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UniRef90 B7FCA1 UniRef90-Q8URE7 UniRef90_G3FT72 UniRef90-O90272 UniRef90_Q0GGB1 UniRef90_J9PC81 UniRef90-V5L218 UniRef90-B8XB50 UniRef90_K0GIS2 UniRef90-O73266 UniRef90_Q78645 UniRef90_Q78640 UniRef90_C4TMJ8 UniRef90_U5XKM0 UniRef90_O90845 UniRef90-D9IU54 UniRef90-H6D255 UniRef90-Q66965 UniRef90_O90841 UniRef90 UPI0001E3063A UniRef90-O90854 UniRef90_O90852 UniRef90-A3R3J8 UniRef90-W0GTU4 UniRef90-P89686
UniRef90 L7WQ04 UniRef90-Q784Z3 UniRef90-O90843 UniRef90-Q5G5S7

P V Q H V
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 MQNAEGRMVHHPLSPTTMNAGGKIVEEKGCNPQVIPMLS



 $V Q N L Q G Q M V H Q S X S P R T L N A W V K V I E E K A F S P E V I P M F T$ PIVTINQQPEHQPDSPRTLNAWVKVVEEKKFGAEVVPMFS


 $V$ Q N L Q G Q H V
 $V$ F D A A Q QP R H QP I S P P R T L N A WV K V V V Q N L Q
 GQWS $\square R P$ FP PDLLKAWVKVI VQN A Q GQMTYQALT PRTLLGA WV K V I E E K K N F S S P K V I P P M F S
 $R T$ N A WV K VXX E K GF S P XXI XMF X $\square R N P Q G Q F Q H Q S L N A R \square L K T W V S I V E E K K F A A E V V A M F Q$ PRTLNAWVKVVEXKXFSPEVIPMF
 P VQRE GQNY $\square H$ QP LS PRTVQT WVK DVEEK GWKPETVAMFA VQ N A Q G Q MVH Q A M S P R T L N A WVK VI E E K A F S P EVVI PM F S PRTLNAWVKVVKEKGFNPEVIPMFT



 VQNLQGQMVHQPISPRTLNAWVKVIEEKAFSPEVIPMFT
$P$ VLRTAQGPQWDPLSPRTTQTWVKHTEDRGFGAECVPF $\frac{H V L}{F}$ $V Q N I Q G Q M V H Q A L S P R T L N A W V K X V X E K A F S P X V I P M F T$ V Q N L Q G Q M V H Q P I S P K T L N A W V K K VI K K K A F S P K V I P M F S $P L \square R E N Q R W V H T P L S P R T L Q T W V K I V E D R G W K P E T V A M F S$ VQ N LQ G Q MVH Q T L S P R T L N A WVK A $\square E E K G F S P E V I P M F T$

HQSLS PRTLNAWVKVIEEKAFSPEVIPMFT VQNAQGQMVHQPVSPRTLNAWVKVI EEKGFNPEVIPMFS $P \bigvee Q Q V G G N Y T H V P L S P R T L N A W V K L V E E K K F G A E V V P G F Q$

G Q MVVHPP ITSPRTLNAWVKVIEEKAFSPEVIPMFT $P \quad V V N T P Q G P A H Q P L S P R T L A A W V K C V E G G \quad \square T P S L A P M F D$ $P V Q Q \square A G N Y T H V P L S P R T L N A W V K L V E E K K F G A E V V P G F Q$ $G N R N F R P L T P R G Y T T W V N T I Q Q N N L L N E S V N L F G$

 $P V V N R G Q G W A Y E P M S T R T V A A W I R R T G E K G L T P E T I T Y W G$ $P \vee Q N I G G N Y T H V P L S P R T L N A W V K L V E E K K F G A E V V P G F Q Q$
 VQNAQGHMTHQALSPRTLNAWVKADEERGFSPEII PMFA $P$ I QVVN G QA Q Y VP L N P R MV A DFMEKARD GLGTEEVL LWFT L Y P R GYT TWVNT $\square$ Q T N GL L $N$ E ASSQN F G

$G G E E V Q L W F T$

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## QUERY

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UniRef90 C8C5V8 UniRef90-A4UDG2 UniRef90-C8C674 UniRef90-Q9J414
UniRef90 U3H0J9 UniRef90 F4N9P7 UniRef90-Q75349 UniRef90-A1XWU9 UniRef90_U3HOY7 UniRef90-Q699V2 UniRef90-G6VG41 UniRef90-Q9YYX5 UniRef90-Q72030 UniRet90-V5JFFI UniRet90_W8PWx UniRef9_O87969 UniRef90-B7FCA1 UniRef90 Q8URE7 UniRef90-G3FT72 UniRef90-O90272 UniRef90_-J9PC81 UniRef90-V5L218 UniRef90-B8XB50 UniRet90_KOGIS2 UniRef90_O73266
UniRef90-O78645 UniRef90 Q78640 UniRef90 C4TMJ8 UniRef90_U5XkM0 UniRef90-O99845 UniRef90-D9IU54 UniRef90-H6D255 UniRef90-Q66965 UniRef90 UPIO001 E3063A UniRef90-O90854 UniRef90-090852 UniRef90_A3R3J8 UniRef90_WOGTU4
UniRef90_P89686 UniRef90-L7WQ04 UniRef90-Q784Z3 UniRef90-O90843 UniRef90-Q5G5S7

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A LSEGCTPYDTNQMLNCVGDHQAAMQ\TRETTNEEAAEWD
 A LSEGATPQDLNTMLNTVGGHQAAMQMLKDTVNDEAADWD ALSEGATPQDVNMMLNVVGGHQAAMQMLKDTI NEEAAEWD ALSEGATPQDLNTMLNTVGGHQAAMQULKEVINDEAAEWD S I RRGHPTRFKYHAKHSGGNQAAMQMLKDAI NEEAAEWD ALSEGATPADTNTMLNTVGGQAAMQMLKEV NEEAAEWD ALSEGATPQDLNTMLNTVGGHQAAMQXLKETVNKKAAEXN ALSEGATAQDLNMMLNMMGRHQAAMQMLKDTVNEEAAEWD ALSEGCDPYDVNQMLNADGEHQGALQIVKEVINDEAADWD ALLSEGSUPDDINTMLNAVGGHQGALQVLKEVINEEAAEWD ALSSGGATPYDLNSMLNATGGHQAAMQMLKEVVINEEAAEWDD AALSERATPQDLNTMLNTVGGHQAAMQMLK DPSMRKLQNG ALSXXXXXXXXXXXXXXXXAAMQMLKETI NEEAAEWD ALSEGATPQDLNTVNTVGGHQAAMQMFKDTI NEEAAEWD ALAEGADPHDLNTMLNALGDHQGAMQVLKEVINEEAADWD ALSEGAPPWRFKYDAERSGGTPGSYANVKDTUNEEAAEWD ALSEGATPKDGNMMDNVVGGHQASCKCLKDSHNEEAAEWD ALAEGATPQDLNTMLNTVGGHQAAMQMLKDTINEEAAEWD ALSEGCLSYDINQMLNVIGDHQGAMQLYKEVINDEAAQWD ALSEGAXPQDLNMXLNVVGGHQAAMQMLKDTIXDEAAEWD ALSXGATPQDLNTMLNTXGGHQAAMQMLKETVEEAAXWD ALSEGATPQDLNSMLNDVGHQAAMQMLKDTVNEAABEDD ALLEGAIPYDINTMLAI GGHQGALQVLKEVINEEAADWD ALSEGATPQDLNMMLNEVGGHQAAMQMLKDTVIEEERKWD ILTEGFIPYDLNDMLNAIGDHQGAMQVIKDVINEEGSEWD ALSEGMIPYDINQLLNAIGDHQGALQLIKDVINEEAANWD ALSEGATPFDLNMMLNIVGGHQAAMQMLKDTINEEAAEWD
 A SEGCTPYDINQMLNCVGEHQAAMQI REDINEEAADWD S I RRSHPTRFKYDAKYSGGHQAAMQMLKDTINEEAAEWD ALSQGATPQDLNTMWDXVGGHQAAMQMLKDTINEEAAEWD ALSKGATPQDLNTMLNTVGGHQAAMQMLKETINEEAANWD ALTEKADPDDLNVMLNAIGDHQGAMQUKKDHIVEEGAEWD ALSEGATPTDLNTMLNTVGGHQAAN

ALSEGATPQDLNTMLNTVGGHQAAMQLLKD T I ALSEGATPQDLNMMLNTVGGHQAAMQMLKDTI ALSEGCTPYDINHMLPCVGDHHPAMQLPRELI

NEAAAAWD
MMLNVVGGHQAAMQMLKETVEEAAEWD ALSEGATPQDLNTMLNTVGGHQAAMQMLKETVEEAAEWD ALSEGCTPYDDNPNAQLCGRPKQSCKQSRETVNEEAADWD ALSEGATPQDMNTMLDVVGGQAGQKANVKRDHQ ALSEGATPQDLNTMLNTVGGGSSSHANVKRDHQ ALSEGCTPYDDNQMLNCVGDHQAAMQIVREDINERNTRMG AISQDLSSREQVQLLEVVPGLQADKDMLLGYLEERAREWD
 ALSEGATPQDLNMMMNIVGGTPGSYANVKBYHO AFSADLTPTDMATDLMSAPGCAADKEDIDTKLKEDTTEYE ALSVDCTSEEMNAFLDVVPGQAGQKQLDDADDKIADDWD ALSEGCTPYDMNQMLNCVGOHQAAMQNNQGGLLMKKQQUG AFSANLTSTDMATLIMSAPGCAADKE\|LDETLKQMTAEYD
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jpssm


## QUERY

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UniRef90_A1XWU9 UniRef90-U3HOY7 UniRef90 Q699V2 UniRef90-Q6VG4 UniRef90_B7UES0 UniRef90 Q9YYX5 UniRef90_Q72030 UniRef90_V5JFF9 UniRef90_W8PWX6 UniRef90 Q87969 UniRef90-Q9J736 UniRef90_B7FCA1 UniRef90 Q8URE7 UniRef90_G3FT72 UniRef90_O90272 UniRef90_Q0GGB1 UniRef90_J9PC81 UniRef90-V5L218 UniRef90_B8XB50 UniRef90_K0GIS2 UniRef90-O73266 UniRef90_Q78645 UniRef90 C4TMJ8 UniRef90_U5XKM0 UniRef90_O90845 UniRef90 D9IU54 UniRef90-H6D255 UniRef90_Q66965 UniRef90-UPI0001E3063A UniRef90-O90854 UniRef90-O90852 UniRef90_A3R3J8 UniRef90_W0GTU4 UniRef90-P89686
UniRef90-L7WQ04 UniRef90_Q784Z3 UniRef90_O90843 UniRef90_Q5G5S7
 RLHPQQGPI PPGQIREPTGSDIAGTTSTLQEQVRWMT SN RFHPHAGPIAPGPMRDPRGSDLAGTSYSLPEQIAW DEKY RLHPHAGPIPPGQMREPRGSDIAGTTSTLQEQI GWMT GN
 RTHPHAGPDAPGQMREPRGSDIAGTTSSLEEQVGWMTAAN $R T H V P V G P L P P G Q L R E P R G S D I A G T T S T L T E Q V T W M T S N$ KLHPHAGPIAPGQIKEPGGSNIAGTTSTLQEQIEXDTHN
 LRHPNPGPLPAGQLREPTGSDIAGTTSNIAEQIAWTTRAN RTHVPVGPLPPGQLRDPTGGDIAGTTSNKQEQITWTTRNN R L H PVQ A GTTDXVQEQI GWMTH RLHPHAGPQQAGMLREPTGADTAGTTSTTQEQIQWMTTPQ RLHPHAGPDAPGQMREPRGSDIAGTTSNLQEQIAWMTSN

 $R$ LHPHAGP LVPGTMREPTGSDIAGTTSTVVEQQQWVTTPQ RAHPVQGPI PPGQDRDPRGSDIAGTTSTLQEQIGWMTAN
 RLHPQAGPI PPGQMREPRGSDIAGTTSTLQEQIGWMTSN
 RLHPQAGPVAPGQIXEPRGSDIAGTTSTLQEQITWMTRSN RXXPHAGXTXPXQMTXXXGSDIAGTTSTLQEQUQWMT SN
 RTHPPAGPLPPGQIREPTGSDI AGTTSTQQEQVHWTTRAN

 R $\square H P Q A G P \| A P G Q M R E P R G S D I A G T T S T P Q E Q V A W M T G N$ RTHPPP $\square G P L P P Q \square R D P T G S D I A G T T S T Q Q E Q V H W V T R N P$ RLHPHAGPVAPGQMRDPRGSDIAGTTSTQQE RLHPHAGPIPPGQMREPRGSDIAGSTSTVQDQVGWMT SN
 $R$ LHPVQGPLAPGHDRDPXGSDIAGTTSTLQEQITWMTN RVHPHAGPVAPGQMREP
RHPQQQPAQPGGGLRTPNATDVAGVTSTVEEQLAWTTAD $R$ LHPHAGPDAPGQMREPRGSD\|AGTTSTLQEQ』AWMTSN RLHPP
$R \mathrm{LHPVQGPVAPGQ} \square R E P R G S D \square A G T T S N \square Q E Q \square A W M T N N$ RLHPHAGPIAPGQMREPRGSDIAGTTSTLQEA EAMSQAN Y T QSMQGLFHQAR
VQHP $\square$ PGPLPAGQLREPRGSEI
RLHPHAGPIPPGQMREPRGSDIAGTTSTPQEQVGWMTSN RTHPHAGPVPPGQMREPRGSDIAGTTSTLQEQIGWMTGN RLDP A QA GPHPPSQ1
LQNPVPQPQQQGQLRQPTASD $\square$ TGNTSSVAEQVAW VQHPITRPPSPVGQAQ
NKHPLPNAPPPQGP $\square$ PMTARF $\square R G \square G V P R E R Q M E P A F D Q$
RTHP PDAPRP $\square$ PYFTAAE $\square$ MG $\square G \square T$ QEQQAEARFAP CCN
A Q P Q QP $\square \mathrm{P}$ Y T S A H $\square R \mathrm{G} \square \mathrm{L}$ GDQAFA $\square \mathrm{SA}$ Q GREAA
CATSNTRP
MCHP $\square P G P \square P A G Q V$
RTHPEDGPRPYFTARE $\square$ MGVDVDQN $\square$ QAQ

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RTHPSDA PRPLPYFTARE\MGLDLTQDQQAQPQFHA NRHPLPNAPPPQGP\PMTARFI \(\square G L G V P R E R Q M E P A F D Q\) RTHPSDG PRPLPYFTAAEIMGVGLTQEQQAEA
ПRNQYPGPDTRGRFREQR
K \(\square E E M Q K K S Q Q K D Q Q A A A G S Q V S Y N Y P D V Q N A Q G Q M V H Q A\) \(R T H P P D G P P R P L P Y F T A A E I M G \square G L T Q E Q Q A E P R F A P\)
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QUERY
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UniRef90-Q5W404 UniRef90_Q5W408 UniRef90 A3F1M2 UniRef90-P89903 UniRef90-C8C5V8 UniRef90_A4UDG2 UniRef90_C8C674 UniRef90-Q9J4414 UniRef90 F4N9P7 UniRef90_Q75349 UniRef90-A1XWU9 UniRef90_U3H0Y7 UniRef90_Q699V2 UniRef90_Q6VG41 UniRef90-B7UES0 UniRef90 Q9YYX5 UniRef90_Q72030 UniRef90-V5JFF9 UniRef90_W8PWX6 UniRef90- Q87969 UniRef90-Q9J736 UniRef90_B7FCA1 UniRef90 Q8URE7 UniRef90_G3FT72 UniRef90_O90272 UniRef90_Q0GGB1 UniRef90_J9PC81 UniRef90-V5L218 UniRef90-B8XB50 UniRef90_K0GIS2 UniRef90-O73266 UniRef90-Q78645 UniRef90_Q78640 UniRef90 C4TMJ8 UniRef90_U5XKM0 UniRef90-O90845 UniRef90_D9IU54 UniRef90-H6D255 UniRef90_Q66965 UniRef90_O90841 UniRef90 UPI0001E3063A UniRef90-O90854 UniRef90-O90852 UniRef90_A3R3J8 UniRef90-W0GTU4 UniRef90-P89686
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UniRef90_Q27HC9

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$P P V P V G E \square Y R R W I I L G L N K \| V R M Y$ NPVPVGNI YRRWI QLGLQKCVRMY PPI PVGDIVKRWI ILGGLNKVVRMY $P P I D V G A V Y K R W V L R G L Q K V V Q \square Y$
 PPIPVGD\|YKRWITMG
$P P \vee P V G E \square Y K R W \square I L G L N K \| V R M Y$ NT
$P P \prod P V G D \prod Y K R W I I L G L$ P PVVPVGLYRRWi


F R Q T Y R Q W I I E A M T E G $\square K \square$ ARMQCRAWY LIEAGGK L QVF R A W $\square \mathrm{T}$ Q GLMNLLA QL

GRVQARAWYDEALQ F R Q T Y R Q WII


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