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UniRef90_-D2KJ27 Uni Reforo-25S5520
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F LD G $\$ DKAQEEHEKYHSNWRAMAS DFN
(DV V AK E IVASC FLDGI DKAQEEHEKYHNNWKAMADEFNLPPIVAKEVIVASC
 F L E GI D QA QEDHEKYHSNWRALASDFGLP PVVAKEI FLD GI EKA QEEHEKYHSNWRAMAEEFKIIPQIVAKEIVAQ FLD GI DKAQEEHERYHSNWRALASDFNLPPVIAKEII ACC F L E S I E P A Q E D H D K Y H S N V K E LAA Q K Y N I P Q L V A K Q I V N A C F L E K I E EA QEEHERYHNNWKNLADTYGLP QIVAKEIVVAM
 F L D GI N Q A QEEHERYHTNWKY L R D T F QII P T L V A KEEI I NH C F L E KI EPA QEEHEKYHSNVKKLVFKFXLPRLVAK QIVDT L E GVTVPAQEDHEKYHSNWKYL REKFHHIPALIAKEII I NQC F L D N I S P A Q D D H L R Y H S T WK Y L R D T Y N I P T M V A R E I V N K C
 F L D NMEK A QEE H DLLYHNNWWS L S QEF GLLPGIVVAKEIVVAQC FLDEDTTEAQENHDKYHSNWKALADEYNLPPVVAKEII AQC F L D RI E EAQD DHAKYHNNWRSMVQEFGLPNIVAKEIVAAC FLXXKI EPAQEEHEKFHSNVKEDTHKFGIPQLVAKGIVVSY


 FLDRI E EAQEDHDRYHSNWKQLRETFQLPPLIAKQII NQC F L E K I E P A VE EHGKF HNNAKDLEEKYGIPPMVAKQ I | $F$ | $L$ | $E$ | $Q$ | $I$ | $P$ | $Q$ | $A$ | $Q$ | $E$ | $E$ | $H$ | $D$ | $K$ | $Y$ | $H$ | $S$ | $N$ | $W$ | $K$ | $E$ | $I$ | $R$ | $D$ | $K$ | $Y$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | FI GRI E E A QE EHDRYHSNWRNLLADTNGLP FLDGI NKAQEDHDKYHNNWKAMASNFNIPAVVAKK


 E KII E P A Q E E H E K Y H S N V T D L S H K F G l

 F L D K I P QA QEEHDKYHANDEYLRQEFGIPRQVAKA

 WL GQV EKAREDHERYHSNVPYMEQEF F I E K I E P

EHGKFHNNAASLQEMF


| $P$ | $K$ | $I$ | $V$ | $A$ | $K$ | $E$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $P$ | $L$ | $V$ | $V$ | $A$ | $K$ | $Q$ |


| V | N | E |
| :--- | :--- | :--- |
| I | C |  |
| I | N | V |
| C |  |  |


| 1 | $N V$ |
| :--- | :--- |
|  | V Q C |

$\checkmark$ A MC
I G Q C
$\checkmark$ A S C
$\checkmark$ NTC

FLEKI EAAQEEHEKYHSNITDLSHQF GVPKLVARQ
$\begin{array}{llll}\text { I } & Q & Q & C \\ V & N & H & C\end{array}$
I T Q C
$\checkmark$ NTC

| $V$ | $N$ | $E$ | $C$ |
| :--- | :--- | :--- | :--- |
| $V$ | $A$ | $A$ | $C$ |

V A C C
$\checkmark$ A S C
WE S C
V
V
C

F L D X I D K A Q X EHEKKYHSDNWRAMAS D F G

F L D GI D KA QE DHERYHSNWRTMTXXENNI P
WV E Q P E A Q E E HERY H N NWK DL K A R F KL P T I V A K A


WIE NI PKAEEDHDKWHQDATSLQVD Y GI PKAAAEE
WMA N
I GPA QEEHERYHNNWK GLLA D TY GLL P
F L E KI E P P PGENGNFYRNLKGLPHKFGKPKVVARQ
F L A D I E P A Q E S H N K Y H Q N A Q S L Q Q Q E F A Q


WLNRLEEAELDHQKFHSNVQYMKEQFE

WVDNDQDAQDEHENWHTSPK』LAKKYGL

FLENIIPSATEEHERWHTSPDILVRQFHL

P PVVAKE
$\begin{array}{llll}V & \text { H R } & C \\ V & A & X & C\end{array}$
RKA
WMERLE EAE E H HEKFHS DP Q F LRTEFGG P K LV A E E DK R K C

| $H$ | $E$ | $K$ | $Y$ | $H$ | $S$ | $N$ | $V$ | $T$ | $D$ | $L$ | $H$ | $R$ | $F$ | $G$ | $P$ | $K$ | $L$ | $V$ | $A$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $R$ | $Q$ | $V$ | $N$ | $T$ | $C$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


EHDKCHTNDKK LS H K F X X
P QL V X R QI V N T C
F LIE E DE KA QE EHEKYHNNWRAMAEDF K DPQUV
FLEK QQPLKKNMYKYHSNVKEPSHKFGLPNLVARQIVNTC
L E Q A K E Y H S K K W H V

HEKYHSNWRAMXSDXXLXPVIAKEIVXSC

A Q D DHEKXHSXWRAXXXXXNXPPXVAKEXVASC S N WK A LA DEYH L


| QUERY | CQLK |
| :---: | :---: |
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| UniRef90-K0GYZ7 | DK C QVK |
| UniRef90-B9V2R6 | P K C HVK |
| UniRef90-I3IRT3 | PKCQVK |
| UniRef90_B5TEZ7 | D K C Q L K |
| UniRef90-Q90DD2 | NKCQQK |
| UniRef90-Q0EAG2 | PKCQTK |
| UniRef90_G8Z0M9 | P R C H ${ }^{\text {L }}$ K |
| UniRef90-W5ZLH1 | A Q CQQK |
| UniRef90-Q70SH3 | P K CQSQ |
| UniRef90_Q87965 | D K C HLLK |
| UniRef90-Q4QYC7 | PGCQQK |
| UniRef90-G9F826 | PKCQQQ |
| UniRef90-Q90Q93 | P K C Q IK |
| UniRef90_Q90DT7 | P K C Q V K |
| UniRef90-C7BC99 | PKCHIK |
| UniRef90-Q02836 | P K CQIR |
| UniRef90_Q9IBL9 | H S CQQK |
| UniRef90-A4UDF4 | S A C Q |
| UniRef90-Q5S529 | D K C Q $\square$ Q |
| UniRef90_D7PVZ0 | PKCQTR |
| UniRef90-Q9Q086 | AKCQQK |
| UniRef90-Q70IH2 | P K C Q |
| UniRef90-Q6H0M1 | P K C QVQ |
| UniRef90-P27973 | P K C Q V K |
| UniRef90-B8Y227 | DK CQLK |
| UniRef90_J7FE25 | NKCHSK |
| UniRef90-C4TK67 |  |
| UniRef90-091116 | A Q CQQK |
| UniRef90_Q03261 | P K CQNR |
| UniRef90-Q5GQZ8 | PRCQTQ |
| UniRef90-Q699W7 | PKCQTR |
| UniRef90-Q6H0L8 | PK CQ ${ }^{\text {d }}$ |
| UniRef90-E2GJZ9 | HKCQQK |
| UniRef90-P89904 | PK CQ ${ }^{\text {R }}$ |
| UniRef90-D2KJ27 | D K C X K |
| UniRef90-Q5S520 | D $\$ CQLK \\ \hline UniRef90-E2GJZ6 & D K C Q I K \\ \hline UniRef90-Q9WPP5 & A Q CQQK \\ \hline UniRef90-D2KJB1 & D K C X LK \\ \hline UniRef90-D2KJ08 & D K C Q \\ \hline UniRef90-O91103 & A Q CLQK \\ \hline UniRef90-D3GJW6 & PECQNR \\ \hline UniRef90-O91115 & LQ C Q Q K \\ \hline UniRef90-I2CJC5 & EKCQ \\ \hline UniRef90_C4TKW3 & \\ \hline UniRef90-Q8QDL7 & H K C \\ \hline UniRef90-C0JIG9 & E T CQQ \\ \hline UniRef90-C4TKW0 & \\ \hline UniRef90-Q1XE75 & P K C Q VQ \\ \hline UniRef90-V5T8Y7 & S QCQNR \\ \hline UniRef90-V5YJ42 & D K C Q LK \\ \hline UniRef90-C9DI71 & E VCQ \\ \hline UniRef90_D2KJK4 & D K C Q LK \\ \hline UniRef90-H6TI69 & SKC \\ \hline UniRef90-Q6SNY9 & EVIC \\ \hline UniRef90-Q84809 & P L C M $\square \mathrm{K}$ |
| UniRef90-Q6SNV8 | E I C Q |
| UniRef90-F6M1H3 | E E |
| UniRef90-Q8QFJ5 | P K C Q $\square$ K |
| UniRef90-O91113 | A Q CQQK |
| UniRef90-Q8AFL6 | CTCQGK |
| UniRef90-B7UES1 | E ECKGK |
| UniRef90-F6M110 | E ECQ |
| UniRef90-Q2ES58 | P L C R $\square$ R |
| UniRef90-Q284M7 | T I C |
| UniRef90-Q7ZSJ9 | $\mathrm{E} V \mathrm{C} Q$ |
| UniRef90-D3GJW8 | P ECQNR |
| UniRef90-K9MBQ7 | D K C Q L K |
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| UniRef90-L0L5J7 | D K C Q LK |
| UniRef90-UPI0000131EC9 | Q E C K |
| UniRef90-Q82851 | Q A CK |
| UniRef90-C4TK34 | D |
| UniRef90-C8C7T1 |  |
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| UniRef90-I3IRT0 |  |
| UniRef90-O91126 | A Q C Q |
| UniRef90-Q8NFP1 | EKC |
| UniRef90-O56224 | P $\square \mathrm{C}$ |
| UniRef90-K4MJ64 |  |
| UniRef90-D2KJB2 | X K C X $\square \mathrm{K}$ |
| UniRef90-Q90QA6 | SKC |
| UniRef90-D2KJA4 | N K C Q LK |
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10

## 20

 3040
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LETAKRSHDNFHQNAAALRRKFK
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DTLAQAKASHGFFHQNAHTLQKQFQQ
AMDEHTNVHTNAKSLHSKYHI QQAK $\square$ S HQ Y HQNVPGLDRQFQL

$\square D P$ D Q A R RAHALHHLDNASTLLRQMF K FLDGIDKAQDEHEKYHSNWRAMAS
WIENI QEA ODEHENWHTSPKILAKRYG
 YKHLSHKYGI PHLVARQUVEQC
A Q Q H H A $\square H H Q N S R S L R Y Q F G L R R E A A R Q I V K Q C$
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 KAQELHALTHVNAAGLKNKFDVTWKQAKDIVQHC
QARLSHAFFHQNTPALARQFKI SKEQANAILATC DQEAKASHSKYHQAARALRLQFGITTREARSIVKAC AKEFHKRFHVTAETLRRRFALSRKEAREIVTQC FTENVQQAANSHADHHQNAHSLRDQFKI TREAARAIVKHC LEQAKLSHKFFHQSAKSLKQQFKITVDQARSVLMSC KWHQDAASLQLEFK』PKTAADDIVHQC KAKNSHKDHHQNAAGLRYEFHFPREAARQIV GVQATQRAHALHHLNAQTLR LMFKDTREQAHHIVKQC

A X X F N L P P X X A K E: V



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| UniRef90-B2ZH15 | PKCHXR |
| UniRef90-Q108J1 | EVCQ |
| UniRef90-M3X5S5 | G $\quad$ C $\square$ Q |
| UniRef90-UPI0002B4A073 | D D |
| UniRef90-UPI0002B4A073 | D DCH |
| UniRef90-A8BDN6 | D V C |
| UniRef90_UPI000395578F | P N C Q L Q |
| UniRef90-A0A024NP32 | S S C |
| UniRef90-A8J4T8 | P K C |
| UniRef90-H0YSY9 | P N C Q |
| UniRef90-UPI0003D08ED8 | G G C |
| UniRef90 Q701S0 |  |
| UniRef90-K7W7J3 |  |
| UniRef90-K9N172 | P G C |
| UniRef90-O91119 | A HCQQK |
| UniRef90-UPI00034FE8EE | T H C |
| UniRef90-O91128 | A HCQQK |
| UniRef90_Q9TUZ6 | S T CPQ |
| UniRef90-UPI000392DAE1 | P Q C |
| UniRef90-UPI00032B01EB | T S C |
| UniRef90-UPI00038419C7 | Q T C P Q |
| UniRef90-K7E102 | K N C |
| UniRef90-P63135 | T Q C Q |
| UniRef90-UPI0002B450A9 | P S C Q |
| UniRef90-G3VA57 |  |
| UniRef90-P04026 | Q ${ }^{\text {c }}$ |
| UniRef90-M3ZCD7 | STCPQ |
| UniRef90-R7VQ21 | P DCQQ |
| UniRef90-Q8UMQ8 | $E \square C$ Q |
| UniRef90-W5NWY4 | P N |
| UniRef90-UPI00045D7D68 | P N C |
| UniRef90-B6UPU0 | D K C Q LK |
| UniRef90_P12894 | QS C |
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| lupas_28 |  |
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| sol5 |  |
| sol0 |  |
| jhmm |  |
| jpssm |  |

