






## UniRef90 Q6LRU0 UniRef90－B8G625 UniRef90 E4QF17 UniRef90＿W4UAB5 UniRef90－E3BMG5 UniRef90－S2KKV9 UniRef90＿T2NJ36 UniRef90－N9TXM9 UniRef90－M8D486 UniRef90－A5EVD5

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VAll T A CPTGHTFMAAEALEQEGQRQGHDTKVVERGSVG I VAI TS SPTGHTFMAAEGLQRGAESLGHTIKVETQGSVG RIVAI TSCPTGHTFMAAEGIQQSAKALGHQVRVETQGSVG K IVAVTACPVGHTYDAAKKI ENEAKKQGYSI RVETQGSI G KYVGITACPTGHTYMAAEKLEETAKETGNQIKVETQGSIG NIVAITACPTGHTFMAAEALENEAKKRGYFIKVETRGSVG KIVAVTACPTGHTFMAAEALAEAGRALGYQVRVETQGSVG KIVGISACPTGHTYMAAEKLEKTAKSLGYTIKIETQGVVK $K A L I V T A C P A G D A F D A A R R L E Q A A K A L D W E V K A E A R G H A Q$ KVVAVTACPTGHTYMAADALKKKAGELGDPIKVETNGSGG NI AIVTTCPTGMSVLSARLLDAAAQRRGWTTSVEDHDGPE IVGVTACPTGHTYMAQEALEKAAETLHYHCKIETQGSVG KIVAI SACPTGHTYMAAEALEKSAKELGVQDKVETQGASS NIAIVTACPSGNS IVAA GLLEQAAAKLNWKASI ECQSSVL NVILI ATCHSGTSYLDAERLKPAAQALGWQMELEVHSSLE NLLIVTHCPAGTSYLAAGALKDAAEAAGHHVVTDVQGNLA I LALTACPVGHTYLAAEKLSEAATKMGYRIVVETHGSVG NIVAI TSCPTGHTFMAAEGLEQGAAKAGHTIKVETQGSVG KLVAVTAEEAGRAVLAAEALRKHAHDGGHAI AI EFHDGET QLLAVTGCPTGHTYMAADALKAEAKKQGVTIKVETNGSGG RILAVTACPTGHTYMSAEALEAEAKKRGWNIKVETRGSVG KIA I TACPSGNS LAAGLLEQAAKSLDWSATVECHSSVV LIAATGCATGHTYMAQEALEQAAKKGLT KVETHGOTG TACPTGHTYMAAEKLAQAARADGHEMKVETQGSDG K VAVTACAAGHTYMAAESLEQAAKKKGYEVKVETNGALG KI AVVTACPSGNSVDAAGLMEKAAAEDKWTADI ECQSTVM KLLAVTSCPTGHTYMAAEALEKAARAADCQ\｜KIETRGSAG KUA】ITACPSGNSVIAAGLLQKAAETLGHDTVTECHSSVI HAVLASEALRKAAAAMGRTLAVEVHTPQG K LIAVTACPNGSSVLSARLLDAVAQRQGWSTSVEVHDPQR KLVAVTACPTGHTFMAAEALRRAATGAGHEDRAETQGSVG KIVAVTSCTVGHTYMAEEKLLQQALKQNYQI RVETQGSKG NVVAITACAAGHTYMAAEALEVAGEEHGFKIKVETQGSDG NVIIVTACPSGMTFDAARRLEQAARRHGWNPVIDMHSELE RII AVTACPTGHTYMAAEAI QKEANARGWECKVETRGSVG NVVAITACAAGHTYMAAEALEQAGKEHNFFVKVETQGSIG
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I ETRSALG
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$R \ V A \square T A C P T G H T F M A A E A L Q Q A A K A K G F D L Q V E T Q G S V G$ KIVGITACPTGHTYMAAEALTKAAQEMGHEIKIETQG VE NIVAVTSCPTGHTFMAAEGLQTAGEALGYHVRVETQGSVG KLLAVTGCPTGHTFMAAEALRRAAETAGAEIKVETNGAI G
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GHTFMAAEA
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 $K I V A V T A C P T G H T Y M A A D A L L K Y A A E E L L G Y D L V K V E T Q G S S G$




 $V$ VAV TACPTGHTFMAKDALDKAAKEDGVNIVVETNGTNG $K I V A V T S C P T G H T Y M A A E A L Q K A A K E Q G V A I V V E T R G S \square G$
 K I I A LT I V CVTACPAGHTFMAA NLI IVTA ACPAGHT F MAA $N V L$ A T NVILI TACATGHTYMAA ACSGMTYLAARRLQSAAERRDWHVTVEAHGAAT $K I V A$ A V T A C P T G H T Y MA A E R L S E A A L A E G I E L K I E T H G S I G
 KVLAVTACPTGHTYMAADALKAKAAEMGVMIKVETNGSDG R I V A A V T A C P T G H T FMAAA EA L K Q A A QRA G I E L A V E T Q G S V G $K \_V A V T A G A K G H T H D A A E A L S A T A Q A L G H Q I R V E R H S A E G$ $K F V G I T K C P V G H T Y M A A E K L Q K A G Q A R G Y E V K I E T Q G A S G$ $R L V A V T A C P T G H T Y M A A D S L D Q E A A R R G V Q I Q V E T Q G S A G$
IVVVVTACPTGHTF LAK K DRLVQQAQEMNL S I K V ET Q GAE G I V AV T A CPA GHTYMAAEALQKAGQELGVTVYVEKQGANG RIV V AVTACPTGHTYMAADSLAQTAEEMGVEFSVETQGSSG



 $K F V A V T S C P T G H T Y M A A E A L E A A G K A A G H Q V Q V E T Q Q S A G$ K A AT GCPTGHTGMAQEALEKAAADRGVSIKVETHGQVG

 MA A E GLE K A A RAKGWKIKVVETRGSAG
 L I GVTGCTVGHTYLAAKALAKAAEEMGVSIVVVENGSIG

。 FVVAVTACCPTGHTYMAQ $R$ IV A V T A C A T G H T HMAA KIVAITACAAGHTYMAAEALAETARRMGHDIRIERRGSGG
 $K L V A V T A C P T G H T Y M A E E A L L D A A R E L G Y E I R V V T H G A S G$ K I I A V T S C C P T G H T Y M A S E S L E E V A K K M N L E I K V E T Q G S V G
 MAAEALRRAAQAAGDDLRVVG $K L A D V T A C P N G M S V L C A R D L D A A A A R R L G W S T S V V E V V D P Q H$ $V L A \operatorname{T} A C P S G H T F L A A K S L Q K A A A K A G D K L K V E T Q G A N G$ $K I L A V T S C P N G H T Y M A Q E K L E Q A A A S L G I D I V V E T Q G G V G$ FVVGVTKCPVGHTYMAAEKLZQKTGQTDGYKVKVETQGASG


 KLV GVVTSCPTGHTYMAADALTGAADNRDVEIVI ETQGSSG L V A V T A C P A GH T Y M A A E AlL E H K A K E M Gll S i V V E A D G A A G $K I V A V T A C P T G H T F M A A K K I Q S W A E K H G Y E V K V E T Q G S D G$
 KI L AVVTACPTGHTYMAAESLEKAGREENI QLKVETRGGVGG KLVAVTACPTGHTYMAAGSLLDAAKEAGVDLQVETQGSSG



 I L A A T T A C A A G H TYMMSAE A L E K A GK E M GVVRVVVVEK Q GA N G $K I V A V S A C T A G H T Y M A Q E A D E Q E C K K R G I D C K V E T Q Q G M M G$


 VI GITA CPTGHTYMAKEKMEEAAKAMDLTIKVETQGRSG









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| UniRef90_G9Y149 | TFLR R P E K T L |
| UniRef90_R5IJR7 | AVI K N A $\square$ GFI EKVEK |
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 K F L A V



 $K I V A V T A C P A G H T N M A A T A I E K A A K N K G H E I G K E K Q G A L G$





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 $I V A V T A C P S G H T Y M A A E A I D A A A K A K G W T C E V E T G Q S \square G$ $K I V A V T A C P T G H T Y M A Q E A I D E E C E K R G Y D Y Q V E T Q G G M G$

 $N T V A V A A C T S G H T Y D A K E K L D R A A E A L G G H N D H V E T X Q G T D G$ $R I V A V V T S C P T G H T Y M A A E S L D R A A E A D C V L I D V E T Q Q G A G$ K L V G V T A C $\square$ S GHTYMAA E LLL E KAA K K A G Y K I Q V E T Q G A L G $K \backsim V A D T S C A T G H T Y M A A E A L K K F C K K N H H E C K V V E Q A A L G G$ $N I V G V A A C T A G H T Y D A K E K L E N A A R K R G H K I H M E T Q Q G V I G$ $K 1 \quad 1 \quad A V T A C P S G H T Y M A A E A L K K A C A K A G V K C S V E T Q G G I G G$
$N L L I V T A C P N G M S V L C S R L L E G A A Q R L G W S T R V V E V B D P K A$




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


 $R I V V V T A C P T G L T Y M A A N R L A A A A Q R L G Y L V K V E T Q G A L G$ KVVAVTSCATGHTYMAAEAI MKVCKERGYKCKVEKAGALG K V I A I T A C P M G H T Y DAA A E A L K K A A Y A K G D D L I I E K H A A L G


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 K GAKA L G H N DRVVETMGA G MEEAAVEAGYEVKI ETQGADG MAEESLIDK T GEKMSVNVVRVETNGAS G $K \square V A D T A C P T G Q T F M S A E A \square M L Y A K T Q G W C V W V E T H G Q M G$ AMRNLMSKAKEMN!SFKVE
$N \square V A V C E N E A$


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| UniRef90-W0ZAA1 | R G I D N |
| UniRef90-N2BUG8 | NVIRDAA A V I D S L E Q |
| UniRef90-FOLNV0 | AVLVNVH QVLD Q CL S |
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| UniRef90_U2UYH7 | VAI H S P T A L V K K L E E |
| UniRef90-C9CQS2 | MVI K A P K R L L E T I EEK |
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1
10


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sol25
sol5
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DAVKRADA TMDK $\square A A$
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