## QUERY <br> UniRef90_UPIO0047038CE UniRef90-A5EVF4 UniRef90-U2WCW1 UniRef90 D5XFC7 UniRef90-UPIOOO36350BD UniRef90-UPIo0036350BD UniRef90-W9BT77

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UniRef90 WoABV4 UniRef90_WOABV4
UniRef90_UPIO0040A4B97 UniRef90-C8WWP4 UniRef90-FFAOKO UniRef90_BOTB06 UniRef90-MTNFZ5 UniRef90-T1CB62 UniRef90_C9R9M2 UniRef90-A0L4B1 UniRef90-U4Q3N6 6 UniRef90-R5PYH7 UniRef90-U4T108
UniRef9-T1A781
UniRef90-B9E1Z3 UniRef90-D4MKB0 UniRef90-UPIO00464D8DB UniRef90-UPI00041B6C7F UniRef90_F3WSY4 UniRef90-F3WSY4
UniRef90 O1GTN6 UniRef90-Q1GTN6 UniRef90-BoK9L8 Uninefono RTMQL3 UniRef90-E1VLK5 UniRef90_UPI000405A98B UniRef90-QOAYA9
UniRef90-OOTRD3 UniRef90_UPIOOO35E2171 UniRef90-R5DOD1 UniRet90-DOKVK5 UniRef90_GOAOXO UniRef90_UPIOO0476942B UniRef90_C8WCK1 UniRef90-C8WCK1 UniRef90-E4Q918
UniRet90

- 7 U 6 H 1 UniRef90-K2DSR5 UniRef90-D4LBR8 UniRef90-D50CI6 UniRef90_R9L900 UniRef90-UPIOOO401E84B UniRef90-UPIO00401E84B UniRef90-D9S3G7 UniRet90 UPIO0046F3807 UniRef90_DXU48 UniRef90-C4L1C0 UniRet90_UPIO00470B7E7 UniRef90-R6HA69
UniRef90 R6C9W7 UniRef90-R6D109 UniRef90-EOTDY1 UniRef90 R9M4D8 UniRef90-W7DX19 UniRef90-D7UYK5
UniRef90 A1WE11 UniRef90-R5SG47 UniRef90-UPI00037AE53F UniRef90-I8AM18 UniRef90-A0A037Z8P9 UniRef90 W5XA00 UniRef90-UPIOOO3B518E2 UniRef90-UPIooo3B518E2 UniRef90-F2JRM9 UniRef90-P58243 UniRef90-UPIOOO382612E UniRef90-D5BPII UniRef90_G5GZF1 UniRef90-V2ZJY5
UniRef90-D5DKS6



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TRRERVPVSTY VNGTK 30
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$Q 1$
ESFDQFVIL TLQDPFLNALRRDHVPVSVFLVNGTRLQGKIESFDQYVVL
 NLQDAFLNQVRKENDPVTIYLVNGFQLKGMVKGFDNFTVI
LQEMFLNAVKQSAEPVTMFLVNGVMLQGEVAAYDLECLL NLQEVFLRTVQETGVPVTMFLINGVMLQGKVAAYDLFCML NLQEVFLRTVQETGVPVTMFLI NGVMLQGKVAAYDLFCML
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 NI QDTFLNQIRKNGVYVTVFLTNGFQLKGQVKSYDNFTVL NLQDTFLNQARKENMPVII YLVNGFQLKGIVRGFDNYVVV SLQDPFLNVLRRERTPVSVYLVNGTKLQGTIESFDQFVVL NLQDAFLNQVRKEAIPVTLFLINGFQLKGTIRGFDSFTVI NVQDPFLNTLRREKVPVTVFLVNGTKLQGMITSFDNYCLL
 NVQDVFLNHIRKEKIPVTVYLMCGVKLQGIIT WFDSFSML
 NLQDRFLNGAKNRIPVIVYLTNGFQURGVVKGFDNFTVI
 SLQDPFLNLLRKGRVPVSIFLINGIKLQGQIESFDQFVIL LQEMFLNVRKSEDPVTMFLINGVMLQGQi AGFDLFCML LQEVFLNAVRKSEDPVTMFLINGVMLQGQ|AGGFDLFCML NLQDIFLNQVRKEHVPVTVYLINGFQLKGLVKGFDNFTVV
 NI QDQFLNTLRREKIPVTVFLLNGFQLRGQVKAFDNFTVV NLQDAFLNQVRKDKIPVTVFLVNGFQ1KGMVRGFDNFTVI NLQDTFLNTLRKEHI PVALFLVNGUK

 NLQDSFLNALRKEHTPVSIFLVNGIKLQGRVDSFDQYVVM
 NLQDSFLNQVAKENVAVTVHLVNGFQ1LKGNVRGFDNFTVI

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 NI QDQFLNQLRKDSI PVTVFLLNGFQLRGQVKSFDNFTVI
 NMQDTFLNSLRKNNTFVTVFLTNGFQLKGMIKSYDNYTVL
 NLQDMFLNQLRKEKLMVTVYLVNGFQLRGYVKGFDTFTVV NLQDIFLNQARKSKTFLTIFLVNGVKLQGTISWFDNFCLL

 LQEPFLNTLRREHVPVSIYLVNGIKLQGQIESFDQYVVL NLQDTFLTKARKQGVPLTVFLVNGFQMRGSVTGFDSFVVL NI QDQFLNQLRKEGIPVTVFLLNGFQLRGQVKGFDNFTVL
 NLQDMFLNQVRKEGDGVTIYLTNSVQLRGQVRGFDAFTVL LQEVFLHAVRDTAEPVTMFLVNGVMLQGTIRAYDLFSLL NLQEVFLHAVRDTAEPVTMFLVNGVMLQGTIRAYDLFSLL NDIF NSARKNKIPVAIHLTGFQMRGSVKGFDSFTVI NIQDTFLNQIRKENIPVAI YLVNGFQMRGVVKGFDNFTVI NLQEVFLNNLRKSHSPVTVFLVSGVKLQGVITWFDNFSIL
LQDLFLTAASREHEPMTVFLVNGVMLQ

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## UniRef90 R7H4G7

 UniRef90-UPI00047E6C5s UniRef90-M4VJ17 UniRef90_R5EHWO UniRef90_Q493V9 UniRef90-UPIOOO36A8437 UniRef90-BoSBH9 UniRef90-UPI000287F80E UniRef90-D9QQ94 UniRef90-U6EVH8 UniRef90-UPI00047C3353 UniRef90-14X4M5 UniRef90-K4L109 UniRef90-R6IARO UniRef90_UPI00046F726E UniRef90-C4K3V5 UniRef90-Q67NL2 2 UniRef90-R6FQ79UniRef90- UPIOOO305933E UniRef90-A0A023D448 UniRef90-R5J4H3 UniRef90_K6EB23 UniRef90 R6M167 UniRef90_UPIOO04280210 UniRef90-UPIO0047E66AC UniRef90-R1CFH9 UniRef90-R6LW36 UniRef90-UPIO0035DD840 UniRef90-FOS220 UniRef90-WODAA5 UniRef90-UPIO0046ECA58 UniRef90-K9CLS6
UniRef90-R6GMG2 UniRef90-E6QTH1 UniReffo-UniRef90-E4TFS1 UniRef90-a3SINY UniRef90-UP10003B6FFDC UniRef90-W0B509 UniRef90-UPIOOO406A7BE UniRef90-B2V268 UniRef90-TON6L3 UniRef90 R7RRV4 UniRef90-C5VS4
UniRef90-TOI884 UniRef90-LOK9A3 UniRef90-UPIOOO16C00A4 UniRef90_G2LIF2
UniRef90 M1Z5R UniRef90-R5XM61 UniRef90-E3PY36 UniRef90-A0A017RWA7 UniRef90_UPI0002DB17F1 UniRef90-D9SFIO UniRef90-D4HOL6
UniRefo- E6Y UniRef90-A6NSZ8 UniRef90-F7YXR5 UniRef90-B8CX91 UniRef90-G9YVJ3 UniRef90-D2RKG7 UniRef90-F4FOG5 UniRef90-UP100037C2CC6 UniRef90-Q187T2 UniRef90_D3SMM7 UniRef90 R6ALT2 UniRef90-Q1KOS5
UniRef90 N8XFS9 UniRef90-В2ААЗҮ0 UniRef90_R6MT18 UniRef90-H2CK18 UniRef90-N9XQV3 UniRef90-14B8T4 UniRef90-R8W492 UniRef90-U5T5W0 UniRef90-E6QS62 UniRef90-B1ROE6
UniRef90-UP10003621E0C UniRef90-B6FXFO UniRef90-Q1IIF9 UniRet90_K7SMP1 UniRef90-AOAO22GWJO
UniRef9- M1RTW8 UniRef90-M1RTW8 UniRef90-14Z3U9 UniRef90-R6T235 UniRef90_B8KNJ8
UniRef90_U1WT87

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30 NLQDTFILINQARKEKIIVVITVIFLTNGYQFKGIIVIKGFDSYVVI TVQDVFLGHVRRGKAPVTIFLVNGVKLQGVITWFDAETVL
 SLQDPFLNVLRRERVPVFIYLINGDKLQGEIESFDKFVIL NLQDSFLNQVRKENVSVTHHLVNGFQLRGYVKGFDNFTVI NI QDNFLNSLRKESVPVTVYLTNGFQIRGLIIKAFDNFTII NLQDSFLNQVRREDITVTVYKVNGFQLSGKVTGFDNFTVI
N


## S S

 NLQDIFLNGARKSKMPVSIYLTNGFLLK NLQDAFLNNLRKSNTFVTVFLLNGFQLKGTVKSYDNFTVI SIQDQFLDYLRQNQAAVTIFLVNGVKLQGVVPAFDGEVVL NYQDVFLNQARKDRTMLTVFLMNGFQMRGLITGFDQFVIM NLQDVFLNQVRKENVGVIIHLTNGFQLRGNVKGFDNFTVI
 NYQDQLL NQARKGRTLVTVFLMNGFQMRGVITGFDAFVIL
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 LQDPFLSSLRKDQIPVSVYLVNGTKLQGQI EAYDQYVVL NLQDYLLSKLRRSRMGATVFLVNGFQURGEVRGFDSFVVV QDVFTKKER1PVSVEVNGVKGMGI ESFDOFVV NLQDRFLNTLRTSKVPVKVYLVNGFQTKGVIRSFDNFTML NLQDSFLKELAKEKMPVS:FLVNGDKLHGVIVCFDEHVIMM NLQDUF NSARKNKIPVTVYLSTGFKLNGUVKGFDSFTVI
 NLQDLFLNSSRRNKIPVTI YLTNGFQLNGVVGGFDNFTVIT NLQDKFLNQARKADIKVTIFLVNGVRLSGMIEGFDNFTVV
 NLQDVFLNKARKDNTVITIYLINGYQIKGTVKGFDNYTI I NLQDLFLNNARKERIPVTIELMNGVQVKGNVRGFDSYIL NLQDQLLNQARKEKIFLTIFLVNGVQIKGTIKGFDNYVIL


 NLQDRFLNTLRVGKAEVKTYLVNGFQTKGYIGSFDNFTIL NLQDNLLNQVRKKNVPVVIYLVNGFQQKGKVTGFDNFTVL NLQDLFLLRARKSHASLTVFLMNGYQLRGQI TGYDAFVVV NLQDSFLNRVRSEKKTIVVYLLNGFQVRGRVWGFDNFTVI NLQDNFLNQMRKENRAVSIHLLNGFQMKGYVKGFDNFTVI

 NLQDTFLNEARKENVPVSIFLMNGVQLKGKVKSFDSFTVL


 NLQDNFLNQADNKNIPVITRLVNGFPIRGLVKGFNSFTVI NLQD\|FLNGARKNR』PVEVYI SNGYKLKGFVKGFDNFTVV NLQDFILNQTRKEKMGITIYLSNGVPIKGRVVSFDNFTIV
 RKEKVPVSIYLVNGIKLQGQVDSFDQFVIL NLQDQF NADRKEHLLVSVFLVNGLKLVGKIESFDQYMVM


 NLQNDFLNTARKERKRVEVYLVNGIKLTGSIESFDQFVVM LQDLMLNQURKSKVKVSUYLLNGVRLQGKVRSFDLYTVL NLQDVILSHL

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| :---: | :---: | :---: |
| UniRef90_R7H4G7 | MD D GK Q N\|L V Y K H A | S T VVVP T R A I \|S |
| UniRef90_UPI00047E6C55 | LRDGHTQLVYKHAI | S TVVMPLVPVN |
| UniRef90-M4VJ17 | LRDAH $\mathrm{R}^{\text {Q }}$ L L V Y K H A I | S TIMP G GPL S |
| UniRef90_R5EHW0 | V S D GKQQMI Y K HA I | S T L A P M K P L K |
| UniRef90_Q493V9 | L R N TVNQMI Y K H A I | S T I VP S RVVS Y |
| UniRef90_UPI00036A8437 | I ENGKQQMVYKHAI | S TI TP F K T L S |
| UniRef90_B0SBH9 | LENNKQNLVYKHAI | ST1 1P AK P I K |
| UniRef90_UPI000287F80E | I D S GKQQMVYKHAI | S T FTP L R SVVS |
| UniRef90_D9QQ94 | L D D D Q Q Q M 1 YKHAI | S T I T P EK A V E |
| UniRef90_U6EVH8 | L D S GKQMLI Y K H A I | S T I T P S K D |
| UniRef90-UPI00047C3353 | LENDQQQLI YKHAI | STIS P S K NV |
| UniRef90-14X4M5 | $V E E G K Q Q L$ I Y K H A | STFSPSKPVA |
| UniRef90_K4LI09 | L E S GKQQMVYK HA I | S TVMPLKALN |
| UniRef90-R6IAR0 | I ENGKQQLVYKHA | STISPAANIT |
| UniRef90-UPI00046F726E | \|L R R D K Q Q L V Y K H A | S TVMPTTP |
| UniRef90_C4K3V5 | L K S T S PQVI Y K H AV | S TVVPP S R A V S |
| UniRef90_Q67NL2 | \|VEDGRVQLLVYK HAL | S T I T P A R PL |
| UniRef90_R6FQ79 | L D S GKQMMVYKHAl | T T I S P N K P |
| UniRef90-UPI000305933E | 1 E S GKQHLI Y K H A I | S T FSPSKSIS |
| UniRef90_A0A023D448 | RRDGHAQLVYKHAI | S T $\square$ M P L S PV |
| UniRef90-R5J4H3 |  | STMTPAMPV |
| UniRef90-K6EB23 | FES GKQQLLVFKHA | STFAPQRNV |
| UniRef90_R6MI67 | LD S GKQMMVYK H A I | S T $\square$ S P L Q P L K N |
| UniRef90_UPI0004280210 | L D D GKQQLI FKHAI | STFAPSKNVN |
| UniRef90_UPI00047E66AC | L D S GKQQM ${ }^{\text {C K H A V }}$ | S T I S P TVVPVN |
| UniRef90_R1CFH9 | L ES GKQNLI Y K H A | S TI TP NKPV S |
| UniRef90-R6LW36 | L Q S G K Q M I Y K H A V | S T I IP S V |
| UniRef90_UPI00035DD840 | L ENNS QQLI F K H A | S TVVS GRA GA H |
| UniRef90-F0S220 | L ENGGQQLVYKHSI | A TIV P S R P VK N |
| UniRef90-W0DAA5 | V ED GRQQLVYKHAI | STIVPPAEKL |
| UniRef90-UPI00046ECA58 | L R D D Q T QLI Y K H A I | S T V M P S $\square$ A V N |
| UniRef90_K9CLS6 | \|I D S GK Q QM I Y K H A I | S TVVTPATTVVK |
| UniRef90-R6GMG2 | L D D GKQQQVI YKHAl | S TIIPVVHPV |
| UniRef90-E6QTH1 | L K N M VT Q M V Y K H Al | STIVPARAV |
| UniRef90-R5HHY0 | I S D GKQQMVYK H A I | S TVVPPERPL S |
| UniRef90_E4TFS1 | LK D D S Q M M I Y K HAl | S TI S P N E EIAA |
| UniRef90_Q3SIN9 | LK GQDQQMIFKHAI | STI S P S REV |
| UniRef90_A6LNU8 | L E N G Q QLI Y K HAV | S T I M |
| UniRef90_UPI0003B6FFDC | $V \mathrm{~N} E \mathrm{GRQQQLI}$ Y K H A | S TiVVP F R P VEE |
| UniRef90_W0B509 | L K N S $\square$ T Q M V Y K H A | S TVVPARPVT |
| UniRef90_UPI000406A7BE | L D Q GKQ M L I Y K H A I | T T V T P A K P I |
| UniRef90-B2V268 | L D S GKQML I YKHA | T TVVTPEKP |
| UniRef90-T0N6L3 | L D S RQQML I Y K H AV | S T I T P L K P |
| UniRef90-R7RRV4 | L ES GKQ I L V Y K H SV | T TVVTPAKPVLY |
| UniRef90-C5VST5 | L D D GKQMM Y K H AV | S TITPTTP |
| UniRef90_T01884 | L E E G K Q Q L V Y K H T I | S T I L P L R Q S Y |
| UniRef90_L0K9A3 | V Q ${ }^{\text {K G Q Q L V Y K H A }}$ | S TVVVPAK G $\square$ D N |
| UniRef90_UPI00016C00A4 | $\checkmark$ D S GKQQLL YKHA | S T I V P |
| UniRef90_G2LIF2 | L E A GQQQL I FKHAl | S TI SVM |
| UniRef90_M1Z5R5 | L D S GKQQL I Y K HA I | S T I I P PVKK S $\quad$ I |
| UniRef90_R5XM61 | L ENRQQNMI Y K H AV | STIVPSKYINN |
| UniRef90-E3PY36 | L D D GKQNIV Y K H AV | S TI I P A |
| UniRef90_A0A017RWA7 | L D D D K Q M M Y K H AV | S T IT P TK P L L Y |
| UniRef90_UPI0002DB17F1 | I EEGRQQLI FKHA | STHAPVKKNID |
| UniRef90_D9SFI0 | LK N N V V Q M V Y K H A | S T V VPAR S V N |
| UniRef90-D4H0L6 | LKDESQKMI Y K H A I | STI EPSEE |
| UniRef90-E6YI26 | LRDGHTQLVYKHAV | S TIMP GQ S |
| UniRef90_A6NSZ8 | I T D GK Q Q M I Y K H A | S TI TPERPV D |
| UniRef90-F7YXR5 | LESENQQLLI YKHA | S T I M P T T Y V K |
| UniRef90_B8CX91 | I NS GKD Q M V Y K H A | S TII IP Q E K V D |
| UniRef90-Q1LSQ5 | LKNT@S QMVYK H A V | S TIV P S K F V S H |
| UniRef90_G9YVJ3 | LM T GKQQVI YKHAI | STIVPERA $\mathrm{V}^{\text {P }}$ |
| UniRef90-D2RKG7 | MEEGKQQLI Y K H A I | S Ti APLEN |
| UniRef90_F4F0G5 | LEVGK Q NLVYKHAI | S T I VA |
| UniRef90-C0GDR3 | L NDNKQQLVYKHAV | S TI I P F R N $\quad$ N |
| UniRef90_UPI00037C2CC6 | I S Q GKQEMVVK H A | S TIVPE Q EVK |
| UniRef90-Q187T2 | I ENRQQNMI YKHAV | S T I QP G K Y I N |
| UniRef90-D3SMM7 | L E D GRQQLVYKHAI | STI $\square$ P A |
| UniRef90-R6ALT2 | L SENRSQLI Y K H Al | S T |
| UniRef90-Q1K0S5 | I E S G G DFLLYKHAl | S S I T S A |
| UniRef90-N8XFS9 | LK N G Q $\square$ Q I I Y K H S I | S TV FP T R N |
| UniRef90_B2A3Y0 | MENGEQQMI Y K H AV | S T I DP GK T L N |
| UniRef90_R6MTI8 | ID D GRQELI YKHAI | S TI APVEA |
| UniRef90-H2CK18 | I E D G K Q SL I Y K H A I | S TII I I P P P V |
| UniRef90-T0I8L2 | LET GKQQLVYKHAI | S S I S PLLRQFS Y |
| UniRef90-N9XQV3 | L D D GKEML $\mathrm{L}^{\text {V Y K H A I }}$ | T T I T P G $\square \mathrm{P}$ |
| UniRef90-14B8T4 | L EHDHKQLV YKHAV | T TI SPEKPI K |
| UniRef90-R8W492 | L E D GRQQMVYKHAl | S T M I P S Q R V E |
| UniRef90-B2V6C4 | LKEGRQVLVYKHAI | T T I SPKK E I E |
| UniRef90_U5T5W0 | L R N S I S QL V Y K H A I | S TIVPPSRNV |
| UniRef90_E6QS62 | LK D Ni S QAl F K H A I | S T L S P S R Q V N |
| UniRef90_B1R0E6 | L E D E NMMLI Y K H S I | STIT P E K P |
| UniRef90_UPI0003621E0C | AES G G I L V Y K HA I | A T I T S S |
| UniRef90_B6FXF0 | LEDKK Q SL I Y K H AV | S T V Q P V $\mathrm{CN} \square$ S |
| UniRef90_Q1IIF9 | L D T N NQQL I FKHAl | S T V V L P R P |
| UniRef90_K7SMP1 | L R D G HVQL I Y K H A I | S T I MP |
| UniRef90_A0A022GWJ0 |  | S T I VPA |
| UniRef90-M1RTW8 | I EDGK Q Q L V Y K H S | T TI I P A ER\D |
| UniRef90-I4Z3U9 | $\vee R G S S S Q V \vee Y K H A I$ | STILPAEP |
| UniRef90-R6T235 | L DEGKQNIVYKHAI | S TIVVPSRYINN |
| UniRef90-B8KNJ8 | LK N TVS Q M V Y K H A I | S TVVPGRVV |
| UniRef90_U1WT87 |  |  |




## UniRef90 R8UHF6

 UniRef90-AOAO23DX78 UniRef90-UPI000470313E UniRef90- Q73AM9 UniRef90_UPIOOO36CA090 UniRet90-R8G7F9 UniRef90-C3ECC3 UniRef90-H1RY47 UniRef90-UPIOOO36990A0 UniRef90-H3SCR3 UniRet90_K6DLL1 UniRef90-C3AXB7 UniRef90-C8W314 UniRef90_V217N4 UniRef90-A0A022GP43 UniRef90-LOMZM2 UniRef90_UPIO00248C607 UniRef90_J8N3C4 UniRef90-B5z503 UniRef90_U4TCL1 UniRef90-H2CG74 UniRef90-C3EE76 UniRef90-A0A024E1E0 UniRef90 C3CC47 UniRef90-UPIOOO46A4199 UniRef90-X2M473 UniRef90 C31B87 UniRef90-U3R3C8 UniRef90-FOSO14 UniRef90-W6WMP7 UniRef90-E8T3Y6 UniRef90_C3AJV4 UniRef90-LON2G44 UniRef90-E7RY23 UniRef90 C3AX98 UniRef90_UPIo003B6DF84 UniRef90-B3RCS9 UniRef90-J7VZM1 UniRef90-M1VJF9 UniRef90-UPIOOO2F0092D UniRef90_K2C746 UniRef90-E1E6B9 UniRef90-M5V1Z3 UniRef90_UPIO004793EA3 UniRef90 UPI00037076CC UniRef90-UPI000304ADB9 UniRef90-S6JMA9 UniRef90_J3X655 UniRef90_F8GTV7 UniRef90-U7PC28 UniRef90-C3CBQ2 UniRef90 13DTM6 UniRef90-B7IZ69 UniRef90_FOPZS88 UniRet90_E6QHP6 UniRef90-J8LBX5UniRef90 O1IPZ0 UniRef90-C1F3F6 UniRef90_O46OZ8 UniRef90-F4BVY6 UniRef90-A4V7P6 UniRef90_UPIOOO37267CB UniRef90-J8CBC5

QDDMYNRLKENKAVTT ILIKTGVR\|TGQ



| $L K S G V R D V G E V V A D D K F T V L$ |
| :--- |
| $M V N G \mid K L H G E V D S D Q Y V V M$ |

N【QEDMYEQLKDKKGDTT TELKSGVPLHGQILATDKFTVL
SMQERLLQEVTQKKKITSLTLTNGFHMKGTVIKEYDAFSIL
NLQHLQLSTHSASRNPVVVHLSNGRRLHGVIVAADNYMVL
s QEQF N QNEYYEQLKNKKENVMVYLKNGFRVSGQULSHDRFTVL SVQNKILVQLKEQQASJIVYLINGYRLGGKLKDFDTFTV $N L Q Q L Q F S T L S A S H S P V V V H L S S G L R L H G V I V D T D N Y M V L$
SVQNRFLDRLDAERDPVTLITKNGVQMQGTLKSTDRYTVL
s
CQ QEGFYKKLIEEQRVVTVFLINGVRVPGII MATDKFSVL QDHRLHMLQEAQLECT NQQFSTLNSLRRARTWVDVYLVTGTCLHGQIQSFDSNML SLQEKTSELLKEKKKPIVLVLKSRVRVTGQGLAMDKFTLL
 NGFQLRGLIKGFDNFTVL LQHDQYAADSASRNAVIVHLSNGTNLTGVVLASDDYMIL NIQDKALENFKANQTEVTVFFLNGFQMKGVIEEYDKYVVS Y LK S LS DRK $\square P \nabla T V K D R D G E T V K G W I E Y F D D G M L L$ VQDAFYQHLMTERSLVEVHLSSGTRLHGVIVAADNYMVL QYRFDDHCQTNRVELTVSTGASFNGVHRFDRETVL LQHQQFAAYNTSQAPVIVHLSNGARLQGLVLASDDYVVL S QENFLQGFKDSKEELTVFLLNGFQMKGTVVEFDDTVVLI VQNKVIENVKGKNSKVHFILNNGFRIEGKILDYDDFCIL SLQEQLLQEAFQKRKDITLILLKGLHVKGIIRGFDTYFVL KFJLNQ SVVVHLVSGLKVKGKLTEYDQYTI A
 DMILHYVEQKEDPCRLILDESKQVTGKVIGHDPYMI Y QENFYKKLIEEQRVVTV

[^1]| UniRef90 R8UHF6 | MNHGKQQ\|LVYKQA\| ${ }^{50}$ T TIIMP ${ }^{60}$ |
| :---: | :---: |
| UniRef90-A0A023DX78 | RKDGIVVQI L Y Q HAl S Si MPVTPFT |
| UniRef90-UPI000470313E | LENGNDTLI NKVAISSTIISSKRV |
| UniRef90-Q73AM9 | LVDGKQQLI YKQAVSTIM |
| UniRef90-UPI00036CA090 | L K N SVT QMV Y K HAI S TVVP S R L V |
| UniRef90-R8G7F9 | M THGKQQLVYK QVI F T I I |
| UniRef90-C3ECC3 | TEDNKNQLI YKHAl S |
| UniRef90-H1RY47 | LAESAQQIVYKHSI AVI T |
| UniRef90-UPI00036990A0 | \|LQQSKQSLLYKAAI STI IP S K PV |
| UniRef90-H3SCR3 | LKDSKFSLINKSAVSTI I P S QRLS |
| UniRef90-K6DLL1 | 1 DS GQQQMLGKGAI STIV |
| UniRef90-C3AXB7 | L VNGKQQLI Y K TAI S TI |
| UniRef90-C8W314 | LEEKETQIVYKHAI STI ${ }^{\text {EPEK }}$ |
| UniRef90_V217N4 | LADPAPQIVYKHAIAAI |
| UniRef90-A0A022GP43 | L Q P Q P QV V Y K A I A VIT P A H A |
| UniRef90_LOMZM2 | , |
| UniRef90-UPIO00248C607 | I EVGGRDT LINKVAVSTVVSSKRL |
| UniRef90-J8N3C4 | LVNGKQQLI YKQAI STI |
| UniRef90-B5Z503 | I SNGKQQFLYKQAI STI |
| UniRef90-U4TCL1 | \| E DQRKMMI YKHAI STI |
| UniRef90-F5SEH1 | I R S G Q S MVYKHAI STI |
| UniRef90-H2CG74 | VTEQGQVLI Y K H A I S SLSPSRP |
| UniRef90-C3EE76 | 1 EEGKQQLVYKHAIS |
| UniRef90-A0A024E1E0 | $\overline{M V}$ NGKQQLI YKQAVSTIV |
| UniRef90-C3CC47 | LVNGKQQLI YKQAI STI |
| UniRef90-UPI00046A4199 | MAHNKQQLI YKQAIS TII |
| UniRef90-X2M473 | LKNTVS QMVYK |
| UniRef90-C3IB87 | MVQGKQQLVFKQALS |
| UniRef90-U3R3C8 | LDDNQPTLVYKQAI ALI TPA |
| UniRef90-FOSO14 | MRNRGNILVYKHAISTIV |
| UniRef90-W6WMP7 | LGGSPG\QAVFKHSVST |
| UniRef90-E8T3Y6 | MTAPKKSLVYKHAVATT |
| UniRef90_C3AJV4 | MAQGKKQLI YKQAI STIV |
| UniRef90-LON2G4 | LETEGNQLI YKHAI |
| UniRef90-E7RY23 | LQTSGDVALYHHAVSSVMRAQ |
| UniRef90-C3AX98 | MMVDKQQLVYKQAVS |
| UniRef90-UPI0003B6DF84 | 1 NSMGKMLVYKHAl T TI |
| UniRef90-B3RCS9 | LD D $\square$ QP TVVYKRA ICLITTPATA |
| UniRef90_J7VZM1 |  |
| UniRef90-M1VJF9 | LEE GKQQLI Y K HA I |
| UniRef90-UPI0002F0092D | LEDPTPTLI Y K R A I TVVT P A H A |
| UniRef90-K2C746 | LS K D K VEVVYK S S I Y I |
| UniRef90-E1E6B9 | L N S Q GKN |
| UniRef90-M5V1Z3 |  |
| UniRef90-UPI0004793EA3 | TREGKPNLI YKHQI RTI TEA |
| UniRef90-UPI00037076CC | Le Da G DQVVYKHAI AVI TPAHA |
| UniRef90-UPI000304ADB9 | LSNGEE ILVFKSAI R Y I |
| UniRef90-S6JMA9 | FGGSGKRLI YKSFIA M I $\square$ PREA $\square$ |
| UniRef90-J3X655 | MMQGKQQRIYKTAI |
| UniRef90-F8GTV7 | LD D $\square$ R P TVVYKRA $\quad$ CLLVTPDAPV |
| UniRef90-U7PC28 | FS Q GKNH |
| UniRef90-C3CBQ2 | VS SK Q K QLIY K H N $\square$ S T $\square$ |
| UniRef90-R8RDN0 | I EVEEGKQQLY |
| UniRef90-I3DTM6 | IV SVKKEMMI Y K H A T S L R P |
| UniRef90-B7IZ69 | VSNEKQQLI YKHNI STI |
| UniRef90-FOPZS8 |  |
| UniRef90-E6QHP6 | V R GRQRQLI Y K S A I K Y I |
| UniRef90_J8LBX5 | 1 S N K G |
| UniRef90-Q1IPZ0 | TREGAPNLIYKHD\RY\\|S EEPVK |
| UniRef90-C1F3F6 | TRKNHPNLIYKQQI R |
| UniRef90-Q46QZ8 | MQDTRPVVVYKHAI A MI |
| UniRef90-F4BVY6 | LQTAKGELVFKHAIATI |
| UniRef90-U5DEA9 | L NDGKTVLI WKQA I A T |
| UniRef90-A4V7P6 |  |
| UniRef90_UPI00037267CB | L R D GEP NLLY K H C T K Y LY K S E |
| UniRef90-J8CBC5 |  |
| UniRef90_G8NY57 | LKA GRRMMIYKS GI |

[^2]


[^0]:    

[^1]:    lupas 21
    lupas_14
    lupas_28
    jnet
    conf
    sol25
    sol5
    solo
    jhmm
    jpssm

[^2]:    lupas 21
    lupas_14
    lupas_28
    jnet
    conf
    sol25
    sol5
    sol0
    jhmm
    jpssm

