSGGGIANA	DLGITTLND	ERITNAC	LPLLVDIDTGF	AFNIARTIKAMEKAGAAAVHMEDQV
Q8D973	PGAKFR	DPLQIVGTINPYCAMMAKRL	HQAIYLSGGGIANA	DLGITTLND	ERITNAC	LPLLVDIDTGF	AFNIARTIKAMEKAGAAAVHMEDQV
27362222	PGAKFR	DPLQIVGTINPYCAMMAKRL	HQAIYLSGGGIANA	DLGITTLND	ERITNAC	LPLLVDIDTGF	AFNIARTIKAMEKAGAAAVHMEDQV
18121443	AGAKFR	QPLQVVGAI TAYAACKLAEQT	FKAVYLSGGGVAAN	DLGISTMDD	RRITDAV	IPLMVDIDTGWGG	AFNIARTIKSFIKAGVAAVHLEDQV
Q8VPT0	AGAKFR	QPLQVVGAI TAYAACKLAEQT	FKAVYLSGGGVAAN	DLGISTMDD	RRITDAV	IPLMVDIDTGWGG	AFNIARTIKSFIKAGVAAVHLEDQV
46317809	AGAKFR	QPLQVVGAI TAYAACKMAQAV	FKAVYLSGGGVAAN	DLGISTMED	NRITNAT	LPLLVDIDTGWGG	AFNIARTVRSFIKAGVAAVHLEDQV
Q8XTI6	AGARFR	QPLQVVGAI TAYAARMAEQT	FKAVYLSGGGVAAN	DLGISTMDD	RRITDAV	IPLMVDIDTGWGG	AFNIARTVRSFIKAGVAAVHLEDQV
17548343	AGARFR	QPLQVVGAI TAYAARMAEQT	FKAVYLSGGGVAAN	DLGISTMDD	RRITDAV	IPLMVDIDTGWGG	AFNIARTVRSFIKAGVAAVHLEDQV
28198421	PGQCFR	RPLQVIGAMNAYHALLAQRA	YRALYLSGGGVAAG	DLGINTLED	RRITDVC	LPLLVDIDTGF	ALNIERTIKTLIKAGAAACHIEDQV
Q87E18	PGQCFR	RPLQVIGAMNAYHALLAQRA	YRALYLSGGGVAAG	DLGINTLED	RRITDVC	LPLLVDIDTGF	ALNIERTIKTLIKAGAAACHIEDQV
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Q62A67	AGAKFR	QPLQVVGAI TAYAACKMAEAV	FKAVYLSGGGVAAN	DLGISTMDD	NRITNAT	LPLLVDIDTGWGG	AFNIARTIRSF IKAGVAVHLEDQV
Q63NU3	AGAKFR	QPLQVVGAI TAYAACKMAEAV	FKAVYLSGGGVAAN	DLGISTMDD	NRITNAT	LPLLVDIDTGWGG	AFNIARTIRSF IKAGVAVHLEDQV
56460535	PGAKLR	NPLQIVGTINAYTAMMAEKV	HKALYLSGAGVANA	DLGMTSLND	RRITAAAT	LPLLVDADTGWGG	AFNIARTVQEMTRAGAAMHIEDQV
Q5QZU4	PGAKLR	NPLQIVGTINAYTAMMAEKV	HKALYLSGAGVANA	DLGMTSLND	RRITAAAT	LPLLVDADTGWGG	AFNIARTVQEMTRAGAAMHIEDQV
15837836	PGQCFR	RPLQVIGAMNAYHALLAQRA	YRALYLSGGGVAAG	DLGMNTLED	RRITDVC	LPLLVDIDTGF	ALNIERTIKTLIKAGAAACHIEDQV
Q9PDZ4	PGQCFR	RPLQVIGAMNAYHALLAQRA	YRALYLSGGGVAAG	DLGMNTLED	RRITDVC	LPLLVDIDTGF	ALNIERTIKTLIKAGAAACHIEDQV
Q5X937	QGKKLR	KPLQVVGTTINAYAALQAKRA	FHAIYLSGAGVANA	DLGITTLND	RRIMSAV	LPLLVDIDTGWGG	AFSIARTIKEMIKAGAAAVHIEDQV
54296037	QGKKLR	KPLQVVGTTINAYAALQAKRA	FHAIYLSGAGVANA	DLGITTLND	RRIMSAV	LPLLVDIDTGWGG	AFSIARTIKEMIKAGAAAVHIEDQV

Q5X0G7	QGKKLR	KPLQVVGTINAYTALQAKRA	FHAIYLSGAGVANA	DLGITTLND	RRIMSAV	LPLLVDIDTGWGG	AFSIARTIKEMIKAGAAVHIEDQV
54293016	QGKKLR	KPLQVVGTINAYTALQAKRA	FHAIYLSGAGVANA	DLGITTLND	RRIMSAV	LPLLVDIDTGWGG	AFSIARTIKEMIKAGAAVHIEDQV
52840308	QGKKLR	KPLQVVGTINAYTALQAKRA	FHAIYLSGAGVANA	DLGITTLND	RRIMSAV	LPLLVDIDTGWGG	AFSIARTIKEMIKAEAAVHIEDQV
Q5ZZF8	QGKKLR	KPLQVVGTINAYTALQAKRA	FHAIYLSGAGVANA	DLGITTLND	RRIMSAV	LPLLVDIDTGWGG	AFSIARTIKEMIKAEAAVHIEDQV
52853883	AGARFR	QPLQIAGAINAYTAMMATQV	HQALYLSGAGVANA	DLGMTSLDN	RRITDAV	TPLLVDIDTGFGG	AFNIAQTIKMEKAGVAAVHIEDQV
57168400	AGKFKF	KPLTIVGAVNAYSALQATKI	HKALYLSGSGVASA	DLGIITALE	RRICSRV	TPLLVDADTGFGG	AFNIARTIKELIRAGAAATHIEDQV
53800983	-----	RPLQVIGAMNAYHALLAQRA	YRALYLSGDGVAAG	DLGINTLED	RRITDVC	LPLLVDIDTGFGP	ALNIERTIKTLIKAGAAACHIEDQV
52857198	-----	RPLQVIGAMNAYHALLAQRA	YRALYLSGGGVAAG	DLGINTLED	RRITDVC	LPLLVDIDTGFGP	ALNIERTIKTLIKAGAAACHIEDQV
53765957	PGARLR	RPLQVAGVINAYAAILAESA	FKALYLSGAGVANA	DLGMTNLND	RRITGVT	LPLLVDADTGFGP	AFVIGRTVREMIRAGVAGIHIEDQV
24371943	AGLRFR	KPLQIVGTTNAYFALMAEQT	FQALYLSGAGVANA	DLGMTSMND	GRITSAT	LPLLVDIDTGWGG	AFNIARTIKEFKIGVAAVHMEDQV
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48846178	AGKLF	KPLQIVGTINAYCAILAIEKA	HRAIYLSGAGVANA	DLGIISRSD	RRITGAS	LPLLVDIDTGWGE	EFGIDRTIKEMIRAGAAVHLEDQV
Q7VJ46	QGIKLR	NPLQIIGVINAYSALQAQKS	AKALYLSGGALAAM	DLGISSLED	RRITAAS	LPLLVDADTGWGG	AFNIARTIKDLTRSGAAGCHIEDQV
32261945	QGIKLR	NPLQIIGVINAYSALQAQKS	AKALYLSGGALAAM	DLGISSLED	RRITAAS	LPLLVDADTGWGG	AFNIARTIKDLTRSGAAGCHIEDQV
29654101	PGKLF	HPLQIVGAINAYCALLAENV	FKAIYLSGGVANT	DLGITDLHD	RRITAAT	LPLLVDIDTGFGG	AFTIARAIAKEMERAQVAAVHMEDQV
Q83DG5	PGKLF	HPLQIVGAINAYCALLAENV	FKAIYLSGGVANT	DLGITDLHD	RRITAAT	LPLLVDIDTGFGG	AFTIARAIAKEMERAQVAAVHMEDQV
47565706	LANRFR	EILQIPGAHDAMAALVAKNT	FSALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
30020419	LANRFR	EILQIPGAHDAMAALVAKNT	FSALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
Q81DR8	LANRFR	EILQIPGAHDAMAALVAKNT	FSALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
42781441	LANRFR	EILQIPGAHDAMAALVAKNT	FSALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
Q738L6	LANRFR	EILQIPGAHDAMAALVAKNT	FSALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
47527645	LANRFR	EILQIPGAHDAMAALVARNT	FLALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
52143124	LANRFR	EILQIPGAHDAMAALVARNT	FSALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
Q63BL3	LANRFR	EILQIPGAHDAMAALVARNT	FSALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
Q6HJ22	LANRFR	EILQIPGAHDAMAALVARNT	FSALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
Q81QR8	LANRFR	EILQIPGAHDAMAALVARNT	FLALYLSGAAYTAS	DLGIVTSTE	RDLVRAT	LPVLVDIDTGFGG	VLNVARTAVEMVEAKVAAVQIEDQQ
Q9Z9T7	LADRFR	AILQIPGAHDAMAALVAKKA	FSALYLSGDAYTAS	DLGIVTSTE	KDLVRAT	LPVLVDIDTGFGG	VLNVARTAQEMLEANVAAVQIEDQQ
10176547	LADRFR	AILQIPGAHDAMAALVAKKA	FSALYLSGDAYTAS	DLGIVTSTE	KDLVRAT	LPVLVDIDTGFGG	VLNVARTAQEMLEANVAAVQIEDQQ
Q9YFM7	PGLVLR	DIVVAPGVYNPAVALLAERM	FEALYLSGAAITGS	DLGLITLSE	SYITRVV	VPVIVDADTGFGE	AINVERTVRELERAGAAAQIEDQV
14600542	PGLVLR	DIVVAPGVYNPAVALLAERM	FEALYLSGAAITGS	DLGLITLSE	SYITRVV	VPVIVDADTGFGE	AINVERTVRELERAGAAAQIEDQV
Q4NA13	KRIRFR	TLQQFPGAFNPLSARLIEEK	FAGVYISGAVLAND	DIGLITLSE	GQIARMT	LPCIVDADTGFGE	PMNVARSVQIEINAGLAGLHIEDQF
48763226	AGTRFR	EILRLPGAHNHGAALQARAA	FEGVYLSGAAAMSAS	DLGLITLIED	RQIVRSA	LPLLVDGDTGYGE	ALNVMMHVRTFEEAGAGAVHLEDQL
50954025	KRAAFR	ELMRMPGAFTPLSARLIERK	FEGVYLSGAVLSAD	DIGLITLSE	ARSTQTA	LPALVDADTGFGE	PMNVARMVQTTLEDAGVSGLHIEDQV
Q6AHD7	KRAAFR	ELMRMPGAFTPLSARLIERK	FEGVYLSGAVLSAD	DIGLITLSE	ARSTQTA	LPALVDADTGFGE	PMNVARMVQTTLEDAGVSGLHIEDQV
P54528	LAGRFR	DILQIPGAHDGMAALLAKEA	FSAIYLSGAAYTAS	DLGIITSAE	ERAKDLV	LPLLVDIDTGFGG	VLNAARTAREMLEARVAAVQMEDQQ
16079468	LAGRFR	DILQIPGAHDGMAALLAKEA	FSAIYLSGAAYTAS	DLGIITSAE	ERAKDLV	LPLLVDIDTGFGG	VLNAARTAREMLEARVAAVQMEDQQ
23099722	LASQFR	GIAQIPGAHDAMAGLIAKEA	FQSLYLSGAAYTAS	DLGIVTSTE	RDIVRAT	LPILVDIDTGFGG	VLNVVRTAREMVEAHVAAVQLEDQK
Q8EP50	LASQFR	GIAQIPGAHDAMAGLIAKEA	FQSLYLSGAAYTAS	DLGIVTSTE	RDIVRAT	LPILVDIDTGFGG	VLNVVRTAREMVEAHVAAVQLEDQK
16082233	RGPATL	DIVVAPGVFSGISALMAERA	FQASYLSGSGVAGM	DLSVTTLPE	YRITTVS	LPLIVDADTGFGE	TVNVVRTVRMMEDAGAAAQIEDQE
Q9HIV0	RGPATL	DIVVAPGVFSGISALMAERA	FQASYLSGSGVAGM	DLSVTTLPE	YRITTVS	LPLIVDADTGFGE	TVNVVRTVRMMEDAGAAAQIEDQE
56963572	LATSFY	GILQIPGAHDAMAGLIAKQT	FTSLYLSGAAYTAS	DLGIVYSNE	REIVRAT	LPLLVDIDTGFGG	VMNVARTGVEMVEAGVAAVQMEDQD
Q5WH13	LATSFY	GILQIPGAHDAMAGLIAKQT	FTSLYLSGAAYTAS	DLGIVYSNE	REIVRAT	LPLLVDIDTGFGG	VMNVARTGVEMVEAGVAAVQMEDQD
25027273	RRKALR	PIVRLPGAFAFSPILVARSIEEA	FEGVYVSGAVVAAD	DIGLITLSE	RQIARAT	LPVLVDADTGFGE	PINAARTVTELEDAGVAGCQLEDQV
Q8FRP2	RRKALR	PIVRLPGAFAFSPILVARSIEEA	FEGVYVSGAVVAAD	DIGLITLSE	RQIARAT	LPVLVDADTGFGE	PINAARTVTELEDAGVAGCQLEDQV
20385922	RRQAFK	HIARLPGAFAFSPILARSIEEA	FEGVYVSGAVIAAD	DIGLITLSE	RQIARVT	LGVLVDADTGFGE	PMSAARTVAELEDAGVAGCHLEDQV
Q8NSH8	RRQAFK	HIARLPGAFAFSPILARSIEEA	FEGVYVSGAVIAAD	DIGLITLSE	RQIARVT	LGVLVDADTGFGE	PMSAARTVAELEDAGVAGCHLEDQV
39935462	AGVRF	GIVRMPGAHNHGAALQARAA	FEALYLSGAAMTAS	DLGMITVDE	RQIARAG	LPTLVDGDTGYGE	ALNVMMHVRTFEDAGAGAVHIEDQL
Q6N767	AGVRF	GIVRMPGAHNHGAALQARAA	FEALYLSGAAMTAS	DLGMITVDE	RQIARAG	LPTLVDGDTGYGE	ALNVMMHVRTFEDAGAGAVHIEDQL
15899316	MSQVLR	DFLMVPGVFNPFTAILAKKV	FKAVYLSGAALTSS	DIGLITLDE	RRIKEVV	IPIIVSDTGFGE	AMNVYRTVRVLEKAGADAIQIEDQR
Q97VN2	MSQVLR	DFLMVPGVFNPFTAILAKKV	FKAVYLSGAALTSS	DIGLITLDE	RRIKEVV	IPIIVSDTGFGE	AMNVYRTVRVLEKAGADAIQIEDQR
13541199	GPSQLR	DIVVAPGVVGGIGALIAEKR	FKAAYLSGSGVAGM	DLSVTTMSE	QRITAIS	LPLIVDADTGFGE	VVNVIRTVRVMEASGASAIHMEDQE
33599708	RNAALR	ELLVAPGAYDCVGARLVEQA	FAAIYLTGSGMSMS	DVGLMSFSE	ARVADMV	VPVIVDADTGFGE	PLNLIRTVRAFERAGLSGIQIEDQA
Q7WPG6	RNAALR	ELLVAPGAYDCVGARLVEQA	FAAIYLTGSGMSMS	DVGLMSFSE	ARVADMV	VPVIVDADTGFGE	PLNLIRTVRAFERAGLSGIQIEDQA

Q6MKA5	KRKNFR	KLLQMPGSWSPLVSMIAIEKA	FDGVYISGSVLSND	DIGLTSLTE	RQIARTT	LPTIIDIDTGFGE	PMSATRTVQEMIEMLAGCHIEDQI
42523930	KRKNFR	KLLQMPGSWSPLVSMIAIEKA	FDGVYISGSVLSND	DIGLTSLTE	RQIARTT	LPTIIDIDTGFGE	PMSATRTVQEMIEMLAGCHIEDQI
Q96ZM4	-----	-----MYLSGGALTSS	---MYLSGGALTSS	DLGIITLDE	RRIREVT	IPIIVDADTGFGE	VINVYRAVKVLEKAGANAIIQIEDQV
15922122	-----	-----MYLSGGALTSS	---MYLSGGALTSS	DLGIITLDE	RRIREVT	IPIIVDADTGFGE	VINVYRAVKVLEKAGANAIIQIEDQV
46134587	SSHKLR	EIIVIPGIYDCLSAKLAENI	FDVVATSGFGIAAS	DYGFILTATE	GRIAQSV	VPLIADLDTGYGN	ALNVMRTIKDAVQLGVAGVILLEDQE
47149	KARTFR	EILVVPSAYDALSAKVIQQA	FPAVHMTGSGTSAS	DLGFTSVSE	KNIVLAV	VPVIMDADAGYGN	AMSVWRATREFERVGVGYHLEDQV
17130953	SSHKLR	EIIVIPGIYDCLSAKLAENI	FDVVATSGFGIAAS	DYGFILTATE	GRIAQSV	VPLIADLDTGYGN	ALNVMRTIKDAVQLGVAGVILLEDQE
Q8YVW0	SSHKLR	EIIVIPGIYDCLSAKLAENI	FDVVATSGFGIAAS	DYGFILTATE	GRIAQSV	VPLIADLDTGYGN	ALNVMRTIKDAVQLGVAGVILLEDQE
P11435	KARTFR	EILVVPSAYDALSAKVIQQA	FPAVHMTGSGTSAS	DLGFTSVSE	KNIVLTV	VPVIMDADAGYGN	AMSVWRATREFERVGVGYHLEDQV
S2358	KARTFR	EILVVPSAYDALSAKVIQQA	FPAVHMTGSGTSAS	DLGFTSVSE	KNIVLTV	VPVIMDADAGYGN	AMSVWRATREFERVGVGYHLEDQV
46131504	--MTLK	GIVTAPGVYDAFSALLVEQA	FQAAYLSGASLAYT	DIGLLSLDD	RNIRERV	LPLIIVDADTGFGN	ALNVVQTVRVLERAGASAIQLEDQA
51317959	KARTFR	EILVVPSAYDALSAKVIQQA	FPAVHMTGSGTSAS	DLGFTSVSE	KNIVLAV	LPVIMDADAGYGN	AMSVWRATREFERVGVGYHLEDQV
Q5IW33	KARTFR	EILVVPSAYDALSAKVIQQA	FPAVHMTGSGTSAS	DLGFTSVSE	KNIVLAV	LPVIMDADAGYGN	AMSVWRATREFERVGVGYHLEDQV
46314862	RRAEFR	QGLLVAGTFNALSARVAADL	FGALYLSGAGVTNM	DLGFVGLGE	ARVRDAV	LPLMVDADTGFGN	ALNVLHTVRTLERSGADAIQLEDQV
Ani_XP_407942	AASKLR	AFITAPGVYDGLSARIALNV	FDALYMTGAGTAAS	DLGICTLND	EMISNLS	TPVISDADTGYGG	PIMVARTTEQYARAGVAAFHLEDQV
XP_661409	AASKLR	AFITAPGVYDGLSARIALNV	FDALYMTGAGTAAS	DLGICTLND	EMISNLS	TPVISDADTGYGG	PIMVARTTEQYARAGVAAFHLEDQV
Q5B6M5	AASKLR	AFITAPGVYDGLSARIALNV	FDALYMTGAGTAAS	DLGICTLND	EMISNLS	TPVISDADTGYGG	PIMVARTTEQYARAGVAAFHLEDQV
48851718	-----	-----MLAERK	FKAVYLSGGGLTAS	DLGVITLTE	RGIHEIT	IPIIVDADTGFGE	TLISVYRTVKLLEEAGASAIQIEDQV
ABC73717	AATSLR	SFIVAPGVYDGLSARVALSA	FDALYMTGAGTAAS	DLGICTLND	EMISNLS	LPLIADADTGYGG	PIMVARTTEQYSRSGVAAFHLEDQV
Q7X6D4	PAEALR	GAHQAPACYDALSARLVGRA	FKVCFTSGFSISAA	DVGLISYGE	CLITEAA	IPVIGDADNGYGN	CMNVKRTVKGFIKAGFAGIILEDQV
50926276	PAEALR	GAHQAPACYDALSARLVGRA	FKVCFTSGFSISAA	DVGLISYGE	CLITEAA	IPVIGDADNGYGN	CMNVKRTVKGFIKAGFAGIILEDQV
Q7WG12	TKRVLR	NGMLVAGAFNAMSARIVADQ	FEAVYLTGAGLTNM	DLGIIGLRD	SRIRDAV	LPLIIVDADTGFGN	AVNVWHTVTVRVLERAGADAIQLEDQV
Q7W4I8	TKRVLR	NGMLVAGAFNAMSARIVADQ	FEAVYLTGAGLTNM	DLGIIGLRD	SRIRDAV	LPLIIVDADTGFGN	AVNVWHTVTVRVLERAGADAIQLEDQV
33598187	TKRVLR	NGMLVAGAFNAMSARIVADQ	FEAVYLTGAGLTNM	DLGIIGLRD	SRIRDAV	LPLIIVDADTGFGN	AVNVWHTVTVRVLERAGADAIQLEDQV
Q7VZ27	TKRVLR	NGMLVAGAFNAMSARIVADQ	FEAVYLTGAGLTNM	DLGIIGLRD	SRIRDAV	LPLIIVDADTGFGN	AVNVWHTVTVRVLERAGADAIQLEDQV
54032449	PAQQLO	NIVMAPGAPDAITARLIQKA	FPAIYMTGFGATAS	DIGLLSQTE	RDMAVV	IPIIADADTGYGG	PSNIHRTVREYIQAGVAAIHLEDQV
18312937	PGAEFR	PYIFTTGVYTPLQAKLAQIA	LKAVYISGYSVCSVG	DLNILTLEE	RHIANAV	IPVADAESGFGS	LFNAMRAVKEFWRAGVAAIHVEDQV
Q8ZWB6	PGAEFR	PYIFTTGVYTPLQAKLAQIA	LKAVYISGYSVCSVG	DLNILTLEE	RHIANAV	IPVADAESGFGS	LFNAMRAVKEFWRAGVAAIHVEDQV
Q4WHX9	AATALR	SFTVAPGVYDGLSARIALSV	FDALYMTGAGTAAS	DLGICTLND	MLANISP	TPVIADADTGYGG	PIMVARTTEQYSRSGVAAFHLEDQV
EAL87476	AATALR	SFTVAPGVYDGLSARIALSV	FDALYMTGAGTAAS	DLGICTLND	MLANISP	TPVIADADTGYGG	PIMVARTTEQYSRSGVAAFHLEDQV
41408352	ARRRLR	ELIVAPGVFDGLSAHLARRT	HVAAYLTGAGVAAS	DIGLVTATE	AMIAAAL	VPLIADADTGYGG	PIMVARTTEQYSRSGVAAFHLEDQV
Q73XQ5	ARRRLR	ELIVAPGVFDGLSAHLARRT	HVAAYLTGAGVAAS	DIGLVTATE	AMIAAAL	VPLIADADTGYGG	PIMVARTTEQYSRSGVAAFHLEDQV
50923829	PAAALR	GAHQAPCCFDALGARLIQRA	FPICFMGGFCVSAA	DAGLISYGE	RLITEAV	LPVIGDGDNGYGN	AMSIKRTVKGYINAGFAGIMLEDQV
Q7XLP7	PAAALR	GAHQAPCCFDALGARLIQRA	FPICFMGGFCVSAA	DAGLISYGE	RLITEAV	LPVIGDGDNGYGN	AMSIKRTVKGYINAGFAGIMLEDQV
48785815	RRAAFR	QGLLVPGAFNAMSARVIEDA	FEAIYITGAGVTNM	DLGFIGLAE	ARIRDAV	LPLIIVDADTGFGN	ALNVRQTVRVLERSGADVIQFEDQI
XP_322273	AAAKLR	DLIVCPGVQDGLSARVCLQQ	FKNLYMTGAGTAIS	DLGLTTADD	SMLSSLD	VPLIADIDTGFGG	PVMVARTVERYILGGVAGLHLEDQV
32403320	AAAKLR	DLIVCPGVQDGLSARVCLQQ	FKNLYMTGAGTAIS	DLGLTTADD	SMLSSLD	VPLIADIDTGFGG	PVMVARTVERYILGGVAGLHLEDQV
Q7RXA0	AAAKLR	DLIVCPGVQDGLSARVCLQQ	FKNLYMTGAGTAIS	DLGLTTADD	SMLSSLD	VPLIADIDTGFGG	PVMVARTVERYILGGVAGLHLEDQV
Tra_OAH_like_1	PATRLR	GIIAAPGVCDGISARCAIEA	FTCLYQSGAATTAS	DVAIATLND	QMICSLD	MPVIADADTGFGG	PANVARTVWQYAKAGVAGMHIEDQV
48772232	RRAAFR	RGLLVAGAFNAMSARVVEET	FEALYLTGAGVTNM	DLGFIGLHE	ARVRDAV	LPLIIVDADTGFGN	ALNVRHTVRTLERSGADAIQIEDQV
Q977U5	KARELR	DFVFAPGMYHALDARLAEMT	HDAAYMSGYSTVLG	DLEMVTMTE	KRMVEAT	LPVIADCDTGYGG	IHNVRRAVREYKAGVAAVHIEDQT
15131665	KARELR	DFVFAPGMYHALDARLAEMT	HDAAYMSGYSTVLG	DLEMVTMTE	KRMVEAT	LPVIADCDTGYGG	IHNVRRAVREYKAGVAAVHIEDQT
16508064	SRRRLG	ELIVAPGVYDGISAHLAKR	HSAAYLTGAGVAAA	DIGLVTQTE	RMAVRAL	VPLIADADTGYGA	PINVIRTVREYEDAGVAAIQLLEDQA
Q938D0	SRRRLG	ELIVAPGVYDGISAHLAKR	HSAAYLTGAGVAAA	DIGLVTQTE	RMAVRAL	VPLIADADTGYGA	PINVIRTVREYEDAGVAAIQLLEDQA
ABC73718	AVTKLR	KIIVCPGVYDGFRTARIALQE	FDALYMTGAGTTAS	DLGVVTLNE	EMIANLD	VPLIADADTGFGG	SLMVHRTVTEYIRAGVAALHLEDQP
18652847	KGRELR	DFVFAPGMYHALDARLAEMT	HDAAYMSGYSTVLG	DLEMVTMTE	KRMVEAT	LPIIADCDTGYGG	IHNVRRAVREYKAGVAAIHIEDQT
Q8U4T7	KGRELR	DFVFAPGMYHALDARLAEMT	HDAAYMSGYSTVLG	DLEMVTMTE	KRMVEAT	LPIIADCDTGYGG	IHNVRRAVREYKAGVAAIHIEDQT
Q4PFK1	PAARLR	SIVVAPGVFDGISARMALQA	HHALYQTGAGTSAS	DLGFLAMSD	IMADPHM	TPVIADADTGFGG	APQVARTVQYHRAGIAALHIEDQV
46096838	PAARLR	SIVVAPGVFDGISARMALQA	HHALYQTGAGTSAS	DLGFLAMSD	IMADPHM	TPVIADADTGFGG	APQVARTVQYHRAGIAALHIEDQV
EAK82071	PAARLR	SIVVAPGVFDGISARMALQA	HHALYQTGAGTSAS	DLGFLAMSD	IMADPHM	TPVIADADTGFGG	APQVARTVQYHRAGIAALHIEDQV
48782235	KKSELR	EILVLPGIFDGYSTRLLKAS	FAAGFITGAGISEA	DQIMGLLEE	RALAACC	VPVIADADTGYGN	AVNVHFTVRAFENAGLAGVMIEDQV
SS1G_08218	GATKLR	ELIVCPGVYDGISSTRVALQV	FPALYMTGAGTTAS	DLGIAHLS	EMIANLD	LPLIADMDTGYGG	PLIVDKAVKAYIRAGVAGFHIEDQI
26450281	PAKKLR	GVLQGPCCFDALSAKLIERA	FPYCITSGFSISAS	DKGLISYGE	QQITQSV	IPVIGDGGNGYGN	AMNVKRTVKGYIKAGFAGIINDEV

42569887	PAKKLR	GVLQGPCCFDALS	SAKLIERA	FPHYCITSGFS	SISAS	DKGLISYGE	QQITQSV	IPVIGDGGNGYGN	AMNVKRTVKGY	IKAGFAGII	INDEV
42571205	PAKKLR	GVLQGPCCFDALS	SAKLIERA	FPHYCITSGFS	SISAS	DKGLISYGE	QQITQSV	IPVIGDGGNGYGN	AMNVKRTVKGY	IKAGFAGII	INDEV
42571207	PAKKLR	GVLQGPCCFDALS	SAKLIERA	FPHYCITSGFS	SISAS	DKGLISYGE	QQITQSV	IPVIGDGGNGYGN	AMNVKRTVKGY	IKAGFAGII	INDEV
Q8GYI4	PAKKLR	GVLQGPCCFDALS	SAKLIERA	FPHYCITSGFS	SISAS	DKGLISYGE	QQITQSV	IPVIGDGGNGYGN	AMNVKRTVKGY	IKAGFAGII	INDEV
XP_682638	QASRLR	KILAFPCSYDGL	SSRLIEEA	FPMLFLSGF	AVSST	DTGYIAMAE	QETVRVT	LPIMVDGDTGYGS	AMNVKRTVES	SFAAAGAAGVMI	EDQT
Q5AQR1	QASRLR	KILAFPCSYDGL	SSRLIEEA	FPMLFLSGF	AVSST	DTGYIAMAE	QETVRVT	LPIMVDGDTGYGS	AMNVKRTVES	SFAAAGAAGVMI	EDQT
Ani_XP_413506	QASRLR	KILAFPCSYDGL	SSRLIEEA	FPMLFLSGF	AVSST	DTGYIAMAE	QETVRVT	LPIMVDGDTGYGS	AMNVKRTVES	SFAAAGAAGVMI	EDQT
SNU10723	AVENLR	KFIACPGVYDGF	TAQIALRE	VDCLYMTGAG	TMS	DMGVATLHD	GMIAGLS	TPLIADADTGYGG	AIMVGRTVTSY	IRAGVAGLHLEDQV	
Q9ZW77	PAKKLR	GVLQGPCCFDALS	SAKLIERA	FPHYCITSGFS	SISAS	DKGLISYGE	QQITQSV	IPVIGDGGNGYGN	AMNVKRTVKGY	IKAGFAGII	INDEV
3763927	PAKKLR	GVLQGPCCFDALS	SAKLIERA	FPHYCITSGFS	SISAS	DKGLISYGE	QQITQSV	IPVIGDGGNGYGN	AMNVKRTVKGY	IKAGFAGII	INDEV
Q5AXU8	RTMMLE	KIIAHACSYDGL	SSRLVEEA	FPIVFLAGYTV	AVSS	DTGYIAMED	QEVVRLV	VPVMADGDTGYGG	PMNVKRTVES	SFAAAGAAGIMIEDQT	
40739091	RTMMLE	KIIAHACSYDGL	SSRLVEEA	FPIVFLAGYTV	AVSS	DTGYIAMED	QEVVRLV	VPVMADGDTGYGG	PMNVKRTVES	SFAAAGAAGIMIEDQT	
XP_664486	RTMMLE	KIIAHACSYDGL	SSRLVEEA	FPIVFLAGYTV	AVSS	DTGYIAMED	QEVVRLV	VPVMADGDTGYGG	PMNVKRTVES	SFAAAGAAGIMIEDQT	
Q88N27	LRFAFR	SCFHTASVFDPM	SARIAADL	FEVGILGGS	VASLQ	DFALITLSE	TRIGRVA	LPVLADADHGYGN	ALNVMRTVIEL	ERAGVAALTI	EDTL
26988123	LRFAFR	SCFHTASVFDPM	SARIAADL	FEVGILGGS	VASLQ	DFALITLSE	TRIGRVA	LPVLADADHGYGN	ALNVMRTVIEL	ERAGVAALTI	EDTL
48788842	-----	-----	-----MLAEQA	AKAIYVSGFA	ASAI	DVGLLTQTE	RRICRVT	LPVFADADTGYGG	ILDVQRTIRL	WEEAGASVLHLEDQA	
Q6X9K0	ASHKLW	PYIATFGALTGS	QAVEMAKA	LKAIYVSGWQ	VAAAD	DLSLYPSNS	KRLNNAL	LPIVADAEAGFGG	PIHAFELTKAL	IEAGAAGVHFEDQL	
33088737	ASHKLW	PYIATFGALTGS	QAVEMAKA	LKAIYVSGWQ	VAAAD	DLSLYPSNS	KRLNNAL	LPIVADAEAGFGG	PIHAFELTKAL	IEAGAAGVHFEDQL	
23470423	LRRSFR	ACFHTASVFDPM	SARIAADL	FEVGILGGS	VASLQ	DFALITLSE	TRIGRVA	LPVIADADHGYGN	ALNVMRTVVEL	ERAGISALTI	EDTL
Q4ZX15	LRRSFR	ACFHTASVFDPM	SARIAADL	FEVGILGGS	VASLQ	DFALITLSE	TRIGRVA	LPVIADADHGYGN	ALNVMRTVVEL	ERAGISALTI	EDTL
Q886Y2	LRRSFR	SCFHTASVFDPM	SARIAADL	FEVGILGGS	VASLQ	DFALITLSE	TRIGRVA	LPVIADADHGYGN	ALNVMRTVVEL	ERAGISALTI	EDTL
28868650	LRRSFR	SCFHTASVFDPM	SARIAADL	FEVGILGGS	VASLQ	DFALITLSE	TRIGRVA	LPVIADADHGYGN	ALNVMRTVVEL	ERAGISALTI	EDTL
15609052	FYERLR	KSITTFGPYPSP	QAVSMKRM	IEAIYLGWATS	AK	DLASYPLSQ	AVLVRAL	PFIIADAGTGHGG	DPHVRNLIRR	FVEVGPVGYHIEDQR	
007718	FYERLR	KSITTFGPYPSP	QAVSMKRM	IEAIYLGWATS	AK	DLASYPLSQ	AVLVRAL	PFIIADAGTGHGG	DPHVRNLIRR	FVEVGPVGYHIEDQR	
53611574	-----	TCYDAASVFDPM	SARIAADL	FEVGILGGS	VAAALQ	DYALITLSE	TRIGRVA	LPIIADADHGYGN	AINAMRTVAEL	ERAGVAALTI	EDTL
7156	AATRLR	GIVVAPGICDGI	SARCALEA	FECLYQSGA	ATTAS	DLAIATLND	MHASLNP	VPVIADADTGF	GG	PAMVARTVTKY	IRAGLAACHIEDQV
46314257	QAEAFR	GAFIIPNPWDAG	TARLLAMA	FEALATTSAGY	AFS	DNAIDRDAM	SEIVAAG	LPVSADLENG	FGD	PDTVAETIRL	AAEAGAVGGSIEDAT

Alignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Position	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number	0	0	0	1	2	2	3	4	4	4	5	5	6	6	7	8	9	9	9
1PYMA	1	6	7	0	0	6	7	0	0	1	9	0	6	7	0	9	0	0	4

1PYMA Consensus KTTQLR DLEFIMEAHNGLSARIVEEA FKGIWGSGLSISAQ DSNEASWTQ EFMSDAT LPILLDADTGYGN FNNARRLVRKLEDRGVAGVCLEDKLV

1PYMA	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1M1BA	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2TA	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2WA	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
P56839	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2TB	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2UB	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	ASNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1M1BB	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2UA	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	ASNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2VB	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1PYMB	KTTQLK	DLEFIXEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFXSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2VA	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2VC	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
1S2VD	KTTQLK	DLEFIMEAHNGLS	ARIVQEA	FKGIWGSGLS	VSAQ	DSNEASWTQ	EFMSDAS	VPILLDADTGYGN	FNNARRLVRKLE	DRGVAGACLEDKLV
A4220	KTTQLK	DLSFIMEAHNGLS	AAIVEET	FKGIWGSGLS	SISAA	DSNEASWTQ	EFMSDRT	IPILLDADTGYGN	YNNARRLVKKLE	QRSIAGVCLEDKI
P33182	KTTQLK	DLSFIMEAHNGLS	AAIVEET	FKGIWGSGLS	SISAA	DSNEASWTQ	EFMSDRT	IPILLDADTGYGN	YNNARRLVKKLE	QRSIAGVCLEDKI
19171192	KARMLK	ELSFLMEAHNGLS	ARIVEET	FKAIWASGLS	SISAQ	DNNEASWTQ	EQMSDAT	IPILLDADTGYGN	FNNARLLVRKLE	KNKVAGACVEDKLV

Q8T8D9	KARMLK	ELSFLMEAHNGLSARIVEET	FKAIWASGLSISAQ	DNNEASWTQ	EQMSDAT	IPILLDADTGYGN	FNNARLLVRKLEKNGVAGACVEDKL
48772602	RSARLR	ELEFIMEAHNGLSARIVREA	FKGIWASGLAISAQ	DNNEASWTQ	EFMADAS	LPILLDGDGTGYGN	FNNVRRLLVRKLEQRGIAGVCIEDKI
Q63MY9	-----	SLEFLMEAHNGLSARIVREA	FKGIWASGLAISAQ	DNNEASWTQ	EFMADAS	LPILLDGDGTGYGN	FNNVRRLLVRKLEQRGIAGVCIEDKQ
53721545	-----	SLEFLMEAHNGLSARIVREA	FKGIWASGLAISAQ	DNNEASWTQ	EFMADAS	LPILLDGDGTGYGN	FNNVRRLLVRKLEQRGIAGVCIEDKQ
46313064	RSARLR	DLEFLMEAHNGLSARIVREA	FKGIWASGLAISAQ	DNNEASWTQ	EFMADAS	LPILLDGDGTGYGN	FNNVRRLLVRKLEQRGIAGVCIEDKQ
53716093	RSARLR	SLEFLMEAHNGLSARIVREA	FKDIWASGLAISAQ	DNNEASWTQ	EFMADAS	LPILLDGDGTGYGN	FNNVRRLLVRKLEQRGIAGVCIEDKQ
Q62AF2	RSARLR	SLEFLMEAHNGLSARIVREA	FKDIWASGLAISAQ	DNNEASWTQ	EFMADAS	LPILLDGDGTGYGN	FNNVRRLLVRKLEQRGIAGVCIEDKQ
48787135	RSARLR	ELEFMMEAHNGLSARIVREA	FKAIWGSGLAISAQ	DNNEASWTQ	EFMADAS	LPILLDGDGTGYGN	FNNVRRLLVRKLEQRGIAGVCIEDKQ
46321578	RSARLR	QLEFLMEAHNGLSARIVREA	FRGIWASGLAISAQ	DNNEASWTQ	EFMADAS	LPILLDGDGTGYGN	FNNVRRLLVRKLEQRGIAGVCIEDKQ
13488216	SSTTLR	DLTFLMEAHDGLSAAIAERA	FRGLWASGLSIAASA	DANEASWTQ	ERMVDAT	IPVLVDGDSGFGN	FNNARLVARKLEQRGASGICLEDKS
Q982E4	SSTTLR	DLTFLMEAHDGLSAAIAERA	FRGLWASGLSIAASA	DANEASWTQ	ERMVDAT	IPVLVDGDSGFGN	FNNARLVARKLEQRGASGICLEDKS
13474899	TRESLR	ELAFAMEAHDGLSAAIAERA	FKALWASGLSISSS	DANEASWSQ	ERISDTV	IPVLVDGDSGFGN	FNNARLVARKLRQHGASGICIEDTA
Q98AR7	TRESLR	ELAFAMEAHDGLSAAIAERA	FKALWASGLSISSS	DANEASWSQ	ERISDTV	IPVLVDGDSGFGN	FNNARLVARKLRQHGASGICIEDTA
20804156	TRESLR	ELAFAMEAHDGLSAAIAERA	FKALWASGLSISSS	DANEASWSQ	ERISDTV	IPVLVDGDSGFGN	FNNARLVARKLRQHGASGICIEDTA
Q8KJ74	TRESLR	ELAFAMEAHDGLSAAIAERA	FKALWASGLSISSS	DANEASWSQ	ERISDTV	IPVLVDGDSGFGN	FNNARLVARKLRQHGASGICIEDTA
51317946	VGSRLK	GTCQLMGVHDGLSARIAVAE	FEALWASGLCMSTA	DSDEASWTE	GTMTTEAA	APVLVDGDGTGYGN	FNTARRFAARAERVGAAGVCFEDKV
Q5IW38	VGSRLK	GTCQLMGVHDGLSARIAVAE	FEALWASGLCMSTA	DSDEASWTE	GTMTTEAA	APVLVDGDGTGYGN	FNTARRFAARAERVGAAGVCFEDKV
Q65DF5	LANAFR	DILKIPGVHDGMAAITAKNI	FKALYLSGAAAYTAS	DLGMIHSQE	SELVRAA	LPLLLVDIDTGYGG	VLNAARTAAEMAESRVAAVQIEDQQ
52082383	LANAFR	DILKIPGVHDGMAAITAKNI	FKALYLSGAAAYTAS	DLGMIHSQE	SELVRAA	LPLLLVDIDTGYGG	VLNAARTAAEMAESRVAAVQIEDQQ
P29247	AGGRLR	GACQLMGVHDGLSARIAVAE	FEALWASGLCMSTA	DSDEASWTE	GTMTDAV	VPVLVDGDGTGYGN	FNTARRFAGRAERVGAAGVCFEDKV
20385927	RRKALR	EIARMPGAFSPLAARAIQEA	FEGVYVSGAVVAAD	DIGLTTLTE	RQIARVT	LPVLVDADTGFGE	PMSAARTVSELEDAGVAGCHLEDQV
21323424	RRKALR	EIARMPGAFSPLAARAIQEA	FEGVYVSGAVVAAD	DIGLTTLTE	RQIARVT	LPVLVDADTGFGE	PMSAARTVSELEDAGVAGCHLEDQV
Q8NSL2	RRKALR	EIARMPGAFSPLAARAIQEA	FEGVYVSGAVVAAD	DIGLTTLTE	RQIARVT	LPVLVDADTGFGE	PMSAARTVSELEDAGVAGCHLEDQV
086937	VGSRLK	GTCQLMGVHDGLSARIAVAE	FEALWASGLCMSTA	DSDEASWTE	GTMTTEAA	APVLVDGDGTGYGN	FNTARPPSPAPSCPGAAGVCFEDKV
3319779	VGSRLK	GTCQLMGVHDGLSARIAVAE	FEALWASGLCMSTA	DSDEASWTE	GTMTTEAA	APVLVDGDGTGYGN	FNTARPPSPAPSCPGAAGVCFEDKV
Q9F765	RLKSLR	PVVRILEAHDGLCGLIIENL	FDGMWSSSLTDSTS	DIEAVDLTT	NNILECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERHGISAVIIEDKV
Q64V99	RLKSLR	PVVRILEAHDGLCGLIIENL	FDGMWSSSLTDSTS	DIEAVDLTT	NNILECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERHGISAVIIEDKV
53713121	RLKSLR	PVVRILEAHDGLCGLIIENL	FDGMWSSSLTDSTS	DIEAVDLTT	NNILECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERHGISAVIIEDKV
Q5LE57	RLKSLR	PVVRILEAHDGLCGLIIENL	FDGMWSSSLTDSTS	DIEAVDLTT	NNILECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERHGISAVIIEDKV
60492821	RLKSLR	PVVRILEAHDGLCGLIIENL	FDGMWSSSLTDSTS	DIEAVDLTT	NNILECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERHGISAVIIEDKV
21323461	RRQAFK	HIARLPGAFSPLIARSIEEA	FEGVYVSGAVIAAD	DIGLTTLTE	RQIARVT	LGVLVDADTGFGE	PMSAARTVAELEDAGVAGCHLEDQV
Q744P5	KRAQLR	RLQRFPGAFSPLVAKLVAEL	FDGVYVSGAALSAD	DIGLTTLTE	AQIAAVT	LPTLIDADTGFGE	PLNAARAVTMLEDAGLAGCHLEDQV
41406394	KRAQLR	RLQRFPGAFSPLVAKLVAEL	FDGVYVSGAALSAD	DIGLTTLTE	AQIAAVT	LPTLIDADTGFGE	PLNAARAVTMLEDAGLAGCHLEDQV
29339029	RLKSLR	PVVRILEAHDGLCGLIIENQ	FDGMWSSSLTDSTS	DIEAVDLTT	NNILECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERHGISAVIIEDKV
Q8A705	RLKSLR	PVVRILEAHDGLCGLIIENQ	FDGMWSSSLTDSTS	DIEAVDLTT	NNILECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERHGISAVIIEDKV
53713870	RLKRLR	SIVRICESHSGLTGLIIENT	FDGMWSSSLTDSTS	DIEAVDLTT	NDALECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERLGLISAVIIEDKI
Q64T51	RLKRLR	SIVRICESHSGLTGLIIENT	FDGMWSSSLTDSTS	DIEAVDLTT	NDALECT	KPIIFDGDGTGGK-	IEHFVFTVTRTLERLGLISAVIIEDKI
Q73MU4	RMKTLR	PIVRIMEAHSGLSGLIIENL	YDGMWSSSLTDSTS	DIEAVDLTT	TDILECT	KPIIFDGDGTGGK-	TEHFVFTVTRTLERNVSAI I IEDKV
42526921	RMKTLR	PIVRIMEAHSGLSGLIIENL	YDGMWSSSLTDSTS	DIEAVDLTT	TDILECT	KPIIFDGDGTGGK-	TEHFVFTVTRTLERNVSAI I IEDKV
Q84G06	KNQALR	RLFTAMAAHNPLVAKLAEQA	FGGIWSGSGFELSAS	DANILSMST	RAIASTV	IPLIADIDTGFNG	AVNVHYVVPQYEAAGASAIIVMEDKT
27902644	KNQALR	RLFTAMAAHNPLVAKLAEQA	FGGIWSGSGFELSAS	DANILSMST	RAIASTV	IPLIADIDTGFNG	AVNVHYVVPQYEAAGASAIIVMEDKT
Q7WNJ1	KNRSLR	QLFTAMAAHNPLAARLAEEA	FGGIWSGSGFELSAS	DANILSMGT	RAIAATV	IPLIADIDTGFNG	AVNVHYVVPQYEAAGASAIIVMEDKT
33600034	KNRSLR	QLFTAMAAHNPLAARLAEEA	FGGIWSGSGFELSAS	DANILSMGT	RAIAATV	IPLIADIDTGFNG	AVNVHYVVPQYEAAGASAIIVMEDKT

Alignment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Position	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Number	0	0	0	1	2	2	2	3	4	4	4	5	5	6	6	7	9
	1	6	7	0	0	6	7	0	0	1	9	0	6	7	0	9	0

1ZLPB
Consensus RATKLR GIILAPGVYDGLSARIAEQA FPAGYLSGAAVSAS DLGLTLTTE RRIARAV IPVIADADTGYGN PLNVQRTVKELERAGAAGVHLEDQV

1ZLPB RKTTMH GSVLMPGVQDALSAAVVEKT FHAAFVSGYSVSAA DFGLLTTE RRITAAA LCVVVDGDGTGGG PLNVQRFIRELISAGAKGVFLEDQV

Q05957	RKTTMH	GSVLMPGVDALSAAVVEKT	FHAAFVSGYSVSAA	DFGLLTTE	RRITAAA	LCVVVDGDTGGGG	PLNVQRFIRELISAGAKGVFLEDQV
S3514	RKTTMH	GSVLMPGVDALSAAVVEKT	FHAAFVSGYSVSAA	DFGLLTTE	RRITAAA	LCVVVDGDTGGGG	PLNVQRFIRELISAGAKGVFLEDQV
21386949	IQTRFH	GIVLMPGCDALSAAIVQQT	FSAGFISGYALSAS	DFGLLTPE	RSVCASA	IPIIADADTGGGN	ALNIQRTVKDLIAAGAAGCFLEDQA
21537183	IQTRFH	GIVLMPGCDALSAAIVQQT	FSAGFISGYALSAS	DFGLLTPE	RSVCASA	IPIIADADTGGGN	ALNIQRTVKDLIAAGAAGCFLEDQA
2829913	IQTRFH	GIVLMPGCDALSAAIVQQT	FSAGFISGYALSAS	DFGLLTPE	RSVCASA	IPIIADADTGGGN	ALNIQRTVKDLIAAGAAGCFLEDQA
049290	IQTRFH	GIVLMPGCDALSAAIVQQT	FSAGFISGYALSAS	DFGLLTPE	RSVCASA	IPIIADADTGGGN	ALNIQRTVKDLIAAGAAGCFLEDQA
Q8LFA2	IQTRFH	GIVLMPGCDALSAAIVQQT	FSAGFISGYALSAS	DFGLLTPE	RSVCASA	IPIIADADTGGGN	ALNIQRTVKDLIAAGAAGCFLEDQA
Q8VYA2	IQTRFH	GIVLMPGCDALSAAIVQQT	FSAGFISGYALSAS	DFGLLTPE	RSVCASA	IPIIADADTGGGN	ALNIQRTVKDLIAAGAAGCFLEDQA
30687359	MQSRVH	GAVLIPGVYDALSAAIVQQT	FSAALISGYALSAS	DFGLITPE	RSVCAAA	IPIIADADTGGGN	ALNVQRTVKDLIAAGAAGCFLEDQA
Q501F7	MQSRVH	GAVLIPGVYDALSAAIVQQT	FSAALISGYALSAS	DFGLITPE	RSVCAAA	IPIIADADTGGGN	ALNVQRTVKDLIAAGAAGCFLEDQA
D8634	MQSRVH	GAVLIPGVYDALSAAIVQQT	FSAALISGYALSAS	DFGLITPE	RSVCAAA	IPIIADADTGGGN	ALNVQRTVKDLIAAGAAGCFLEDQA
Q9LPL2	MQSRVH	GAVLIPGVYDALSAAIVQQT	FSAALISGYALSAS	DFDLRRWQQ	-----	---RRDQYTGCGN	ALNVQRTVKDLIAAGAAGCFLEVIP
48891986	SAGKKL	GALVLPGVYDCIGAKIVEQI	FPVVFTSGFGISGS	DYGFITATE	RRITESV	IPLVADIDTGYGN	PLNVIRTVDIVNMGVAGIILEDQE
Q8ZWM5	GPGLLR	GIVLVPGVFNALTALMAQDL	FRAVYVSGAAVTAS	DLGLITMDE	KYIVDAV	IPVVIDIDTGYGE	ALNVMRAVREFEAI GAAGVQLEDQV
18312827	GPGLLR	GIVLVPGVFNALTALMAQDL	FRAVYVSGAAVTAS	DLGLITMDE	KYIVDAV	IPVVIDIDTGYGE	ALNVMRAVREFEAI GAAGVQLEDQV
Q97BT3	-----	---MAPGVGGIGALIAEKR	FKAAYLSGSQVAGM	DLSVTTMNE	QRIT AIS	LPLIVD VDTGFGE	VVNVIRTVRVMEASGASAIHMEDQE
14324587	-----	---MAPGVGGIGALIAEKR	FKAAYLSGSQVAGM	DLSVTTMNE	QRIT AIS	LPLIVD VDTGFGE	VVNVIRTVRVMEASGASAIHMEDQE
Q6L2P7	----MN	DFLTPVPGIFNGFSARLARQS	FIAGYLSGGALTSS	DLGLISL TE	SI I KEVS	IKIIVDADTGFGE	ALSVYRTFKVLERAGADAIQIEDQK
48477242	----MN	DFLTPVPGIFNGFSARLARQS	FIAGYLSGGALTSS	DLGLISL TE	SI I KEVS	IKIIVDADTGFGE	ALSVYRTFKVLERAGADAIQIEDQK
Q7WG33	PASLKH	QTLLAPGVYDALSALIAEQ A	FDAVYLSGASIAYT	DVGLTTYSE	ARITERV	CPVIADADTGFGN	ALNVQRTVGRFERAGAAMIQLEDQD
Q7W4K8	PASLKH	QTLLAPGVYDALSALIAEQ A	FDAVYLSGASIAYT	DVGLTTYSE	ARITERV	CPVIADADTGFGN	ALNVQRTVGRFERAGAAMIQLEDQD
33598167	PASLKH	QTLLAPGVYDALSALIAEQ A	FDAVYLSGASIAYT	DVGLTTYSE	ARITERV	CPVIADADTGFGN	ALNVQRTVGRFERAGAAMIQLEDQD
56678091	--MTLK	DIVLAPGIYDGLTALIAEQ A	FEALYLSGAAVAYT	DIGLTSVTE	TLIADRT	LPVIADADTGFGN	ALNAQRTMRLYERAGAAALQVEDQT
Q5LTE4	--MTLK	DIVLAPGIYDGLTALIAEQ A	FEALYLSGAAVAYT	DIGLTSVTE	TLIADRT	LPVIADADTGFGN	ALNAQRTMRLYERAGAAALQVEDQT
45683503	NRAFRA	GALLLPGAANALAAARIADL	FEAIYLSGAGLTNT	DLGFVSLPE	ATIRDAT	LPIVVDADTGFGN	ALNVRHTVRTLERAGASAIQIEDQV
Q7WMP9	AAKKFR	EFIVSPGVYDGYSLRLVQAA	FKTACTSGAALSNA	DIGVMGLME	RMLARSV	IPLTADADTGYGN	PVNVFHTVQMFEEAGVAGVNLEDQV
33600327	AAKKFR	EFIVSPGVYDGYSLRLVQAA	FKTACTSGAALSNA	DIGVMGLME	RMLARSV	IPLTADADTGYGN	PVNVFHTVQMFEEAGVAGVNLEDQV
33595800	AAKKFR	EFIVSPGVYDGYSLRLVQAA	FKTACTSGAALSNA	DIGVVGLME	RMLARSV	IPLTADADTGYGN	PVNVFHTVQMFEEAGVAGVNLEDQV
Q7WB81	AAKKFR	EFIVSPGVYDGYSLRLVQAA	FKTACTSGAALSNA	DIGVVGLME	RMLARSV	IPLTADADTGYGN	PVNVFHTVQMFEEAGVAGVNLEDQV
Csv_OAH	PSTRLR	GIVVAPGICDGISARCALEA	FDCMYQSGAATTAS	DLA IATLND	QMVCSLN	VPVIADADTGFGG	PAMVARTVTQYARAGVAGLHIEDQV
7400	MPQRRL	GCTICPGVFDGISAHLANSA	FDCLYLAGSGTSGS	DLSVITADE	ARMVGVN	VPIIADADTGFGG	PLNVARTIALYEAAGVAGCHI EDQT
42551945	PRRLLR	DFMLAPGVYDGFSAARIALEV	FNVLYMTGAGVTAS	DLGIATLND	EMIANLS	TPVIADADTGYGG	PIMVARTVEQYSRSGVAALHIEDQV
XP_391313	PRRLLR	DFMLAPGVYDGFSAARIALEV	FNVLYMTGAGVTAS	DLGIATLND	EMIANLS	TPVIADADTGYGG	PIMVARTVEQYSRSGVAALHIEDQV
Q7Z986	GASKLR	ELLVCPGVYDGLSARIAINL	FKGMYMTGAGTTAS	DLGLAH IYD	EMIANLD	PPLIADMDTGYGG	PLMVARSVQYIQAGVAGFHIEDQI
CAD99195	GASKLR	ELLVCPGVYDGLSARIAINL	FKGMYMTGAGTTAS	DLGLAH IYD	EMIANLD	PPLIADMDTGYGG	PLMVARSVQYIQAGVAGFHIEDQI
EAL87152	GATKLR	ELIVCPGVYDGLSARIAIAML	FRALYMTGAGTTAS	DLGLAQLYD	EMIANLD	PPLIADMDTGYGG	PLMVARSVQYIQAGVAGFHIEDQI
48782233	KIQKMR	DVIVSPGVYDGY SARVIERM	FEEASTTGAGLANS	DIGIFTLTE	KWLARSV	IPMMADADTGYGN	PVS VYHTVQLFEEAGVGVNLEDQV
Q6PNM8	GATKLR	ELIVCPGVYDGLSARIAIAML	FRALYMTGAGTTAS	DLGLAQLSD	EMIANLD	PPLIADMDTGYGG	PLI IDKAVKSYIRAGVAGFHIEDQI
AAS99938	GATKLR	ELIVCPGVYDGLSARIAIAML	FRALYMTGAGTTAS	DLGLAQLSD	EMIANLD	PPLIADMDTGYGG	PLI IDKAVKSYIRAGVAGFHIEDQI
ABC73719	RTMWLE	KIIAHPCGYDGLSARLIEEA	FPMIFISGFVAAS	DTGYIAMEG	QEVVRVT	IPVMDGDTGYGS	PMNVKRTVECFAAAGAAGVMI EDQT
45517826	-----	-----MSARVIEDL	FKAVYLTGAGVTNM	DLGF IGLSD	ARVRDAV	LPLLVADADTGFGN	ALNVRQAVRTLERAGADAIQLEDQV
EAL87110	RTMMLE	KIIAHACSYDGLSSRLVEEA	FPIIFLAGYAVASG	DTGYIAMED	QEVVRVT	IPVMDGDTGYGS	PMNVKRTVECFAAAGAAGVMI EDQT
Q4WIZ5	RTMMLE	KIIAHACSYDGLSSRLVEEA	FPIIFLAGYAVASG	DTGYIAMED	QEVVRVT	IPVMDGDTGYGS	PMNVKRTVECFAAAGAAGVMI EDQT
ABC73720	RTMMLE	KIIAHACSYDGLSSRLVEEA	FPMVFLAGYAVASS	DTGYIAMAE	IRDAVRQ	VPVMDGDTGYGS	PLNVKRTVESFAAAGAAGVMI EDQQ
48788845	TSGLK	RFVVAPGVFDMFSARVADRL	FEALYMTGYGVSGS	DAGLVSYAD	RQIAEGT	KPLIADADTGFGG	LLNVRHTVGRYEAAGVQAIQMEDQV
9951145	RAMFRA	RCYHTASVFDPM SARIAADL	FECGILGGSVASLQ	DFALITLSE	TRIGRVA	LPVIADADHGYGN	ALNVMRTVVELERAGIAALTI EDTL
Q9HUU1	RAMFRA	RCYHTASVFDPM SARIAADL	FECGILGGSVASLQ	DFALITLSE	TRIGRVA	LPVIADADHGYGN	ALNVMRTVVELERAGIAALTI EDTL
53726468	--MFR	RCYHTASVFDPM SARIAADL	FECGILGGSVASLQ	DFALITLSE	TRIGRVA	LPVIADADHGYGN	ALNVMRTVVELERAGIAALTI EDTL
39936237	RRGALR	ACVRPASVYDAISIRIADDL	FPFGMFGGSVASLA	DIALITL TE	RRMSRAA	LPVVVDADHGYGN	ALNVRRTVELEAAGAAGLTI EDTL
Q6N509	RRGALR	ACVRPASVYDAISIRIADDL	FPFGMFGGSVASLA	DIALITL TE	RRMSRAA	LPVVVDADHGYGN	ALNVRRTVELEAAGAAGLTI EDTL
48732970	MRRNFR	TCYHTASVFDPM SARIAADL	FVEGILGGSVASLQ	DFALITLSE	TRIGRVA	LPVIADADHGYGN	ALNVMRTIVELEERAGVAALTI EDTL
Q6X9K4	ASHKLW	PYIATFGALTGSQAVEMAKA	LKAIYVSGWQVAAD	DLSLYPSNS	KRLNNAL	LPIVADAEAGFGG	PIHAFELTKALIEAGAAGVHFEDQL
Q6X9K6	ASHKLW	PYIATFGALTGSQAVEMAKA	LKAIYVSGWQVAAD	DLSLYPSNS	KRLNNAL	LPIVADAEAGFGG	PIHAFELTKALIEAGAAGVHFEDQL

33088746	ASHKLW	PYIATFGALTGSQAVEMAKA	LKAIYVSGWQVAAD	DLSLYPSNS	KRLNNAL	LPIVADAEAGFGG	PIHAFELTKALIEAGAAGVHFEDQL
33088752	ASHKLW	PYIATFGALTGSQAVEMAKA	LKAIYVSGWQVAAD	DLSLYPSNS	KRLNNAL	LPIVADAEAGFGG	PIHAFELTKALIEAGAAGVHFEDQL
Q6X9J2	ASHKLW	PYIATFGALTGSQAVEMAKA	LKAIYVSGWQVAAD	DLSLYPSNS	KRLNNAL	LPIVADAEAGFGG	PIHAFELTKALIEAGAAGVHFEDQL
33088754	ASHKLW	PYIATFGALTGSQAVEMAKA	LKAIYVSGWQVAAD	DLSLYPSNS	KRLNNAL	LPIVADAEAGFGG	PIHAFELTKALIEAGAAGVHFEDQL
Tra_OAH_like_2	-----	--LIGPGVFDGISAHVANSV	FDYLYLAGSGATGS	DLSVMTATE	RMIVEVS	VPVIADADTGFGG	PLNIARTIALYESAGVAGCHIEDQT
Q7WBY5	RHAFRR	GSILAAGVGDAGQARLVERV	YPAVYISGSYVNHT	DGTLTLSEI	SEVADRV	IPVIADAEDEGFGS	VLKIARTVHEFERAGAAALHLEDFA
33595252	RHAFRR	GSILAAGVGDAGQARLVERV	YPAVYISGSYVNHT	DGTLTLSEI	SEVADRV	IPVIADAEDEGFGS	VLKIARTVHEFERAGAAALHLEDFA
Q89JL7	RREKLR	GCIHPGSVYDAISIRIAEDL	FPLGMFGGSVASLA	DITLITLTE	RRMSRAS	LPVLVDADHGYGN	ALNVRRTVQELETAGAAGLTIEDTL
27380377	RREKLR	GCIHPGSVYDAISIRIAEDL	FPLGMFGGSVASLA	DITLITLTE	RRMSRAS	LPVLVDADHGYGN	ALNVRRTVQELETAGAAGLTIEDTL
33599543	RHAFRR	GSILAAGVGDAGQARLVERV	YPAVYISGSYVNHT	DGTLTLSEI	SEVADRV	IPVIADAEDEGFGS	VLKIARTVHEFERAGAAALHLEDFA
Q7WPY1	RHAFRR	GSILAAGVGDAGQARLVERV	YPAVYISGSYVNHT	DGTLTLSEI	SEVADRV	IPVIADAEDEGFGS	VLKIARTVHEFERAGAAALHLEDFA
34102829	RARTFR	RPLLLPTVWDALSARVFEQA	FPALATSSAAVAWS	DGGELPREA	ARISRVL	APLSVDLEDGFGD	PAAVGETVAAVIRAGAVGVNLEDGR
Q7NXV8	RARTFR	RPLLLPTVWDALSARVFEQA	FPALATSSAAVAWS	DGGELPREA	ARISRVL	APLSVDLEDGFGD	PAAVGETVAAVIRAGAVGVNLEDGR
48787046	-----	----MATIFDPVSARLAEQL	YEAGLMGGSLASYA	DLIVLTLTE	HRCTRVS	VPLVVDGDHGYGN	ALSVMRTVHELDRAGAAAVTIEDTL
Q4NN15	KRRAFR	GCFVLPNPWDAGTARALQRA	FRALATTSAGFAFS	DGAVGCQEM	RELVAAT	LPVNADLEDGYGA	AEEVAANVRACVDAGVAGLSIEDAT
Q8RL37	-----	-----	-----	-----	-----	-----TGWAA	LSTSRRTIRSF INAGVAAVHIEDQV
20135590	-----	-----	-----	-----	-----	-----TGWAA	LSTSRRTIRSF INAGVAAVHIEDQV

Alignment	0	0	0	0	0	0	0	0	0	0	0
Position	0	1	1	1	1	1	1	1	1	1	1
Number	9	0	1	1	2	2	2	3	3	3	4
	5	0	0	1	0	2	3	0	4	5	0

Consensus LVPTEEHIRRLKAARL TVIIARTDALAA AAIERALAYAPA ADLIWMET KPLAYNCS YKFQFITLAGFHAANKAMFD

Alignment	0	0	0	0	0	0	0	0	0	0	0
Position	0	1	1	1	1	1	1	1	1	1	1
Number	9	0	1	1	2	2	2	3	3	3	4
	5	0	0	1	0	2	3	0	4	5	0

1DQUA
Consensus LVPPISEHINRLVAIRL LLAVARTDSEAA CAINRAIAFAPY ADLIWMET QWLAYNLS YVWQFITLAGLHTTALISDT

1DQUA	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDT
40743537	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDT
Q5B1E6	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDT
P28298	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDT
S2685	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDT
2317	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDT
Q4WQP2	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDQ
38259306	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDQ
Q6T267	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAYAPF	ADLIWMES	QKLAYNLS	YAWQFITLAGLHTTALISDQ
16304093	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAFAPF	ADLIWMES	QKLAYNLS	YCWQFITLAGLHTTALISDQ
Q96TP5	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAINRAVAFAPF	ADLIWMES	QKLAYNLS	YCWQFITLAGLHTTALISDQ
14134098	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAVNRAVAYAPF	ADLIWMES	QKLAYNLS	YCWQFITLAGLHSTALISDQ
Q96WZ5	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAVNRAVAYAPF	ADLIWMES	QKLAYNLS	YCWQFITLAGLHSTALISDQ
23664452	LVPPISEHINRLVAIRA	LLAVARTDSEAA	CAINRAIAYAPF	CDMIWMES	QKLAYNLS	YCWQFITLAGLHQSALMADT
Q86ZF1	LVPPISEHINRLVAIRA	LLAVARTDSEAA	CAINRAIAYAPF	CDMIWMES	QKLAYNLS	YCWQFITLAGLHQSALMADT
SS1G_04975	LVPPISEHINRLVAIRA	LISIARTDAEAA	CAINRAIAYAPY	TDAVWMES	LKLAYNLS	YCWQFITLAGLHTTALISHQ
23345281	LVPPISEHINRLVAIRA	LLAIARTDAEAA	CAINRAIAYAPY	ADAIWMES	QKLAYNLS	YCWQFITLAGLHTTALISDR
Q522F5	LVPPISEHINRLVAIRA	LLAIARTDAEAA	CAINRAIAYAPY	ADAIWMES	QKLAYNLS	YCWQFITLAGLHTTALISDR
Q8J232	LVPPISEHINRLVAIRA	LLAIARTDAEAA	CAINRAIAYAPY	ADAIWMES	QKLAYNLS	YCWQFITLAGLHTTALISDR
59802846	LVPPISEHINRLVAIRA	LLAIARTDAEAA	CAINRAIAYAPY	ADAIWMES	LKLAYNLS	YCWQFITLAGLHTTALISDR
Q5EN15	LVPPISEHINRLVAIRA	LLAIARTDAEAA	CAINRAIAYAPY	ADAIWMES	LKLAYNLS	YCWQFITLAGLHTTALISDR
P28299	LVPPISEHINRLVAIRA	LLCIARTDAEAA	CSINRAISYAPY	CDAIWMES	QKLAYNLS	YCWQFITLAGLHTTALISDQ
11595508	LVPPISEHINRLVAIRA	LLCIARTDAEAA	CSINRAISYAPY	CDAIWMES	QKLAYNLS	YCWQFITLAGLHTTALISDQ
42547279	LVPPISEHINRLVAIRA	LLAIARTDAEAA	CAVNRAIAYAPY	CDAIWMES	KKLAYNLS	YCWQFITLAGLHTTALISDQ
2971	LVPPISEHINRLVAIRA	LLCIARTDAEAA	CSINRAISYAPY	CDAIWMES	QKLAYNLS	YCWQFITLAGLHTTALISDQ
Q53IP6	LVPPISEHINRLVAIRA	LLAIARTDAEAA	CAVNRAIAYAPY	CDAIWMES	KKLAYNLS	YCWQFITLAGLHTTALISDQ
An01g09270	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAVNRAIAYGPF	ADLIWMES	QKLAYNLS	YCWQFITLAGLHTTALITDQ
10178959	LVPPISEHINRLVAIRT	LLCVARTDSEAA	CAVNRRARAYAPY	ADIIWMES	QWLSYNLS	YVWQFITLAGLHTTALAVDN
Q9HFN2	LVPPISEHINRLVAIRT	LLCVARTDSEAA	CAVNRRARAYAPY	ADIIWMES	QWLSYNLS	YVWQFITLAGLHTTALAVDN
49647790	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAVNRGIAYAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTTALISDK
P41555	LVPPISEHINRLVAIRA	LLAIARTDSEAA	CAVNRAIAYAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTTALISDK
P20014	LVPVQEHINRLVAIRA	LLAVARTDSEAA	CAVMRGRAFAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTTALAVDD
WZCK	LVPVQEHINRLVAIRA	LLAVARTDSEAA	CAVMRGRAFAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTTALAVDD
46433605	LVPVQEHINRLVAIRA	LLAVARTDSEAA	CAVMRGRAFAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTTALAVDD
Q59RB8	LVPVQEHINRLVAIRA	LLAVARTDSEAA	CAVMRGRAFAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTTALAVDD
6980002	LVPVQEHINRLVAIRA	LLAVARTDSEAA	CAVMRGRAFAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTTALAVDD

Q9P8Q7	LVPVQEHINRLVAIRA	LLAVARTDSEAA	CAVMRGRAFAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTTALAVDD
49654703	LVPVQEHINRLVAIRA	LLCVARTDSEAA	CAVMRQAYAPY	ADMIWMES	QWLAYNLS	YVWQFITLAGLHTTALAVDD
Q6BR4	LVPVQEHINRLVAIRA	LLCVARTDSEAA	CAVMRQAYAPY	ADMIWMES	QWLAYNLS	YVWQFITLAGLHTTALAVDD
62122373	LVPIQEHINRLVAIRL	NLVIARTDSEAA	CAVNRAIAFAPY	ADLLWMET	QWLAYNLS	FCWQFITLAGLHSNAYISDL
Q58A52	LVPIQEHINRLVAIRL	NLVIARTDSEAA	CAVNRAIAFAPY	ADLLWMET	QWLAYNLS	FCWQFITLAGLHSNAYISDL
2569955	LVPIQEHINRLVAIRL	NLVVARTDSEAA	CAIHRANAFAPY	ADLLWMET	QWLAYNLS	FVWQFITLAGLHSNAYISDL
013439	LVPIQEHINRLVAIRL	NLVVARTDSEAA	CAIHRANAFAPY	ADLLWMET	QWLAYNLS	FVWQFITLAGLHSNAYISDL
1134899	LVPIQEHINRLIAIRA	LLAIARTDSEAA	CAVNRGYSYAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTNALISDK
46100101	LVPIQEHINRLIAIRL	NLVVARTDSEAA	CAINRAIAFGPY	ADLLWMET	QWLAYNLS	FVWQFITLGGHLSNAYISDL
Q4P6H8	LVPIQEHINRLIAIRL	NLVVARTDSEAA	CAINRAIAFGPY	ADLLWMET	QWLAYNLS	FVWQFITLGGHLSNAYISDL
S3995	LVPIQEHINRLIAIRA	LLAIARTDSEAA	CAVNRGYSYAPY	ADLIWMES	QWLAYNLS	YVWQFITLAGLHTNALISDK
13397903	LVPVQEHINRLVAIRT	LIAVARTDSEAA	CAIMRARAYSPY	ADLVMMES	NWLAYNLS	YNWQFITLAVLHTTALAVDN
Q9C124	LVPVQEHINRLVAIRT	LIAVARTDSEAA	CAIMRARAYSPY	ADLVMMES	NWLAYNLS	YNWQFITLAVLHTTALAVDN
50255921	LVPISEHINRLVAMRL	NLVCRTDSEAA	CAINRAIAFAPY	ADLLWMET	QWLAYNLS	FVFQFITLAGLHSNAYINDL
Q55LK8	LVPISEHINRLVAMRL	NLVCRTDSEAA	CAINRAIAFAPY	ADLLWMET	QWLAYNLS	FVFQFITLAGLHSNAYINDL
Q5KD48	LVPISEHINRLVAMRL	NLVCRTDSEAA	CAINRAIAFAPY	ADLLWMET	QWLAYNLS	FVFQFITLAGLHSNAYINDL
18030082	IVPLSEHINRLVAMRL	NLVCRTDSEAA	CAINRAIAFAPY	ADLLWMET	QWLAYNLS	FVFQFITLAGLHSNAYINDL
Q8X192	IVPLSEHINRLVAMRL	NLVCRTDSEAA	CAINRAIAFAPY	ADLLWMET	QWLAYNLS	FVFQFITLAGLHSNAYINDL
6320908	VIPVQEHVNRSLVTIRM	LIVVARTDSEAA	CSIMRARAFAPY	ADLVMMES	QWLAYNLS	YIWQFITLAGLHTNALAVHN
P28240	VIPVQEHVNRSLVTIRM	LIVVARTDSEAA	CSIMRARAFAPY	ADLVMMES	QWLAYNLS	YIWQFITLAGLHTNALAVHN
50290809	VIPVQEHINRLVTIRM	LIVVARTDSEAA	CSVMRARAFAPY	ADLVMMES	QWLAYNLS	YIWQFITLAGLHTTALAIHK
Q6FPK7	VIPVQEHINRLVTIRM	LIVVARTDSEAA	CSVMRARAFAPY	ADLVMMES	QWLAYNLS	YIWQFITLAGLHTTALAIHK
44982568	VIPVQEHISRLVTVRM	LVLVARTDSEAA	CAIMRARAFAPY	ADLVWFES	KWMAYNLS	YVWQFITLAGLHTNALAIDN
O94198	VIPVQEHISRLVTVRM	LVLVARTDSEAA	CAIMRARAFAPY	ADLVWFES	KWMAYNLS	YVWQFITLAGLHTNALAIDN
50305203	VIPVQEHINRLITCRM	LILVARTDSEAA	CSVMRARAFAPY	ADLCWMES	KWMAYNLS	YIWQFITLAGLHTSGLAIEQ
Q8NJ72	VIPVQEHINRLITCRM	LILVARTDSEAA	CSVMRARAFAPY	ADLCWMES	KWMAYNLS	YIWQFITLAGLHTSGLAIEQ
P25248	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAVVRGWAFAQI	ADLIWMET	VMLAYNLS	YCWQFITLAGFHADALVVDI
WZRP	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAVVRGWAFAQI	ADLIWMET	VMLAYNLS	YCWQFITLAGFHADALVVDI
P93110	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAIVRGWAFAPH	ADLIWMET	IMLAYNLS	FCWQFITLAGFHADALVIDT
2143227	LVAVSEHINRLVAARL	TVLVARTDAVAP	AAVVRGWAFAQI	ADLIWMET	VMLAYNLS	YCWQFITLAGFHADALVVDI
1353642	LVSVEHVNRMVAARL	TLLVARTDAVAA	AAIVRGWAFGPH	ADLIWMET	IMLAYNLS	YCWQFITLAGFHADALVIDT
Q43097	LVSVEHVNRMVAARL	TLLVARTDAVAA	AAIVRGWAFGPH	ADLIWMET	IMLAYNLS	YCWQFITLAGFHADALVIDT
Q9SE26	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAVVRGRAFAPH	ADLIWMET	IMLAYNLS	FCWQFITLGGFHADALVTDI
6164959	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAVVRGRAFAPH	ADLIWMET	IMLAYNLS	FCWQFITLGGFHADALVTDI
P28297	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAVVRGWAFAQI	ADLIWMET	VMLAYNLS	YCWQFITLAGFHADALVVDI
34098915	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAVVRGWAFAQI	ADLIWMET	VMLAYNLS	YCWQFITLAGFHADALVVDI
P49296	LVAVSEHINRLVAARL	TILVARTDAVAA	AAIVRGWAFAPH	ADLIWMET	TMLAYNLS	FCWQFITLAGFHADALVVDI
1052578	LVAVSEHINRLVAARL	TILVARTDAVAA	AAIVRGWAFAPH	ADLIWMET	TMLAYNLS	FCWQFITLAGFHADALVVDI
P15479	LVAISEHINRLVAARL	TLLVARTDAEAA	AAVVRGRAFAPH	ADLIWMET	IMLAYNLS	FCWQFITLGGFHADALVIDT
12005499	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAIVRGWAFAPH	ADLIWMET	MMLAYNLS	YCWQFITLAGFHGNALIIDT
Q9FQD2	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAIVRGWAFAPH	ADLIWMET	MMLAYNLS	YCWQFITLAGFHGNALIIDT
1353640	LVSTAEHINRLVAARL	TVLIARTDAVAA	AAILRGWAFGPH	ADLIWMET	LMLAYNLS	FCWQFITLAGFHADALVIDT
Q41084	LVSTAEHINRLVAARL	TVLIARTDAVAA	AAILRGWAFGPH	ADLIWMET	LMLAYNLS	FCWQFITLAGFHADALVIDT
18486	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAIVRGWAFAPH	ADLIWMET	IMLAYNLS	FCWQFITLAGFHADALVTDI
P17069	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAIVRGWAFAPH	ADLIWMET	IMLAYNLS	FCWQFITLAGFHADALVTDI
P49297	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAIVRGWAFAPY	ADLVMMET	LMLAYNLS	YCWQFITLAGFHADALVIDT
T0635	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAIVRGWAFAPY	ADLVMMET	LMLAYNLS	YCWQFITLAGFHADALVIDT
50937953	LVAVSEHVNRLVAARL	TVLVARTDAVAA	AAVVRGRAFAPH	ADLVMMET	AMLAYNLS	YVWQFITLAGFHADALVTDI
Q6Z6M4	LVAVSEHVNRLVAARL	TVLVARTDAVAA	AAVVRGRAFAPH	ADLVMMET	AMLAYNLS	YVWQFITLAGFHADALVTDI
P45456	LVAISEHINRLVAARL	TVLVARTDAEAA	ASVVRGCAFSPH	ADVIWMET	MMLGYNLS	YVWQFITVGGHLSNALITST
P45457	LVAISEHINRLVAARL	TVLVARTDAEAA	ASVVRGCAFSPH	ADVIWMET	MMLGYNLS	YVWQFITVGGHLSNALITST
553043	LVAVSEHINRLVAARL	TVLVARTDAVAA	AAVVRGWAFAQI	ADLIWMET	VMLAYNLS	-----
Q96WZ4	LVPIQEHINRLIAIRT	LLCVARTDSEAA	CAINRARAVRSV	HCCGWRRS	KWLAYNLS	ICNSFSCWFHTTVPVQRRG

14210102	LVPIQEHINRLIAIRT	LLCVARTDSEEA	CAINRARAVRSV	HCCGWRRS	KWLAYNLS	ICNSFSCWFHTTTPAVQRRG
49651987	IVPTGSHISRLNATRM	NLVIARTDSESA	PAIKRALAFAPY	ADLIWLET	KWLVYNLS	FVMQLISLAGLHNSAVATHE
Q6BZP5	IVPTGSHISRLNATRM	NLVIARTDSESA	PAIKRALAFAPY	ADLIWLET	KWLVYNLS	FVMQLISLAGLHNSAVATHE
Q4PDC1	LVPTSEHVNRILTATRF	NILIARTDSESA	AAIKRVKIFGAY	ADMLWLET	KWLVYNLS	FVFQLISLAGLHSTGAMTCE
46097540	LVPTSEHVNRILTATRF	NILIARTDSESA	AAIKRVKIFGAY	ADMLWLET	KWLVYNLS	FVFQLISLAGLHSTGAMTCE
38567108	LVPTGEHINRLKAARF	NLVIARTDSESG	AATKRALAFGPY	ADLLWVET	KGLVYNLS	FTLQLVSLAGLHSTATISNE
Q7SG83	LVPTGEHINRLKAARF	NLVIARTDSESG	AATKRALAFGPY	ADLLWVET	KGLVYNLS	FTLQLVSLAGLHSTATISNE
Q4WCY6	LVPIGEHLNRLVAAARF	NLVIARTDSESG	AATKRAKEFAPY	ADLLWVET	KGLVYNLS	FVLQLISLAGLHNSATITTE
42544429	LVPIGEHLNRLVATRF	NLVIARTDSESG	AATKRALAFGPY	ADLLWVET	KGLVYNLS	FVLQLISLAGLHNSATITTE
38100211	LVSTGEHINRLTAARM	NLVIARTDSESG	AATKRALAFAPY	ADLLWVET	KALVYNLS	FVLQLVSLAGVHTNATATCE
Q51MC5	LVSTGEHINRLTAARM	NLVIARTDSESG	AATKRALAFAPY	ADLLWVET	KALVYNLS	FVLQLVSLAGVHTNATATCE
61657961	LVPIGEHLNRLVATRF	NLVIARTDSESG	AATKRAKEFGPY	ADLLWVET	KGLVYNLS	FVLQLISLAGLHSGATITAE
Q599M3	LVPIGEHLNRLVATRF	NLVIARTDSESG	AATKRAKEFGPY	ADLLWVET	KGLVYNLS	FVLQLISLAGLHSGATITAE
Q5ASH5	LVPIGEHLNRLVATRF	NLVIARTDSESG	AATKRAKEFGPY	ADLLWVET	KGLVYNLS	FVLQLISLAGLHSGATITAE
40741358	LVPIGEHLNRLVATRF	NLVIARTDSESG	AATKRAKEFGPY	ADLLWVET	KGLVYNLS	FVLQLISLAGLHSGATITAE
Q6CNB1	IVPTSTHISRLVATRL	NLVIARTDSCNA	PAIQRSLAFAPY	ADLLWLET	AKLVYNLS	FVLQLVSLAGLHSDASSFWK
50309145	IVPTSTHISRLVATRL	NLVIARTDSCNA	PAIQRSLAFAPY	ADLLWLET	AKLVYNLS	FVLQLVSLAGLHSDASSFWK
44985822	LAPTYVHISRLIATRL	NLLIARTDSANA	LAVRRTLAFAPY	SDLLWLET	AKLVYNLS	FVLQLVSLAGLHSDALAFWQ
Q750K8	LAPTYVHISRLIATRL	NLLIARTDSANA	LAVRRTLAFAPY	SDLLWLET	AKLVYNLS	FVLQLVSLAGLHSDALAFWQ
6325263	LVPTATHLMRLISTRF	NLVIARTDSCNG	AAIRRSLVFAPY	SDMIWLET	TKLVYNLS	FTLQLVSLAGLHSDGVSFWE
Q12031	LVPTATHLMRLISTRF	NLVIARTDSCNG	AAIRRSLVFAPY	SDMIWLET	TKLVYNLS	FTLQLVSLAGLHSDGVSFWE
49528492	LVPTGAHLSRLISTRF	NLILARTDSCNA	PAIRRSLVFAPY	SDMIWLET	VKLVYNLS	FVLQLVSLAGLHTNAASFWD
Q6FKR5	LVPTGAHLSRLISTRF	NLILARTDSCNA	PAIRRSLVFAPY	SDMIWLET	VKLVYNLS	FVLQLVSLAGLHTNAASFWD
094099	LVPVGEHLNRLVAAARF	NLVIARTDSESG	AATKRAIQYAPY	ADLLWVET	KGLVYNLS	FVLQLISLAGLHSTATITSE
3282211	LVPVGEHLNRLVAAARF	NLVIARTDSESG	AATKRAIQYAPY	ADLLWVET	KGLVYNLS	FVLQLISLAGLHSTATITSE

Alignment	0	0	0	0	0	0	0	0	0	0	0	0	0				
Position	0	1	1	1	1	1	1	1	1	1	1	1	1				
Number	9	0	1	1	2	2	2	3	3	3	4	4	4	5	5	6	7
	5	0	0	1	0	2	3	0	4	5	0	2	3	0	1	0	0

1F61A
Consensus LIPTQQHIRTLNLAARL TVVIARTDAEAAA PCIARALAYAPY ADLIWMET KLLAYNCS YKFQFITLAGFHALNYSMFD

1F61A	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F61B	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F8MA	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F8MB	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F8MC	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F8MD	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F8IA	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F8IB	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F8IC	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
1F8ID	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
57116734	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
P0A5H3	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
P0A5H4	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPF	ADLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
41410059	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCVARAKAYAPY	SDLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
Q73SW2	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCVARAKAYAPY	SDLIWMET	QMLAYNCS	FKFQFITLAGFHALNYSMFD
54027204	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPY	ADLIWMET	QLLAYNCS	FKFQFITLAGFHSLNYSMFD
Q5YP09	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPY	ADLIWMET	QLLAYNCS	FKFQFITLAGFHSLNYSMFD
15822684	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPY	ADLIWMET	QLLAYNCS	FKFQFITLAGFHSLNYSMFD
Q938W9	LIPTQQHIRTLTSARL	TVVIARTDAEAAA	PCIARAKAYAPY	SDLIWMET	QLLAYNCS	FKFQFITLAGFHSLNYSMFD

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25028788	LIPTQQHIRTLSARL	TVVIARTDAEAA	PCIRAKSYAPY	ADMIWMET	QLLSYNCS	FKFQFITLAGFHSLNYGMFD
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52783628	LIPTQQHIRTLSARL	TVVIARTDAEAA	PCIRAKAYAPY	SDLIWMET	QLLAYNCS	FKFQFITLAGFHSLNYGMFD
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Q8RPZ0	LVPTAQHIRTLSARL	TVIIARTDALAA	PVIARGLAYAPY	ADLLWMET	QLLAYNCS	YRFQFITLAGFHSLNHAMFD
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Alignment 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Position 0 1 1 1 1 1 1 1 1 1 1 1 1 1
Number 9 0 1 1 2 2 2 3 3 3 4 4 4 5 5 6 7
1GWA 5 0 0 1 0 2 3 0 4 5 0 2 3 0 1 0 0

1GWA Consensus LVPTQEAIQKLVAARL TLLVARTDADAA QAISRGLAYAPY ADLVWCET KLLAYNCS YKFQFITLAGIHSWFWNMFE
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Q5P206	LVPTAEAVQKLLAARL	TLVIARTDAEAA	QAISRATAYAEY	ADLVWCET	KMLAYNCS	YKYQFITLAGIHSMWYNMF
41723975	LVPTTEAVQKLI AARM	TLVIARTDAEAA	QAISRATAYADY	ADLVWCET	KMLAYNCS	YKYQFITLAGIHSMWYNMF
34102953	LVPTQEAIQKLI AARL	TLVIARTDAEAA	QAISRAVAYADY	ADLVWCET	KLLAYNCS	YKYQFITLAGIHSMWYNYD
Q7NXI5	LVPTQEAIQKLI AARL	TLVIARTDAEAA	QAISRAVAYADY	ADLVWCET	KLLAYNCS	YKYQFITLAGIHSMWYNYD
54031958	LLPTRESCQKLI AARM	TLVIARTDAEAA	QAVARANAYAHY	ADLVWCET	KMLAYNCS	YKYQFITLAGIHSMWYNYD
47575499	LVPTQEACEKLI AARF	TIVLARTDAEAA	QAISRGVAYAA Y	ADLVWCET	KLLSYNCS	YKYQFITLAGIHINWYNTFQ

33596397	LVPTREAVSKLVSARL	TILLARTDADAA	QAISRGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFITLAGFHALNYGMFE
Q7W9J0	LVPTREAVSKLVSARL	TILLARTDADAA	QAISRGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFITLAGFHALNYGMFE
Q7WH70	LVPTREAVSKLVSARL	TILLARTDADAA	QAISRGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFITLAGFHALNYGMFE
33593102	LVPTREAVSKLVSARL	TILLARTDADAA	QAISRGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFITLAGFHALNYGMFE
Q7VWV4	LVPTREAVSKLVSARL	TILLARTDADAA	QAISRGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFITLAGFHALNYGMFE
46319238	LVPTREAVAKLSAARL	TVLVARTDAEAA	QAISRGLAYAPY	ADLVWCET	KMLSYNCS	YKFQFITLAGFHALNYSMFN
46311967	LVPTREAVAKLSAARL	TVLVARTDAEAA	QAISRGLAYAPY	ADLVWCET	KMLSYNCS	YKFQFITLAGFHALNYSMFN
56244544	LVPTREAIKLNAAARL	TVLIARTDAEAA	QAISRGLAYAPY	ADVIWCET	KLLAYNCS	YKFQFITLAGFHALNYGMFH
Q4V038	LVPTREAIKLNAAARL	TVLIARTDAEAA	QAISRGLAYAPY	ADVIWCET	KLLAYNCS	YKFQFITLAGFHALNYGMFH
Q8PDU7	LVPTREAIKLNAAARL	TVLIARTDAEAA	QAISRGLAYAPY	ADVIWCET	KLLAYNCS	YKFQFITLAGFHALNYGMFH
53719797	LVPTREAVAKLTAARL	TVLVARTDAEAA	QAISRGLAYAPY	ADLIWCET	KLLSYNCS	YKFQFITLAGFHALNYSMFN
Q62J93	LVPTREAVAKLTAARL	TVLVARTDAEAA	QAISRGLAYAPY	ADLIWCET	KLLSYNCS	YKFQFITLAGFHALNYSMFN
Q63SY3	LVPTREAVAKLTAARL	TVLVARTDAEAA	QAISRGLAYAPY	ADLIWCET	KLLSYNCS	YKFQFITLAGFHALNYSMFN
56419211	LLPTQTAINRNLIARL	TVLIARTDANAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNYSMFE
Q5L269	LLPTQTAINRNLIARL	TVLIARTDANAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNYSMFE
55247238	LVPSQEAVQKLIARL	TLVIARTDANAA	QAISRGLAYAPY	ADMVWCET	KILAYNCS	YKYQFITLAGIHNIYTFVAH
Q5TYB1	LVPSQEAVQKLIARL	TLVIARTDANAA	QAISRGLAYAPY	ADMVWCET	KILAYNCS	YKYQFITLAGIHNIYTFVAH
42780304	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
Q73C38	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
10175298	LIPTQTAINRNLSARL	TILVARTDADAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNHSMFE
Q9K9H0	LIPTQTAINRNLSARL	TILVARTDADAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNHSMFE
Q63EN1	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
47526402	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
Q81TX0	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
Q6HM56	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
49479028	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
Q81GQ9	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
30019283	LLPTQTAVRNLIARL	TIIIVARTDADAA	QAIARGLAYAPY	ADLVWCET	KLLAYNCS	YKFQFVTLAGFHSLNYGMFE
48729776	LVPTQEAVQKLTAAARL	TIIILARTDANAA	QAIARGLAYAPY	ADLIWCET	QILSYNCS	YKHQFITLAGIHNMWHSMFN
23099859	LLPTQNAVRNLIARF	TIIIIARTDANAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNHSMFD
Q8ENS3	LLPTQNAVRNLIARF	TIIIIARTDANAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNHSMFD
52082487	LLPTQTAVRNLIARL	TILIIARTDANAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNHGMFE
Q65D44	LLPTQTAVRNLIARL	TILIIARTDANAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNHGMFE
56964737	LLPTQTAVRNLIARL	TILIIARTDANAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNHGMFE
Q5WDQ3	LLPTQTAVRNLIARL	TILIIARTDANAA	QAIARGLAYAPY	ADLIWCET	KLLAYNCS	YKFQFVTLAGFHALNHGMFE
619932	LVPTKEFVQKLTAAARL	TLIIIVRTDALGA	AAIARGLAYAPY	ADLVWFET	KLLAYNCS	YKFQFITLAGFHSLNYGMFS
Q39577	LVPTKEFVQKLTAAARL	TLIIIVRTDALGA	AAIARGLAYAPY	ADLVWFET	KLLAYNCS	YKFQFITLAGFHSLNYGMFS
Q97YI8	LIPISAFIRVLNAAARL	TILIIARTDALNA	YAIARGLAYAPY	ADLLWFET	KMLAYNLS	YKFQFITLAGWHLINHYHTFK
15898176	LIPISAFIRVLNAAARL	TILIIARTDALNA	YAIARGLAYAPY	ADLLWFET	KMLAYNLS	YKFQFITLAGWHLINHYHTFK
Q4NUX0	LVAEDEQIKRLSAAARF	GIIIVARTDAESA	LAILRRFRFRAGV	ADLLWMET	KMLAYNLS	FVFNFIITYGGHQIDGVAAEE
15828074	LVPSDEQIKRLNAAARF	GIIIVARTDAEAA	LALVRCFYELGV	ADILWMET	QMLAYNLS	FVFNFIITYGGHQIDGVAAEE
Q8VJU4	LVPSDEQIKRLNAAARF	GIIIVARTDAEAA	LAMVRRFYELGV	ADILWMET	QMLAYNLS	FVFNFIITYGGHQIDGVAAEE
31793108	LVPSDEQIKRLNAAARF	GIIIVARTDAEAA	LAMVRRFYELGV	ADILWMET	QMLAYNLS	FVFNFIITYGGHQIDGVAAEE
Q7TZA8	LVPSDEQIKRLNAAARF	GIIIVARTDAEAA	LAMVRRFYELGV	ADILWMET	QMLAYNLS	FVFNFIITYGGHQIDGVAAEE
41407741	LVPSDEQIKRLNAAARF	GIIIVARTDAEAA	LAMVRRFYELGV	ADILWMET	QMLAYNLS	FVFNFIITYGGHQIDGVAAEE
Q73ZG0	LVPSDEQIKRLNAAARF	GIIIVARTDAEAA	LAMVRRFYELGV	ADILWMET	QMLAYNLS	FVFNFIITYGGHQIDGVAAEE
P46831	LVPSDEQIKRLNAAARF	GIIIVARTDAEAA	LALVRCFYELGV	ADILWMET	QMLAYNLS	FVFNFIITYGGHQIDGVAAEE
41689052	TVPHEDFISKINAIRY	GVIIVARTDSEGA	LLKHNGKLVRPV	ADLLWIET	AKLVYNNS	VFHHLITLPTYHTTALSVEH
050078	TVPREDFIEKLRACRL	GVIIVARTDSLGA	LAIWQSGNFARP	ADLIWIET	AKLVYNNS	VFHNLITLPTFHLTAKSTDE
2662054	TVPREDFIEKLRACRL	GVIIVARTDSLGA	LAIWQSGNFARP	ADLIWIET	AKLVYNNS	VFHNLITLPTFHLTAKSTDE
Q6FD89	TVPHEDFLAKINAVRY	GVIIVARTDSEGA	ILIKRDGKLRHP	ADMIWIET	AKLVYNNS	VFHHLITLPTYHTAALSTHE
50084282	TVPHEDFLAKINAVRY	GVIIVARTDSEGA	ILIKRDGKLRHP	ADMIWIET	AKLVYNNS	VFHHLITLPTYHTAALSTHE
16126008	TVPREDFIEKLRACRL	GVIIVARTDSLGA	LAIMKDGAFFVKP	ADLLWIET	AKLTYNNS	VFHNLITLPTFHLTAKSVDE

Q9A7F9	TVPREDFIEKLRACRL	GVIVARTDSLGA	LAIMKDGAFFVKP	ADLLWIET	AKLTYNNS	VFHNLITLPTFHLTAKSVDE
32037670	TVPHIDFLAKINAVRY	GVIVARTDSLGA	GKLLRPKRLASN	ADLLWIET	AKLVYNNS	IFHHLITLPTYHTAALSTDN
Q9I0K4	TVPHIDFLAKINAVRY	GVIVARTDSLGA	GKLLRPKRLASN	ADLLWIET	AKLVYNNS	IFHHLITLPTYHTAALSTDN
9948702	TVPHIDFLAKINAVRY	GVIVARTDSLGA	GKLLRPKRLASN	ADLLWIET	AKLVYNNS	IFHHLITLPTYHTAALSTDN
Q93R40	TVPHADFHSKIRALRH	GIIVSRTDSEGA	VRPKRLPSGLYQ	ADLLWIET	AKLVYNNS	IFHHLITLPTYHTAALSTDN
14971019	TVPHADFHSKIRALRH	GIIVSRTDSEGA	VRPKRLPSGLYQ	ADLLWIET	AKLVYNNS	IFHHLITLPTYHTAALSTDN
21399055	LLPTQTAVRNLI SARL	-----	-----	-----	-----	-----
61101267	TVPHEDFHQKIRAIRY	GIIVARTDSLGA	FLSREGKLLRPK	ADLLWIET	AKLVYNNS	IFHHLITLPTYHTAALSTDN
Q4TMG2	TVPHEDFHQKIRAIRY	GIIVARTDSLGA	FLSREGKLLRPK	ADLLWIET	AKLVYNNS	IFHHLITLPTYHTAALSTDN
46132849	TVPHEDFLAKVRAVRY	GIIVTRTDSLGA	VIKQNGKLMRPK	ADLLWIET	AKLVYNNS	IFHHLITLPTYHTAALSTDN
Q9P6J1	VVPTSEYLRLRLTAVRL	TMLLCRCDDTHA	DAESTGVSMKKA	GEMTWARM	DFKAAGFS	VCWQVQPYFTCQVLNKASVD
7801304	VVPTSEYLRLRLTAVRL	TMLLCRCDDTHA	DAESTGVSMKKA	GEMTWARM	DFKAAGFS	VCWQVQPYFTCQVLNKASVD

Alignment	0	0	0	0	0	0	0	0	0	0	0	0					
Position	0	1	1	1	1	1	1	1	1	1	1	1					
Number	9	0	1	1	2	2	2	3	3	3	4	4	4	5	5	6	7
	5	0	0	1	0	2	3	0	4	5	0	2	3	0	1	0	0

1MUMA	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	ADMIFPEA	VPILANIT	VAMVLYPLSAFRAMNKAEN
Consensus	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	ADMIFPEA	VPILANIT	VAMVLYPLSAFRAMNKAEN

1MUMA	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
16128316	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1MUMB	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1OQFA	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1OQFB	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
P77541	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1XG4D	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
12513159	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
Q8X695	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1XG3A	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1XG3C	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1XG4C	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1XG3B	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1XG4A	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1XG4B	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
26246347	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILSNIT	VAMALYPLSAFRAMNRAAEH
Q8FKH3	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILSNIT	VAMALYPLSAFRAMNRAAEH
1XG3D	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AAIERAQAYVEA	AEMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEH
1UJQD	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
29142882	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
56414476	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
62126612	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
Q57SJ6	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
Q5PFW6	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
Q8Z905	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
16418870	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
Q56062	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
1UJQC	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
105QC	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
105QA	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
1UJQA	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
105QD	IVSKEEMVDRIRAAVD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK

105QB	IVSKEEMVDRIIRAAMD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
1UJQB	IVSKEEMVDRIIRAAMD	FVIMARTDALAV	AALDRAQAYVDA	ADMLFPEA	VPILANIT	VAMALYPLSAFRAMNRAAEK
37527415	IVSKEEMVDRIKAAMD	FIIMARTDALAV	AALDRAKAYIEA	ADMLFPEA	VPVLANIT	VSIALYPLSAFRAMNKAAEQ
Q7N1D4	IVSKEEMVDRIKAAMD	FIIMARTDALAV	AALDRAKAYIEA	ADMLFPEA	VPVLANIT	VSIALYPLSAFRAMNKAAEQ
9946688	IVSQQEMVDRIKAAMD	FVIMARTDALAV	AAIDRACACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSAFRAMNKAAEN
Q9I5E2	IVSQQEMVDRIKAAMD	FVIMARTDALAV	AAIDRACACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSAFRAMNKAAEN
50085814	IVSQQEMVDRIKAAMD	FVIMARTDALAV	AAIDRAGAYIEA	ADMLFPEA	APILANIT	VSLALYPLSAFRAMNKAAET
Q6F8W3	IVSQEEMVDRIKAAMD	FVIMARTDALAV	AAIDRAGAYIEA	ADMLFPEA	APILANIT	VSLALYPLSAFRAMNKAAET
15624086	IVTQGEMVDRIIRAAMD	FVIMARTDALAV	KAIERAVACAEA	ADAIFFPEA	VPVLANIT	VSMVLLPLSAFRAMNKAAEN
Q937P0	IVTQGEMVDRIIRAAMD	FVIMARTDALAV	KAIERAVACAEA	ADAIFFPEA	VPVLANIT	VSMVLLPLSAFRAMNKAAEN
17429018	IVSKDEMVDRIKAAMD	FVVMARTDALAV	RAIERAVACVEA	ADAIFFPEA	VPVLANIT	VAMILYPLSAFRAMNKAAEN
Q8XXW3	IVSKDEMVDRIKAAMD	FVVMARTDALAV	RAIERAVACVEA	ADAIFFPEA	VPVLANIT	VAMILYPLSAFRAMNKAAEN
23468856	IVSQQEMVDRIKAAMD	FVIMARTDALAV	SALERAACIEA	ADMVFPEA	VPILANIT	VSLVLYPLSAFRAMNKAAEN
Q4ZUP4	IVSQQEMVDRIKAAMD	FVIMARTDALAV	SALERAACIEA	ADMVFPEA	VPILANIT	VSLVLYPLSAFRAMNKAAEN
48768432	IVTKGEMVDRIIRAAMD	FVIMARTDALAV	SAIERAVACVEA	ADAIFFPEA	VPVLANIT	VAMALYPLSAFRAMNKAAEN
23103529	IVSQQEMVDRIKAAMD	FVIMARTDALAV	SALDRAACIEA	ADMIFPEA	APILANIT	VSLVLYPLSAFRAMNKAAEN
45515200	IVTQTEMVDRIKAAMD	FVIMARTDALAV	SAIERAVACVEA	ADAIFFPEA	VPVLANIT	VSMVLYPLSAFRAMNKAAEN
28869487	IVSQQEMVDRIKAAMD	FVIMARTDALAV	SALERAACIEA	ADMVFPEA	VPILANIT	VSLVLYPLSAFRAMNKAAEN
Q883R3	IVSQQEMVDRIKAAMD	FVIMARTDALAV	SALERAACIEA	ADMVFPEA	VPILANIT	VSLVLYPLSAFRAMNKAAEN
26989058	IVSQQEMVDRIKAAMD	FVIMARTDALAV	AALDRAQACVEA	ADMIFPEA	APILANIT	VSLVLYPLSAFRAMNKAAEN
Q88KF6	IVSQQEMVDRIKAAMD	FVIMARTDALAV	AALDRAQACVEA	ADMIFPEA	APILANIT	VSLVLYPLSAFRAMNKAAEN
48731968	IVTQQEMVDRIKAAMD	FVIMARTDALAV	SALDRAACIEA	ADMIFPEA	APILANIT	VSLVLYPLSAFRAMNKAAEN
21230489	IVSQGEMVDRVKAAAD	FFLIARTDAIQM	AAIERAIACVEA	ADGIFAEA	VPVLANIT	VAIQLFPLSAFRAANKAAEA
Q4URR4	IVSQGEMVDRVKAAAD	FFLIARTDAIQM	AAIERAIACVEA	ADGIFAEA	VPVLANIT	VAIQLFPLSAFRAANKAAEA
Q8PBT8	IVSQGEMVDRVKAAAD	FFLIARTDAIQM	AAIERAIACVEA	ADGIFAEA	VPVLANIT	VAIQLFPLSAFRAANKAAEA
33597758	IVSTEMADRVKAAAD	FYLIARTDAIAS	AAIERAIACVEA	ADAIFFAEA	VPVLANIT	VGMVLYPLSAFRAMNKAAET
Q7W5Q7	IVSTEMADRVKAAAD	FYLIARTDAIAS	AAIERAIACVEA	ADAIFFAEA	VPVLANIT	VGMVLYPLSAFRAMNKAAET
Q7WD93	IVSTEMADRVKAAAD	FYLIARTDAIAS	AAIERAIACVEA	ADAIFFAEA	VPVLANIT	VGMVLYPLSAFRAMNKAAET
58580515	IVSQGEMVDRVKAAAD	FFLIARTDAIQM	AAIERAIACVEA	ADGIFAEA	VPVLANIT	VAIQLFPLSAFRAANKAAEA
Q5H4H5	IVSQGEMVDRVKAAAD	FFLIARTDAIQM	AAIERAIACVEA	ADGIFAEA	VPVLANIT	VAIQLFPLSAFRAANKAAEA
21107276	IVSQGEMADRVKAAAD	FFLIARTDAIQM	AAIERAIACVEA	ADGIFAEA	VPVLANIT	VAIQLFPLSAFRAANKAAEA
Q8PND6	IVSQGEMADRVKAAAD	FFLIARTDAIQM	AAIERAIACVEA	ADGIFAEA	VPVLANIT	VAIQLFPLSAFRAANKAAEA
34103367	IVPQDEMVDRIKAATD	FVIMARTDALAV	AAIARAACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSAFRAMNSQAALN
Q7NWD3	IVPQDEMVDRIKAATD	FVIMARTDALAV	AAIARAACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSAFRAMNSQAALN
7225654	IVSKDEMVDRIKAAMD	FVIMARTDALAV	AAIERAQACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSSFRAASKAALN
Q9K0X5	IVSKDEMVDRIKAAMD	FVIMARTDALAV	AAIERAQACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSSFRAASKAALN
7380683	IVSKDEMVDRIKAAMD	FVIMARTDALAV	AAIERAEACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSSFRAASKAALN
Q9JT03	IVSKDEMVDRIKAAMD	FVIMARTDALAV	AAIERAEACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSSFRAASKAALN
59801862	IVSKDEMVDRIKAAMD	FVIMARTDALAV	AAIERAQACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSSFRAASKAALN
Q5F6M5	IVSKDEMVDRIKAAMD	FVIMARTDALAV	AAIERAQACVEA	ADMIFPEA	VPVLANIT	VSLVLYPLSSFRAASKAALN
28898422	IVSQQEMVDRVKAAAD	FVIMARTDALAV	SAIERAIACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNKAAET
Q87P70	IVSQQEMVDRVKAAAD	FVIMARTDALAV	SAIERAIACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNKAAET
54301915	IVSQSEMVDRIKAAMD	FVIMARTDALAV	SAIARAACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNQAALN
Q6LKY7	IVSQSEMVDRIKAAMD	FVIMARTDALAV	SAIARAACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNQAALN
46322811	VVPVEEMVDRVKAAAD	FVIMARTDAAAA	AAIERAVAYVEA	ADMIFPEA	VPILANIT	VDIALYCCGAYRAMNKAAALN
9655827	IVSQQEMVDRVKAAAD	FVIMARTDALAV	SAIERAIACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNKAAEN
Q9KSC2	IVSQQEMVDRVKAAAD	FVIMARTDALAV	SAIERAIACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNKAAEN
Q7ML98	IVSQQEMVDRVKAAAD	FVIMARTDALAV	SAIERAIACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNKAAEM
Q8D973	IVSQQEMVDRVKAAAD	FVIMARTDALAV	SAIERAIACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNKAAEM
27362222	IVSQQEMVDRVKAAAD	FVIMARTDALAV	SAIERAIACVEA	ADMIFPEA	VPILANIT	VDMVLYPLSAFRAMNKAAEM
18121443	VVSTDEMVDRVKAAAD	FVIMARTDAAAA	AAIERAVAYVEA	ADMIFPEA	VPILANIT	VDIALYCCGAYRAMNAAAALN
Q8VPT0	VVSTDEMVDRVKAAAD	FVIMARTDAAAA	AAIERAVAYVEA	ADMIFPEA	VPILANIT	VDIALYCCGAYRAMNAAAALN
46317809	VVPVEEMVDRVKAAAD	FVIMARTDAAAA	AAIERAVAYVEA	ADMIFPEA	VPILANIT	VDIALYCCGAYRAMNAAAALN

Q8XTI6	VVCADEMVDREVKA	AVD	FVIMARTDAAA	S	AAIARAVAYVEA	ADMIFPEA	VPILANLT	VDIALYCCGAYRAMNAAA	LG
17548343	VVCADEMVDREVKA	AVD	FVIMARTDAAA	S	AAIARAVAYVEA	ADMIFPEA	VPILANLT	VDIALYCCGAYRAMNAAA	LG
28198421	IVLSMDADRVKAA	AD	FFLIARTDAIQ	A	AAIERAQAYVEA	ADSIFAEA	VPVLANMT	VAMQLFPLSAFRAANKAA	ET
Q87E18	IVLSMDADRVKAA	AD	FFLIARTDAIQ	A	AAIERAQAYVEA	ADSIFAEA	VPVLANMT	VAMQLFPLSAFRAANKAA	ET
53721241	CVPAGEMVDRIKA	AVD	FVIMARTDAAA	A	AAIERAIAYVEA	ADMIFPEA	VPILANLT	VDIALYCCGAYRAMNKAAL	N
Q62A67	CVPAGEMVDRIKA	AVD	FVIMARTDAAA	A	AAIERAIAYVEA	ADMIFPEA	VPILANLT	VDIALYCCGAYRAMNKAAL	N
Q63NU3	CVPAGEMVDRIKA	AVD	FVIMARTDAAA	A	AAIERAIAYVEA	ADMIFPEA	VPILANLT	VDIALYCCGAYRAMNKAAL	N
56460535	IVTQEEMVDREVKA	AVD	FLIMARTDALQ	Q	AAIERAQACVDA	ADAIFAEA	VPVLANIT	VEIVLYPLSAFRAMNKAAL	N
Q5QZU4	IVTQEEMVDREVKA	AVD	FLIMARTDALQ	Q	AAIERAQACVDA	ADAIFAEA	VPVLANIT	VEIVLYPLSAFRAMNKAAL	N
15837836	IVLSMDADRVKAA	AD	FFLIARTDAIQ	A	SAIERAQAYVEA	ADSIFAEA	VPVLANMT	VAIQLFPLSAFRAANKAA	ET
Q9PDZ4	IVLSMDADRVKAA	AD	FFLIARTDAIQ	A	SAIERAQAYVEA	ADSIFAEA	VPVLANMT	VAIQLFPLSAFRAANKAA	ET
Q5X937	LVEKEEMIDRIKA	AVD	FVIMARTDALAN		KALERISAYIEA	ADMIFFEA	VPVLANIT	VSLALYPLSAFRAMSAAA	EK
54296037	LVEKEEMIDRIKA	AVD	FVIMARTDALAN		KALERISAYIEA	ADMIFFEA	VPVLANIT	VSLALYPLSAFRAMSAAA	EK
Q5XOG7	LVEKEEMIDRIKA	AVD	FVIMARTDSLAN		KALERISAYIEA	ADMIFFEA	VPVLANIT	VSLALYPLSAFRAMSAAA	EK
54293016	LVEKEEMIDRIKA	AVD	FVIMARTDSLAN		KALERISAYIEA	ADMIFFEA	VPVLANIT	VSLALYPLSAFRAMSAAA	EK
52840308	LVEKEEMIDRIKA	AVD	FVIMARTDALAN		KALERISAYIEA	ADMIFFEA	VPVLANIT	VSLALYPLSAFRAMSAAA	EK
Q5ZZF8	LVEKEEMIDRIKA	AVD	FVIMARTDALAN		KALERISAYIEA	ADMIFFEA	VPVLANIT	VSLALYPLSAFRAMSAAA	EK
52853883	IVSISEMVDRLKA	ALD	FVVMARTDALSV		AAVERAVAFQEA	ADMIFAEA	IPVLANIT	VDMVLYPLSAFRAMNKAAL	N
57168400	LVSTEEMCDRIKA	AVD	FVIMARTDAHA	I	KAIERALAYVEA	AEMVFAEA	VPILANIT	VSMVLYPLSANRAMNKA	AVQ
53800983	IVLSMDADRVKAA	AD	FFLIARTDAIQ	A	AAIERAQAYVEA	ADSIFAEA	VPVLANMT	VAMQLFPLSAFRAANKAA	ET
52857198	IVLSMDADRVKAA	AD	FFLIARTDAIQ	A	AAIERAQAYVEA	ADSIFAEA	VPVLANMT	VAMQLFPLSAFRAANKAA	ET
53765957	LVEPEEMADRVKA	AVA	FVVMARTDAVAV		AAVGRARLYQEA	ADAIFAEA	VPVLANIT	VGLALYPLSAFRAMSAAA	ALK
24371943	VVSTEEMVDRIKA	AVD	FVIMARTDAVAV		AGIERAKAYIEA	ADMIFAEA	APILANMT	ADMVLYPLGTFRANQAAL	K
Q8EJW1	VVSTEEMVDRIKA	AVD	FVIMARTDAVAV		AGIERAKAYIEA	ADMIFAEA	APILANMT	ADMVLYPLGTFRANQAAL	K
48846178	IVSTGRMVDRIKA	AVD	LMIMARTDALAT		AAVERAALYVEA	AESIFAE	VPILANMT	VAMVLYPLSAFRAMSRAA	LE
Q7VJ46	LVSLEEMCDRIKAG	VD	FVLMARTDAHAS		RAIERALAYVEA	ADMIFAEA	VPVLANIT	VKMVLYPLSAARAMNKAAL	T
32261945	LVSLEEMCDRIKAG	VD	FVLMARTDAHAS		RAIERALAYVEA	ADMIFAEA	VPVLANIT	VKMVLYPLSAARAMNKAAL	T
29654101	LVNTNEMVDRIKA	AVD	FVLIARTDAYAV		ATIDRACTYVEA	ADMIFAEA	VPVLANMT	VKMVLYPRADRAMSKAAL	A
Q83DG5	LVNTNEMVDRIKA	AVD	FVLIARTDAYAV		ATIDRACTYVEA	ADMIFAEA	VPVLANMT	VKMVLYPRADRAMSKAAL	A
47565706	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EN
30020419	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EN
Q81DR8	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EN
42781441	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EH
Q738L6	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EH
47527645	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EN
52143124	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EN
Q63BL3	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EN
Q6HJ22	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EN
Q81QR8	LVTTEELVQKIKAI	KE	LYIVARTDARGV		EAIERANAYVKA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	EN
Q9Z9T7	LVSKEEMEQQIKAI	QAIKK	LVIVARTDARAN		GAIERANVYIEA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	ER
10176547	LVSKEEMEQQIKAI	QAIKK	LVIVARTDARAN		GAIERANVYIEA	ADAIFFEA	APLLANMT	FQMVLYPVTSLRVAAKAY	ER
Q9YFM7	LISPEDMVKKIIAA	AVG	ALIVARTDARGV		KAVERAQLYVEA	ADIIFFEA	APLLANMT	YKIVIFPVTTFRASLKAS	ET
14600542	LISPEDMVKKIIAA	AVG	ALIVARTDARGV		KAVERAQLYVEA	ADIIFFEA	APLLANMT	YKIVIFPVTTFRASLKAS	ET
Q4NA13	VVDLDTATKIRAA	AD	FLIMARTDIRAT		AAQERAKALVEA	ADAIFFEA	VPILANMT	VNMVLYPVTLLRSAMGAA	ER
48763226	LAKADMAAKVAA	ARK	IVIARTDAAA	S	GAIARARLYVEA	ADAIFFEA	VPILANMT	YAMVIWPVSSLRVANKAQ	AE
50954025	VVDEGVALKRIRA	AVD	LLIMARTDIRAV		VAIDRAKALVDA	ADAIFFEA	VPILANMT	VNIVWPVSLRLAMGAA	ER
Q6AHD7	VVDEGVALKRIRA	AVD	LLIMARTDIRAV		VAIDRAKALVDA	ADAIFFEA	VPILANMT	VNIVWPVSLRLAMGAA	ER
P54528	LVPIKEMAQKIKAI	KIQ	LIVVARTDARAQ		AAIKRSEAYIEA	ADAIFFEA	VPILANMT	FHMVLYPVTSLRAAAKAC	ER
16079468	LVPIKEMAQKIKAI	KIQ	LIVVARTDARAQ		AAIKRSEAYIEA	ADAIFFEA	VPILANMT	FHMVLYPVTSLRAAAKAC	ER
23099722	LVSTEEMVQKITAI	KE	LVIVARTDARAV		DAISRAQAYVEA	ADIIFFEA	APLLANMT	FDIVLYPVTSLRVAAKAY	EK
Q8EP50	LVSTEEMVQKITAI	KE	LVIVARTDARAV		DAISRAQAYVEA	ADIIFFEA	APLLANMT	FDIVLYPVTSLRVAAKAY	EK
16082233	VIDRDNMVRKIRA	AAVS	FMIARTDARSV		DAIDRANAYLEA	ADAVFTEA	GYLMANMT	YDIVIFPLTAFRGMKAIG	D
Q9HIV0	VIDRDNMVRKIRA	AAVS	FMIARTDARSV		DAIDRANAYLEA	ADAVFTEA	GYLMANMT	YDIVIFPLTAFRGMKAIG	D

56963572	LIQAEEMAQKIAALKK	LVI IARTDARGV	SAIDRAKLYLDA	ADGIFPEA	APLLANMT	FAMVIYPVTS	SLRVAAKAYER
Q5WH13	LIQAEEMAQKIAALKK	LVI IARTDARGV	SAIDRAKLYLDA	ADGIFPEA	APLLANMT	FAMVIYPVTS	SLRVAAKAYER
25027273	VVTTEQMVRRIIGAAVS	FLICARTDAAGI	AAIDRAHEYAAA	ADVIFPEA	VPLLANMT	YDAVIYPVTTL	RIAMGHVEQ
Q8FRP2	VVTTEQMVRRIIGAAVS	FLICARTDAAGI	AAIDRAHEYAAA	ADVIFPEA	VPLLANMT	YDAVIYPVTTL	RIAMGHVEQ
20385922	VVRTDVMVRRIAAAVS	FVICARTDAAGV	AAIERAKAYLDA	ADMIFTEA	ALLLANMT	YNAVIYPVTTL	RIAMGQVEQ
Q8NSH8	VVRTDVMVRRIAAAVS	FVICARTDAAGV	AAIERAKAYLDA	ADMIFTEA	ALLLANMT	YNAVIYPVTTL	RIAMGQVEQ
39935462	LADANDMAAKVAAAAK	LYLIARTDAAAS	GAVARAKLYIEA	ADAIFFPEA	VPLLANMT	YRMVIWPVSSL	RVANKVQQK
Q6N767	LADANDMAAKVAAAAK	LYLIARTDAAAS	GAVARAKLYIEA	ADAIFFPEA	VPLLANMT	YRMVIWPVSSL	RVANKVQQK
15899316	VVEPLEMVQKIKAAALK	ALIIARVDSRGV	DAIERAKIYLEA	ADIIFPEA	APLLANMT	YKYVIFPVTTI	FRVAAKAMKD
Q97VN2	VVEPLEMVQKIKAAALK	ALIIARVDSRGV	DAIERAKIYLEA	ADIIFPEA	APLLANMT	YKYVIFPVTTI	FRVAAKAMKD
13541199	VIDRDEMIRKISAAAAS	FMI IARTDARAV	DAIDRANAYLEA	ADAIFFTEA	GYLLANMT	YNIVIFPLTAF	RMTMLKAIDS
33599708	LVSSAEMQGRIKAAVD	LVI IARTDARS	AALERAARYAEA	ADVIFVES	APVLANMV	FAMAIYPNAL	TRCFAHAGLE
Q7WPG6	LVSSAEMQGRIKAAVD	LVI IARTDARS	AALERAARYAEA	ADVIFVES	APVLANMV	FAMAIYPNAL	TRCFAHAGLE
Q6MKA5	LVTREDAARKVAAAAAR	FLLIARTDARAV	KAIDRAKAYIDA	ADCIFTEA	VPLLANMT	YNIVIYPVTT	FRLAMGATVA
42523930	LVTREDAARKVAAAAAR	FLLIARTDARAV	KAIDRAKAYIDA	ADCIFTEA	VPLLANMT	YNIVIYPVTT	FRLAMGATVA
Q96ZM4	VVSSKDMVAKIKSALK	MLIIARTDARAV	DAIERAKMYLEA	ADIIFPEA	APLLANMT	YKYVIFPVTTI	FRVAAKAMKE
15922122	VVSSKDMVAKIKSALK	MLIIARTDARAV	DAIERAKMYLEA	ADIIFPEA	APLLANMT	YKYVIFPVTTI	FRVAAKAMKE
46134587	VIPTSEHAGKIRA AVE	LVI IARTDARGP	EAIARGHAYIEA	ADILFVEA	TPLVANIV	FKIVFFPLTGL	LAVTQTLTA
47149	LISTEEMTGKIEAAVE	FTIIARTDARES	EAIIRSREYVAA	ADCIFLEA	APLLANMV	YNLAIYPLSGW	MAAASVLRK
17130953	VIPTSEHAGKIRA AVE	LVI IARTDARGP	EAIARGHAYIEA	ADILFVEA	TPLVANIV	FKIVFFPLTGL	LAVTQTLTA
Q8YVW0	VIPTSEHAGKIRA AVE	LVI IARTDARGP	EAIARGHAYIEA	ADILFVEA	TPLVANIV	FKIVFFPLTGL	LAVTQTLTA
P11435	LISTEEMTGKIEAAVE	FTIIARTDARES	EAIIRSREYVAA	ADCIFLEA	APLLANMV	YNLAIYPLSGW	MAAASVLRK
S2358	LISTEEMTGKIEAAVE	FTIIARTDARES	EAIIRSREYVAA	ADCIFLEA	APLLANMV	YNLAIYPLSGW	MAAASVLRK
46131504	VIPAAEMAGKIRA ACD	TLIIARTDAVAV	AALERAERYAEA	ADLLFVEA	APLLANMV	FRVVIFFPGGT	VRALAFALRD
51317959	LISTEEMTGKIEAAVE	FTIIARTDARES	EAIIRSREYLAA	ADCIFLEA	APLLANMV	YNLAIYPLSGW	MAAASVLRK
Q5IW33	LISTEEMTGKIEAAVE	FTIIARTDARES	EAIIRSREYLAA	ADCIFLEA	APLLANMV	YNLAIYPLSGW	MAAASVLRK
46314862	VIPAGEMVGLKAAVD	LLI IARTDAAAV	DAIERAKAYIEA	ADVLFFIEA	TPQLINIV	YGVVLYANAAL	QGA VHG MQA
Ani_XP_407942	LVDTDTYVTRIRA AVQ	IVIIARTDALQV	DSLARLRAAREA	ADAGFLEG	WP LLLNMV	FRI IIFPFAAL	GPACKAIQE
XP_661409	LVDTDTYVTRIRA AVQ	IVIIARTDALQV	DSLARLRAAREA	ADAGFLEG	WP LLLNMV	FRI IIFPFAAL	GPACKAIQE
Q5B6M5	LVDTDTYVTRIRA AVQ	IVIIARTDALQV	DSLARLRAAREA	ADAGFLEG	WP LLLNMV	FRI IIFPFAAL	GPACKAIQE
48851718	VISRDNMVEKIRAANA	ALIIARTDARAV	DALSRAKTYIKE	ADIIFPEA	FPLLANMT	YRIVIFPVTL	FR IAAKAMD L
ABC73717	LVDTDTYVTRIRA AVQ	IVVIARTDSLQV	ESVARLRAARDA	ADVGFLEG	WP LLLNMV	FRI IIFPFAAL	GPAVAAMRE
Q7X6D4	VVSREEAIMHIKAAVD	IVIVARTDSRQA	EALWRVRAFADA	ADVLFIDA	VPKMANML	YKLIAYPLSLI	GVSMRAME D
50926276	VVSREEAIMHIKAAVD	IVIVARTDSRQA	EALWRVRAFADA	ADVLFIDA	VPKMANML	YKLIAYPLSLI	GVSMRAME D
Q7WG12	VAPLSEMVS KIKAAAD	FLIIARTDARAV	AAIERARRFAEA	ADILFVEA	QPLLNVIV	YSVVLYANAT	LQGA VLG MQR
Q7W4I8	VAPLSEMVS KIKAAAD	FLIIARTDARAV	AAIERARRFAEA	ADILFVEA	QPLLNVIV	YSVVLYANAT	LQGA VLG MQR
33598187	VAPLSEMVS KIKAAAD	FLIIARTDARAV	AAIERARRFAEA	ADILFVEA	QPLLNVIV	YSVVLYANAT	LQGA VLG MQR
Q7VZZ7	VAPLSEMVS KIKAAAD	FLIIARTDARAV	AAIERARRFAEA	ADILFVEA	QPLLNVIV	YSVVLYANAT	LQGA VLG MQR
54032449	LMDAQENVLRLKCAIE	LLIIIGRTDALPA	EAIIRAHLYQEA	VDLVFVDG	GPKVVSIV	FSVVFYAVTAL	FTAVKAVSD
18312937	VMP LDDAVAMFKAIDR	FFIIARTDAIGA	EAIKRAKAYINA	ADMVWAEF	DVPLAFNY	YKYIFITL	GALHAET YAVYN
Q8ZWB6	VMP LDDAVAMFKAIDR	FFIIARTDAIGA	EAIKRAKAYINA	ADMVWAEF	DVPLAFNY	YKYIFITL	GALHAET YAVYN
Q4WHX9	LVDKETVYSRIRA AVQ	IVVIARTDALQV	ESVARLRAARDA	ADVGFLEG	WP LLLNMV	FRI IIFPFAA	I GPALTAIRE
EAL87476	LVDKETVYSRIRA AVQ	IVVIARTDALQV	ESVARLRAARDA	ADVGFLEG	WP LLLNMV	FRI IIFPFAA	I GPALTAIRE
41408352	VVDAAVFEQTLAAALD	LLVVARTDARGP	AAIERANRYARA	ADIVFVEA	APLLINLV	YAI AIHPGD	LLMHTTFAM LH
Q73XQ5	VVDAAVFEQTLAAALD	LLVVARTDARGP	AAIERANRYARA	ADIVFVEA	APLLINLV	YAI AIHPGD	LLMHTTFAM LH
50923829	VISREDAIMHIKAAVD	IVI IARSDSRQA	EALWRVQAFADA	ADVLFIDA	VPKMANML	FSLVVYPLSLI	GVSM LAMED
Q7XLP7	VISREDAIMHIKAAVD	IVI IARSDSRQA	EALWRVQAFADA	ADVLFIDA	VPKMANML	FSLVVYPLSLI	GVSM LAMED
48785815	VVSASEMVGKIRA AAVD	LQIMARTDAAAV	DAIERGHRFIEA	ADILFIEA	KPQLINIV	YGIVLYANAAL	QGA VLG MQR
XP_322273	MVDVATFVARIRAARE	LVI IARTDALQS	EALTRLKAAVEA	ADAVFLEG	TPCLINLV	YRIAIWPCFAM	THAYVAYQK
32403320	MVDVATFVARIRAARE	LVI IARTDALQS	EALTRLKAAVEA	ADAVFLEG	TPCLINLV	YRIAIWPCFAM	THAYVAYQK
Q7RXA0	MVDVATFVARIRAARE	LVI IARTDALQS	EALTRLKAAVEA	ADAVFLEG	TPCLINLV	YRIAIWPCFAM	THAYVAYQK
Tra_OAH_like_1	VVSREEFVTRIRA AVI	FVI IGR TDSAQV	EALTRLKLAADA	ADVCFIEG	KPVLVNI	AKII IYSLV	S CVAAATHAIRE
48772232	VIATSEM LKIRA AAVD	LLIMARTDAAAV	AAIERGHRFIEA	ADILFIEA	APQLINIV	YALVLYANAT	LQGA VLG MQR

Q977U5 IVSREKAKARFEAAVD TVVIARTDAYGS EHVERGRIYADA VDIVWPPEM DLKCLAFNY YKYIFITLFLGLHSGAHAVYE
 15131665 IVSREKAKARFEAAVD TVVIARTDAYGS EHVERGRIYADA VDIVWPPEM DLKCLAFNY YKYIFITLFLGLHSGAHAVYE
 16508064 LVSADDFLRTLGAALD MLVIARTDARGP EAIRRNANRYAAA ADILFVEA APLLLNLV FAVAIHPSAVLSQATLGAALT
 Q938D0 LVSADDFLRTLGAALD MLVIARTDARGP EAIRRNANRYAAA ADILFVEA APLLLNLV FAVAIHPSAVLSQATLGAALT
 ABC73718 LVPEDEYLDRIQAAVN IVLIARTDALQS AAISRLKGAIAL ADVAFLEG TPVLFNNV FRLIIFPGLALGAVYSAVRG
 18652847 IISREKARARFEAAVD TVIIARTDAYGS EHLEGRYIYADA VDLVWPPEM DLKCLAFNY YKYIFITLFLGLHSGAHSVYE
 Q8U4T7 IISREKARARFEAAVD TVIIARTDAYGS EHLEGRYIYADA VDLVWPPEM DLKCLAFNY YKYIFITLFLGLHSGAHSVYE
 Q4PFK1 IVSRSEFISRITAAVH ILIIARTDALAV EAIERLKLAQAA ADMGFLEG FPMLANCV FKLAIFFPCAGIFPAAKALLA
 46096838 IVSRSEFISRITAAVH ILIIARTDALAV EAIERLKLAQAA ADMGFLEG FPMLANCV FKLAIFFPCAGIFPAAKALLA
 EAK82071 IVSRSEFISRITAAVH ILIIARTDALAV EAIERLKLAQAA ADMGFLEG FPMLANCV FKLAIFFPCAGIFPAAKALLA
 48782235 VISAAEGAGKIRAAAE TLIMSRTDALAT EAIRRLNLYAEA ADLLFADA SKPLCVNM VAVVYPRMLTAAAIQGMKN
 SS1G_08218 VVPEEEYMRIRAAGK IVLIARTDALQQ ECVKRLKVAREL ADVGLLEG WPILLNMV FRIMIFSFAALAPAMLAIQE
 26450281 VVSREEAVMRVKAAND IVIVAQTDSDREA ESLIRARAFTDA ADVLSVDS VPKLANML YKLVAYPISLIGVSIQAMQD
 42569887 VVSREEAVMRVKAAND IVIVAQTDSDREA ESLIRARAFTDA ADVLSVDS VPKLANML YKLVAYPISLIGVSIQAMQD
 42571205 VVSREEAVMRVKAAND IVIVAQTDSDREA ESLIRARAFTDA ADVLSVDS VPKLANML YKLVAYPISLIGVSIQAMQD
 42571207 VVSREEAVMRVKAAND IVIVAQTDSDREA ESLIRARAFTDA ADVLSVDS VPKLANML YKLVAYPISLIGVSIQAMQD
 Q8GYI4 VVSREEAVMRVKAAND IVIVAQTDSDREA ESLIRARAFTDA ADVLSVDS VPKLANML YKLVAYPISLIGVSIQAMQD
 XP_682638 VVSRGEAYARIQAACD IFILARTDALIH EALARAKEFKGI ADAVFVEA MPMLANII FAAVAYPWTTLVAARKLKAIKD
 Q5AQR1 VVSRGEAYARIQAACD IFILARTDALIH EALARAKEFKGI ADAVFVEA MPMLANII FAAVAYPWTTLVAARKLKAIKD
 Ani_XP_413506 VVSRGEAYARIQAACD IFILARTDALIH EALARAKEFKGI ADAVFVEA MPMLANII FAAVAYPWTTLVAARKLKAIKD
 SNU10723 LVDVNEYASRIRAAYL IVIIARTDALQG EAVKRLKAAITA ADVAFLEG TPCLFNNV YKIAIFPALAFEVVYPAVRK
 Q9ZW77 VVSREEAVMRVKAAND IVIVAQTDSDREA ESLIRARAFTDA ADVLSVDS VPKLANML YKLVAYPISLIGVSIQAMQD
 3763927 VVSREEAVMRVKAAND IVIVAQTDSDREA ESLIRARAFTDA ADVLSVDS VPKLANML YKLVAYPISLIGVSIQAMQD
 Q5AXU8 VVTRGEAYARIQAAND IFILARTDALIH EALTRAKEFKRI VDAVFVEA IPTFANII FCAVAYPWTTLVAARLKSIRE
 40739091 VVTRGEAYARIQAAND IFILARTDALIH EALTRAKEFKRI VDAVFVEA IPTFANII FCAVAYPWTTLVAARLKSIRE
 XP_664486 VVTRGEAYARIQAAND IFILARTDALIH EALTRAKEFKRI VDAVFVEA IPTFANII FCAVAYPWTTLVAARLKSIRE
 Q88N27 LIPVEEGVGKIRAAL ELSIIARTNAGVL EIIIVRTQSYQKA ADGICMVG TVPLMLVT VRIIVVDGHAAAYFAAIKATYD
 26988123 LIPVEEGVGKIRAAL ELSIIARTNAGVL EIIIVRTQSYQKA ADGICMVG TVPLMLVT VRIIVVDGHAAAYFAAIKATYD
 48788842 VIPKEEMQAKLRAML FFFVARTDAIAV DAIERLAAYAEA ADGLYADA KPILFNMA FDYALCPIEPMFAMHKAVKE
 Q6X9K0 LIPISAFIRVLNAAAL IILIIARTDALNA NDVDETNDQFLT -----
 33088737 LIPISAFIRVLNAAAL IILIIARTDALNA NDVDETNDQFLT -----
 23470423 LISTAEGVGKIRAAL MSIFARTNAAII EAISRVQYQAA ADGITIVG TVPLMLVT VRVCVHGHAAYFAAIKATYD
 Q4ZX15 LISTAEGVGKIRAAL MSIFARTNAAII EAISRVQYQAA ADGITIVG TVPLMLVT VRVCVHGHAAYFAAIKATYD
 Q886Y2 LISTAEGVGKIRAAL MSIFARTNAAII EAISRVQYQAA ADGITIVG TVPLMLVT VRVCVHGHAAYFAAIKATYD
 28868650 LISTAEGVGKIRAAL MSIFARTNAAII EAISRVQYQAA ADGITIVG TVPLMLVT VRVCVHGHAAYFAAIKATYD
 15609052 LVPSDEQIKRLNAARF GIIVARTDAEAA RADERDQPFLLG ATKLDVPS MVIFSMRL FSAWSPTRSTRGGRTASSRS
 007718 LVPSDEQIKRLNAARF GIIVARTDAEAA RADERDQPFLLG ATKLDVPS MVIFSMRL FSAWSPTRSTRGGRTASSRS
 53611574 LIPLDEAVGKIRAAL ELSIIARTNAEQL ETIGRAKAYQAA ADGICMIG DAPLMLIT VRIIVVNGHAAYFAAIKATYD
 7156 VVSREEFITRIRAAYI FVIIIGRTDSAQV EAITRLKLAADA ADVCFIEG KPVLVNI -----
 46314257 IYAREAAIERIAAAYA FTTLTARCENYLH DTIARLVAYRDA ADVLYAPG APVNVVMG VKRVSVGGALARAALGAFLR

Alignment 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Position 0 1 1 1 1 1 1 1 1 1 1 1 1 1
 Number 9 0 1 1 2 2 3 3 3 4 4 4 5 5 6 7
 5 0 0 1 0 2 3 0 4 5 0 2 3 0 1 0 0

1PYMA
 Consensus LADIEEFCKGKIKACKD FVIVARVEALIA EALKRAEAYAEA ADAIIHS GPVVIVPT VSMVIWANHNLRASVSAMQQ

1PYMA LADIEEFALKIKACKD FCIVARVEAFIA EALKRAEAYRNA ADAIIHS GPVVIVPT VSMVIWANHNLRASVSAMQQ
 1M1BA LADIEEFALKIKACKD FCIVARVEAFIA EALKRAEAYRNA ADAIIHS GPVVIVPT VSMVIWANHNLRASVSAMQQ
 1S2TA LADIEEFALKIKACKD FCIVARVEAFIA EALKRAEAYRNA ADAIIHS GPVVIVPT VSMVIWANHNLRASVSAMQQ
 1S2WA LADIEEFALKIKACKD FCIVARVEAFIA EALKRAEAYRNA ADAIIHS GPVVIVPT VSMVIWANHNLRASVSAMQQ

P56839	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
1S2TB	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
1S2UB	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
1M1BB	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
1S2UA	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
1S2VB	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
1PYMB	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILXHS	GPVVIVPT	VSXVIWANHNLRASVSAIQQ
1S2VA	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
1S2VC	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
1S2VD	LADIEEFALKIKACKD	FCIVARVEAFIA	EALKRAEAYRNA	ADAILMHS	GPVVIVPT	VSMVIWANHNLRASVSAIQQ
A4220	LAPINEFVAKIKACKD	FQVVARVEAFIA	EALKRAEAYRNA	ADAILMHS	SPVIVPT	VNMVIWANHNMRACVSAMQE
P33182	LAPINEFVAKIKACKD	FQVVARVEAFIA	EALKRAEAYRNA	ADAILMHS	SPVIVPT	VNMVIWANHNMRACVSAMQE
19171192	LADVKEFALKIRAMKD	FCVVARVESFIA	EALKRATAYAEA	ADAVLIHS	TPVVIVPT	ISTVIWANHNLRACIAAMQA
Q8T8D9	LADVKEFALKIRAMKD	FCVVARVESFIA	EALKRATAYAEA	ADAVLIHS	TPVVIVPT	ISTVIWANHNLRACIAAMQA
48772602	LADIDFCGKIKAGKD	FSIVARVEALIA	EALRRANAYAQA	ADAILIHS	APLVIVPT	ISLVIWANHLIRVASAMQA
Q63MY9	LAEIDFCGKIKAGKD	FSIVARVEALIA	EALRRANAYAQA	ADAILIHS	APLVIVPT	ISTVIWANHLIRASASAMQA
53721545	LAEIDFCGKIKAGKD	FSIVARVEALIA	EALRRANAYAQA	ADAILIHS	APLVIVPT	ISTVIWANHLIRASASAMQA
46313064	LAEIDFCGKIKAGKD	FSIVARVEALIA	EALRRANAYAQA	ADAILIHS	APLVIVPT	ISTVIWANHLIRASASAMQA
53716093	LAEIDFCGKIKAGKD	FSIVARVEALIA	EALRRANAYAQA	ADAILIHS	APLVIVPT	ISTVIWANHLIRASASAMQA
Q62AF2	LAEIDFCGKIKAGKD	FSIVARVEALIA	EALRRANAYAQA	ADAILIHS	APLVIVPT	ISTVIWANHLIRASASAMQA
48787135	LADMDFCGKIKAGKD	FSIVARVEALIA	EALRRAEAYRQA	ADAILIHS	GPLVIVPT	ISTVIWANHLIRAATSAMQA
46321578	LAEIDFCGKIKAGKD	FSIVARVEALIA	EALRRANAYAQA	ADAILIHS	APLVIVPT	ISTVIWANHLIRASASAMQA
13488216	LPDIDFCGRLKAVKD	FVVVARIEALIA	EALCRADAYSET	ADAILIHS	LPVVIVPT	ISTVIWANHSMRAAIIAGMRD
Q982E4	LPDIDFCGRLKAVKD	FVVVARIEALIA	EALCRADAYSET	ADAILIHS	LPVVIVPT	ISTVIWANHSMRAAIIAGMRD
13474899	LADIPEFCGRLKAVKD	FVLVARIEALIA	EALARAQAYAEA	ADAILIHS	LPVVIVPT	ISTVIWANHNMRAAISAMRQ
Q98AR7	LADIPEFCGRLKAVKD	FVLVARIEALIA	EALARAQAYAEA	ADAILIHS	LPVVIVPT	ISTVIWANHNMRAAISAMRQ
20804156	LADIPEFCGRLKAVKD	FVLVARIEALIA	EALARAQAYAEA	ADAILIHS	LPVVIVPT	ISTVIWANHNMRAAISAMRQ
Q8KJ74	LADIPEFCGRLKAVKD	FVLVARIEALIA	EALARAQAYAEA	ADAILIHS	LPVVIVPT	ISTVIWANHNMRAAISAMRQ
51317946	LAPIGEFSGKIKACKD	FVVVARTEALIS	EALTRAHAYVEA	ADGLFIHS	APILIIAPT	IAGCIWANHSMRAAFSAMRD
Q5IW38	LAPIGEFSGKIKACKD	FVVVARTEALIS	EALTRAHAYVEA	ADGLFIHS	APILIIAPT	IAGCIWANHSMRAAFSAMRD
Q65DF5	LVPADMIAKIRAIKE	LVVVARTDAKAA	AAVRRANLYADA	ADAIFFPEA	APLLANMT	CSMIIYPVTSLRAAAKAYER
52082383	LVPADMIAKIRAIKE	LVVVARTDAKAA	AAVRRANLYADA	ADAIFFPEA	APLLANMT	CSMIIYPVTSLRAAAKAYER
P29247	LAPVAEFCGKIRACKD	FVVVARTEALIS	EALDRAAYAEA	ADALFIHS	TPVLIAPT	IAGCIWANHSMRAAFAMRD
20385927	VVGTDIMVRRIAAAVN	FVICARTDAAGV	SAIERAKAYADA	ADMIFTEA	IPLLANMT	YNAVIYPVTLLRIAMGQVEQ
21323424	VVGTDIMVRRIAAAVN	FVICARTDAAGV	SAIERAKAYADA	ADMIFTEA	IPLLANMT	YNAVIYPVTLLRIAMGQVEQ
Q8NSL2	VVGTDIMVRRIAAAVN	FVICARTDAAGV	SAIERAKAYADA	ADMIFTEA	IPLLANMT	YNAVIYPVTLLRIAMGQVEQ
086937	LAPIGEFSGKIKACKD	FVVVARTEALIS	EALTRAHAYVEA	ADGLFIHS	APILIIAPT	IAGCIWANHSMRAAFSAMRD
3319779	LAPIGEFSGKIKACKD	FVVVARTEALIS	EALTRAHAYVEA	ADGLFIHS	APILIIAPT	IAGCIWANHSMRAAFSAMRD
Q9F765	QDSIEGFCDKIRAGKN	FMI IARIESLIA	DALERAYAYVQA	ADGIMIHS	VPIVVVPT	ANVVIYANHLLRAAYPAMMN
Q64Y99	QDSIEGFCDKIRAGKN	FMI IARIESLIA	DALERAYAYVQA	ADGIMIHS	VPIVVVPT	ANVVIYANHLLRAAYPAMMN
53713121	QDSIEGFCDKIRAGKN	FMI IARIESLIA	DALERAYAYVQA	ADGIMIHS	VPIVVVPT	ANVVIYANHLLRAAYPAMMN
Q5LE57	QDSIEGFCDKIRAGKN	FMI IARIESLIA	DALERAYAYVQA	ADGIMIHS	VPIVVVPT	ANVVIYANHLLRAAYPAMMN
60492821	QDSIEGFCDKIRAGKN	FMI IARIESLIA	DALERAYAYVQA	ADGIMIHS	VPIVVVPT	ANVVIYANHLLRAAYPAMMN
21323461	VVRTDVMVRRIAAAVS	FVICARTDAAGV	AAIERARAYADA	ADLIFTEA	ALLLANMT	YNAVIYPVTLLRIAMGQVEQ
Q744P5	VVPVDVMVRRILRAAVS	FVVCARTDAAAI	AAIERARAYADA	ADLIFTEA	TPLLANMT	YNVVIYPVTLLRLAMHAVEA
41406394	VVPVDVMVRRILRAAVS	FVVCARTDAAAI	AAIERARAYADA	ADLIFTEA	TPLLANMT	YNVVIYPVTLLRLAMHAVEA
29339029	QDTIEGFCKNIKAGKA	FMI IARIESLIA	DALERAFAYVQA	ADGIMIHS	VPIVVVPT	VNI I IYANHMLRAAYPAMMN
Q8A705	QDTIEGFCKNIKAGKA	FMI IARIESLIA	DALERAFAYVQA	ADGIMIHS	VPIVVVPT	VNI I IYANHMLRAAYPAMMN
53713870	QDTIDGFCNKIRAGKR	FMI IARIESFIA	DAMERALAYIEA	ADGIMIHS	VPIVVVPT	ANIVIYANHMLRSAYPAMLN
Q64T51	QDTIDGFCNKIRAGKR	FMI IARIESFIA	DAMERALAYIEA	ADGIMIHS	VPIVVVPT	ANIVIYANHMLRSAYPAMLN
Q73MU4	LADVEDFCHKISEGKK	FMI IARLESLIA	EALERAFAYVKA	ADGVMIHS	VPIVLVPT	ANII IYANHMLRASYPAMLK
42526921	LADVEDFCHKISEGKK	FMI IARLESLIA	EALERAFAYVKA	ADGVMIHS	VPIVLVPT	ANII IYANHMLRASYPAMLK
Q84G06	LVRIEEFQGKIAAATA	FVVIARVEALIA	EAVRRGQAYEEA	ADAILIHS	VPLVLVPT	VGIVIIYGNHAIIRAAVGAVRE

27902644	LVRIEEFQGKIAAATA	FVVIARVEALIA	EAVRRGQAYEEA	ADAILIHS	VPLVLVPT	VGVIYGNHAIRAAVGAVRE
Q7WNJ1	LVRIEEFQGKVA AAAA	FVVIARVEALIA	EAIRRGLAYEEA	ADAILIHS	KPLVLVPT	GVVVIYGNHAIRAAVGAMRE
33600034	LVRIEEFQGKVA AAAA	FVVIARVEALIA	EAIRRGLAYEEA	ADAILIHS	KPLVLVPT	GVVVIYGNHAIRAAVGAMRE

Alignment	0	0	0	0	0	0	0	0	0	0	0	0					
Position	0	1	1	1	1	1	1	1	1	1	1	1					
Number	9	0	1	1	2	2	2	3	3	3	4	4	4	5	5	6	7
	5	0	0	1	0	2	3	0	4	5	0	2	3	0	1	0	0

1ZLPB

Consensus VIPAEEMVAKIRAARD FVIIARTDARAV EAIERAKAYLEA ADAIFVEA GPVLANMV FRIVIFPLTALAAATRALRD

1ZLPB	VVPAEEHALKIAAARE	FFLVARTDARAP	EGIRRANLYKEA	ADATFVEA	GLRIANMI	FHLIAHSLTAVYATARALVN
Q05957	VVPAEEHALKIAAARE	FFLVARTDARAP	EGIRRANLYKEA	ADATFVEA	GLRIANMI	FHLIAHSLTAVYATARALVN
S3514	VVPAEEHALKIAAARE	FFLVARTDARAP	EGIRRANLYKEA	ADATFVEA	GLRIANMI	FHLIAHSLTAVYATARALVN
21386949	VIPAEHHAAKIASARD	FFLVARTDVRAT	DAIARVNLYMEA	ADASFVEA	GYRVCNMI	FHLIVHPLTALYASTRALVD
21537183	VIPAEHHAAKIASARD	FFLVARTDVRAT	DAIARVNLYMEA	ADASFVEA	GYRVCNMI	FHLIVHPLTALYASTRALVD
2829913	VIPAEHHAAKIASARD	FFLVARTDVRAT	DAIARVNLYMEA	ADASFVEA	GYRVCNMI	FHLIVHPLTALYASTRALVD
049290	VIPAEHHAAKIASARD	FFLVARTDVRAT	DAIARVNLYMEA	ADASFVEA	GYRVCNMI	FHLIVHPLTALYASTRALVD
Q8LFA2	VIPAEHHAAKIASARD	FFLVARTDVRAT	DAIARVNLYMEA	ADASFVEA	GYRVCNMI	FHLIVHPLTALYASTRALVD
Q8VYA2	VIPAEHHAAKIASARD	FFLVARTDVRAT	DAIARVNLYMEA	ADASFVEA	GYRVCNMI	FHLIVHPLTALYASTRALVD
30687359	VIPAEHHAAKIASARD	FFLIARTDARAL	DAIDRANLYMEA	ADASFVEA	GYRLCNML	FHLIAHPLTSLYASTRALVD
Q501F7	VIPAEHHAAKIASARD	FFLIARTDARAL	DAIDRANLYMEA	ADASFVEA	GYRLCNML	FHLIAHPLTSLYASTRALVD
D8634	---AEEHHAAKIASARD	FFLIARTDARAL	DAIDRANLYMEA	ADASFVEA	GYRLCNML	FHLIAHPLTSLYASTRALVD
Q9LPL2	---AEEHHAAKIASARD	FFLIARTDARAL	DAIDRANLYMEA	ADASFVEA	GYRLCNML	FHLIAHPLTSLYASTRALVD
48891986	VIPMAEHVEKIKAAVH	LVIIARTDARAV	EAIKRGRACAEA	ADVVFIEA	VYLFANMI	FKIVVYPLSGLFSATQAMIN
Q8ZWM5	LIPPDEMAKKIRAAVE	FVIIARTDAVGV	DAVERALLYLEA	ADVIFPEA	APLLANMT	YKFVIFPVTALRVAMYAIRE
18312827	LIPPDEMAKKIRAAVE	FVIIARTDAVGV	DAVERALLYLEA	ADVIFPEA	APLLANMT	YKFVIFPVTALRVAMYAIRE
Q97BT3	VIDRDEMIRKISAAAS	FMI IARTDARAV	DAIDRANAYLEA	ADAIFTEA	GYLLANMT	YNIVIFPLTAFRTMLKAIDS
14324587	VIDRDEMIRKISAAAS	FMI IARTDARAV	DAIDRANAYLEA	ADAIFTEA	GYLLANMT	YNIVIFPLTAFRTMLKAIDS
Q6L2P7	IIDASNMVEKIKAADM	ALIIARTDARGV	DAIERAKMYIEA	ADIFPEA	APLLANMT	YRFVIFPVTAFRAAALAMKR
48477242	IIDASNMVEKIKAADM	ALIIARTDARGV	DAIERAKMYIEA	ADIFPEA	APLLANMT	YRFVIFPVTAFRAAALAMKR
Q7WG33	LVPADEMCGKLRAALD	TLILARTDAVAV	AAFERAERYLEC	VDALFIEA	VPLLANMV	FRIVIFPGGTARAVSHALQD
Q7W4K8	LVPADEMCGKLRAALD	TLILARTDAVAV	AAFERAERYLEC	VDALFIEA	VPLLANMV	FRIVIFPGGTARAVSHALQD
33598167	LVPADEMCGKLRAALD	TLILARTDAVAV	AAFERAERYLEC	VDALFIEA	VPLLANMV	FRIVIFPGGTARAVSHALQD
56678091	LIPAAEMAGKIAAMAD	TLIIARTDAIAV	AALERAETYLAA	ADVLFVEA	VPLLANMV	FRLVIFPGGIVRALAHTARD
Q5LTE4	LIPAAEMAGKIAAMAD	TLIIARTDAIAV	AALERAETYLAA	ADVLFVEA	VPLLANMV	FRLVIFPGGIVRALAHTARD
45683503	VVDLAEARSRIKAAAD	LLIVARTDARAT	AAIERAQAFIED	ADITFVEA	TPQLVNLV	FSLVLYANVALQGAVYGMQA
Q7WMP9	VIPLEEMVKKIEAACL	FVIIARTDALAV	GAARRAQAYAAA	ADVIFPDA	VPVSVNMG	VKRISLPRMLPAAAIHGMRS
33600327	VIPLEEMVKKIEAACL	FVIIARTDALAV	GAARRAQAYAAA	ADVIFPDA	VPVSVNMG	VKRISLPRMLPAAAIHGMRS
33595800	VIPLEEMVKKIEAACL	FVIIARTDALAV	GAARRAQAYAAA	ADVIFPDA	VPVSVNMG	VKRISLPRMLPAAAIHGMRS
Q7WB81	VIPLEEMVKKIEAACL	FVIIARTDALAV	GAARRAQAYAAA	ADVIFPDA	VPVSVNMG	VKRISLPRMLPAAAIHGMRS
Csv_OAH	VVSREEFITRIRA AVI	FVI IGRDTSAQV	EAIIRLKLAAAD	ADVCFIEG	KPVLVNI	AKIIIFSLESCVA AVHGIRA
7400	VVSMEEYLERIRA AVK	FVI IARTDARNA	EGVKRLKAALAA	ADVAFMES	HPVMINVL	FKLAIYPCTGFIPAAIAMKQ
42551945	LVDLTEYLARIRA AVQ	IVI IARTDAIQK	EALKRLRAARDA	ADVAFPEG	WPVLLNMV	FSIMIVPLATLAPAYTSIKT
XP_391313	LVDLTEYLARIRA AVQ	IVI IARTDAIQK	EALKRLRAARDA	ADVAFPEG	WPVLLNMV	FSIMIVPLATLAPAYTSIKT
Q7Z986	VVTMDEYLTRIRA AKL	IVLIARTDALQQ	ECIRRLKAARDL	ADVGLLEG	WPLLLNMV	FRIMIFSFCITPAYMGITA
CAD99195	VVTMDEYLTRIRA AKL	IVLIARTDALQQ	ECIRRLKAARDL	ADVGLLEG	WPLLLNMV	FRIMIFSFCITPAYMGITA
EAL87152	VVSMDEYLTRIRA AKQ	IVLIARTDALQQ	ECIRRLKAARDL	ADVGLLEG	WPLLLNMV	FRIMIFSFAALAPAYLGIKS
48782233	VIDAREMAKKIEA AVK	FIINARTDAIAV	AAIERARLYAAA	ADMIYPDA	LPVSINMG	VARVTLARMLPAAASIMAMKQ
Q6PNM8	VVPAEYYMRIRA AKA	IVLIARTDALQQ	ECIKRLKVAREM	ADVGLLEG	WPILLNMV	FRIMIFSFAALAPAYLAIQE
AAS99938	VVPAEYYMRIRA AKA	IVLIARTDALQQ	ECIKRLKVAREM	ADVGLLEG	WPILLNMV	FRIMIFSFAALAPAYLAIQE
ABC73719	VVSRGEAYARVQA AVD	IFILARTDSLIIH	EAMTRAKEFKRI	ADGVFVEA	IPLLANII	FAAVAYPWTTLVAARLKSvre

45517826	VVSTDEMVAKIRAATD	FQIVARTDAAAV	DAIDRGHRFAEA	ADILFFEA	VPLLINIV	YGLVLYANAALQGAVRGMQQ
EAL87110	VVSRGEAYARVQAACD	IFILARTDALIH	EAITRAKEFKRI	VDAVFVEA	IPVFANII	FCAVAYPWTLVAAKLKSIRE
Q4WIZ5	VVSRGEAYARVQAACD	IFILARTDALIH	EAITRAKEFKRI	VDAVFVEA	IPVFANII	FCAVAYPWTLVAAKLKSIRE
ABC73720	VVSREEAFARIKAACD	IFILARTDALIH	EAMSRAQEFRRLL	VDAVFVEA	IPIFANII	FCAVAYPWTLVAAHLRGLRE
48788845	VVPLNDMLKKIEVALE	MLIIARTDSRTT	EAIRRGKAFARA	ADIVFVES	AWVFANMV	FNIAIYPSIGMAAATAALDS
9951145	LICVEEGVGKIRAAL	LTIARTNAELI	AVIQRTLAYQEA	ADGICLVG	HIPLMLVT	VRVVVNGHAAAFYFAAIKATYD
Q9HUU1	LICVEEGVGKIRAAL	LTIARTNAELI	AVIQRTLAYQEA	ADGICLVG	HIPLMLVT	VRVVVNGHAAAFYFAAIKATYD
53726468	LICVEEGVGKIRAAL	LTIARTNAELI	AVIQRTLAYQEA	ADGICLVG	HIPLMLVT	VRVVVNGHAAAFYFAAIKATYD
39936237	LVSREEGLGKIKAAALD	LVIIGRTGACSI	DAIERALAYQAA	VDALFFFTG	ATTLPIAL	VRIAVQGHAPIAAATEAVFK
Q6N509	LVSREEGLGKIKAAALD	LVIIGRTGACSI	DAIERALAYQAA	VDALFFFTG	ATTLPIAL	VRIAVQGHAPIAAATEAVFK
48732970	LITVAEGVGKIRAAL	MAIIARTNAGIL	EIISRTRKQYQAA	ADGICMVG	TVPLMLVT	VRVTIDGHGAYFAAIKATYD
Q6X9K4	LIPISAFIRVLNAARL	TILIIARTDALNA	NDVDETDNQFLT	-----	-----	-----
Q6X9K6	LIPISAFIRVLNAARL	TILIIARTDALNA	NDVDETDNQFLT	-----	-----	-----
33088746	LIPISAFIRVLNAARL	TILIIARTDALNA	NDVDETDNQFLT	-----	-----	-----
33088752	LIPISAFIRVLNAARL	TILIIARTDALNA	NDVDETDNQFLT	-----	-----	-----
Q6X9J2	LIPISAFIRVLNAARL	TILIIARTDALNA	NDVDETDNQFLT	-----	-----	-----
33088754	LIPISAFIRVLNAARL	TILIIARTDALNA	NDVDETDNQFLT	-----	-----	-----
Tra_OAH_like_2	VVDIDYTERIAAAVR	FVILARTDARNA	EGIKRLKAALDA	ADVAFMES	RPVMINVL	FRMCMFPCTGFIPAMLAMQR
Q7WBY5	PLPVQDMVTHLKVALD	MLIIARTDAMSP	EAFERALRYCDA	ADAIMPLF	LVVLGGAP	VRMVIYATNMLSRHRFMTQ
33595252	PLPVQDMVTHLKVALD	MLIIARTDAMSP	EAFERALRYCDA	ADAIMPLF	LVVLGGAP	VRMVIYATNMLSRHRFMTQ
Q89JL7	LISLEEGLGKMKAAALS	LVIMGRTGAAAI	DTIRRAQAYEAT	VDALFFFTG	PIVLGGAP	VRIALQGHAPIAAATQAVHD
27380377	LISLEEGLGKMKAAALS	LVIMGRTGAAAI	DTIRRAQAYEAT	VDALFFFTG	PIVLGGAP	VRIALQGHAPIAAATQAVHD
33599543	PLPVQDMVTHLKVALD	MLIIARTDAMSP	EAFERALRYCDA	ADAIMPLF	LVVLGGAP	VRMVIYATNMLSRHRFMTQ
Q7WPY1	PLPVQDMVTHLKVALD	MLIIARTDAMSP	EAFERALRYCDA	ADAIMPLF	LVVLGGAP	VRMVIYATNMLSRHRFMTQ
34102829	LRDAEMRRLQAARA	IFINARSDLFLH	ETLARARLYLDS	ADGVFPIG	APVNAAM	VARVSTAIGPALVAMQALKQ
Q7NXV8	LRDAEMRRLQAARA	IFINARSDLFLH	ETLARARLYLDS	ADGVFPIG	APVNAAM	VARVSTAIGPALVAMQALKQ
48787046	LVSFDEAVARVEAAVA	LLVLGRGTSATL	DAVARFKAFEEA	VDAIFLPG	VPLLMAGA	VKAWSAGHQTFVALKALHD
Q4NN15	LYPADAEVARLRAARR	VVLTGRSEGFVA	ETIRRLVAYAEA	ADCLYAPG	APRPVNVL	VRVSVGSALARAANGAFLE
Q8RL37	CVPTDEMVDRIKAAVD	FVIMARTDAAAA	SAIERAVAYVEA	ADMIFPEA	VPILANLT	VDIALYCCGAYRAMNKAC--
20135590	CVPTDEMVDRIKAAVD	FVIMARTDAAAA	SAIERAVAYVEA	ADMIFPEA	VPILANLT	VDIALYCCGAYRAMNKAC--