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3 DVAKSLHETK ${ }^{40}$ A A MY K All
 AREVETMINHEFDLLCEQYKRARADEVIAAMYESAARIK VETMI DEEFEHLMTQYKRKRADQVIAAMYEGAERIK AREVEAMI DAEFERLLAQYKRKRADEVI ARMYESADRLK AREVEADVDREFDLLLDQYKRARADEAI AAMYESADRI K AREVDAMIDEEFDRLLESYKRQRADEAISEMYEAAEHVK ADEVESMI EREFGNLLMQLKRARADEALAAMYESATRIK EAARVEA DVEELDRGLARYKRQRADEAVGAMYAGADRVK AREVEAIVDREFDLLTEQYKRARADEAI AAMYEAAERMK ANEVEAMI DREFELLCDOYKRARADEVIAAMYGSAEQDK AENVHQMIDDEFERLLDAYKRKRADDAGSAMYESAETVK EARRVEAMI DTEFNRLLTSFKRARADDAISGMYEGAERMK EAKKVDALI EEEFELLNTQYKRQKADGLISQLYGQVHNVR EAKKAEIII DDELDMVKAQYKRQKADALISNLYSQSHGLR EAKKAEAL QEELKLLNLQYKRQRADK SDLYKQUYDVR
E A A ATAVEAMV
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UniRef90 N6 YFR9



| UniRef90_UPI00046CF581 | $\\| L\|H E P T\| V\|Y\| L \left\lvert\, \begin{aligned} & 90 \\ & K A A \end{aligned}\right.$ |
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| UniRef90-P48077 | I L H D P MV Q L R |
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| UniRef90_D6U6V3 | $V \mathrm{~L}$ H T P T L R L K A A |
| UniRef90-D2R2G8 | L L H P P L ESLRE |
| UniRef90_UPI00036771C8 | I L H E P MVQL R |
| UniRef90_A9RJH9 | L L H G P MQ H L R |
| UniRef90_UPI0003616230 | M L R D P MVRL NQA A |
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| UniRef90-Q39QM8 | L L H P P T A T L K R |
| UniRef90-M0MSS0 | L V A P P T Q S L R N A |
| UniRef90_A8PLY2 | L I H A P S $\square$ A L T Q T EKY |
| UniRef90_D8RFM4 | L L H GPMQNL R |
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| UniRef90-Q1JVU1 | I L H P P T RVL K Q A |
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| UniRef90-D2RED6 | F L S Y P T L K L K ELA K S N |
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| UniRef90-A9KGY4 | I L H Q P T T L R Q A A |
| UniRef90_UPI0003B56170 | L L H D P |
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| UniRef90-16Z3X9 | L L H N P T I K L R Q La E |
| UniRef90_T0LUG8 | LLGQYATSLRDAA |
| UniRef90-J7ISR3 | L L H I P I I N L K E Y A |
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| UniRef90-S8DBM9 | L L H GPMQHL R |
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| UniRef90_14D533 | L L H V P $\square$ T N L K E Y A |
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| UniRef90-D9SCF8 | FL H A P T H A L N Q A |
| UniRef90-10GTK4 | IL R M P M M K N S A A |
| UniRef90-F0S2Y3 | LL H Q P $\square$ T SVVR K A E |
| UniRef90_UPI000363BF23 | L I HTPSTQI R A A A E |
| UniRef90-H2FY51 | L I H T P TQAL S Q A |
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| UniRef90-A6W1C3 | LI HAP T R Y L R |
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| UniRef90_UPI0004783C16 | L L H A P T T AL REAS |
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| UniRef90-Q2JWU6 | I L H D P MVQL R |
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UniRef90_WOEOK2

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$262 C F 47$
QZX2


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## M612

 7F11D6D
A

TRERDRALLSRLS SVTDDLTRVLTRKLLTDVVT
KREADVAKGMLSSED EQEVEKLFSKLSHLDEKDQDLIKRSD VLOKMAEQVNK AFEYERALKNLGAGQDPEQ GALSKGVIVQKMAHNLMNK

## 

C
E
E
D
E
E
A
Q
D

R

|  |
| :---: |



 $\begin{array}{llllllll} & & & & & A & M \\ & E & L & L & L & T & L \\ K & E & T & I & E & A & L \\ R & K & V & V & E & A & L\end{array}$ M GP D L A S A R E R K VV | Q |
| :--- |
| D |
|  |

$\stackrel{L}{L}$ A QE LEE K A A L L L L L L
 VFELQKALSR EALLQRLAHTLTNK

D
VELLV T K A K K M L
D Q M V A R A QK QLA A GEEVVE E L Y A K L N A R Y
EREVV D K T L G GRMGER
TQAVDK AL R QLLE QGMNAEM
QA L E R A R RM LVMTELARTLTNK
Q A ELER A R R M L E A V L E A L S G A LT R K F L H

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LLHEP VALRD
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1 LHDPMVQLR
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LI HSPTTLLKEAS
LLHGPTTSLR
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MLHGPMSALRQ
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FLHAPSHAL
LLHGPMQALR
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I LNDPIOYLKKNA
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ILHEPTVQL
LLHGPTHYLNQAEDQD
LLHQPMRAIKDTA
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ILHTPVTSLR
FLHGPTHALNHA
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LIHTPCTQLRQAG YNG
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FLREPTVRLREAA
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## NLKEAAENN

F $\square$ HPTHA $\square$ HAA
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LLHAPMNALKHGPEEDA
LI HPQLVALRRRVEDN
FLHAPTQAL
LKAEA
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## 90

| UniRef90 I2NK07 | $\mathrm{L} \mathrm{~L}\|\mathrm{HAPT} \mathrm{CA} \mathrm{~L}\| \begin{aligned} & 90 \\ & \text { Q } \mathrm{EMA} \end{aligned}$ |
| :---: | :---: |
| UniRef90-G8NVP2 | L L HP Q $\square$ A A L R GA A |
| UniRef90_V5F0D9 | L I H $\square$ P TK S L Q E A A E |
| UniRef90_W0SBL4 | L L HAP T HALL NQA |
| UniRef90_D5V278 | FL HEP T T R L K K |
| UniRef90_A1AUE9 | LLH TP T A V L K R A |
| UniRef90_F4G173 | I FS PMFENL R R A VES N |
| UniRef90_17CWU6 | L L G T P T E HL R T A A |
| UniRef90_Q31QY3 | 1 L H D P MVQLR |
| UniRef90_F8IBM8 | FLND A MVS M R Q |
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| UniRef90_UPI0003B528BB | I I Y Y P $\square \mathrm{KYYIK}$ |
| UniRef90-Q2IKT3 | L L H GP TS R L K E A A |
| UniRef90_L8D237 | LTHAPTRAI QEAA |
| UniRef90_UPI0003820B02 | M NHEP $\square$ NRVKEAAEKNG |
| UniRef90_B9M417 | L L H Q P T SVLK R |
| UniRef90_UPI00037E45FC | FMHQPSVQLK N A A A M |
| UniRef90_UPI000462F813 | LLHEP $\mathrm{L}_{\text {L A F }}$ L R A K E D H G |
| UniRef90_N1NTK0 | L I HTP TKSLQQQAA |
| UniRef90_K0C5S1 | ILHAPSSTLKKAA |
| UniRef90_A4SV44 | FL |
| UniRef90_Q9KW52 | VNHEP $\quad$ T F L K R |
| UniRef90_C7MKX5 | I L H T P TVRLK Q G A |
| UniRef90_K2D1J6 | I TH H P T I Q L R K A E |
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| UniRef90-A4BMQ4 | L I HEPTVGLREAA |
| UniRef90_K4B2K7 | L L H GPMQHL K |
| UniRef90_A7HBF2 | I LHAPSARLR Q A |
| UniRef90_Q022E5 | V AHGP $\square$ S ELRSQA |
| UniRef90_R1GPT9 | LI H A P TQALRRQA |
| UniRef90_I3IN93 | L L HHPAKVAKQEA |
| UniRef90_E5GCQ2 | L L H G P $\square$ Q HLR |
| UniRef90_UPI00035D2B29 | SENDA DES L |
| UniRef90_D7DND9 | F LHAPSHALNQA |
| UniRef90-C0GG59 | 1 L R E P |
| UniRef90_UPI0003B4D151 | L L H D P M K N L Y A |
| UniRef90_S6B0V5 | FLHDSSHALNHAS |
| UniRef90-M1D2W4 | M L H G P M K H L K |
| UniRef90_A8GDA2 | LI HAP T K S L Q Q A A |
| UniRef90_Y0KKF6 | FLHAPSHAL |
| UniRef90_R0HS98 | ILLH GPMQHLR |
| UniRef90_G2J8Q0 | L L H A P TRALT Q A |
| UniRef90-D2TYZ8 | L I HSPTKSLQQAAT |
| UniRef90_A0A014NJQ7 | LI HAPTKSLQQAA |
| UniRef90_UPI00046FD92C | LI HPP TQAMQQAA |
| UniRef90_B9RX38 | Y L H G P M Q H LR |
| UniRef90 - W0PFJ1 | Y L H A P M V ${ }^{\text {L }} \mathrm{L}$ N R |
| UniRef90-F5RHJ3 | LL HGP T R M L NEA |
| UniRef90_F3LHI4 | L L H T P T R Q L K Q A S T |
| UniRef90_UPI00046633EC | F M H GP T Q A L N Q A |
| UniRef90-M4EY85 | 1 L H G P M K H L R |
| UniRef90_Q9AVF6 | L L H G P M Q H L R |
| UniRef90_C6CHL6 | L I H A P TRSLQQA A |
| UniRef90_E0R9Z3 |  |
| UniRef90_UPI000347699F | $\square \mathrm{MHAPPTKA} \square \mathrm{K}$ D A A E |
| UniRef90_UPI000367C527 | WMHTPSVSVR NAA |
| UniRef90_A8A9U3 | V L K V I L K V R E A A |
| UniRef90_D1KCG0 | L L H T P F Q N K Q S S Q |
| UniRef90_F7NJ61 | $L L R D P \square L G M H E A A$ |

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L M H A P T
LSHEP IT F LTKEA
L 1 HAPTKSLQQAA
F L H A P S HLL
LI H A P TQALRHAA

LI HAPTQTLLNAATHD
L L H P A V T T I R E K A
L L H T P V TR L K E Y A
I L H GPMQHLR
I HHEP
I LKVPVVQLRAA
I L H GP TIIRLRKES
LIHAPSQGLRS $\square A E Q N$
ML R E P MRAM
LL H QP T N VKK K A VE
I L H H P I K MLK
ILH T P TAN I H Q A
FL HAPTHGLSHA
LLHDPVVRLKEAAKKDG

| $L$ | $L$ | $H$ | $E$ | $P$ | $S$ | $V$ | $Q$ | $V$ | $R$ | $K$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $L$ | $L$ | $H$ | $E$ | $P$ | $T$ | $A$ | $R$ | $L$ | $R$ |  |

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lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol5
jhmm
jhmm



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| :--- | :--- | :--- |
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| UniRef90_M1Z1B9 |  |  |
| UniRef90_K7RH84 | L | H K P T V V |

[^1]


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    lupas_28
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    sol0
    jhmm

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    lupas_28
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