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| $R$ | $E$ | $L$ | $A$ | $H$ | $T$ | $K$ |

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D R DLLR RE



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## D RELD

 $D R L A$E K T L

## D RLA

K K T ML A I GEP V P P S T T T V

D R DRFN R L M S D L G I A QP E G G S A T S E A E A A L E A L A A D E E L G G Y P C N R DIE L R R L A A E K L R L L P T T K Y F F A E D A E D V V R RAC K DLL G F P C D R DLLFRNL MRELVNEPVPESDDVHTVDEALAFAEQAGYPVV D R D K F E $\quad$ Q T L V E L $L$ G $\operatorname{L}$
 DRERFQ
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 $V V K P I M S K G Q S V I K T P A D I E A S W Q Y A Q E G G R A G T G R V V V E$

 | $V$ | $V$ | $K$ | $P$ | $V$ | $M$ | $S$ | $K$ | $G$ | $Q$ | $S$ | $V$ | $L$ | $K$ | $S$ | $P$ | $E$ | $D$ | $L$ | $H$ | $K$ | $A$ | $W$ | $D$ | $Y$ | $A$ | $M$ | $S$ | $G$ | $A$ | $R$ | $V$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $V$ | $N$ | $A$ | $R$ | $V$ | $V$ | $E$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $V$ | $I$ | $K$ | $P$ | $V$ | $M$ | $S$ | $K$ | $G$ | $Q$ | $S$ | $T$ | $V$ | $R$ | $T$ | $A$ | $E$ | $E$ | $L$ | $E$ | $A$ | $A$ | $W$ | $T$ | $Y$ | $A$ | $V$ | $A$ | $N$ | $M$ | $R$ | $G$ |
| $D$ | $R$ | $R$ | $K$ | $V$ | $V$ | $E$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



## V <br> V

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 L L K T R R F GYD GKNQ LK LDDRP DEQTCQEA LK TF Q GQP CIL E $M L K A S A G G G G G \square G M Q V V R G P E E D Q K A F E A T D F F G D G A M Y V$ G IL K T R R F K G QV R L R E G D D L A A A WA A M Q $I L K T T R R G Y D G K G Q A R \quad L R A P A D A A A A L A A M Q G A P A V L E$

 V L K T A D G K G Q WVI R G E A E I E P A


 $V L K T R R F K G Q R V Y R K G D D A S G G Y Q A L G A V$






 II RPS F T L G G SGGGGUAYNRDEFEQTAHGLDESPTHEVVLDE
 $V V R P S Y V L G G R A M E V V N D E T A D V R Y M T E A V K V S D S P V L L D$ LVRPSYVLGGRAMEVVHSDSELEEYIEEAVRVADKPILVD


 II K P S S G H G H EVVVYN E S E V E Q K F K E A IT H A R G K S E QV IVV E





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$D R G E$
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NKAGA
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 $M \mathrm{ML}$ K S C D GKG N F L I R SKS E DK E GY Q A L G


 I IVAS G GGGGR GMRVV H H E K D L M T K K A E A K A A F N N D M V Y M E
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 LV R P S Y VLGG GRAMEVVVNESS LQQEYMARAVQASSDHPVLVVD $L V R P S Y V L G G R A M E \| V Y S L D G L Q D Y L T R A A H G S G K E I F L D$

 $L V R P S Y V L G G G R G M E D V Y D E A T L E D Y Y T R A T E L S D$ IV V KR R T G GY GR GQ WRV R P GDEAE LPA D DV G
 $V V R P S Y V L G G R A M E I V V D L D D L R R Y M T E A V S V S D S P V L L D$


 $L L K S V K G G G G K G M R I V R S D E E F E A Q I Q S A R Q E G G E V M L V E$



 $M L K A R R L A Y D G R G N A V V Q S R E E L E G A V E Q L G G Y G Q G L Y A E$







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 I L K TV V S G GY D G H GQWPVVESES D DA QLKADFPNVP LI L E



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 I V K $R R V G G Y D G R G Q W R D R T G E Q H G L P A D C Y G A$ I I R P SF TLLG GT G GNVA YNME EYKRY LE WGLDASPVEVVIV E MI KAVRGGGGKGMRIAAETEADFMPMLQSAKAFGDSAMLL E LVVRPSYVLGGRAMEI VYNDEDLRNYMETAVKDTPEHPVLV $V \vee R P S Y V L G G R A M E I V F D E E Q L A E Y F G K Y V P N N L E H P I L D$


 $V V R P S Y V L G G R A M E V V Y T P E D L E T Y M T W A V E V S P E Y P V L I$ V L K T A D GK G Q R I $\quad$ I R HP D E A E GA Y E A L A A L T S




## 1

LK T R

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 Q S V A GWK V V E F VMMR SNDNCIVT DCSMENVHTGDS IVVAP









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 K F LTK PRRHVEAQVLA DTHGVVV GTRDCSVQRREQKLI E EA


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DRQLFKKETVSAADVPVVPGSSGTTDTELAASARQTGLPV


DKDAARRLMKENNVPTTPGTDIKDAQEAVEAAEKIGYPV
 DRERFAAAMTKIGLPVDENGEANDAEGVAEAVRKLGLPA


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 NKVAARHVADEAGVPVVP

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## DRELFA


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 I I K A A A G G G G R GM R V V R S E A N L L L H A A E A Q N S F G S D V V Y M E $L V R P S F V G G G R A M Q I V Y S D S E L T H Y M R F A V E A S P E R P V V D$ $L I K A V R G G G G K G M R I V R T A K E F P D M L E S A N S A G N D E V L V E$ VVRPSYVLGGRAMEIVYSDADLTRYI RDAVKVSDSPVLLD
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 I L K Q R T Q GY D G R G Q F P $\operatorname{l}$ V



 V V R V $V$ R P S Y V L G GRAMEIV
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 $L$ I K A VA G G G GK GM R K VVAA S D A F L E A L E S C K R F G D D R V L I E



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 K M L H L L A E V $\operatorname{L}$ V V V L A R D E A G N V


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$P$ C
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D R
KAENKA MNDLNEPVAPGRIVHSVEEALEFGHEVGGP

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DREKF R LLKKLNINSPDGGSVTSLKEAYKLVSEIGYPV
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NRFKFSRM LDNDKISQPQWKELTQDDEVKTFCNKVRYPC
KQAMISAGVPVVPGALPDDPDYILATAERIGYPV
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DREKFR
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RKLFADEDDEKVAPSCAVYS
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KGVMRARLAEI GAPCPRNRIVSDPADAAAFAEEVGFPV

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 I VRPSYVIGGRAMKVVYNPEELERYLKEAVNDSKEHPVLV
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 LI K A VA GGGGK GMRKVDAAQDFADALTSCQRRFGNDHVLLE
 $M A R A A F S L G G G L G S G F A N T P E E L A A L A Q Q A L A H S S Q L I I D$
 $L L R P S Y V I G G R G M V V I Q D Q E Q L L D Y$ I D S S L K Q HAPAS R I F P I L K TVVRGKGVWVVRSEADAADPFRA
 VVRPAYTLGGTGGGFADNEEELREDCES GLKDSPHQCLI E MVRPSFVLGGRAMEVVYTDKDLKRYVENAVEDPDRPVLVD
 $\bar{M} I$ K A V S G G G G R G M R V A R R N R D E F I I K GF E S A V A F G D N S M Y V

 I I K A S A G G G G R G M R V C E R E D D L R N Q F E S A V R F N N G EVVI E


MV R A A F AL G GM GS GFA D DKE EL LTALAASMALA NSK QLI I D


 $V V K T A R G K G V R V V D D K G G A D D W F Q A L A E D G R G G A$
$M$
$L$

 IVVKAAA GGGGRGMRVVAHNE EVLIS SDEAAAAFGSDVV Y L E



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 CLK ARRGGY DGK GVWFPKDESELTAALVSDLTRRGVPLMAE
 $M L K A S G G G G G G G M V L C E N E Q A L V K S A R A K T Y F G S D E V F I E$ $\bar{L} V$ K A S A G G G G K G M R VV
 II K A S L G G G GRGMRDVVRSES EVVEAYERAAA FGNDEVVVVE M K A S A G G G GRGMRFV R A A ELLA QVRTAHAFGSDELI L E
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$P Q D L E A T T D E R D E E A T R K \square G \square A L N V T G P F N D Q F \square A K D N D \square$ SQTLLTNSEYHKLREDADRIIRHIGIVGECNVQYAFDPEDY

 PAPMTEATRAVI CAAAVRAAKAVDYVGAGTI EFIVAGDRVV
 SQTLSNREYNMLRTTALIKVIDRHLGVVGECNVQYAPFSEEF
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P PAPMTTEMREAMGSAGVRAAQAVNYVGAGTVEFIVDADRF P S A L I DD Q R K QMG DA A V K GA K A V G Y V NA GTVVEFVVD K D N F



## \section*{ <br> <br> }

 GIT S KMRKFDGERCVNACDEI GYRGAGTFEFLVENGEF
 Q T L D D R DV S Q IE E DTVM LAARAMNVKGLMNVQFVVQDHQV
 P

## \section*{P}

P

P

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## P

P
PA PII P D A V V R K ElV $\operatorname{V}$ Q D S C I






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| UniRef90-IOIN10 |  |
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| UniRef90-UPI0001D2E152 | Q |
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| UniRef90-S2WE15 |  |
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| UniRef90_Q7NL74 | SMH |
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| UniRef90-U2DRE7 | PSSLTPEKRAEMGAAAVAVAKQAGYRGAGTVEFLVDGGDY |
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| UniRef90_O04H29 | VQTLSDREYQMLRDAALKIIRALKİEGGVNI QLALDPDRY |
| UP10003B49A72 | APDMPDMRQAMGDAAVKAARA GYKGAGT EFIVDADRF |
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| UniRef90-D5B | PQNLSDDTLAELRRQTTALAHALGVVGLMNTQFAIKGTDI |
| UniRef90 UP10004096A28 | GPSVTGKMKRAAAEAAGK1 VRKLEFKGMMNI QF ANGDEL |
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| UniRef90- D6YUA | SATLSNKELSELRETIATRSARRMNYIGECNIGYAPKNGDY |
| UniRef90' W4QW57 | PSPISDETRNEMGTAAVNAAKAVDYSGAGTVEFDYDNGNF |
| UniRef90 UPIOOO2F045D9 | PQKLYLETURRTKKDTRKIVKALNITGPFNIQFUAKNNQ\\| |
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| UniRe990-G7SUF6 6 | QQAQQQASAEAMLSKIMHQLNYGGMAMECFVVGDQL |
| UniRef90 Q9ZKT2 |  |
| D5UKX2 | SRAILREAGYVGAGTCEFLVGADGT |
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| UniRef90-C0CVY8 | DI TQDLRERMGDTAVRAAKAVGYENAGTIEFLLDKNDF |
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| UniRef90_8UDL4 |  |
| UniRef90_UPloou3A21 | R |
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| UniRet90_UPI00 |  |
| UniRee90 UPIOOC |  |
| 2P |  |
| 7G6J6 |  |
| UniRet90_UPI00047B | $\underline{k}$ |
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| UniRef90-A4C9N1 | PAPLSDSLRKAMGEAAVRCAQAINYVGAGTVEFLLCGNDF |
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| UniRef90 H1G5K0 | F |
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| 2 M | F |
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| UniRef90 E3D9U6 | GT |
| UniRef90-KoYwP4 |  |
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| UnRef90_W71G.jo |  |



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R G H


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|  | I KASAGGGGRGMRVARSQKEL |
| UniRef90-UP10002E9DB4B | YVIGGQGMTVAENQAELEGWLTAGREANFFPLLVD |
| UniReef90-13VT14 | LVRPSYVIGGQSMEKVNTGQE1TDYVTNAMKVSPGKPVLI |
| UniRef90 AOA0591AX6 | LKPVAGGGGKGMQVVEQAAEMQAAVAAAVRFNDGRLMI E |
|  | VKA |
| UniRef90 $\mathrm{A} A \mathrm{AO1R} 3 \mathrm{~B} 2$ | LKVARFGYDGKGQAVV |
| UniRef90-K2H1 | I ARRGGYDGR |
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| UniRef90-UP1000287D27E | SYVIGGKGMIVINDEDELVSFIKD\PEDTYPLLID |
| UniRef90-UP100047B7F41 |  |
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| UniRef90-M2WCX9 | AlKAAFGGGGRG\KVAEEDPELYESAEAVAAFGRGECFVE |
| UniRef90-UP100041CF8CC | GRGMR\VQKASDVRAALEAQAGFGDASLLLE |
| UniRef90-B2KDY7 | VIKATMGGGGKGMRAVMKEEDLDKMMQMAAAFGDDRVYFE |
| UniRef90-H5UN21 | VIKTPRGGYGKGVRVVDSPAVPDCADWFERAAGDGMEAL |
| UniRef90-H2F) |  |
| UniRef90-S7ZSE8 | MLKAYDGRGNFRVNSKADMPEALEALK |
| UniRef90-J7L0J5 | AIKAAFGGGGRGLKVAHTLDEVTDAYESAVRFGRGECFVE |
| UniRef90-UPIOOO2 |  |
|  |  |
|  |  |
| UniRef90-M9LZ- | MLKSRTQAYDGKGNYVVKSPDQAAEAVAALGDGKRGLYAE |
|  |  |
| 211 | A AYGGGGRGMKVAWRLDEV |
| 1000 | VRPSYVLGGRGMEVVYEDSLRRYLENATEVSN |
| UniRet90 A0A02400U8 |  |
|  | LVRPSYVLGGRAMRIVYDDDELKQYMDEVAVSDSSPVLI |
|  | MLKASWGGGGRGMRVIPDEKSLLKEVVAAKRFGKDEIYLE |
| UniRef90 UPI00035DFF9F |  |
| UniRef90-UP100036EC257 | Y |
|  | YVLGGQGMKIVINKQELEEHVVDLLRIIPNNKLLLD |
| UP10003 |  |
|  | KAVSGGGGKGMKIVGRREEFAEQLESAKRFGDDEVLLE |
| UniRef90_R5IM | RPSYVLSGAAMNVCYDREGLENFLQLLAAHVSKYPVVVS |
|  | GSGG |
|  | M1 KASAGGGGKGMRVAENDKEVEEKAEAKSAFGODSRVFIE |
| UniRef90 WOT8A8 | MLKSRDGRGNFV |
| UniRef90-Q67MC6 |  |
|  | G |
|  | GMAIINNESELKEYAQDIEVVSSSPLLID |
| UniRef90 R516M |  |
| M5 |  |
| Q92210 | KSRDGRGNFVVKKSYCEKALELKK |
|  | RPSYVLGGRAMEVVYEPCDLDNYFKKLKNNHDTPILD |
|  | KATSGGGGRG |
| AOP | VVKAVRGGYGRGVQMARDLIA |
|  | AVKAAFGGGGRGMKVIRTLEEVPELFESAAAFGRGECFVE |
| iRef90-UP10003740499 | VLKTTRFKGQEVV |
| UniRef90 F5YM13 |  |
| R6QUH0 |  |
|  |  |
|  | IVRAAYCLGG LGSGFANNKEQLTSLVTEAFATSSQVLIE |
| UniRef90_K6V | VVKAVRGGYGRGVWLLDDRDEALDVFDQTD GSVGLIAE |
|  | MLKAAAGGGGR |
| UniRef90-UPIO003F0D25E | M |
|  | A |
| UniRef90-R7GFP8 |  |
| UniRef90-UP100028966E0 | 11RPAYTLGGSGGGFANNRAELLVLHRGLNLSPDUHEVLIE |
| UniRet90-G4RB73 | VWKAAAGGGGGNGVKIVKSEASEDLS |
| UniRef90 Lik | G |
| UniRef |  |
| UniRef90-UP10001A62E43 |  |
| ef90-UP100037AAFC4 |  |
|  | A |
| UniRef90-H2 |  |
|  | IIKAAGGGGGRGMRVIHTEAALMTRAEAQSFFGNPNVYL |
| UniRef90-F3F4N6 |  |
| UniRef90- F9z8 | GGRGM |
| UniRef90-soJBK5 | MIIKAALGGGGRGMRVAHD |
|  |  |
|  | IVKAAGGGGGRGMRVVRSEAELIDDITEDSFFNNPDVFME |
| UniRef90-N6 | LIKARAGGGGKGMRRVDRPEDFAASLEAAKRFGDDAVLIE |
| ef90-FOY | MLKAASGGGGR |
| ef90_UPI00047C5 | MI KAASGGGGRGMRI AKDAEEFDKFFAMAAAFGDDGMY। |
| Ref90_TOIIT2 | GRGMRIVRSADSLEESYEAKASFGDDQIULE |
| iRef90-D4 |  |
| 90 |  |
|  | LIRPSYVIGGMGMIIVDSQAQLSQLLNDEDSMPYPILDD |
| UniRef90 J7QE76 | VRPSYVLGGRAMA |
| ef90_G2 | E1 |


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| Reef90－B4UL54 | Yi ERPKHIEVQVLGDHHGVHLFERDCSIORRHQKVV |
| UniRef90－UPIO002E9DB4B | FISGLE VEVDAVSDGENV |
| UniRef90＿13VT | V ${ }^{\text {a }}$ |
| UniRef90 A0A0591AX6 | RY HSPRH1 VQUMGDKHGVHLYERECS |
| Ref90 R6UAE1 | EIDAICDGEHV |
| UniRef90－C6XHJ8 | SVVLARDESGIVTSFPD |
| A0A011 R3B2 |  |
| Ref90＿K2 |  |
| UniRef90 F1WC | KMLPLAMYESVLAARGHDGKSVVYPIAENHRDGILFTTMV |
| ef90 UP1000287D27E | AYVPGDE ELDLCDGEEDIDPTDVEHEHSGDSHADMP |
| UniRef90－UPI00047B7F41 | Q AL |
| UniRef90－C1CXR4 | QFLEGALELDVDTLCDGERAVVAGTMEHV |
| UniRef90－M2WCX9 | RFLPRHVETQCLADAHGNVVVVSTRDCSLQRRNQKLL |
| UniRef90－UP100041CF8CC | RYVEKARHMEQVLGDAHGVHAFERDCSLQRNHQKV |
|  |  |
| H5UN21 | EAVDFTREIAVLVARSPSGQAAAWPVVEVQTGGICTEVIA |
| UniRef90－D9SLR9 | G |
| UniRef90－H2FX59 |  |
| S7ZSE8 |  |
| niRet90＿J7L0J5 |  |
| iRef90＿UP10004 |  |
| A0AO | GN |
| UniRef90－C7NO | KYıHPARHVELQILA ${ }^{\text {a }}$ |
| Ref90－M9LZ ${ }^{\text {a }}$ |  |
| Q75A67 |  |
| Q7MZ11 |  |
| UniRet90 UPI00037D485F |  |
| UniRef90－UPIO00225F | RHI EIQVLCDTHGT |
| UniRef90－C3XFR | $\checkmark$ Cl SDGES |
|  |  |
| P100035D | Q |
| UP100036EC257 | Q |
| A3UAT |  |
|  | KLVLNPHHVEFQVFGDTHGNA QERDCSMQRRNQK\｜E C |
| UniRef90＿GOT1R1 | RYITRPRHVEVQVFSDSHGNHLFERDCSVQRRHQKI |
| UniReef90－R51 | LEVMRDLADNVVIVCSITENVHTG |
|  |  |
| UniRef90 A0M004 |  |
| UniRef90－AOA059E |  |
| UniRef90 Q67MC6 | RHIEVQVDRYGNVVHLYERDCSIQRRH |
| UniRef90－B8HFQ5 |  |
|  | ALCDGKE |
|  |  |
| UniRef90－F9ZSM5 | ARVDLAAEFSLLLARGEDGMV |
| UniRet90－Q92210 | K WCPFTKELAVMVVRSLEGEV |
| UniRet90＿O8K9z7 |  |
| H8GK0 |  |
| AOP |  |
| UniRef90－C7PL79 | N |
| UniRef90＿F6EGN8 | RYLDRPRHVEAQVLADVHGV |
| UniRef90＿UPIO00374 | GN |
| UniRef90 R6QUH0 | KYLTSVRHVEMQVLADAFGN |
| UniRef90－P31327 | KSVTGWKEIEYEVVRDADDNCVTVCNMENVHTGDSVV |
| UniRef90－D3B835 | KSLKGWKEIEYEVLRDSHDNCITVCNMENFHTGESIVVAP |
|  | QKVPMRRELSAMIARSPFGQGAAWPVVEI QRKGQCAVVIA |
| UniR | DQ ${ }^{\text {a }}$ |
| UniRef90－R6E2X | $V$ Q ${ }^{\text {a }}$ OKEGVHL |
| UniRef90－UP10003F0D25E | $V$ QL GDK GV HL |
| UniRef90－S5NJQ7 | K |
| iRef90－R7GFP8 | K |
| UniRef90 UPIO0028966E0 | RSIRGWKEI EYEVMRDANDTCIVCNMENVHTGDSVVVAP |
| UniRet90 G4RB73 | KYVGQPRHELVQVIGDGQG |
| UniRef90 LIKXH3 | RFVATGRHVEVQIADGENVV |
| UniRef90－H4FAV6 | QRRNQK |
| 俍俍90＿UP10001A62E43 | KFI DNPRHI E DQCDRHGNAIYLLERECSI QRRNQKVI EEA |
| UniRef90＿UPI00037AAFC4 | 俍 |
| UniRef90 F8AY30 | RYLDQPRHVETQILADSHGVVVGTRDCSLQRRYQKLVEEA |
| UniRefoto－C7\％ | KYLENPRHVETQVDSFRNAVYLGERDCSMQRRHQKIIEEA |
| UniRef90－W2ENM9 | NVVVVSTRDCSLQRRHQKLVEEA |
| UniRef90－F3F4N6 | GNVVHLFERDCSURRNQK |
| Ref90－F9Z8S | DNYGNVVHERECSIQRKHQKL |
| UniRef90＿SoJBK5 | Y1 GNPKHIEVQLLGDSHGVHLFERDCSVQRRHQKV |
| UniRef90＿W2EK06 |  |
| UniRef90 UPIOOO2556418 | KF enPrhy rall |
| iRef90 ${ }^{\text {FOY }}$ | DAKHLEVQVLWHGDGVHLFERDCSVQRRNQKVVEWS |
| UniRef90－UPI00047C5447 | DPRHIEFQI DRYGNVVHLGDRDCSLQRRNQKVIEEA |
| UniRef90－Tollt2 | QLI ENPKHIEVQILGDQHGIHLYERDCSVQRRHQKV |
| UniRet90－D4MW93 |  |
| UniRet90＿UP10003C1672E | （1） |
| Un | Q P |
| UniRef90 G2J7W4 | HFLNDAIIECDVDCVCDGKQVWI GGVMEHIE |
| UniRef90＿M7U1P1 |  |


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| UniRet90-V6ATI3 | SQT NNREYHMLRSAALRGTKHVGI |
| UniRef90 UPI0002E9DB4B | APGLTEE |
| UniRef90-13VT14 | ARNLSDHEDSTIVEYTKKISCALKVKGLINIQFVVKDGVV |
| UniRef90-A0A0591AX6 | PTSISAEVREAMLNAAVNGARQIGYFNAGTFEFIVAPDNF |
| UniRef90_R6UAE1 | PQTISDKVRDTIVDYSIRIGKGFHFIGLLFNTQFIVKEEMV |
| UniRet90_C6XHJ8 | SPVISAQDRTEIGETCVKAMKKIDYRGAGTIEFLYENGQF |
| UniRef90-A0A011R3B2 | PARASTELRAAAAALAARTAEGLRYDGTLAVEFFVVRGEL |
| UniRef90-K2 ${ }^{\text {H } 1 \mathrm{H} 6}$ | PQQLHPQHQAQAEAMARALLEKLDYHGWMAI ELFDCGDEL |
| 1 W | PGPVSADCAMRAHDAALALIDQLGYVGVLCI EFFILDDGS |
|  | PSPLVERTREKLYSAARDAASAI GYTGAGTVEFLATDDGE |
| UniRef90-UP1000287D27E | AVSLTEENKQTVTSYAAKIVRELQEKGMMNIQFVVSDNHD |
| UniRef90-UP100047B7F41 | PAGLSPELEERAERDAREIIAGLGMEGMLCVEMFVTTKGEL |
| UniRet90_C1CXR4 | PVNLSAELLARVKADTERLALELGVRGLLMNVQWAVKDGTA |
| M2WCX9 | EQNERLYSSSKALLREAGYQGAGTCEFLVGQDGV |
| UniRef90_UPI00041CF8CC | - |
| UniRef90 B2KD | P |
| UniRet90-H5UN21 | PAPDLDDTLARV |
| UniRet90_D9SLR9 | PKNLSEVVLEKIQKYSRAIADGLKVIGMINI QYVVKDEQV |
| UniRet90-H2F59 |  |
| Ret90-S7ZSE8 |  |
| UniRet90_J7L0J5 |  |
| UniRef90_UPIOO047DD | PAPLSEDLIVVEAQRLAISSVAAELDVVG\\|LAVELFETTDGR |
| A0AO |  |
| Un |  |
| UniRef90-M9LZH7 |  |
| UniRet90-Q75A67 |  |
| ef90 Q7MZ11 | P |
| UP100037D485F | PVTLGPEVVQRVREATADIARGVG |
| UniRef90-A0AO24Q0U8 | PIDPAVIAETGERCAAACRHIGYRGAGTFEFLYEDGVF |
| UniRe |  |
|  | PAPLVPEDRRKLAGYALAICESVSYRGAGTVEFLMDADTI |
| UniRef90-UPI00035DFF9F | PAPLSETDRKEMGEASVRLAREVGYVGAGTVEYLVEQERF |
| UniRe990_UP100036EC257 |  |
| UniRef90_A3UAT7 | PFNLGDLVLEQIKDHTKKIALALNTVGLINI QFAVKEDKV |
| UniRef90_UPIO0037B19DA | PSPLVPELRQRMAEASVSLVKNIGYLNAGTIEYLVDGENF |
| UniRef90-GOT1R1 | PAPLPNELRERLYEEARKAARAVGYRGAGTVGTLDNDDEF |
| UniRef90_R5 | AQKIYFFTARRLKKISRQПAKELNTSGPFNIQFLAKNNDV |
| UniRef90-A5GLP0 | AQTLTDREYQRLRDQSTAIIREIGVATGGSNIQFPADGEV |
| UniRet90_A0M004 |  |
| UniRet90_A0A059E, |  |
| UniRet90_W018A8 |  |
| UniRet90_Q67MC6 |  |
| UniRef90 B8HFC | PSPLLEDVRDRIGEAACNAARSVNYTGAGTVEFLVSDDEF |
|  | PVRL |
|  | - |
| UniRef90-F9ZSM5 | CATEPTAVEAEARHMA |
|  |  |
| UniRet90_O8K9z7 | AYTLTNKIQNKIREQVKKLAFALSVKGLMNV |
| Ret90_H8GK00 | PSPLGEAQRQYIGGLAVLAAKAVGYTNAGTVEFLDDQDRF |
| A0PR17 |  |
|  | AFNLSPMEVTTMEYYAEKIARALDIRGLINIQFAIKGGQV |
| UniRef90-F6EGN8 | PAPLSDSQREEIUHTSAKAICREANYHGAGTVEYLVGQDG1 |
| P1000374 |  |
| 5M13 |  |
| R6QUH0 |  |
| Ref90-P31327 | AQTLSNAEFQMLRRTSINVVRHLGIVGECNI QFHPTSMEY |
|  | SQTLTDREYQMLRECAIKTVRHLGVVGECNI QYALINPDEY |
| UniRef90-K6WP | PATLPTDVAEQAQQMALRLANELGVVGVMAMELIFETDGEU |
| UniRef90-Q3AYM5 | PAC |
| UniRergo-R6E2X9 |  |
| 退90-U10003FOD | ( |
| Ref90_S5NJQ7 | - |
| R7GFP8 |  |
| UniRef90-UPIO0028966E0 | SQTLSDVQYQMLRNASVK\IRALK\VGGCNI QFAPASDEY |
| UniRef90 G4RB73 |  |
| UniRef90-G8X779 | PARIDDTVAQKAREVALKVSEAMNHVGLLAVEMFQTDDDU |
| UniRet90-L1KXH3 | PAPLDPVLREEMHRAAVALGKHLEYRGLGTVEFLVDVDRF |
| H4FAV | PAPLTDAQRQE\\|HDAAKRICAAAGYSGAGTVEFLLGVDGT |
| Ret90-UP10001A62 |  |
| UniRef90_UPI00037AAFC4 | PAPLSSALQAALREAALAAGRAVAYIGAGTVEFLVKDDSF |
|  |  |
|  |  |
|  | PAPIASRHVVRTGERCAEACRKINYRGAGTFEFLYENGEF |
| UniRef90-W2ENM9 | PAPLTEEQRDLLYSSSKAILREAGYVGAGTCEFLVGQDGT |
| UniRef90_F3F4N6 | p |
| UniRef90-F9Z8S3 |  |
| UniRef90_SoJBK5 | $\mathrm{PCS}$ |
| UniRef90 W2EK06 |  |
| 556418 |  |
| UniRe990-N6V | PAPMTEEMRSAMGEAAVRAARAIDYRGAGTVEFIVDPDRF |
| UniRef90_FOY412 |  |
| UniRet90-UP100047C5447 | - |
| UniRet90-Tolit2 | F |
| iRef90 D4MW93 | y |
| UniRef90 UPI0003C1672E | PSPLNPKLRDK IGERCAFACRKIKYRGAGTFEFLYENGEF |
|  |  |
|  | SLAPETIAALEAQTKSLAMALGVVGLMNVQFALKDGEI |
| N4 |  |
| niRef90-M7U1P1 | PAPlLDA TRLDLWDKARTAALAVGYVGAGTVEFTLDKDEF |


UniRef90-B4UL54
UniRef90-UPI0002E9DB4B

UniRef90 I3VTI4
UniRef90_A0A059IAX6
UniRef90-R6UAE1
UniRef90 C6XHJ8
$\begin{array}{ll}\text { UniRef9O-A0A011R3B2 } & \text { R } \\ \text { UniRef90_K2H1H6 } & \text { E } \\ \text { UniRef90_F1W0P2 } & \text { R }\end{array}$
UniRef90 A0A022LP20
UniRef90_UPI000287D27E UniRef90 UPIO0047B7F41
UniRef90-C1CXR4
UniRef90-M2WCX9
UniRef90-UPIO0041CF8CC
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UniRef90-D9SLR9
UniRef90-H2FX59
UniRef90 S7ZSE8
UniRef90 J7LOJ5
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UniRef90 C7N0V7
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UniRef90-Q75A67
UniRef90 Q7MZ11
UniRef90 UPI00037D485F
UniRef90-A0A024Q0U8
UniRef90-UPI000225FDBC R Q
UniRef90 C3XFR9
UniRef90-F2J278
UniRef90-UPI00035DFF9F
UniRef90-UPI00036EC257
UniRef90 A3UAT7
UniRef90_UPI00037B19DA
UniRef90_G0T1R1
UniRef90 R5IMB1
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UniRef90-P31327
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UniRef90_K6WPF0
UniRef90 Q3AYM5
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UniRef90_UPI0003F0D25E
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UniRef90-F3F4N6
UniRef90 F9Z8S
UniRef90 S0JBK5
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| UniRetoto-W9AGG3 | RPSYVIGGOSM |
| 0377C912 | Gl |
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| - | MMVVQSEAHL TALLDQPDHLP YPILID |
| Unirete-C8WL ${ }_{\text {Un }}$ | LikA |
| Unirefoto-Upioooze | LIKASAGGGGKGMRVVEKEEDLSQQM |
| UniRefoio-osfRed |  |
| Unirete 90 -UPIO00265775E |  |
| Rei90-H8x1H7 | M |
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| UniRefo ${ }^{\text {- K2RHD }}$ | T |
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| Uniref90-A0Аоз 1 M |  |
| Rei90-V9FNS4 |  |
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| Uniret90-W7osv1 |  |
| Unireteo--T5T4S5 |  |
| Unire990-A1wh | MVk ${ }^{\text {a }}$ |
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|  | V KKS |
| UniRei90-M3ANS0 |  |
|  |  |
| Retio-Diccn 4 |  |
| Retio-Moww 2 | MLKAAGGGMRRVHSKKEDELAFSTSANEAEKSDGSIFIE |
| UniRefoto R7RV75 | MLKFSRGGYDGKGN |
| Rei90-Jov |  |
| UniReforo-UP1000472EEFO |  |
| Ref90 F2U457 |  |
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| Uniefor- |  |
| UniRef90-G8JW 19 |  |
| UniRet90-K6YRS9 |  |
|  |  |
| UniRefoo-G7D5C3 | Mı KASAGGGGKGMRIAHSKAEVLIAKAEAKASFGDDRVFVE |
| Uniretio-T1W ${ }^{\text {Un }}$ |  |
|  |  |
| UniRef90_UPIO002D46E9C | MLKA |

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UniRef90 UPI000470E99E UniRef90-W7TGX8 UniRef90-W9AJG3 UniRet90_UPI00037DC912 UniRef90-UPI00047A907A UniRef90-U1PCJ88 UniRef90-A8FBW4 UniRef90-C8WLN3 UniRef90-Q4L5C8 UniRef90_UPI000255BA3F UniRef90_Q8FRQ0
UniRef90-A9DEB1 UniRef90-UPIO00265775E UniRef90-H8X1H7 UniRef90-G0S0B3 UniRef90_B9DST7 UniRef90-Q5P1Q2 UniRef90-X5HJC2 UniRef90_T5KIX3
UniRef90_I3UA44
UniRef90-R6CLG9
UniRef90 R7CZA7
UniRef90-R7CZA7
UniRef90_UPI0003B3933D
UniRef90-UPI0002F363A7
UniRef90_K4J2T8
UniRef90 R9GTE7
UniRef90-S2ZNY5
UniRef90-A0A031MIX9
UniRef90 V9FNS4
UniRef90 ${ }^{-}$A0A023F583
UniRef90-C6W1G4
UniRef90_W7QSV1
UniRef90-U5T4S5
UniRef90-TORKX4
UniRef90-A1WKK4
UniRef90_UPIOOO2884791
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UniRef90_UPI000360DA1F
UniRef90-M3ANS0
UniRef90 K2PLL2
UniRef90 ${ }^{-}$R5BIE5
UniRef90-D1CCN4
UniRef90_M9WW72
UniRef90_F7Z5E8
UniRef90-R7RV75
UniRef90_JOV730
UniRef90 UPI000472EEFO
UniRef90_UPI00047B4A63
UniRef90-F2U457
UniRef90_D8LQL4
UniRef90_Q75D66
UniRef90-H1X78
UniRef90-G8JW19
UniRef90-G8C031
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UniRef90_G7D5C3
UniRef90 Q1WUR7
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 D SYLA GVECEADVVSDGQDVII PGIYEHVEHSGDSMMIFP KYLTGMKHVEVQI I RHGNAVHLGERDCSVQRRRQKLVEEA EMVPFKNELAVIVCQNPSGEIKTYPVVEMEFHNQVEYVIC $\begin{array}{llllll}\text { E M M P } \\ \text { K } & \text { P K K N }\end{array}$ RWAEFVSELAVMVARARDGTVVTYPTVTEQRDSMCHTVVA E YVTGKE VEVDLISDGKTTFI PTIVEHIGESGDSFAILP







 KYLDKPRHVETQCLADAAGVVISTRDCSLQRRHQKLVEEA AMLPLDHEUSVVMARADSGETADFPDGNTHENGDLSTVVA SQFMTETNEIEFDGVAQNGEVVEYGISEHVHSGDATMTFP
 RFVAKARHVEVQIFGDGNGIALGDRDCSLQRRNQKVI EET



 H F L E GA L QA NFDEEMSLVGMRDKNGQCYFYPLANLHQDGDLTATVA KLIVNPRHI EVQQLADKQGNHFFERECSVQRRHQKI I EEA
 KY LSPRHIEVQVFGDAHGVLLFERDCSLQRRHQKVIEEA E YVDFDY
 SFMQRCKEI ECDAVADGGKVI AAADSEHDEHSGDATDQFP
 KYI EDDFRHVEI QVMADKFGNVI HERDCTI QRRDQKLLEES


 K SLRGWKEVEYEVVRDSVNNCITVCNMENVHTGDSIVVAP KFIEGAQELDIDAVAYKGSLLVHAISEHVEHSGDATLVLP KVMTNVRHIEVQIMRDQQGQTVFFPDCSIQRHHQKMI EVS QSLR RWKEI EYEVVRDRAGNCI TVCNMENSHTGDSVVFAP KYIENSRHIEIQIVGDGNGNVLGERDCSLQRRNQKI I EET RYAPRARHV EVQULGGDSYGVHLWDRDCSSLQRNHQKLI E E A
 ESVIGWKEYEMEVVRDRNDNCIIIDCSDENVHTGDSMTVAP

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