## QUERY

UniRef90_COQQL1 UniRef90-M1QHD9 UniRet90 F8EWS3 UniRef90-UPIOOO35E3FE6 UniRet90 EIRAF1 1 UniRef90-M1YKD6 UniRef90 E4KXL9 UniRef90_UPIooo3B67B0A UniRef90-UPIooo3B2F9E1 UniRef90-U2M437 UniRef90-EORRD4 UniRef90-S3K017 UniRef90-FOS184 | UniRef90-EET510 |
| :--- |
| UniRef90 G4D5 | UniRef90-X0ZX24 UniRef90-R7BJ34 UniRef90_F5YBV4 UniRef90-UPIOOO3734F6C UniRef90 V2Z596 UniRef90-UPIOOO2555661 UniRef90-UPIIOOO3B4E83B UniRef90-FORV72 UniRef90_UPI00047EF879 UniRef90-Q3A8J3 UniRef90_UPI000289AFC7 UniRef90-T0K601 UniRef90-R7AMT7 UniRef90-H9UG00 UniRef90-UPIO00421B4CB UniRef90-DgTTK0 UniRef90-R7A5U5 UniRefofo-D7N787 UniRef90 C1D974 UniRef90 UPIOOO47C5F14 UniRef90-UP100037C97E4

UniRef90-UPIO00362ACED UniRef90-Q0ABT0 UniRef90-S3LDE8 UniRef90-C6WTA6 UniRef90-G8QJH1 UniRef90_A7VIK3 UniRef90-UP10003B6BED2 UniRef90_O83995 UniRef90-D9s274 UniRef90-F4LW21
UniRef90 - 88.888 UniRef90-R6RB54 UniRef90_B9Z6JO UniRef90-E7NS17 UniRef90-UPIOOO4678574 UniRef90-R9LON5 UniRef90_U2D1A5 UniRef90 R5JYR3
UniRef90 R5Z2G4 UniRef90-U2CCR4 UniRef90-F4LNK9 UniRef90- ${ }^{-} 7 \mathrm{JW}$ W93
UniRef90 UniRef90-R5LP54 UniRef90_UPLO00478EB09 UniRef90-H5SFA0 UniRef90_FOZ1N0 UniRef90-UP10003B627D5 UniRef90-R6L2T11
UniRef90 O3SF13 UniRef90-C6J4N3 UniRef90-D6D196 UniRef90-V5WMD7 UniRef90-F2NV62 UniRef90 R55JD1 UniRef90-R5R711
UniRef90 A1K2G2 UniRef90-G8QRR6 UniRef90-F7V699 UniRef90-C7RKGO UniRet90-R7NE97 UniRef90-BoS3Y2 UniRef90 X1RNE2 UniRef90-R9MAL7 UniRef90-R6PK52 UniRef90-R6QE79 UniRef90-R7FUT1 UniRef90-R7NIS5
UniRef90 O8X196 UniRef90_UPI0003B2F6E7 UniRef90-R6WTD3 UniRef90_R6WTD3
UniRef90 W1UMQ3
I RANGQVF

KYLVVTVNNREYKRFSLGKNGE
7 WVGGAHHRRVALEGES
VVVTVNQKETDRLSLDQDQTTH ETVVI WAGDSEYARYPL
QRLVIETAGK WIYPL TDTRTVEVPGPLGTTVVEIAD
RKVIIRHGDRVYGTYSLN QQRDIMVQGAMGAATVSLLH QVVIYVDQKEIGRYDLDTDT TKEI QTAKGTNTLVI EN

 VTISVDGTVVETLELHKDQEYTVKNDQGVNVVKVKH VTIRAGGQRVASLSLL

KKYVVVTVDGAEVGGYRL
LLHNRLVPVOGPLGVTVVE:AG
VVTVGAVFGTYSLFEERTVDVENAFGHNRVVIEN
 VVIYVDGKI EKKLDNNKNQEYRVNVDNGYNDI RI KD QEAVVTVDGEYVYRLTGQDET, EVVKGS DGVSRI HICG RVLVSQNGTVVGDYPLSKNREDVFQTSDGGTNTLVI HD VVVQDGKEVATYPLNVDT SVTTNSPTGFNTLVIKD VEVSVDGQIVATFPL SEDDEYTITGGGGENYLVIKD KVVVRLDGQVVHQLSSL AHDQEVTVTGPAGETVIQ QG KTVVVSVDGVEKYTFPL DEDDEFKI EGYEGSNYLVIKD V: KVDGQVVKTGDLNREETTVEVNGQGGVNRIVIKD I QVDGESYRSVPLDVGEETIEIHSKYGNNTLKVFD VSVSVDGTEDMTLDLNRND DVVIESGNGQTNLIIED KKKFVYSLEAKDGYYKFKGLLGESSI QVES LVYQDGTLLYILNLR QDRTLTVTGPAGENDITVAD
 QAVVTVDGKTYRYSLATDTHFHVSGPLGETEIEIAG EKAVVRLAGEVFSELDLSRNRRLEVPGPLGITTIVVDK EQVVVTVDGKTVAALDLYKDTDMII DGLGGTDHLVIKD DKYVQUKVDGQVVNT:PVNGNETLTVEGQGGSN|VVT:EN KYVS QVNGKEIKQLTLP KYVSVQUSGREVQKISLKKEKREYNFKTKLGTNKVLVKD ETVV:KVDGNVVKQLALKKNDTEFDVSGQGGTNHIV:QD ERVVVTVDGKEVWSHSL SEDAVYTVKSPNGSNVVRIQD EYVCVIQNGKETARYPLS KDITVTLENGTNTLVIEN KTVVITENGSTYGTYSLSSENKVIGIDTDLGHNKVVIKD KRVIISVNGEEYESDELKENNKIIKI EEGLGVNEICIINK RVVVNAAGRYEYSAELAG TYTVPGELGPTTFEIKN RVEVYVDGKLTYSYSLADKNRTFEVYCDNGKNVVEIKD


| QUERY |  |  |
| :---: | :---: | :---: |
| UniRef90_C0QQL1UniRef90-M1QHD |  |  |
|  |  |  |
| UniRef90-S3K5B5 |  |  |
| UniRef90-F8EWS3 |  |  |
| UniRef90-E1RAF1 |  |  |
|  |  |  |
| UniRef90-M1YKD6 |  |  |
| UniRef9 | -E4KXL9 |  |
| UniRef90 UPI0003B67B0A |  |  |
| UniRef90-UPIO003B2F9E1 |  |  |
| UniRef90_U2M437 |  |  |
| UniRef9 | -EORRD4 |  |
| UniRef90-S3K017 |  |  |
| UniRef90_FOS184 |  |  |
| UniRef90-E8T510 |  |  |
|  |  |  |
| UniRef90 - X0ZX24 |  |  |
|  |  |  |
|  |  |  |
| UniRef9 | -UPI0003734F6C |  |
| UniRef90_V2Z596 |  |  |
| UniRef90-UPI0002555661 |  |  |
| UniRef90_UPI0003B4E83B |  |  |
|  |  |  |
| UniRef90-UPI00047E |  |  |
| UniRef90_Q3A8J3 |  |  |
| UniRef9 | -UPI000289AFC7 |  |
| UniRef90-TOK601 |  |  |
| UniRef9 | -R7AMT7 |  |
| UniRef90-H9UG00 |  |  |
| UniRef90_UPI000421B4CB |  |  |
| UniRef90_D9TTK0 |  |  |
| UniRef90-R7A5U5 |  |  |
| UniRef9 | -D7N787 |  |
| UniRef90-C1D974 |  |  |
| UniRef90-UPI00047C5F14 |  |  |
|  |  |  |
| UniRef90-UPI000362ACED |  |  |
| UniRef90-Q0ABT0 |  |  |
|  |  |  |
| UniRef90_C6WTA6 |  |  |
| UniRef90-G8QJH1 |  |  |
|  |  |  |
| UniRef90_UPI0003B61 |  |  |
| UniRef90-O83995 |  |  |
|  |  |  |
|  |  |  |
| UniRef90- ${ }^{\text {88J8S8 }}$ |  |  |
| UniRef90-R6RB54 |  |  |
| UniRef90-B9Z6J0 |  |  |
| UniRef90_E7NSI7 |  |  |
| UniRef90_UPI0004678574 |  |  |
| UniRef90-R9L0N5 |  |  |
| UniRef9 | -U2D1A5 |  |
| UniRef90-R5JYR3 |  |  |
| UniRef90-R5Z2G4 |  |  |
| UniRef90_U2CCR4 |  |  |
| UniRef90_F4LNK9 |  |  |
| UniRef90-F7JW93 |  |  |
| UniRef90-H1HSQ0 |  |  |
| UniRef90-R5LP54 |  |  |
| UniRef90-UPI000478EB09 |  |  |
| UniRef90-H5SFA0 |  |  |
| UniRef90-FOZ1N0 |  |  |
| UniRef90-UPI0003B627D5 |  |  |
| UniRef90-R6L2T1 |  |  |
| UniRef90-Q3SF13 |  |  |
| UniRef90-C6J4N3 |  |  |
| UniRef90-D6DI96 |  |  |
| UniRef90-V5WMD7 |  |  |
| UniRef90-F2NV62 |  |  |
| UniRef90-R5IJD1 |  |  |
| UniRef90-R5R711 |  |  |
| UniRef90-A1K2G2 |  |  |
| UniRef90-G8QRR6 |  |  |
| UniRef90-F7V699 |  |  |
| UniRef90-C7RKG0 |  |  |
| UniRef90_D9R3M9 |  |  |
| UniRef90-R7NE97 |  |  |
| UniRef90-B0S3Y2 |  |  |
| UniRef90-X1RNE2 |  |  |
| UniRef90-F9MW27 |  |  |
| UniRef90-R7HAL5 |  |  |
|  |  |  |
| UniRef90-R6QE79 |  |  |
| UniRef90-R7FUT1 |  |  |
| UniRef90_R7NIS5 |  |  |
|  |  |  |
| UniRef90_UPI0003B2F6E7 |  |  |
| UniRef9 | R6WTD3 |  |
| UiRef90_W1UMQ3 |  |  |

Unirefor
Un





UniRef90 U2UMD4
UniRef90-17LHN8
UniRef90-TOCW7
UniRef90-R6DS69
UniRef90 A0A017RXP8
UniRef90-R1ARQ6
UniRef90-UPI0003648D5F
UniRef90_B8FP27
UniRef90 ${ }^{\text {N2B3 }}$ Y8
UniRef90_U2TRM1
UniRef90-R6UMV9
UniRef90 E2ZBL7
UniRef90-A0P578
UniRef90-W8TL21
UniRef90_D3EAG7
UR
UniRef90-UPI00037AE924
UniRef90 N2ABW9
UniRef90 R9LXJ1
UniRef90 E0E3Q4
UniRef90-UPI0003B753A8 E
UniRef90_UPI000409F5C9
UniRef90 R5AC14
UniRef90-D3EL50
UniRef90-R7N6U9
UniRef90 D8GR73
UniRef90-R5JX06
UniRef90_UPI000369687C
UniRef90_R9JDL9
UniRef90 R6VA95
UniRef90_G4L4B9
UniRef90-A9KQV7
UniRef90 M1LT35
UniRef90-R6CZ60
UniRef90-M2ACH0
UniRef90 UPIO0037B3423
UniRef90 R5P4G9
UniRef90-M1ZIF4
UniRef90-E9SAZ8
UniRef90_C9LMZ9
UniRef90 R5ZDR4
UniRef90-R7JSR9
UniRef90 U2NTIT
UniRef90 H1G1X1
UniRef90-R6LBE3
UniRef90-H2JJ71
UniRef90_YOKKV1
UniRef90-R7RAP1
UniRef90-L1Q5.J9
UniRef90_R6M0Z9
UniRef90 TOAWJ
UniRef90-C7H3U9
UniRef90-E0RYR4

UniRef90_UPI000377EAC
UniRef90 UPI000467689F E
UniRef90_UPI00047C77C0
UniRef90_G5HSE2
UniRef90 Q896H8
UniRef90-UPIO003803804
UniRef90-R5FQE1
UniRef90_B6W6P5
UniRef90_B8E2P7
UniRef90-R5C2Z1
UniRef90-UPI0003B65134
UniRef90 R5XGX0
UniRef90-B3QVF9
UniRef90_UPI0004703502 E
UniRef90 R5H0S6
UniRef90_R6SH75 D
UniRef90_R7C8D0
UniRef90-R7K9X6
UniRef90 U2D5T5
UniRef90 F6DUL1
UniRef90-G7W9F3
UniRef90-R5GN31
UniRef90 R5R0G3
UniRef90-W0SC96
UniRef90-E7GJI9
UniRef90_UPI00040CD61A E
UniRef90- W0FT96
UniRef90_U5MLV9
UniRef90_A0A037Z8F3
UniRef90 D4KBR4

UniRef90 C0BWH2
UniRef90 G2T2Z7
UniRef90-R6YFG1
UniRef90-S9UGW5
UniRef90 UPI000374F509
UniRef90-T4VX19
UniRef90_R5U8TC
都

|  |  |
| :---: | :---: |
| UniRef90_R9J3Q8 |  |
| UniRef90 R5N225 |  |
| UniRet90-UP | I YVKGKLYKKVSLNKKNEVLNDKTDLGENITEIKN |
| UniRef90 F3B9U2 |  |
| UniRef90-2R5ROY0 | RITVAGEVYGTYSLKENQK I Si QD TNVCQIQD |
| UniRef90-UP100047E57BF | ITLSGKFYDNDPLSSGEKTFVIKTKYGKNTILVKD |
|  | E |
| UniRef90-COCZ34 | TVDGKLVETLDLSVDA TVTITGAGGTNVLVVQD |
| UniRet90-UPIO0039 | $V I T Q A G E P A R R E P L E G P R E L R L Q G P A G T T R V E I E T$ |
| UniRef90-R6TUK2 |  |
| UniRef90-R9LZ80 | $\square V V K V K N K V L R T N L A E D G Q Y E V D G T D G A V H I E V Q D$ |
| UniRef90 | KIDNKVEKKVPLNKSSKSDTYQDDFNNNIIEVKD |
| UniRef90-UP10004648083 |  |
| UniRef90-UPI00047832E7 | VRIEVDGKLVETIEVTASVQFVEIPGYQGHNVLEIST |
| UniRef90-R7PFE5 | V SLDGTVVKTLDL SKDTEITVTSPNGTNHLIVKD |
| UniRef90-V718A1 | VVTVQGEEYKTiKLTGHTEELLVRTELGMNLLRVVD |
|  | TIDGKLYRTISLSEHNEQ! |
| UniRef90-R51 | SQDGKEVQR ${ }^{\text {a }}$ AMD ${ }^{\text {a }}$ |
| UniRet90-E3CX73 |  |
| UniRef90-UPI00047 | G |
| UniRet90-R606B3 |  |
| UniRef90-E6LEC6 | VLRVDGKEIRTFALASDGKTYDADGDY NIIEVSG |
| UniRef90-A5N084 | IIVKVQGKIVKDLPLNKDNKVYKFNFNNNYGYI ETKN |
| UniRef90 UPIOoos ${ }^{\text {a }}$ | TVDGNKLGTYSLKGKDQTISTGGH TNICEIKD |
| UniRef90-B8GP60 | GTEAARDLDRDALVEVPGPAGDTRVEAD |
| UniRef90 Houp | SNGTIMIRAEDGFNLVERG |
| 551 |  |
| UniRef90 G5II79 | KWEVSVVDGTVVEQLLDL |
| Ref90-UP10003B | VLVNGKEQVSLSLE ENQSYTI DGYGGENHLVI QD |
| UniRef90-R6S131 |  |
| UniRef90 R5NNK3 | DIM ${ }^{\text {V G }}$, |
|  | NGEVYE |
| UniRef90-10AG53 | VTVEGDYGKTGLKDR |
| Ref90-N9XR | NGEHIIN |
| UniRef90-UP10003782193 |  |
|  | D |
| UniRef90 R5MIR4 | AEKREFTLDNGD VIAAEN |
| UniRet90-C6PQN1 |  |
|  |  |
|  | HKYPAKGOY |
| UniRef90-A8SM |  |
| UniRef90-G9Y | VIHVNGDIYKTi PLHSGTTMFTVETDTGYNTILVRE |
| UniRef90-K9D3D8 | RAVITQDGKVLYDIPLTGHKDERIEDERGENTIRIED |
|  |  |
|  |  |
|  |  |
| UniRef90_UPI00047D0E20 | VGETVKEDPLSEDAEFVATGYEGGENKVIVKD GELYGTYSLGKDQVIATGDGNVCEIKN |
| UniRef90-UPIOOO3B779E7 | GKEYGKYELATNQSIKAKYNGKVINVLQIIKD |
| UniRef90-R7BID 4 | VEQNSVQपAVLDLN KDC |
|  | NPYTFRLEYGDGEND LVEN |
|  | GEVVRRVPLSQDCE |
| iRef90-R6 | NGKLIKTVSDLSPDKEYEIKTENGNNTITVGE |
| UniRef90-F8E873 | FLLIGQKQYEIPF EDGUIDLNSKYNVNMI EIKD |
| UniRet90-C6J117 | RVDNK FKTVKLTDEPQLIEEVKTERGYDILKU HD |
| UniRef90_T3P11 |  |
| UniRef90-G9WIL0 | N |
|  |  |
| UniRef90-R5X |  |
| UniReef90- R5 | VI RVDGEVYKKIDLDTVTVD |
| UniRef90-V5XPR6 | VVKIDGKEVERFDLDEISSKYPSDTQY NIVEIHE |
| UniF | DGKEYGTYSLE KDQMI |
| UniF | VVTQTKDGFYRADPLDADA |
| $\begin{array}{ll} \text { UniR } \\ \text { Unin } \end{array}$ | VTVDRKVT SYSLQ KDQTMR\| ESQNGQNELVI EN |
| niRet90-C0E | TENQTIEVEYDGRVNTVEIKN |
| UniRef90-R7ESZ2 UniRef90 B8HZX2 | VYSLSVDG EYKVESGGYTLTLEIEN |
| UniRef90-UPI0003A3B654 |  |
| UniRef90-UP10003678998 |  |
|  | DQVQ: TVNGE:YGTYPLEKDQT: EVTEGEFHNVIRIEG |
| UniRef90-10G UniRef90-s2 |  |
| iRef90-U7URC8 | LPLHTGTDTFT\RTERGFNTVVVKE |
| ef90 D1B813 |  |
| UniRet90 ${ }^{\text {¢ }}$ - 42 LLG 3 | TSFGHNTLKVFD |
| UniRef90-UPIO002893562 | GNTKEFTVYTKSGDYNTIEVN |
| UniRef90-Q0EVV1 |  |
| 003В4В0С |  |



|  |  |
| :---: | :---: |
| UniRef90_R6CAC6 | LLRVDGKEIKTFELSEETYTYTYEDEHGDNVI |
|  | VISOEGRELYCIDOVDAPYDTSTGGEYPDVVIHVEK |
| Ref90- EON | KVNGKVVKTi KVDGNGKVEHI HTEFGDNEI MFTK |
| UniRef90-C5VNB6 | AEINVKGKLYKKVILDNKKETLNIKTDUGENDICTEN |
| UniRefoto-R6GZR2 | UWSDGVLVRRVSL A SDQSFTVDSPYGSNTVTVQN |
| Unirefoto ezan P | TYTDKEVYGYYDLNKNQT HI NKENTLKIEN |
| UniRef90-E3HDE88 |  |
| UniRef90-I5AVS7 |  |
| UniRef90-F5RGJo | $N G S H R \\| A G A L G G L G D T V I E V Q P$ |
| UniRef90-E4TFK3 |  |
| UniRef90-G4E4B1 | FARLAL DQPQFLEVPGPAGTTLVEVRE |
| UniRef90-D4JFA4 | VTVKNEEVLRLDL SQDEEYEVDGTNGKVHI EVKD |
| UniRef90 UPIO00375A9C0 |  |
| UniRet90-LOD | VKAGNDIMKEMPAKDDDF |
| UniRef90- UPI0003B6F0 | LVTEKDKRTLPFHDSTYELT TETGNHVIEVNA |
| UniRef90-UPIOOO37DC101 | QVDGETYQTVKLTKETQWDETKTDRGYDRLRVRD |
| UniRef90-D3C | FVGQKIVMRIALRPGQAERELSVPHTAVKLRLTD |
| UniRef90-UPIO001E2DE37 | VIKVNDRVIEEUDLDTEPRKMEPPGYY NEVVLVEK |
| UniRei90 C2BCF4 | VVEQNGKVIKKMPM |
| UniRet90-H5Y1 | SRDGKRVKEI DLNKVEEPQYDKFEDGKVTILAEK |
|  |  |
| R3W | DGKEVERFYLKVKNKT |
| UniRef90-F7NPK0 | El AQEGTVLYRLNLSQETQTLRITGHGGSNIVLIEN |
| UniRef90_R7L3A1 | SILDGETVMKKSLSDEG TFTVP QIPNMEFEIAD |
| UniRef90 R6ZJ32 |  |
| iRef90-N1ZJF9 | SQGYNILQIQN |
| R6C |  |
| W0EB | I QVDNKVVKKVALNSEVKTYEFSFNGNIAS ESKN |
| UniRef90 R7R0 | EVV ${ }^{\text {a }}$, |
| UniRef90 Q24ZA3 | VVENEVAQRПPLKVQEETYEFKFRDQTGYLEVKN |
| UniRef90-SOKUW2 | GEEVNRFDLDKINHKDPSKGQY NIVEIED |
| UniRef90-R2REK8 | VLSVDGKEIKTFDLNSQAYTYRYEDKDGDNLIEVKG |
| niRef90_D9Q |  |
| RUU | VSYKDRELRKSLSLIND VYTVKGTLGDV |
| UniRet90-UPIOOO2EE | I SSRNEEVKRVTLKGTERL |
| UniRef90 ${ }^{\text {W4 }}$ |  |
| UniRef90-R9N5V8 | G |
| UniRet90-W6T8N2 |  |
|  |  |
|  |  |
| $\begin{aligned} & 7 \mathrm{VMB} \\ & 17 \mathrm{~V} 0 \end{aligned}$ | $V Y$ VNA QLK YVYPLIQ |
| iRef90-W6N8S6 | T DL NKVEKSYEFT TKYGKNKIKVEK |
| - | K |
| J20xB9 | ANG |
| $\begin{aligned} & \text { UniRef90_R8W148 } \\ & \text { UniRefon_UPIOOO47C9D2C } \end{aligned}$ | ETVVGGKVIQTYDLYVDQ TVETKGEFGNNTLVVMED |
| Un | A |
| F |  |
| UniRei90-UPI00028A403C | D |
| UniRet90-W4DZ23 | GKAYKTVQLTKEEQUDIVTRYGHNTLKVYD |
| UniRef90-ToVBL7 | DGKEDKEFDLEGQDSTYRYEDPDGDNLIEIAG |
| 311 | KEKRQLKI NYND |
| R9E | KLIKTINLSTVKNSEEFIIUKYDNKlIKVEK |
| UniRef90-R7AZ62 UniRef90 A5Z4L |  |
| UniRef90-G9EV13 | IKQDGKEKVDLSKVKKKRQLKI NYHKGYNUIEIDK |
| UniRef90-U2ET48 | VVVEYDNKNVLETP |
| UniRef90 E6U1E0 |  |
| UniRef90-E3DMG8 |  |
|  | KVSGQYDEFIVADQK |
| UniRet90-B5YAs | PLGMSIVEYVK |
| - OF FV2 2 | EDGIVT LAEN |
| UniRei90-FOPGF8 | VVKIDGKEYERINLDNPKEFTPSKGQY |
| UniRef90-K8E712 | ISADGKEVKQl VLTGHTDTYRYEDEDGDNLLEIKD |
| UniRef90-171VC0 | RVNNQQVKVITKLGEHKHTWTYNHHNEKNIVEVNN |
|  | S |
| UniRef90 R5KLB3 | VEIEQNGAVIHTMPLDTDA VYNVEGGKVTNTVQVKN |
| eef90-S1QX18 | KGKEVERFD |
| UniRef90-R5LB94 | NK SLRFDLNNDDKDIIIEGLLGESKILIKD |
| UniRef90-UPIO00368 | SVDGLIKYKLPRSSEPSSLI I QGVHGQTLVADAQ |
| UniRef90-V5XUQ4 | AVLRVDGTEIKTFPLVTETKTYLYEDDHGKNVIETDG |
|  | GLEYGTYSLAKDQVI A A G it ivel Kn |
| UniRef90-UPIO0035EEC2B | QHEPL DRTVLEDQGPAGDTREI EP |
| UniRef90-R5APS6 UniRet90 UPIO004643578 |  |
| UniRef90-Q04EY8 |  |
| UniRef90-E4RMM3 | P TGTHHDEDIQ |
|  | D |
|  |  |

UniRef90R6CAC6

UniRef90 R6CAC6
UniRef90-R3WU82
UniRef90-R6MZC9
UniRef90 E0NLX6
UniRef90 C5VNB6
UniRef90-R6GZR2
UniRef90-E2NNP7
UniRef90 E3HDE8
UniRef90-UPI0002FE7238
UniRef90_I5AVS7
UniRef90 F5RGJO
UniRef90-E4TFK3 E
UniRef90-G4E4B1
UniRef90-D4JFA4
UniRef90-UPI000375A9C0
UniRef90-LODSQ6
UniRef90-F4A1T1
UniRef90 UPIO003B6F076
UniRef90 UPI00037DC101
UniRef90-D3QZ17
UniRef90_UPI001E2DE37
UniRef90_R5BDF2
UniRef90 C2BCF4
UniRef90_H5Y1J8
UniRef90-R5WEK2
UniRef90 R3WNA1
UniRef90-F7NPK0
UniRef90-R7L3A1
UniRef90 R6ZJ32
UniRef90 R6LWJ8
UniRef90_N1ZJF9
UniRef90-R6CVD5
UniRef90-W0EB98
UniRef90_R7R000
UniRef90_S4D0P8
UniRef90 Q24ZA3
UniRef90 SOKUW2
UniRef90-R2REK8
UniRef90-D9QUR8
UniRef90_R6UUX9
UniRef90-UPI0002EE9BB4
UniRef90-W4V153
UniRef90 ${ }^{-}$C5CFH2
UniRef90 R9N5V8
UniRef90-W6T8N2
UniRef90-A3DCWo
UniRef90_R7BTI4
UniRef90-L7VMB9
UniRef90_U7VD96
UniRef90-W6N8S6
UniRef90 G8M0R4
UniRef90-U2QXB9
UniRef90-R8W148
UniRef90 UPI00047C9D2C
UniRef90 C0GJ96
UniRef90_UPI00046946EF
UniRef90-F7MH47
UniRef90 UPI00028A403C
UniRef90-W4DZ23
UniRef90-TOVBL7
UniRef90 B1IDD3
UniRef90 B9E5K9
UniRef90-R7AZ62
UniRef90-A5Z4L7
UniRef90 G9EVI3
UniRef90-U2ET48
UniRef90_E6U1E0
UniRef90-D7CJC3
UniRef90 E3DMG8
UniRef90-S0FFM3
UniRef90-B5YA55
UniRef90 LOF6V2
UniRef90 W7ATJ1
UniRef90-FOPGF8
UniRef90 K8E7I2
UniRef90 I7IVC0
UniRef90-R5D6Q1
UniRef90-R5KLB3
UniRef90 S1QXT8
UniRef90 F2JQ80
UniRef90-R5LB94
UniRef90_UPI0003687F17
UniRef90 V5XUQ4
UniRef90-R5WTY2
UniRef90_UPI00035EEC2B
UniRef90_R5APS6
UniRef90-UPI0004643578
UniRef90_Q04EY8
UniRef90-E4RMM3
UniRef90 H3SGA7
UniRef90-D5U481
UniRef90_D9ZEA

D

EE

UniRef90_UPIooo288A4A4
UniRef90-A7HN88 UniRef90-R6YD79
UniRef90 ${ }^{\text {S6CJJW8 }} 8$ UniRef90-D5ECH8 UniRef90-D81BZ9 UniRef90-UPIO004637AF2 UniRef90-R2RS66 UniRef90-V2QEX2 UniRef90-D4KDJ6 UniRef90-W7D909 UniRet90-K1Y2T6 UniRef90-G4Q7A9 UniRet90-UPIO0040E13BB UniRef90_C7HTA3 UniRef90-R7G889 UniRef90-UPIO0031C18AE UniRef90-B81250 UniRef90-W7D3D7 UniRef90_R5A858 UniRef90-K4L880 UniRef90-G4KU38 UniRet90_R5Q5T7 UniRef90-B6G1MO
UniRef90- 2025142 UniRef90-J2Z6F9 UniRef90-R5JGK3 UniRef90-C7TLE7 UniRee90-UPI00036B4B30 UniRef90 D6GRS8 UniRef90-R7FEE9 UniRef90-UPIO0037D276D UniRef90-UPIo003B65DDB UniRef90-171Z35 UniRef90_UPIO00465393D UniRef90_14A7R9 UniRef90_B8CY09 UniRef90-V2ZKB9
UniRef90 K4KV85 UniRef90-B0VHG1 UniRef90-17LNN7
UniRef90 R6XCV9 UniRef90-J9H016 UniRef90 UPI00037B3CF9 UniRef90-F4XEE9 UniRef90-L2LMX7 UniRef90_C4FA22 UniRef90_17OX86

UniRef90_R7H2G0 UniRef90-KoIYZ5 UniRef90 UPI0002EA845A UniRef90-M5DZ81 UniRef90_UPIOO047E561E UniRef90-s1NZZ3 UniRet90_C9A616 | UniRef90-C8WMP2 |
| :--- |
| UniRet90 |
| - $4 \mathrm{JYI7}$ | UniRef90- F1TDM3 UniRef90-H2JB16

UniRet90
D2RN89 UniRef90-12F2Z4 UniRef90-R7M275 UniRef90_S2LZE4
UniRef90 R4BND 1 UniRef90-S5Kk92 UniRef90-UPIO00255BD67 UniRef90-UPIOO047510DA UniRef90_A6LJI5
UniRef90 LoK6T5
UniRef90-B7CCW3
UniRef90-G5GGI3
UniRef90-R5HT32
UniRef90-R7IWP9
UniRef90-J3JBU2
UniRef90-D4H7G7
UniRef90-K6S3B5
UniRef90-TTREJ6
UniRef90-D4JTL1
UniRet90-U2TES4
UniRef90-R7HGQ3
UniRef90-K2PVF7
UniRef90_UPI000368B8E2
UniRef90-G5K395
UniRef90-U5F7P5
UniRef90_UPIO0037C9F89
UniRef90-H9U9L1
UniRet90-A6NT42
UniRef90-G6CG66
UniRef90-D4KBK0
UniRef90 SOKEKЗ KGVVVR\|SGKETYYFDKPGEWK ITNNEDGKY TTTLHYDG $V V E Q N G Q E V A R R E L S A G P E T L S L T G E N G V V T I T F T P$ VVTHDGHEVYRKRLTGHTGTTQFTAKDGDNKIEVQG
$K$ I I DTPSK S DRYDRNT DREWMEGLIGETTIIIKD KVEITVDGNVIQTLNLN EDGELLVHGFNGGTVVVKDK VLRINGDEVKRFSLVEGKKTYRYENEDGDNVIEIAG
VEDIQDGKDIYTLDLKNKDELIEVEFQGCKNTHQUKD VVKVDGKEFKRVDLTGHKGTKKVKAEDGDNDIEVKD KALITEDQNIIAELDLNKDQEVEIKTLKGNUVLEIKQ KELV:QKDRAV: KRVDLVTADTKLT: VELLNGKEYGKYPLNKYKKFKIKIDDDEYNIVEIKN KEVVVSFKNEEVLRVPLNKDETYYVSGTLGDVAVEVKN
 VIKVDGKEYKSVDLTGHKETFRIKADDGDNDVEVKD KAlVEKGGEVVLERDLASEPETHTLEGEQGEVTVELSQ

TTKDNQTYGYYSTN EDQ TK DDO KNTVRLS
 VISHNGKKVYSDKLTGHKRYQAADGDY NDVEIKG DKVE| YYDNKVYQECSINDTKRWINDKSGDVYNDIS: HD IVKVNGLQVDEMPAEGQAKEVTYHPNEGQNDVEVKG VISQAGASPQUSQVTQAYTTTMDGENGENVVWVHD LVISSAGASPQHEPQDRHRVLEVNGPAGTTR EVEP KEEKVLSI DLDDGQYSVEGTNGKVNI EVKD
 VVIENEVKERDPLVVKEETQTHEFKFRDQTGYLEVKN
 QVYIYKDNQLFGVYSLE QDKVIKIDEH NTVEIKN

TKNQTYTYQDGDGIDNKEVRD SKDQMLDVEAKNLTVHVE:RD VVKDDGEVVDKFNGSQVNESFEKTPQNGLKNVQVEP GENVISE VIYQDDTVVRRDDLNTESYT TT TSGEDGENVIGVSP VISLENEVLYEINLSDHNETFDIHTHDHETTVEVVN EADIFEVEGPGGTHIIEVNQ VLRVDGKETKSFKLKGQNESYRYEDADGDNLI RVKK IVRUNGEEVDRFNLEEEKTYYSAEGQYGNVVEIKD NPYTLRLEDERGVNVVAVEP VVDFGGGПTEVLPL DKDYDYLYDVGSYVVHVKD
RAITKKNDKVIRRTNTTSKREVINVSG DHKATIVAEK DKVLVVRQDQQVIQRIELKTSETKLMVPTEHGEVVIVYDR
DKVLVVRKDQQVIQR円ELKETKLIIPVDHGELVVAYDBEG VI SDDGKLVRKVTLSGNKRHYQFTGEYNIIEVRDRD
 VITQDNKVIKKIQLTENKRTYQFSGDGDEDTVEVQK
 KEVVVTLDQQEIARYPLTNNQQEFTIKGKEYQGVLRMKE
 KT NLKTNN DYYVNGYNGEVVI EVKD KNAVIRQNGK VIGEGDRNGEYNDIEEVNGSDGSNTTRVRD EKKLFLISNNVKKQUKLNENQMTELHG GDVIIEVTK
 IYSNGRLIKTVELDSEEQTFTVYSDDGYNVIKVSG
VVYYEDKE!LK DDLNT NKEYTVKGY DGDVVLEVKN LRVEGKVIKTFDLH KNQTWTYHSKDGDNEI QVKD KQUVIILDDQELYRYRLEKDNRDKKDEGETYQGMLRIKD II KUNGKVSDEFQLHEEKTYYPQKGHY NIIELSG KEVVVSYKDKVVKRWSLTMHVYEVKGTLGPVKVEVKD VSQDGKVVREIPLTGHNEQFTIKGKGAQNLMEVDG EDFVYVRVQGEEVFTVEEPGEF YKNQQGKYGITTLHFDG EDFVYVYVNDTLYEADPGSEDKLDEDDQGNGVNHVQRKD


UniRef90-K0IYZ5
UniRef90 UPI0002EA845A
UniRef90 ${ }^{-}$M5DZ81
UniRef90_UPIO0047E561E E

UniRef90 S1NZZ
UniRef90 C9A616
UniRef90-C8WMP2
UniRef90-D4JYI7
UniRef90 F1TDM3
UniRef90-H2JBI6
UniRef90-D2RN89
UniRef90 I2F2Z4
UniRef90_R7M275
UniRef90-S2LZE4
UniRef90_R4BND
UniRef90 S5KK92
UniRef90-UPI000255BD67 D
UniRef90-UPIO0047510DA
UniRef90 A6LJI5
UniRef90 L0K6T5
UniRef90-B7CCW3

UniRef90_E4KQ69 UniRef90-G9PTG9 UniRef90 L1N7Z6 UniRef90-F9V9Q4
UniRef90-B2A445 UniRef90-D9TTP UniRef90 R6R676 UniRef90-F3AZQ2 UniRef90-D1Y204 UniRef90 Q02YJ9 UniRef90-R7FML8 UniRef90-R6E4P7 UniRef90-C8NGT0 UniRef90_U2KV02 UniRef90_D3PC02 UniRef90-E2ZHE2 UniRef90 A1HRM2 UniRef90_UPI00037D4B8E UniRef90_R5ESJ3 UniRef90-UPI0003B367E6 UniRef90 F7YY87 UniRef90-G9RNA3 UniRef90-H3NBY5 UniRef90-R9C515



UniRef90_E4KQ69 UniRef90-G9PTG9 UniRef90_L1N7Z6 UniRef90-F9V9Q4 UniRef90-B2A445 UniRef90_D9TTP0 UniRef90-R6R676 UniRef90-F3AZQ2 UniRef90-D1Y204 UniRef90_Q02YJ9 UniRef90-R7FML8 UniRef90-R6E4P7 UniRef90-C8NGT0 UniRef90-U2KV02 UniRef90-D3PC02
UniRef90-E2ZHE2 UniRef90 A1HRM2
UniRef90_UPI00037D4B8E UniRef90_R5ESJ3
UniRef90_UPI0003B367E6
UniRef90 F7YY87 UniRef90-G9RNA3 UniRef90-H3NBY5 UniRef90_R9C515

|  |
| :---: |

[^0]| UniRef90_E4KQ69 | Q |
| :---: | :---: |
| UniRef90-G9PTG9 |  |
| UniRef90-L1N7Z6 |  |
| UniRef90-F9V9Q4 | D |
| UniRef90-B2A445 |  |
| UniRef90-D9TTP0 |  |
| UniRef90-R6R676 |  |
| UniRef90-F3AZQ2 | E |
| UniRef90-D1Y204 |  |
| UniRef90-Q02YJ9 |  |
| UniRef90-R7FML8 |  |
| UniRef90-R6E4P7 |  |
| UniRef90-C8NGT0 |  |
| UniRef90-U2KV02 |  |
| UniRef90-D3PC02 | E |
| UniRef90-E2ZHE2 |  |
| UniRef90-A1HRM2 |  |
| UniRef90-UPI00037D4B8E |  |
| UniRef90-R5ESJ3 | E |
| UniRef90_UPI0003B367E6 | E |
| UniRef90-F7YY87 |  |
| UniRef90-G9RNA3 |  |
| UniRef90-H3NBY5 | E |
| UniRef90_R9C515 | E |
| lupas_21 |  |
| lupas_14 |  |
| lupas_28 |  |
| jnet |  |
| conf | 9 |
| sol25 |  |
| sol5 |  |
| sol0 |  |
| jhmm |  |
|  |  |


[^0]:    lupas_21
    lupas_14
    lupas_28
    jnet
    conf
    sol25
    sol5
    sol0
    jhmm

