|  |  |
| :---: | :---: |
| UniRef90_UPI0001E2EB77 | NTVSGYIKSD |
| UniRef90-G8M374 | YTLAGY K CNVE |
| UniRef90-10AIS3 | YAQNGRISGTVTDKQTGEPLD GANIIVVGT |
| UniRef90-DOMJHE | TGKIAGVVTDAETGEPLP GVNVVI |
| UniRef90-UPIO0035C714A | GT: RGS: KDAKNKEPL! GASVL |
| UniRef90-R6E | TGT TGKVTDTRLNEPLI GASVMI |
| UniRef90-DoM | AGYVR DAETGQPLI GATVY1 |
| UniRef90-D0MF93 | GTVYGVVTDSLLT GEALPGANVYLVGT GK |
| $\begin{aligned} & \text { UniRef90_UPIO0036AAAF2 } \\ & \text { UniRe90_UP10003B5F10B } \end{aligned}$ |  |
| UniRef90-16Z: | GRIKGKVVDMQTGDPLI GANVIVM |
| UniRet90_G2SH35 | S $\square$ A GTVRDER |
| UniRef90-DOMEP8 | GRUAGVVTDATTGDPLP GVNVU1 |
| UniRef90-UPIO003A322BE | GKiAGRVSDEKSGQPLPPGANVI |
| UniRet90_UPIO004113F06 |  |
| UniRef90-IOWJ19 | GYVVS NEDRDPF ANV |
|  | G VEGRVVDASSGAPLP GANVVV |
|  | GKSETLI GAVVTV |
| UniRef90- UPIOOO42380DE | VNNEPVAFANV |
| UniRef90-W2UQX7 | GYV |
| UniRef90-R5YAX7 | STGEP AGATVS |
| UniRef90-16YZS2 | TTNEPLV GANVL |
| UniRef90-N9XC45 |  |
| UniRef90-G2S | WEGQVLDATSGAALP GANVVL |
| UniRef90-UPIO0036EEF37 | VRGTLLDRDTKFPLIGASAVVLT |
| UniRef90-D6D353 | SDEDGLPVVGASVLVK |
| UniRef90-A6EKD4 | GETLI GV |
| 8E | QPL TGASIALT |
|  | A S V ${ }^{\text {a }}$ |
| UniRef90 ${ }^{-}$W6TLL2 | SGKISGKVSDKKTGETLPGGVVVI |
| UniRef90-R5CEW9 | Y ATV |
|  | ANVVLVGT ${ }^{\text {V }}$ |
|  |  |
|  |  |
| iRef90-UP100034 | GYAQKADISGKVLDTDDKLPLP GAMIQUVGNKYTVTD |
| UniRef90_R5YAC5 UniRef90 F4L611 | GY KAMTIPTDIEGKYAVTGAVVS |
| UniRei90 - UPI0004788727 | $V \frac{1}{1}$ |
| UniRef90-UP100036E63 | EPLI GVTV |
|  |  |
| UniRef90 G2SID | GPLP GALLVELDR |
| UniRet90-K5ZM03 | VKGVVEDD MGPVVGATV |
| UniRet90-U1M3L3 |  |
|  | A |
| UniRef90 W8F3D0 | VSGRVLDE A K G G GMPGVTVIVEGNL |
| UniRef90-L8. | VSGEPLVGANVTLKGTTK |
| UniRet90-Q1N111 | ENEALPGVS |
| UniRei90-R5J2O4 | TVTGKVL GKVQS |
| UniRef90-A1ZMZ2 | DHLPLAGASV |
| iRef90-J1ADD3 | GFTVTGKVV |
| UP10003655 | a |
| D3IGR | K $\square$ TGTV TDNSG |
|  | TDKGTVV DKNGEAVIGANVVVKGTSKGTIT |
| UniRef90-UP10003688 | K |
| UniRef90-H1Q409 | 兂 |
| iRef90-K9E1D8 |  |
|  | GVIKGND ADEAGDYVPGAAV |
| UniRet90 UPI0004756B |  |
| UniRef90-R6DEH7 | KVTGVVDS |
| UniR | KEGI GASULVEGTTNGT |
| UniRef90-UPIO00469 | EPQl GT Tl QVKGT GN |
| UniRef90-12GN6 | TGIIIGKVNDHN GQPLPQVNVRLSGTQFGTLTN |
| UP100037CEFDF | VVAQTNQGI AGALVEVISAD |
| UniRef90-A2TL | N |
| Un | G GA S |
| UniRet90-A6KYZO | GESVVGAS ${ }_{\text {GA }}$ |
| UniRef90 K6ARE3 | DATGEPLI GVNVMVKGTTM |
|  | 1 KGTVVDET GESVIGATV |
| R6 | KVTGTVEDAL G GPVAGASV |
| UniRef90_B5D010 | SGGEPVVVGASVVMLKGGTSN |
| UniRef90 R91 | DKAGEAVIGASV |
| 6 | GYTVSGTVVGKDDGQP |
| UniRet90-H1Y4Q7 | FSVSGKITDQRT GETLPGATV |
| $\begin{aligned} & \text { K5Y } \\ & \text { R7D } \end{aligned}$ | PVIGANVITLEGNGVGTVTD |



QUERY
UniRef90_UPI0001E2EB77
UniRef90_G8M374
UniRef90-IOAIS3
UniRef90 D0MJH6
UniRef90_UPI00035C714A UniRef90_I2GS05
UniRef90_R6EWP4
UniRef90-D0MKM2
UniRef90-DOMF93
UniRef90_UPI00036AAAF2 UniRef90 UPI0003B5F10B UniRef90-I6Z318
UniRef90 G2SH35
UniRef90-D0MEP8
UniRef90-UPI0003A322BE UniRef90_UPI0004113F06
UniRef90-S0FQW6
UniRef90 IOWJ19
UniRef90-D5HAV7
UniRef90_R6FV68
UniRef90 UPIO00475D31B
UniRef90_UPI00042380DE
UniRef90-W2UQX7
UniRef90-R5YAX7
UniRef90_16YZS2
UniRef90_N9XC45
UniRef90-10AHL2
UniRef90_G2SGY0
UniRef90 UPI00036EEF37
UniRef90_FOR1F6
UniRef90-D6D353
UniRef90 A6EKD4
UniRef90-F8EL45
UniRef90-C6Z4Z6
UniRef90_UPI0003B6ED65
UniRef90_W6TLL2
UniRef90-R5CEW9
UniRef90-M7X3K7
UniRef90_R5C2W1
UniRef90_UPI000366B37A
UniRef90-R6JNF0
UniRef90_UPIO0034529D7
UniRef90 R5YAC5
UniRef90-F4L6I1
UniRef90_UPIO004788727
UniRef90 UPI00036E633F
UniRef90_U2TY14
UniRef90_G2SID4
UniRef90-D2QFM2
UniRef90 K5ZM03
UniRef90-U1M3L3
UniRef90_UPIO003A52E60
UniRef90 W8F3D0
UniRef90 UPI000368F6FE
UniRef90-L8JNJ9
UniRef90-Q1N1I1
UniRef90 K1LYX7
UniRef90_R5J2Q4
UniRef90_A1ZMZ2
UniRef90 J1ADQ3
UniRef90_UPIO003655EA4
UniRef90-D3IGR7
UniRef90-J9GSU4
UniRef90 E5CAU3
UniRef90-UPI0003688807
UniRef90_H1Q409
UniRef90 K9E1D
UniRef90 D5BCF
UniRef90_UPI0004756B94
UniRef90_R6ES64
UniRef90_R6DEH7
UniRef90_J9FR09
UniRef90_UPI0004697431
UniRef90-I2GN66
UniRef90 UPI00037CEFDF
UniRef90-R7A590
UniRef90-A2TUY3
UniRef90_J9GM83
UniRef90-A6KYZ0
UniRef90-B3QSU0
UniRef90 K6ARE3
UniRef90 R6LH85
UniRef90-R6Y9LO
UniRef90-R6URP7
UniRef90_B5D010
UniRef90-R910V9
UniRef90-UPI000380B022
UniRef90-W2C4J6
UniRef90 H1Y4Q7
UniRef90-K5YQX2
UniRef90_R7DWA5

SVSTSQAPTMMWVGD I


T
T
E $\square \mathrm{K} \square \mathrm{K}$ Q S D $\square \mathrm{S}$ L
VLNDALVP
$\frac{\mathrm{V} \text { V }}{T}$
T
$\mathrm{VT} \mathrm{V} \square \mathrm{NTA}$
$T V L A Q D$

A 1
A $\mathrm{L} A \mathrm{~T} Q \mathrm{~A}$
$\frac{\mathrm{V}}{\mathrm{T}}$
$R \square T \square T \square A P$
$\stackrel{R}{\mathrm{E}} \mathrm{V} \mathrm{V} \mathrm{L} \mathrm{N}^{T}$
ETV
TVLLKEAPQQL
EM
T
HF V MEKED $\square$ MM
T
TSGTELNEVV VGD $\square$
ASST
T
T L
$E \square N \square Q \square Q P$
T T T $\square \mathrm{N}$
$\frac{\mathrm{V}}{\mathrm{T}} \mathrm{P} \square \mathrm{R}$ M A P
TIQLVD
SV
E V $\mathrm{S} \square$
$N \nabla T$ K E
T
$\frac{T}{V L L E Q D N}$
E E L
TL
EMLSEAVVTGMTTTD
$T \square$
TEAAN $\square \mathrm{ML}$
E
T
Q
TLSED
AVGSAQS
E
TL
E I E LQEAPTSLTS

UniRef90_UPIO0041638C0 UniRef90_UPIOOO478C9BF
UniRef9O-UPIO0037E7F6F UniRef90_UPIO00237C4C2 UniRef90 F6GEG1
UniRef90-UPIOOO36342C5
UniRef90_UPIOO028995EF
UniRef90- S8GMT3
UniRef90_UPIOOO4725351
UniRef90-D6D3R7
UniRef90-U2C482
UniRef90-R5JTN8
UniRef90-K6A2A2
UniRef90_UP1000375139B
UniRef90-I8ZD34
UniRef90-K5ZVF5
UniRef90-D3ILZ5
UniRef90-K5YLM7
UniRef90-D7W2V3

| UniRef90- R91AM2 |
| :--- |
| UniRef90 B3QX |

UniRef90-H2BX98
UniRef90_UPIO003633283
UniRef90-R5FDJ4
UniRef90 GOIZI
UniRef90-GOIZL6
UniRef90-F9D1V5
Uniinefol-12GMM9
UniRef90-H3ZFR
UniRef90- UPIO0040BF8C9
UniRef90-D1JZV9
UniRef90-B7B632
UniRef90-H6L261
UniRef90-H8KW97
UniRef90_UP10003B34D10 UniRef90_K9DVG8
UniRef90 X5DUV4
UniRet90_Q11YY3
UniRef90-J9FCK8
UniRef90_UPI00037B9633
UniRef90_UPI0003F69A55
UniRef90-R6YD64
UniRet90-R6ABG2
UniRef90-R6ZIG2
UniRef90_C6VRU7
UniRef90-B5D418
UniRef90-U210B5
UniRef90-B3JEE1
UniRef90-M7NTC8
UniRef90-R61GP6
UniRef90-GOLCBO
UniRef90-A7V665
UniRef90-UPIo0047AD2AO
UniRef90-R5MKK8
UniRef90-R5FML9
UniRef90-D5EV49
UniRef90-R5SKW3
UniRef90-F8X211
UniRef90-UPI00035FAC34
UniRef90_UPI0003697C16
UniRef90-F4KYG4
UniRef90-UPIOOO381B1A2
UniRef90-UPI00047DC669
UniRef90-D6DOM5
UniRef90-Q8A0D1
UniRef90-UPI0003782CED
UniRef90 C9KY88
UniRef90_AGELY2
UniRef90 D7IE94
UniRef90-W6TYA6
UniRef90-F9D4N7
UniRef90-R5LZJ8 UniRef90-UPIO003B5EC2E UniRet90_H1YE75 UniRef90 UPIOOO47E8106 UniRef90-K5CGV7 UniRef90_UPIO00415C851 UniRef90 E6X4K6 UniRef90-C6W765 UniRef90-D4VC97 UniRet90-E4TSSO UniRef90_UPIO003B74598 UniRef90_R5UX11 UniRef90-G8TC86 UniRef90-100WBC7 UniRef90-UPI0003729D54 UniRef90_C6VRR0 UniRef90 H1Y851
UniRef9_DuUk

10
GTIT $20 \quad 30$
40 SLSGLV GTVTDAKSGEALVGVSVVQKNTNNGTVTD TISGNVQDE VDTESYPGP VLs GANVVVKNTSKGTTTD KVAGKVI DGEFND FANILVKGTTTGTTSD YTПSGTIKDQ $\qquad$
HT $\square$ SGKV
SDPSGETL
GGYKGSIKDKQTKE $K$ KTGUVADDL GEIVGIVTNED KVTGVVIS GFAQTGGIQGRVINDKNNEPG E P ㄱ GPVAGTVVGTMGVTD GPVAGASVAVKGTSKGTITD GEPLSGANVVI TGSNRGAVTD
 V $\mathrm{V}_{\mathrm{L}}^{\mathrm{L}} \mathrm{A}$ VQGQVLEKGTNRP【V
K $\square \mathrm{SGT}$ GFDVEANDVMPF
GTVYDTQTGETMP
FAQEGVIQGKVLNP DNNNPIPF GTIAGT1ID KDYNDEPVAFA NRVTGTVVGRTVADSNGEPVI LᄂQ
 SQSGKVILAKGQVTDKNSDPVI KGKDTDAATK KMTGVVI SE EDN EAMA
 GAN GA VTLLD Y NLQTQTD
 GRTDKGFV

TDVNGEPL
TGTDNDGEFNDILPFANVIVKDTQTGATSD
G
IEGYIIISGTIVDEKTGETLI
RTVRGRIL
DSK
 KTGET KGAGLP K
S
DASLGEPLV
DGETRP
SGTCTGVVKDAT
LS GVVKDD
GETVI
EGT RS SNNQAP
SAKVTLSGTVSDAKNGETMP
KGEPLAGVVVIKELNLWATSD
TDSQGLPLPGATVTIKGTSVGASTD
GQTMNATVTVGTMDA


UniRef90 UPI00041638C0 UniRef90_UPI000478C9BF UniRef90-UPI00037E7F6F UniRef90 UPIO00237C4C2 UniRef90 F6GEG1 UniRef90_UPI00036342C5 UniRef90_UPI00028995EF UniRef90 S8GMT3 UniRef90-UPI0004725351 UniRef90_D6D3R7
UniRef90-U2C482
UniRef90 R5JTN8
UniRef90-K6A2A2
UniRef90-UPI000375139B
UniRef90-I8ZD34
UniRef90 ${ }^{-}$K5ZVF5
UniRef90-D3ILZ5
UniRef90-K5YLM7
UniRef90 D7W2V3
UniRef90-R91AM2
UniRef90
UniRef90-H2BX98
UniRef90-UPI0003633283
UniRef90_R5FDJ4
UniRef90-GOIZL6
UniRef90 Q26HT4
UniRef90_F9D1V5
UniRef90-I2GMM9
UniRef90-UPIO0040BF8C9
UniRef90_D1JZV9
UniRef90-B7B632
UniRef90 H8KW97
UniRef90_UPI0003B34D10
UniRef90_K9DVG8
UniRef90 X5DUV4
UniRef90-Q11YY3
UniRef90-_J9FCK8
UniRef90 UPI00037B9633
UniRef90-UPI0003F69A55
UniRef90-R6YD64
UniRef90 R6ABG2
UniRef90 R6ZIG2
UniRef90_C6VRU7
UniRef90-B5D418
UniRef90 U2I0B5
UniRef90-B3JEE1
UniRef90_M7NTC8
UniRef90 JoV602
UniRef90 R6IGP6
UniRef90_GOLCBO
UniRef90-A7V665
UniRef90_I8ZK09
UniRef90_UPI00047AD2A0
UniRef90-R5MKK8
UniRef90_R5FML9
UniRef90 D5EV49
UniRef90-R5SKW3
UniRef90-F8X211
UniRef90-UPI00035FAC34
UniRef90_UPI0003697C16
UniRef90-F4KYG4
UniRef90-UPI000381B1A2
UniRef90 UPI00047DC669
UniRef90-D6D0M5
UniRef90_Q8A0D1
UniRef90-UPIO003782CED
UniRef90 C9KY88
UniRef90-A6ELY2
UniRef90-D7IE94
UniRef90 W6TYA6
UniRef90-F9D4N7
UniRef90-R5LZJ8
UniRef90_UPI0003B5EC2E
UniRef90 H1YE75
UniRef90-UPI00047E8106
UniRef90-K5CGV7
UniRef90-UPI000415C851
UniRef90-E6X4K6
UniRef90-C6W765
UniRef90 K5YZSO
UniRef90 D4VC97
UniRef90 E4TSSO
UniRef90_UPI0003B74598
UniRef90_R5UX11
UniRef90 G8TC86
UniRef90-IOWBC7
UniRef90-UPI0003729D54
UniRef90 C6VRR0
UniRef90-H1Y85

```
\begin{tabular}{l|l}
R \\
K \\
L & \(\mathrm{T} \square \mathrm{Q}\)
\end{tabular}
V
\(\stackrel{Q}{\mathrm{~K}} \square \mathrm{~N} \square \mathrm{E}\)
V
```



| $E L$ |
| :---: |
| $\frac{E}{V} \mathrm{~L}$ |
| $T$ |

VM D F LLS P
V
$T T L N V E$
$Q T I D$
A
${ }_{\mathrm{A}}^{\mathrm{V}} \mathrm{T} \mathrm{N}$
VLS D VTV
$T \square Y$ Q E E
T
E L ID E
T पGTEEVPVIE\|VGEV


TVALERDDQML
VVYMQEDA $\square \mathrm{ML}$
$N \square R \square G A \square P \square$
K K VNMLEDPA $\quad$ L

Q V

QM LEEVVVI
${ }_{\mathrm{E}}^{\mathrm{E}} \mathrm{L}^{\mathrm{L}} \mathrm{S}$
TiNL
MLNVELAP
VLNVQLNP
LT N T N
Q
KTA LK S S S T QL
A L
TTMTVE
,
KTEMNQA

| L | S |
| :--- | :--- |
| Q | S |

TVNI
E

$\mathrm{D} \square \mathrm{S} \square \mathrm{K} \square \mathrm{S}$
T
NFMTLE
T L L N



UniRef90 C6W0H9 UniRef90-S8GMG3 UniRef90-I2EPK8 UniRef90-XOZEY1 UniRef90 E2NLM6 UniRef90_S2D3C5
UniRef90-UPI000365DB10 UniRef90-UPI00036DA2C9 UniRef90-E4RVN9 UniRef90_R5M729 UniRef90 I8W2N9 UniRef90 F5IXC1 UniRef90-UPI0003FC37C5 UniRef90-A5FNN2
UniRef90 D5H5E0
UniRef90- UPI000371C6B8
UniRef90-19R805
UniRef90-F8N8D6
UniRef90 UPI0003605C8F
UniRef90-T1TG16
UniRef90-F3PXR0
UniRef90 F8C7Q9
UniRef90 UPI000255D493
UniRef90-K2P640
UniRef90-C3R691
UniRef90 UPI0003679A49
UniRef90_UPI0003B496DD
UniRef90_UPI000476EE81
UniRef90 F4L313
UniRef90-19S862
UniRef90_R6SKS5
UniRef90-E1GY39
UniRef90 UPI000427D54C
UniRef90-W4UQL8
UniRef90-IOWGH7
UniRef90-10KB99
UniRef90_C6VW07
UniRef90_A3U8D0
UniRef90_UPI000477C506
UniRef90_R5WJ41
UniRef90 ${ }^{-}$R6KJ42
UniRef90-B7B5Z9
UniRef90-UPI00040CD94D
UniRef90 UPI0003FC26DE
UniRef90-UPI0003B62258
UniRef90-D8DVW4
UniRef90 S8GW55
UniRef90_UPI00045EACDF
UniRef90-UPI00037264A4
UniRef90_UPI000382A0CD
UniRef90 G0J5H2
UniRef90-L1P7G9
UniRef90_K6A3R9
UniRef90_F5HFX8
UniRef90 F5HHM2
UniRef90-FORAJ9
UniRef90-R6CPJ9
UniRef90 I2GEH7
UniRef90-B5D3U4
UniRef90-L0G013
UniRef90- UPIO0046AEC65
UniRef90_D1PWP6
UniRef90-I3CAV6
UniRef90 D2QSD8
UniRef90-R7CVS3
UniRef90-U5BXF8
UniRef90_F8CBG8
UniRef90_C3R8T7
UniRef90-C3Q859
UniRef90_UPI0004080D1F
UniRef90 UPI000477B6F4
UniRef90-H1GU97
UniRef90-15C3N1
UniRef90-UPIO004691245
UniRef90 A3XKB1
UniRef90-R6HF57
UniRef90-A5FJN2
UniRef90-S7WSE8
UniRef90-D4WES0
UniRef90_J9GSX5
UniRef90 I8X137
UniRef90 I8Z9V9
UniRef90_C2FTX4
UniRef90-R6KDC7
UniRef90 UPI0004783105
UniRef90 J9GJM9
UniRef90_Q58WV3
UniRef90-T0P1X5
UniRef90 UPI000288FD05
UniRef90-W4PMH1
UniRef90 UPIO0047AAABD

MSTLGEVVIVGFGE TV
$T \square N \square V M P$
V V VT A
TI NT
KI
E V VT
T L G T

K V V Le LDe
VVLKED
TLKVVVMAP
$S \rightarrow T$ LEADVIGL
AKQMNEVVVI
T
${ }_{\mathrm{T}}^{\mathrm{T}} \mathrm{L}_{\mathrm{L}}$


E M

QLS TLEEEIVV]GYGTM

T L

KLSEDSEAL
T
EIVLKE
$\frac{V}{T} L S$ V $K ~ L a$
TVNLT D
S 1

VF S $\square$ T LT P
T l L L E D N
K L
$\mathrm{K} \square \mathrm{S}$ VK K QP
 ETALDEVVI
T L


Unipgoder

| UniRef90 J4KEK8 | VI S 4 I E 90 |
| :---: | :---: |
| UniRef90-R7EDW6 |  |
| UniRef90-J9H889 |  |
| UniRef90-R5M2N7 | VI NVELE |
| UniRef90_UPI000380BB0D | TI D I E L V P |
| UniRef90_UPI000475DD39 |  |
| UniRef90-R5N052 |  |
| UniRef90_Q8A742 | P L $\mathrm{N} \square \mathrm{KM} \mathrm{M} \mathrm{P}$ |
| UniRef90_D5BEH0 |  |
| UniRef90_K9E6C1 |  |
| UniRef90_R6ASP1 | V ITLLE D N |
| UniRef90_UPI0003B32A1A |  |
| UniRef90_R5IN98 |  |
| UniRef90-K6A568 | E |
| UniRef90-UPI0004725B21 | T T T $\square \mathrm{N}$ |
| UniRef90-UPI0003176EA2 |  |
| UniRef90_H7FT43 | T L S E G A E S L |
| UniRef90_UPI0003F99621 | TV |
| UniRef90-R5C0V8 | EM |
| UniRef90-UPI00034C0B06 | V |
| UniRef90-R5K2Y3 |  |
| UniRef90_UPI00047B1DB7 |  |
| UniRef90_G8TC62 |  |
| UniRef90_J9FAM6 | Q |
| UniRef90_I3YIQ5 |  |
| UniRef90-UPI0003762F32 |  |
| UniRef90_UPI00035F1A3D |  |
| UniRef90-A1BIS4 | T |
| UniRef90-D2QF42 | $T \square S V Q L K P$ |
| UniRef90-K6BMT3 |  |
| UniRef90_R5K212 | E V |
| UniRef90_G2PSL6 |  |
| UniRef90_UPI0003658781 | E |
| UniRef90_I2GHR7 |  |
| UniRef90_C7M4C7 | Q |
| UniRef90_UPI00025597CD | Q |
| UniRef90-E5CAS1 | $\mathrm{K} \\| \mathrm{V}$ - E |
| UniRef90-UPI000479171B |  |
| UniRef90_UPI00035E4A64 | Q |
| UniRef90_D4IKT6 | VVLTE D Q N L M |
| UniRef90-A4CCT3 | $\mathrm{E} V \mathrm{~N} \mathrm{\square} \mathrm{DV}$ VMTS G D |
| UniRef90_X5DC74 |  |
| UniRef90_R6LD33 | VT LTK E D A |
| UniRef90_G6AGX5 |  |
| UniRef90-R5BYU9 | $D \square G$ |
| UniRef90-UPI00047B69E2 |  |
| UniRef90 ${ }^{-16 Y S Z 0}$ |  |
| UniRef90-F3PDE8 |  |
| UniRef90-A3HYW4 | T |
| UniRef90-T2KQX6 | NYSFELEEDNM |
| UniRef90_G8UJ27 | QVLDEVVVI |
| UniRef90-I2F1C9 | V L |
| UniRef90_UPI0003626C21 |  |
| UniRef90_C6YZS8 |  |
| UniRef90_F9Z677 |  |
| UniRef90 R5F0X5 |  |
| UniRef90-F3XN36 |  |
| UniRef90_J1ACF2 | $\mathrm{K} \square \mathrm{S} \square \mathrm{S}$ L A |
| UniRef90_R6SMN9 |  |
| UniRef90-F4L2V0 | T LT T S S A D L |
| UniRef90_GOIYX0 | S A L E EVVVI |
| UniRef90_G0J2Q5 | 1 S SLLD EVV V V V |
| UniRef90_G0L574 | D V A L K E S |
| UniRef90_R5CLR2 | V |
| UniRef90_E6K436 |  |
| UniRef90_UPI00036D29C4 | S V |
| UniRef90-R7F1N4 |  |
| UniRef90_C3PWR4 | VVS L Q DVVIV |
| UniRef90_N2B689 | V I LSED |
| UniRef90_UPI00047A89E0 |  |
| UniRef90-F8EI84 | E V |
| UniRef90_C6XZX0 | T I |
| UniRef90_B3JES6 |  |
| UniRef90-IOTBE6 |  |
| UniRef90_W0RBR5 |  |
| UniRef90-F8N9D7 | T L |
| UniRef90-18YAJ1 |  |
| UniRef90_UPI000468BAD6 | IV LTTE D |
| UniRef90_R7D1T9 | El T L A A TVD M |
| UniRef90_D7IXQ9 | T I VLKED TL A L |
| UniRef90_U5C5Z1 |  |
| UniRef90-UPI000376D352 | $\mathrm{Q} \prod \mathrm{N} \backslash \mathrm{Q}$ LR P |
| UniRef90_R7A6E5 | TLLS L A E |
| UniRef90-F5J3X6 |  |
| UniRef90_E0TE91 |  |
| UniRef90-UPI00047C9495 | DVS A L D E V I V I |
| UniRef90-G0J4E4 |  |
| UniRef90-U2J3H7 | V L V S |
| UniRef90_U5C1A9 |  |
| UniRef90_UPI0003605EF4 | $D \nabla S \triangle$ V L |
| UniRef90 K6ARH6 UniRef90- R5MBX2 |  |

UniRef90 UPIO00477F654 UniRef90-UPIO0046D6E08 UniRef90-E6SVL9 UniRef90-UPI0003B6D19C UniRef90-B6W1B3 UniRef90-R5S2Z0
UniRef90 E6XFG7 UniRef90-E6XFG7
UniRef90 UPIOOO3620FE6 UniRef90-W8FC40 UniRef90_UPlooo366E2C1 UniRef90_UPIO0047AE838 UniRef90 R915G3 UniRef90-W2UMW1
UniRef90-C9Q174
UniRef90-F4CCH7
UniRef90-W4PTP5
UniRef90-K5ZWC4
UniRef90 UPIO0047DF319 UniRef90-R6YB90 UniRef90-H8KWB9 UniRef90-R6WQ09 UniRef90_UPIO003B69BC5 UniRef90_UPIOOO37451E66
UniRef90-UPIOOO1DD0667 UniRef90 ${ }^{-} 6$ VTI2 UniRef90-LOFU26
UniRef90-I2GJJ7
UniRef90-K5ClB4 UniRef90-UPIO002F360DC UniRef90-R5RG42
UniRef90 H6KZ21
UniRef90-H6KZ21
UniRef90-H1Z568
UniRef90-J2J414
UniRef90-K1L2S2
UniRef90_LOG3R22
UniRef90-STWJY6
UniRef90 K2P2F3
UniRef90-A1ZF81
UniRef90-R5JRG3
UniRef90_UPIOOO382A4B7
UniRef90-UPI0003672359
UniRef90 D1W3J0
UniRef90-D1W0X1
UniRef90-R6DIB9
UniRef90-TOMT70
UniRef90-F5IZ93
UniRet90-H8MS29
UniRet90_E6STD2
UniRef90-R9ICK3
UniRef90-A0A016F377
UniRet90_UPIO0037DC352 UniRef90-H1HP99 UniRef90-R7ZQX1
UniRef90 $13 C A L 2$
UniRef90-F8NB18 UniRef90-A5FB15
UniRef90-U2LIBO
UniRef90 K9EAB3
UniRef90-F3PNF5
UniRef90-F8EEJO UniRef90-UPIOOO3781498 UniRef90-K4IIU0 UniRef90-GOLCW5
UniRef90-F3PXQ7
UniRef90-UPIO00476D259 UniRef90-UPIO0036F6575 UniRef90-E2NE87 UniRef90_UP100047DFE08 UniRef90-UPIOOO371C2DC UniRef90-W2C5H5 UniRef90-UPI00039D1413 UniRef90_UP100040641E2 UniRef90_UPIOOO4OAAEO4
UniRef90 UPIO0047647DF UniRef90-K6A4Q2 UniRef90 L7W7H1 UniRef90_UPI00037060D7 UniRef90-R6JQ22 UniRef90-UPIO003626EEC UniRef90-R6KJI7 UniRef90-UPIO0035F9EC6 UniRet90_UPI00041E9902 UniRef90_UPIO00478EOF8 UniRef90 WORS19 UniRef90-R6HW72 UniRef90-G2Z401 UniRef90-F21108

1020 $20 \quad 30$

30
40
GSVSGTVTHASTGAALEGAVVSAVQDGQNATTD
NK TT



TVTGlVK
HTVTGNVVSE
TDQEGEP TVG

TAlIEGRVTDAVSQRP五

| S GLVV |
| :---: |
| T T G G Q R |
| VTGTV ${ }^{\text {T }}$ |
| GGY |
| TVSGTVV |

DETDQGP㐭P DENGDPMT
 DGQVLPGAAVTVVGTAKGTVT
DGS DTVALRS
 TSGEGIDPRPGVSVLVKGTSDGVATD


## TQGTVVDD

VSGRVV
NALSGKV $\qquad$ TDANGEPVVI GASVVEKGTTNGVVTN

| $G T$ | $K G Q L Q D$ |  |
| :---: | :---: | :---: | :---: |
| $G K$ | $K$ | $G 1$ |

FSDSGKVV VGVKNN
ITGTVVDEV TVSGTVK
 KVSGVV

P 1
FTGDENGEPII


TTGTVTDALGPVI
IVTGTITDAT
S $\square$ SGVIKGRVVDN
K $\square$ S GT $\downarrow$ R
SEKEKEPMD
E G GNEPITP
DNSGTP
DSKGEPVI

TVKGHVK DGTGEPEV
GFTVQAQVKVQGLVRLAS

VSGKVTGADTGTGMP
$T M S G L V K D D \quad T G L T L P G A N D$
HTTKGVVEDQF
TLSGYV AVSGRVT QDKNSEERLP VKGTVTSAGDGGGEV VSGTIVDSES

YSFGQNVQVKGTDNDENGEPVVP NTVTGTV DEKGTARTKVPLP NTITGVVLEKGTQQP $\square P$ $G A V V S A V Q D G Q N A T T D$
$G A S V V V K G T T N G V I T G$
$G V$ $G V E V K V V A T G Y T A T T D$ GVSVVVKGTTNGISTD GVSVVVKGTTNGISTD GANVIEKGTTNGTTTD YATVALTGTTDGGTCD GATVVAVGAKYGAATD GVSUQEKGTTNGVVTD GATVMLKGTTTGQVTD GA GATVLIKGMNTGTVTD SVTIFVKGTAQGTSSB




UniRef90 UPI000477F654 UniRef90-UPI00046D6E08 UniRef90_E6SVL9 UniRef90_UPI0003B6D19C UniRef90 B6W1B3 UniRef90-R5S2Z0
UniRef90 E6XFG7 UniRef90 UPI0003620FE6 UniRef90 ${ }^{-}$W8FC40 UniRef90-UPI000366E2C1 UniRef90-UPI00047AE838 UniRef90 R915G3 UniRef90-W2UMW1 UniRef90_C9Q174 UniRef90 F4CCH7 UniRef90 W4PTP5 UniRef90-K5ZWC4
UniRef90-U2K344
UniRef90 UPI00047DF319
UniRef90-R6YB90
UniRef90-H8KWB9
UniRef90 R6WQ09
UniRef90 UPI0003B69BC5 UniRef90-UPI00037451E6 UniRef90-UPI0001DD0667 UniRef90 C6VTI2
UniRef90-LOFU26

UniRef90-12GJJ7
UniRef90 UPIO002F360DC
UniRef90_R5RG42
UniRef90-H6KZ21
UniRef90 R7NQ05
UniRef90-H1Z568
UniRef90-J2J414
UniRef90 K1L2S
UniRef90 LOG3R?
UniRef90-S7WJYE
UniRef90-K2P2F3
UniRef90_A1ZF8
UniRef90-R5JRG3
UniRef90_UPI000382A4B7
UniRef90-UPIOO03672359
UniRef90 D1W3JO
UniRef90_D1W0X
UniRef90-R6DIBS
UniRef90 TOMT70
UniRef90-F5IZ93
UniRef90-H8MS29
UniRef90 E6STD2
UniRef90-R9ICK3
UniRef90-A0A016F377
UniRef90_UPI00037DC352
UniRef90 H1HP99
UniRef90-R7ZQX1
UniRef90-I3CAL2
UniRef90 F8NB18
UniRef90-A5FBI5
UniRef90-U2LIB0
UniRef90 K9EAB3
UniRef90 F3PNF5
UniRef90-F8EEJO
UniRef90-UPIOO03781498
UniRef90 K4IIU0
UniRef90-G0LCW5
UniRef90-F3PXQ7
UniRef90 K6B4M2
UniRef90_UPI000476D259
UniRef90_UPI00036F6575
UniRef90-E2NE87
UniRef90 UPI00047DFE08
UniRef90_UPI000371C2DC
UniRef90-W2C5H5
UniRef90-UPI00039D1413
UniRef90 UPI00040641E2
UniRef90-UPIO0040AAE04
UniRef90-UPI00047647DF
UniRef90 K6A4Q2
UniRef90-L7W7H1
UniRef90-UPI00037060D7
UniRef90_R6JQ22
UniRef90 UPIO003626EEC
UniRef90-R6KJI7
UniRef90-UPI00035F9EC6
UniRef90 UPI00041E9902
UniRef90 UPI000478E0F8
UniRef90-W0RS19
UniRef90_R6HW72
UniRef90 G2Z401
UniRef90-F2ll08
UniRef90_A6EGl1

E
NEGEQLDE!
TLGT
T I S T

E

E MLIE E V V VT G M|VA T D

T

D INSLEE
DVTLQLS PV
$T$ L GENLS DL

E V
$\stackrel{E M}{D L I}$ S ESVQL
$\frac{\square}{T}$ M S K E S S P $\square$

V
s VA L S
A $\square$
E VS

NLLIESSS
A QSLNEVVVI

NVNLNEDEVHL
VTLAIDA
TFNLEATLLI
EM
T V

E

DVSDLDE\|VVVGYGSV
V V V $\mathrm{A} Q$
EVVLNE E EDVVMLDG
T

EM
VNDT $\square$ E E D $\square$
TVSLEE
$R L G T L A V S L Q$
EVMDEVVVI
DLGT】Q

UniRef90 S2DB14
UniRef90-UPIo0037555AC UniR Refo-H1 YETO UniRef90 ${ }^{-}$W4UQG8 UniRef90-K2PSM5 UniRef90-F6GC14 UniRef90-R5HYY8 UniRef90-H1Y9B5 UniRef90_UPIOOO36EOD55 UniRef90-UPIO00237B90C UniRef90-LoG399 UniRef90-C6VTK0 UniRef90-UPIO0046886E2 UniRef90_R6YR15 UniRef90 U21048 UniRef90_UPIO003FD6B30 UniRef90-W2UKC4
UniRef90-UPIOOO47752D4 UniRef90-F6GEFO UniRef90- UPI0003A639B5 UniRef90 F8X4X3 UniRef90_UPI00047901AD UniRef90-A0A015RII5 UniRef90-UPI00041F2161 UniRef90 E4RRH1 UniRef90-UPIO00255BOD1 UniRef90-F7L4F5 UniRef90 ${ }^{-}$FOSBH9 UniRef90_UPIO0036F5F9D UniRef90-R5NX21
UniRef90-R6VU52
UniRet90 S8GGVM8
UniRef90-K6AJ45
UniRef90-D3T1, 5
UniRef90-_1M438
UniRef90-GOJ1M9
UniRef90-RZZUI6
UniRef90 W4PMY9
UniRef90-A3XK43
UniRef90-W6TXZ7
UniRef90-UPI000414CDF4 UniRef90-10K996
UniRef90-15BZW5 UniRef90-UPI0004096B9E UniRef90_UPIO004693F13 UniRef90-F3PRO5
UniRef90_C3YY10 UniRef90-GOL710
UniRef90-R6DC97 UniRef90-EONVDO UniRef90-U2CAD2 UniRef90-UPIO0046F4E8C Uni Ref90-UP10004 UniRef90-R5S608 UniRef90-R6F1W3 UniRet90 S2DHR9 UniRef90-S7VPQ0
UniRef90 UPIOOO47AB804 UniRef90-S2DP75 UniRef90-E2NDB3 UniRef90_UPIOOO3614C20 UniRef90_K4ISJ1
UniRet90_R5KGZ2
UniRef90-A5FBZ7
UniRef90 UPIO0029B152F UniRef90 W8F2JO UniRef90-UPIO0036548EE UniRef90-UPIo003B3BB2A UniRef90-C6W728
UniRef90 A0A016JHT3 UniRef90-K1Z2Q5 UniRef90-K5YGS3 UniRef90-UPIO00471397E UniRef90_UPI00036C71FB UniRef90 U5C314 UniRef90-H7FNW6 UniRet90 W6TPV5 UniRef90-K6AMM4
UniRef90-D6D6A8 UniRef90_J3MG78 UniRet90_Q8A7A6 UniRef90-R6ZE19 UniRef90_UPIO0047EE450 UniRef90 R6KF37 UniRef90_R6ISA9 Unire90_R6DCW8

1
 GTKIVSQYIVTQGKVLDAETLI ${ }^{20} \mathrm{EPV\mid EFATVVINNSTFGDTSD}$
 YEDTGRVTND EGQALI GKTIDKENGPLV GANVYVDLTFRGAITD
 TDEKGGPL
NSVSGMVQE SSKQSII V RGQVTSSDDNSPLP T $\square$ SGTVVVDR $V$ RGKVAQGSGEPEADP TGVISGKUTDGEGNFSLP
GATDT $\square K G Q V V D N$ GGEP II
TGTVSDEQGP ${ }^{\text {GP }}$
 VKGNVVDQD
 TGTVVSAEDGEPVIG A ETRGTQ ASIKVLGTNTGTVTD VKVTGNVVDAKGESDI GASVMVKNTTMGVITD
 GV TVA GC目K GASIIENNTSNGVVAD

$\qquad$
GLTVT GQ

DEGSVVVDANGAP $V K G \square V K D A S$



UniRef90 S2DB14
UniRef90_UPIO0037555AC
UniRef90-H1YET0
UniRef90-E6XAT7
UniRef90_W4UQG8
UniRef90-K2PSM5
UniRef90-F6GC14
UniRef90-R5HYY8
UniRef90-H1Y9B5
UniRef90_UPIO0036E0D55
UniRef90-UPI000237B90C
UniRef90 L0G399
UniRef90_C6VTKO
UniRef90_UPIO0046886E2
UniRef90 R6YR15
UniRef90-U21048
UniRef90_UPI0003FD6B30
UniRef90-W2UKC4
UniRef90-K6AGT7
UniRef90-UPIOO047752D4
UniRef90-F6GEF0
UniRef90-UPI0003A639B5
UniRef90 F8X4X3
UniRef90-UPI00047901AD
UniRef90-A0A015RII5
UniRef90 UPI00041F2161
UniRef90-E4RRH1
UniRef90_UPIO00255B0D1
UniRef90_F7L4F5
UniRef90 FOSBH9
UniRef90-UPI00036F5F9D
UniRef90-R5NX21
UniRef90 R6VU52
UniRef90-S8GVM8
UniRef90-K6AJ45
UniRef90-D3T1J5
UniRef90 X1M438
UniRef90_G0J1M9
UniRef90_R7ZUI6
UniRef90-IOWJI1
UniRef90 ${ }^{-}$W4PMY9
UniRef90-A3XK43
UniRef90-W6TXZ7
UniRef90 UPIO00414CDF4
UniRef90-_10K996
UniRef90-I5BZW5
UniRef90 F4CD63
UniRef90-UPI0004096B9E
UniRef90_UPI0004693F13
UniRef90_F3PR05
UniRef90 C3YY10
UniRef90_G0L710
UniRef90_R6DC97
UniRef90_E6X6G5
UniRef90-EONVD0
UniRef90-U2CAD2
UniRef90-UPIO0046F4E8C
UniRef90 UPI000406839B
UniRef90_R5FA34
UniRef90-R5S6Q8
UniRef90 R6F1W3
UniRef90 S2DHR9
UniRef90_S7VPQ0
UniRef90_UPI00047AB804
UniRef90_S2DP75
UniRef90-E2NDB3
UniRef90_UPI0003614C20
UniRef90 K4ISJ1
UniRef90_R5KGZ2
UniRef90-A5FBZ7
UniRef90_UPI00029B152F
UniRef90_W8F2J0
UniRef90_UPI00036548EE
UniRef90_UPI0003B3BB2A
UniRef90-C6W728
UniRef90 A0A016JHT3
UniRef90-K1Z2Q5
UniRef90-K5YGS3
UniRef90-UPIO00471397E
UniRef90-UPI00036C71FB
UniRef90_U5C314
UniRef90-H7FNW6
UniRef90 W6TPV5
UniRef90-K6AMM4
UniRef90-D6D6A8
UniRef90-J3MG78
UniRef90 Q8A7A6
UniRef90_R6ZEI9
UniRef90-UPI00047EE450
UniRef90 R6KF37
UniRef90-R6ISA9
UniRef90_R6DCW8

Q
Q
$\mathrm{P} \square \mathrm{N} \square \mathrm{KMT}$ P
TVSFSMEP
T L
E $\square$ QLIE E
VLD $\square R$ L I P
EL
QVLSE
$\mathrm{T} \square \mathrm{N} \square \mathrm{Q}$
$\square$
V
$N \square s$ L
$\stackrel{Q}{\mathrm{E}}$
$\stackrel{\mathrm{E}}{\mathrm{V} \text { IT }} \mathrm{L} E \mathrm{D}$

VVGLEELP
$T$ T N E LAP P $\square$


VVLKEES
VVVLSEE
$\mathrm{V} V \mathrm{~L} T \mathrm{~T}$ GS
E L S
T 1

Q

Q L

A S LTEVVVI
E $\square$ S LDE E $\mathrm{C} \square$ S L S A
단

V IT L Q D
T $\square$
$\mathrm{A} \square \mathrm{N} \square \mathrm{S}$
$\stackrel{Q}{\mathrm{~N}} \mathrm{~V}$
EVSTALQEVVINAGE
Q
NTLDEVVI IGGGTI
VTMTED
QVLD A V V V I

E L LDD E V V V I



| UniRef90_S8FD54 | E 90 |
| :---: | :---: |
| UniRef90-K6B832 |  |
| UniRef90-UPI0004140527 | VLS |
| UniRef90-UPI000255CD68 | FL T $\square Y$ YQP S D L L L G V |
| UniRef90_UPI00037AFA7E | T L |
| UniRef90-W6TV31 | T I |
| UniRef90-C6VWV9 |  |
| UniRef90-R6IQA5 | T L N V L A |
| UniRef90_U5BZ41 | QINIVLQP |
| UniRef90-UPI00047CA993 |  |
| UniRef90-UPI00037C4E10 | KIVLQEDVMEL |
| UniRef90-R5C6Z7 | K L I D E |
| UniRef90-Q26H90 |  |
| UniRef90-R5N8A5 |  |
| UniRef90-B3QUX8 |  |
| UniRef90-K5ZPC3 | T |
| UniRef90_R7JFV8 |  |
| UniRef90-R5USD0 | T |
| UniRef90-D5BG84 |  |
| UniRef90-K9E1G0 |  |
| UniRef90-R6HT90 |  |
| UniRef90-UPI00029AD8DD | S $\square$ S $\square \mathrm{ENNP}$ P I F L D G |
| UniRef90- UPIO0047C6F80 |  |
| UniRef90-D1VY12 | V L |
| UniRef90-UPI000368D982 |  |
| UniRef90_X5DKI2 | $E \vee V L Q$ |
| UniRef90_X5DZC9 |  |
| UniRef90-UPI0003A42469 | TLEESASVAL |
| UniRef90-15C1K9 | DVETMEEVIV |
| UniRef90_K9DZ50 | K MID E V V V |
| UniRef90-UPIO004797554 | T L SLS NTEL N |
| UniRef90_R6HL58 | QMLAETVVI |
| UniRef90_UPI000476DBEC |  |
| UniRef90-E6Q011 |  |
| UniRef90_UPI00036AF924 |  |
| UniRef90-UPI0002888817 |  |
| UniRef90-D6CYP8 |  |
| UniRef90-A0A023C134 | K $\square \mathrm{D} \square \mathrm{Q}$ L P |
| UniRef90_UPI000479FB70 |  |
| UniRef90-R7J1W9 | E V |
| UniRef90-R5BBM4 | QL |
| UniRef90-Q8A549 | K M R I S L E P |
| UniRef90_G8TG26 | SVSLS S D L E M |
| UniRef90_C6W145 | TVNLE |
| UniRef90-K6YWE2 | VLSLLS R S P $\square$ EV |
| UniRef90_UPI0003643ABB |  |
| UniRef90-C6Y045 | R L |
| UniRef90-W0RE81 | QLT A Q A V Q L |
| UniRef90_UPI00041E625F |  |
| UniRef90-R7E3E8 |  |
| UniRef90-UPI00047AFD83 |  |
| UniRef90-R6ZND5 |  |
| UniRef90-UPI00036D2F38 |  |
| UniRef90-H1Y880 |  |
| UniRef90-J1FL28 |  |
| UniRef90-D31BU2 |  |
| UniRef90-UPI0004211ABB | V |
| UniRef90-S7V5T8 | El GALDEVVVT G F G |
| UniRef90-F4L004 | VLSL |
| UniRef90-X5DGN4 |  |
| UniRef90_U6RBW6 | EVLDEVVVI |
| UniRef90_UPI00047E192F | K I Y L K E E S F L |
| UniRef90-UPI00035FA292 | Q |
| UniRef90_L8JW96 | Q】 |
| UniRef90-A6NS74 |  |
| UniRef90-D8DXZ1 |  |
| UniRef90-F8EQL9 | T V S |
| UniRef90-UPI00046E7C5E |  |
| UniRef90-R7CUZ1 |  |
| UniRef90-J2SDS5 |  |
| UniRef90-FOR0W6 |  |
| UniRef90-V6SK81 | T |
| UniRef90-UPI00042845C5 | Q |
| UniRef90-UPI000255CDEC |  |
| UniRef90-D1W6T8 |  |
| UniRef90-UPI0003693F75 |  |
| UniRef90_UPI00047B40DF | T LNTV |
| UniRef90-G8R311 | VGTVVA V L |
| UniRef90-E7RSW8 |  |
| UniRef90-C7P6A6 |  |
| UniRef90-R5UDX9 |  |
| UniRef90-F3ZR09 | T |
| UniRef90_G1WDR5 |  |
| UniRef90-S2D9A2 |  |
| UniRef90_UPI000378F533 | VLQTDEKSL |
| UniRef90-R7ZMC7 | DISSASS |
| UniRef90-X5DWH2 | STAFVE $\square$ L L |
| UniRef90-R7ENF2 |  |
| UniRef90-UPIO0046F764F | T LS T S T N D L |
| UniRef90-R6SY80 |  |
| UniRef90_LOG3D6 | $N \nabla \mathrm{~S}$ L K E E |




UniRef90 D7IX88 UniRef90 UPIO0037BBEE5 UniRef90-R5D3X0 UniRef90 T1CPU4 UniRef90 UPI000477A347 UniRef90-D2QPA0 UniRef90_UPIO0036DEE7C UniRef90 K5ZRK0
UniRef90- B3CE01 UniRef90_UPI00029AED4B UniRef90_UPI00046365C4 UniRef90 UPI000255DB1 UniRef90-S2VPK5 UniRef90-D9RV63 UniRef90-I2EVS3 UniRef90-UPI0004064C05 UniRef90-G8TLQ7
UniRef90_S3YCR1
UniRef90 UPI00047DE7B3 UniRef90_UPIO00289C7D3 UniRef90-I2GCX8
UniRef90 UPI00034D8338
UniRef90 S2VNJ6
UniRef90-M7MJF4
UniRef90_UPI00047B7C14
UniRef90 H8GWZ2
UniRef90_I2GMG4
UniRef90-G0L4K7
UniRef90 UPI00047BEAD8 UniRef90 UPI0003603BD8
UniRef90-R5C163
UniRef90-A6EIU2
UniRef90 D8E075
UniRef90-UPI00047EC7D7
UniRef90_A6EA82
UniRef90 D1PCM9
UniRef90 C6Y0Y4 UniRef90-W6P457
UniRef90-GOLOGC
UniRef90 E5C878
UniRef90- J9GHF9
UniRef90-G2PISO
UniRef90 C1F9J8
UniRef90-UPI0004147184
UniRef90-UPI0003F76B49
UniRef90_UPI0003820A45
UniRef90_G6AJL7
UniRef90 ${ }^{-} 5$ HAJ6
UniRef90-S0FD77
UniRef90 UPI00037EFC51
UniRef90 UPI00029A9B38
UniRef90- C2M2T6
UniRef90_UPI00041498B8
UniRef90 UPI00036BDADF
UniRef90 UPI0004231E6C
UniRef90-R5U8ZE
UniRef90-F0R439
UniRef90 F4KTW
UniRef90-R9IBC9
UniRef90-UPI0003829029
UniRef90_UPI00047C22BB
UniRef90 C3R5L7
UniRef90-UPI000476F496
UniRef90-UPI0003B65BA7
UniRef90 H7FMZ9
UniRef90 UPI00041C2C23
UniRef90_UPIO0040B02BE
UniRef90 D2QT90
UniRef90 D7JFL2
UniRef90-R5TV90
UniRef90-UPI00036ABD3E
UniRef90_R5JWW3
UniRef90_UPI000469CB0C
UniRef90-R5UGS0
UniRef90-S8FI47
UniRef90 UPI00047A657E
UniRef90_R7KKM0
UniRef90-R6IS47
UniRef90 UPI0004746019
UniRef90_UPI0003F5DAB7
UniRef90_LOG5A5
UniRef90_UPI0003754E95
UniRef90 S2DNT5
UniRef90-L0G3J6
UniRef90-UPIO0047E99D6
UniRef90 W4S4B5
UniRef90 A0A015WQ61
UniRef90_UPI00046A8D6C
UniRef90_D5EWI1
UniRef90 UPI000479D7FE
UniRef90-D3HWW6
UniRef90_W6U5Q0

E

QPRTK LDVTMLAGD
QTLTEETHLI
$\mathrm{K} \| \mathrm{I}$ K E

VIVLEVSELSGLSG
$T \prod N \prod S \square A P$
DLLI RLAP

| T | L |
| :--- | :--- |
| V |  |


| V |
| :--- |
| V |

$\vee \vee N \square S \square A P$

NVSMEES
TIKLI QR P
$\square$
$T \square s \square A \square S$ D V VMEEGDL
$N \square H \square R \square T P T S D$

Q V
S L N $\square$

MTSVQA
TVSLERSP【EV
TLS
TVAMAAS
ELN F A L E P
EL
VMS T LD E V V I

V V
$P \square K \square V L E E L V$
VLAEESNTL
VLSVEESEL
E $\square$ N P NE

T TT L K E N

T $\square$ N T S L VP
EVLDE!VVI
SIDDGLMP
STSSLEEVVVV
VVLKEDSKlL
DLSDLE E
T L N $\quad \mathrm{V}$

E V V L
K S LLNEVVVI
$N \square A$ E T

UniRef90_UPI0003825207 UniRef90-R7ERI1
UniRef90-F9ZAN6 UniRef90_UPIO0047E52FC UniRet90_W6NSW UniRef90-12GBZ12
UniRef90-D1VYY2 UniRef90-UPI0004700744 UniRef90-R7NSI2 UniRef90-S2DWK2 UniRef90-A0A015RBK4 UniRef90_UPIO00367EEF9 UniRef90-AOAO16CUA8 UniRef90-F8NA62 UniRef90-A5FK31 UniRef90-UPIo0047A8E8B UniRef90 R5W5R6 UniRef90-G2Z3E7
UniRef90 K2QKV6 UniRef90-K1SCH5 UniReffollicgoo UniRef90-J1KQE2 UniRef90-F6GC18 UniRef90-F4CD54
UniRef90
R9GYN2 UniRef90-F8NBQ3 UniRet90-F4C6M6
UniRef90_H1HL30
UniRef90_UPIO004681F95 UniRef90_UPI0003710FC3 UniRef90_UPIo00255AC1F UniRef90-J4KDY5 UniRef90-UP100046A12D3 UniRef90-UP1000374CEC7 UniRef90-R6XLQ1 UniRef90-W6PB35
UniRef90-UPIOOO37EDBEE
UniRef90-A5FLW0
UniRef90-E6SUT8
UniRef90-R51421
UniRef90-D9RXG4
UniRee90-UPI00047C3D93
UniRef90 R7EKU9
UniRef90-F4C292
UniRef90_UPIO004708752
UniRef90-UPI000368D73E
UniRef90-K5DCZ9
UniRef90_UPIOOO4040790
UniRef90-H1XZP8
UniRef90 UPI00047E3877
UniRef90-UP10003F5CA0C
UniRefol-R5U5P2
UniRef90 ${ }^{-}$W4UN51
UniRef90-14Z7Y3
UniRef90-UPIO003AAE7EC
UniRef90-C7RCZ8
UniRef90 F3PT76
UniRef90-UPIO00248E7F6
UniRef90-FOR442
UniRef90
A4C204
UniRef90-J6IAM3
UniRef90-B3C5Z7
UniRef90-R5JTQ5
UniRef90-18W1 12
UniRef90-G2EH67
UniReffo-10WF56
UniRef90-W0RNX4
UniRef90-C6W116
UniRef90-UPIOOO372AE01
UniRet90 X5DYY4
UniRef90-Q72TQ3
UniRef90-ROHKX2
UniRef90_UPI00041409F4
UniRef90-GOL8Z9
UniRef90-19ED09
UniRef90-M7N536
UniRef90_UP10002558B32
UniRef90-D7JF89
UniRef90_UPIO0035F8C85
UniRef90_R5K7Z7
UniRef90_A0A015PBG7
UniRef90-A6ELM3
UniRef90-R5UQC2
UniRef90-F8WYR2
UniRef90 L1N1M8
UniRef90-U21086
UniRef90-R7EHLO
UniRef90-R7EHLO
UniRef90-A6E809
UniRef90_UPIO0047D3364
UniRef90_UPIO00478964F

1
$\square{ }^{10}$
10
20
Glvis ${ }^{30}$ GVS VGTPKGTVTD EGNPMPGVSVMVEGTTTGTISD

KVEGVVK
T IS GTV

NTVKGHVVDE KGEPLI





TVSGTVKDD TDPS

$V T G V V T D A$ SD
TN
TD
$T \nabla s G T V Q D E$ $\qquad$ VSGSVGL

DR
NGD
V
YTLS GVVKE
40 DKRGDAMPGVTVLIKGTKDGVATD TDEENDPLSGASIVIKGSTTGVAAD DKNGEPLIGVSIVEKGTTNGTVTD GVNDLEKNTQTGTTTD GATVVEPGTDNKATTD GVNVRVKGSTMGTMTAD GALVSVLGTDISTITD GVSVVVKGTTIGTVSD GVNVNVGNAKEGGVTD $G T S V V I K G T N I G V V T D$
$G A V V E V V G S S K A M S E$
$G V N V V V Q S S K G V S T D$ GVNVVVQGSSKGVSTD GATVKVKGTRNAAVTD GASLKVKGTTVGTSTD GVNVVVKGTSNGTQTD GVSVVVAGTANGTQTD ${ }^{G}$ ASSNGPFPGVSIVVKNTQTGTATD ASSNETLIGVTVAVANLSTGTVTN

पTGKV TSQGEDVIGATVTAVGTLYRAVTN TVS VRGRVSEQANGQTVPLVGATVWAGTTSGTVTD V K VVKGTDTDSSGEPLI GVSIMEKGTSNGTVSD

$\qquad$ GASVLIKGTTTGTQTD
GATVAVEGTKDGAATD
G

KTSGTVTSADNADKDQ
KVIREVKGKVLSEEDGFPVI GFAQKGTVAGMUTDKNLNN EVLPGATVMVEDANIDTVTD GYAVEGKV TDVHGLPLA

VSGTVFDAQGTLP


GVPYVKGTTNGTIJN

$\square K G K \square T D S E N G S A D P$
TDPTGAA ${ }^{\text {GGVNVIVKGTSQGTSSN }}$

 GYV SGNVSEADDGAPGEGVKVTVKGTAHSVFTD
 GASVLV

```
YDQEGAP乌PFS
GQE|SGNV
```

```
    TVKGTVK
    S\T GAVVVKGR|\DAN
        EATVVKGR\square\DAN
```

        TSGTV
        SVSGVVVDE
                                    DKAGETVIGASVVQKGTGNGTETD
    TDASGESVIGASVVEVGTTN GVITD
NSSEPDPNGVQVQVLESUFSTETD

GASVLVKGTADGTTTN
YDQEGAPGPFSGATSVVGTNIRAISD



UniRef90 UPI0003825207
UniRef90-R7ERI1
UniRef90-F9ZAN6
UniRef90-UPI00047E52FC
UniRef90 W6NSW
UniRef90-I2GBZ1
UniRef90-D1VYY2
UniRef90_UPI0004700744
UniRef90- R7NSI2
UniRef90_S2DWK2
UniRef90 A0A015RBK4
UniRef90 UPI000367EEF9
UniRef90-A0A016CUA8
UniRef90-F8NA62
UniRef90 A5FK3
UniRef90-UPI00047A8E8B
UniRef90-R5W5R6
UniRef90 G2Z3E7
UniRef90 K2QKV6
UniRef90-K1SCH5
UniRef90-I2GDQ0
UniRef90_J1KQE2
UniRef90 F6GC18
UniRef90-F4CD54
UniRef90-R9GYN2
UniRef90 F8NBQ3
UniRef90-F4C6M6
UniRef90-H1HL30
UniRef90 UPI0004681F95
UniRef90-UPI0003710FC3
UniRef90_UPI000255AC1F
UniRef90-J4KDY5
UniRef90_UPIO0046A12D3
UniRef90_UPI000374CEC7
UniRef90_R6XLQ1
UniRef90-W6PB35
UniRef90-K2PUU7
UniRef90-UPIO0037EDBEE
UniRef90-A5FLW0
UniRef90 E6SUT8
UniRef90 R5I421
UniRef90-D9RXG4
UniRef90-UPI00047C3D93
UniRef90 R7EKU9
UniRef90-F4C292
UniRef90_UPIO004708752
UniRef90 UPI000368D73E
UniRef90 ${ }^{-}$K5DCZ9
UniRef90_UPIOO04040790
UniRef90-H1XZP8
UniRef90 UPI00047E3877
UniRef90-UPI0003F5CA0C
UniRef90-R5U5P2
UniRef90 W4UN51
UniRef90 ${ }^{-14 Z 7 Y 3}$
UniRef90-UPI0003AAE7EC
UniRef90-C7RCZ8
UniRef90-F3PT76
UniRef90-UPI000248E7F6
UniRef90-F0R442
UniRef90-A4C2Q4
UniRef90-J6IAM3
UniRef90-B3C5Z7
UniRef90-R5JTQ5
UniRef90 I8W1X2
UniRef90-G2EH67
UniRef90_10WF56
UniRef90_A6ERG6
UniRef90 WORNX4
UniRef90-C6W116
UniRef90-UPI000372AE01
UniRef90 X5DYY4
UniRef90-Q72TQ3
UniRef90-ROHKX2
UniRef90-UPI00041409F4
UniRef90 GOL8Z9
UniRef90-19ED09
UniRef90-M7N536
UniRef90-UPI0002558B32
UniRef90-D7JF89
UniRef90_UPI00035F8C85
UniRef90_R5K7Z7
UniRef90 A0A015PBG7
UniRef90-A6ELM3
UniRef90-R5UQC2
UniRef90_F8WYR2
UniRef90 L1N1M8
UniRef90-U21086
UniRef90_R7EHLO
UniRef90 A6E809
UniRef90-UPIO0047D3364
UniRef90-UPIO00478964F
$V L N \square K$
VVLT A S N E L
TVTLQQS
Q L
T $\square$
$\square G T$ Q E Y S I L A P S D L
$Q \mathrm{~V}$ S Q
SI
A $\square$ T M K E D P

Q
VI LDED
$\square 1 \mathrm{~T}$ N A DPVLL

T L EKD【VM
$T Y S \nabla Q \square A$
T $\square$

| T | S |
| :---: | :--- |
| R | $\mathrm{V} \mathrm{L} Q \mathrm{E}$ |
| T | N |

$T \| N L$


K L N M K L E P
NVILEEE!LTL
$N \square S$ MEDET $\square G \square$

QLGTESS
$\mathrm{T} \square \mathrm{N} \square \mathrm{A} \square \mathrm{E}$
E LS
A QALDEEVVVI
QV


| Ref90_D | E[V] |
| :---: | :---: |
| UniRef90-C7PEE4 |  |
| UniRef90-WOEU94 | DDGRYEI EVPAGS NILFSYVGYCSEKVLDVT\TEDS |
| UniRef90-R5J813 | VDGEYTI R ADKGEKL |
| UniRef90-UPIO004 | IL GNFSLM ASEEDTLVFSFIGFESQEMT |
| UniRef90-UP1000360 UniRef90-E6PHE5 | AEGRYELGLAPG KYDIVFQYLGFQTDQKSVEDTTGFS |
| UniRef90-E6P | MDGEFTISASP |
| UniRef90-Q89 | LQGQYRIE ANKGETLIFSYIGFD KVEKVVFSAKM |
| UniRef90-G2PQM3 | FDGHYAI N AEKGQTLVFSYVGQETAE VVVSDAN |
| UniRef90-UPIO0046FCCE8 | DDGSYSIA VPEESENGSLIFSYVGYLSQEDPNVTLLCDT |
| UniRef90-UPIO00299EFOD | SEGEFSLK |
| UniRee90-C6 |  |
| UniRef90-UPI00047C3D54 | EYGFYSLK LPEGT HNLVISYLGYQEQADT IEIDKNS |
| UniRet90 | DDGNFSIPNASPSSK VKISY |
| UniRef90_UP100035E | F ${ }^{\text {F }}$ |
| UniRef90-UPI00046 |  |
| UniRef90-R72 | EGNYQLEVPGGPESVLVISYIGFTTQEVTVGVVNVSL |
| UniRef90-U2IH30 |  |
| UniRef90-W6TVN2 | DTGNFVLKNDPSG NYKL |
| UniRef90-C3QZM5 | LDGNYKIM TKSNPVVVYSYı |
| UniRef90-D2VMA9 | VDGHFYI EVPNKQS VLNTTY G |
| UniRef90 UPI000477 |  |
| Ref90-UP1000 | SDGKFSLKT SKQPPYVIEISSV |
| Ref90 UP1000 | FDGSYUIENLEYGT YNLLISTVEAKKTVSUTUAQEKT |
|  | - |
| UniRef90-UPIOOO3F9CCEC | PNGGFELT LTDRAEYNLQFRYVGYETIUYPDTAVGDGR |
|  |  |
|  | G |
| UniRef | AHGHFLFLNLSPDT YTVTAKKAGFNTVSLSGVTVFADQ |
| $\begin{aligned} & \text { UniRef90_E6C } \\ & \text { UniRef90 } \end{aligned}$ | ADGKFA |
| UniRef90-UP100037C6546 | A |
|  | DKGAFVLDNIPAGV YQ1 TLS |
| UniRef90-G8UKJ3 UniRef90 E4RVE6 | LIEGHFRLTGLKSGKT VLTESYLGYKTEEKTNMPADHHQ |
|  | S ${ }^{\text {G }}$ |
| UniRef90-F2KYO1 | DGRYT QGMRVG GPYKVSVAYDGQKTKTFENVTLTEDL |
| AOAO |  |
|  | EDGSFLLRNIA |
| W6U | QNGVYTIS VP |
|  | MDGDYTLSG DDTNKSVLEVTY |
|  |  |
| UniRef90-GOYY70 |  |
| UniRef90-UP1000468 | YNGHYTLSASPQDU Y L VFSYGGYRTQQ |
| UniRef90_Q02DB4 UniRef90 G0J115 |  |
| UniRef90-A0M1F1 | ADGKFSLK VPEDLI |
| K9E | LDGNFTLQVSP NTTLLFTYVGYLSQEI ENVRMEED |
| Unif | H |
| UniRef90-D2OS19 | ASGAFQLTNLKSAPV |
| UniRef90-A8UMA5 | TLQYSY |
| D7VRS8 | NAGS |
| UniRet90_W4PMQ0 |  |
|  | QNGEFRFRNLSPG QYTL |
| UniF | MDGKFTDS VPA DKATLVFSFIGMESETMVVKQTDL |
| UniRef90 UPP100036AC9CA | FDGNFTIEKVKTGDİLVERY |
| UniRef90-D5EY19 UniRef90-A0A0153 | FDGNFPLLKEVPSTVES |
| 5N3 | $\checkmark$ S GEYMV |
| UniRef90-C6VTQ9 | QQGHYTIG |
|  | PNGKYKI DVP DDKAVL |
| UniRef90 UPIOOO47B4F28 | FDGNYS:K |
| ${ }_{\text {A6E }}$ | A |
| UniRef90 W6TZ50 |  |
| UniRet90-UPIOOO46ED | A |
| UniRef90-C7F | ASGNYGF NVPALSG |
| UniRef90-G1VH | DNGYFILRCQSHSFNNDTLIDSF |
| UniRet90-D2QEFO | ANGEYKi S I Pi |
| UniRef90-U7UEX2 | V |
| niRef90_C9P |  |
| UniRef90_R6HPX4 |  |
| UniRef90-C6W6 | NNFTNM NGAATLISSSVGYSKEVTNVTVGMDA |
| UniRef90 W2USQ3 | , |
| UniRef90-F9Z8E | dGkFtLKTEAGQL |
| UniRef90-UPIO0046B025 | MDGRYKIK VP E E M I F S M G |
| ef90 C6W184 | ADGTYSLTVP DENAVL |
| ef90-H7FMD4 | FDGKYS |
| 7A92D6 | A |
|  |  |

UniRef90 D2QUP2
UniRef90 C7PEE4
UniRef90-WOEU94
UniRef90-R5J813
UniRef90 UPI0004761410 UniRef90_UPIO00360383A
UniRef90 E6PHE5 UniRef90-E6PHE5
UniRef90_E4T8N3
UniRef90-Q89ZB2
UniRef90 G2PQM3
UniRef90_G2PQM3
UniRef90_UPI00046FCCE8
UniRef90-UPI000299EF0D
UniRef90_C6XYK5
UniRef90-V8BMI7
UniRef90-UPI00047C3D54
UniRef90-R6W713
UniRef90_UPI00035E5D2D
UniRef90-UPI0004680D47
UniRef90 R7CX01
UniRef90-R7ZRR?
UniRef90_U2IH30
UniRef90 G8UQX4
UniRef90 ${ }^{-}$W6TVN2
UniRef90-C3QZM5
UniRef90-D4VMA9
UniRef90_UPI00047779B6
UniRef90-F3ZV35
UniRef90-UPI0004248D92
UniRef90 UPI000401E8DO
UniRef90 UPI0004799801
UniRef90-Q1CYN9
UniRef90_UPI0003F9CCEC
UniRef90 R5RU46
UniRef90- C9Q0V8
UniRef90_UPI0003065FB0
UniRef90_E6Q558
UniRef90 A3HVE1
UniRef90-UPI00037C6546
UniRef90_UPI00036C4D46
UniRef90 G8UKJ3
UniRef90-E4RVE6
UniRef90-K9EAI8
UniRef90-F2KY01
UniRef90 A0A024FCH0
UniRef90_UPIO0035F7CF8
UniRef90-F8ELF2
UniRef90 ${ }^{-}$W6U1Y6
UniRef90-R6CKI0
UniRef90-F4KQL7
UniRef90-GOIY70
UniRef90 UPI000468BA23
UniRef90_Q02DB4
UniRef90_G0J115
UniRef90_A0M1F1
UniRef90 K9E5K6
UniRef90-UPI000411172F
UniRef90-UPI00047036E1
UniRef90 D2QS19
UniRef90-A8UMA5
UniRef90-D7VRS8
UniRef90_W4PMQ0
UniRef90-UPI0003629FAE
UniRef90-R7DMI8
UniRef90 UPI00036AC9CA
UniRef90-D5EY19
UniRef90_A0A015N337
UniRef90_G8NPA3
UniRef90 C6VTQ9
UniRef90-F8EJ19
UniRef90-UPI00047B4F28
UniRef90 H5Y2D8
UniRef90_A6ECL4
UniRef90_W6TZ50
UniRef90-UPI00046ED0EC
UniRef90 C7PEN3
UniRef90-G1VHM2
UniRef90-R6CV46
UniRef90-D2QEF0
UniRef90-U7UEX2
UniRef90_C9PUZ8
UniRef90_R6HPX4
UniRef90 C6W6W6
UniRef90 ${ }^{-}$W2USQ3
UniRef90-UPIO003672775
UniRef90-F9Z8E2
UniRef90 UPIO0046B025B
UniRef90_C6W184
UniRef90-H7FMD4
UniRef90 UPI00047A92D6
UniRef90-R6Z3A6
UniRef90 C2M6T1

QLLS ELVVI
$T$ L
$S$ VAL
DVSLKAS
TI
$R \square T \square Q E S$
$T$

VYSSED

QVID E


SLS R R Q D A L V L E A
$\square$
$\mathrm{S} \square \mathrm{S} \quad \mathrm{V} \mathrm{T}$ S P
VLMAESS
A MT $\square R \square \mathrm{~S}$ P
$\mathrm{E} V$
$S C S L Q D$
TVNV
$T$ V

$T \square N \square S$


Q $\square$ TVKTS $\quad \square$ A ADD $\square$

DVNSLEEVVV
SVS
T
K V VLKN N
TVELLKES

T V
$T \frac{\square}{T} G S V T D P$

TVNTTLESSSTALGDV
E IS I V
T L S T

D V

T I S K E R A
TTSLDEVTI
K L
EV
$\bar{V} L \square P Q E$

|  |  |
| :---: | :---: |
| UniRef90＿XOSO44 |  |
| UniRef90－R5S2H5 | SGTV |
| UniRef90 W8EUI6 | GRV |
| UniRef90－K2PPD2 | GSV ${ }^{\text {a }}$（SSDGVPLPGVTILVQGTSNGAVTD |
| UniRef90－UPI000468F628 | SDDK口P\V |
| UniRef90＿10k8 | S |
| UniRet90－FOS6TC | D |
| UniRef90－R6B269 | PVIGASVVVAGAARGTVTD |
| UniRef90－FoSAQ3 | GKAQSCDIVFYGTVKDAKDQSVLAGANISISSDQKNSLSD |
| UniRef90－Q01U46 | TGTURGVMTDDS GAVIPAANVALTGKGKTAQTQ |
|  | PTI GASITVEGEKTGADSD |
| UniRei90－UP10004248FF9 | GVPLEFASVSLLKTTWGTTAD |
| UniRet90 UPIOOO40E0584 |  |
| UniRef90－I6ZYA8 | LRGKVTDAEDGSPIDGGAVEEKGTTNGTATD |
| UniRef90－UPIOOO47CA | ESREPLV GASVWIEKDGKGAVTD |
| UniRef90－UP100029B2A |  |
| UniRef90－W6T | SVVDE NNDPLA GASVKIKGNKSGT T T N |
| UniRef90－UPIOOO4 | S LGVVVKVLDKESKEPLPFTGNVIVEGTSMGTMTN |
| UniRef90 R6BU67 <br> UniRef90 UPI00047543 |  |
| UniRef90－UP10004203D |  |
| UniRef90－W8FAM8 | SUSGRV TDRTTGDGLP GVTVLVKGTTNGVSTN |
| UniRef90－H7FT76 | GLI TVSRNNETLIGVNVYIPEVKSAALTN |
| P1000 | KLEGTVVDAVTKEPII GASINIKGTTHGVVTD |
| UniRef90－R5U2F | FVGGKVTDE KGEPIIGASVAYTGTNDGTVTD |
| UniRef90－R6PN UniRef90 TONU1 |  |
| UniRef90－K41kV0 | GKV IDDHDKSPLF GAVVQLVGLNKGVYTD |
| UniRef90－F4C4Y3 | GNI GGVVKSQSDGQPIP GVSVKVKGAKTGTSTD |
| iRef90－F3PUM7 | KVTGQVFDELL |
| UniRef90＿U2NO |  |
| UniRef90－12GGN5 | KRGTVSD |
| UniRef90－UPIOOO37F | NVKSSGAIVPETQVSLNNSAT GGASLST TSN |
| UniRef90－R9GYH7 |  |
| UniRef90＿UPIO004778 |  |
| UniRef90－UP10003756B | GTVSGNVVDAQ GAAIANAD QLTNTLRAKSN |
| iRef90 R6CA | DKQPLI GVVSVYVSADDLGVVTD |
| UniRee90－E6 | SGIVK DVNGAPVVGATVKEKGTSNGTDTD |
| UniRe | 1 SGlV TEGGLPLPGVAVVVKGTMRGTQTD |
| UniRef90 UPIO0037D81EE | TVTGRVV DAATNEPL AGCSVLLKGTQRGTTTD |
|  |  |
| UniF | HSLTGATVLGVVTDSTDNTGMPLPGASVMEVNTTNGASSD |
| UP | $Y T \Pi K G K I V S Q A \quad$ GNEPLAGTSVLVKGTTLGTVAD |
| UniRee90－UPI00046A3D5C | GTV TSKEDGLPLPGVSVKASGTSAVTQTN |
| UniRef90＿GOL2 | （ EDQDGNPLAGVNVVEKGTTNGTTTD |
| UniRef90 D7JGW5 |  |
| UniRef90 UPIO00479 | $\square^{\text {V }}$ |
| PIOO | $R V \square S V Q D G Q P L P$ GVNIQVKGTTNGVSSD |
| U5 | KI SGRVTDQIT GEALVGASVTVKELINKTEITN |
| UniRef90－R6AW40 |  |
| UniRet90－D8E073 | GTVK DVNGEPMIGVTIMI NGRS AAVTD |
| niRef90－WORHG3 | RQP |
| Ref90－G8TE17 | G |
| 位 | RVV ${ }^{\text {a }}$（DEKGEGLPGVSVTLRGTNRGTTTD |
| H1YG | SVSGKDTATENGQPVRQASISIDRKGVGTATN |
|  |  |
| iRef90－C6Y218 | IKGKVIDSSTKETLP |
| UniRef90－U2CWD2 | Q $Q$ |
| Ref90－UPIO0040 |  |
|  | VDLTVTDKNTKESVIM ANCSLSPLGAFTVTN |
| UPIO003712C45 | GRVTGE QNEGMPGVTVS｜KGSTRGTTTD |
|  |  |
| R5P019 | DKRKELLPGVTIMVKGTYYGGTTD |
| Unil | AQDGG【RGKVV SRNGRVALSNVQVK |
| 8FAW0 |  |
| UP100047C2C4C | FVTDTKGEALPGATVVAVGSRYGSVTL |
| UniRef90－UPIOO04171106 | GTSTGTITD |
| UniRef90－UP10003B622F2 | LALTGLVVDNNAGAPVVGSTVTVDGLPAATATD |
| UniRef90－UPI0003 UniRef90 R4YND | －ETVTN |
| UniRet90－19A8P5 | HVKSKETAGTVEPLT GANVLLSGTSVGTVS |
| 8UZ79 | GIV DSETKEPII GASVWLKNSSAGAVTN |
| UniRef90－W6 | KVSDAKDNSPLP GVSULVKGTTLATSAD |
|  |  |
| UniRef90－Jos3n | S |
| iRef90－G2EG52 | N |
| f90－F4C3W4 |  |
| UPIOO047489 <br> 都 | AGVNDVVQDTQKGT |
|  |  |



UniRef90 X0S044
UniRef90－R5S2H5
UniRef90－A3J5H6
UniRef90 W8EUI6
UniRef90 K2PPD2
UniRef90－UPI000468F628
UniRef90－I0K8G7
UniRef90 F0S6T0
UniRef90 B5CW61
UniRef90＿R6B269
UniRef90 FOSAQ3
UniRef90 Q01U46
UniRef90－R9H653
UniRef90＿UPIO004248FF9
UniRef90 UPI00040E0584
UniRef90－16ZYA8
UniRef90－G8UQG7
UniRef90－UPI00047CAB5F
UniRef90 UPI00029B2AA8
UniRef90 ${ }^{-}$W6TUJ4
UniRef90－UPIO0047085B1
UniRef90 R6BU67
UniRef90 UPI00047543B9
UniRef90＿UPI0004203D37
UniRef90－W8FAM8
UniRef90 H7FT76
UniRef90＿UPI0003FDB802
UniRef90＿R5U2F6
UniRef90－R6PNN9
UniRef90－TONUK2
UniRef90－K4IKV0
UniRef90－F4C4Y3
UniRef90 F3PUM7
UniRef90－U2NQN3
UniRef90－J9D7U9
UniRef90－I2GGN5
UniRef90－UPI00037F7711
UniRef90－R9GYH7
UniRef90＿UPI000477BD7F
UniRef90 UPIO003756BE3
UniRef90 R6CAK1
UniRef90－E6X9W3
UniRef90＿R6HK03
UniRef90 V6S3R3
UniRef90＿UPI00037D81EE
UniRef90－R6LBV2
UniRef90 A3XIS2
UniRef90－R6L9FO
UniRef90－UPI00047B4891
UniRef90＿UPI00046A3D5C
UniRef90 G0L2X4
UniRef90－D7JGW5
UniRef90＿UPI0004796F1C
UniRef90 G8UM41
UniRef90 UPI000372FF21
UniRef90－U5BW53
UniRef90－UPI000470DB36
UniRef90 R6AW40
UniRef90－D8E073
UniRef90－W0RHG3
UniRef90－G8TEI7
UniRef90－UPI00037E6746
UniRef90＿H1YG30
UniRef90－E6SS34
UniRef90＿UPI00037D6D0A
UniRef90－C6Y218
UniRef90＿U2CWD2
UniRef90－UPI00040C5AAE
UniRef90 UPIO00412D295
UniRef90－UPI0003712C45
UniRef90－14AIS4
UniRef90＿J2SA25
UniRef90－R5P019
UniRef90＿D4IPZ0
UniRef90－S8FAW0
UniRef90 UPI00047C2C4C
UniRef90－E8UWY8
UniRef90－UPI0004171106
UniRef90＿UPI0003B62DF2
UniRef90－UPI0003612B28
UniRef90－R4YND0
UniRef90－19A8P5
UniRef90 I8UZ79
UniRef90－W6TSI3
UniRef90－A0A024IN66
UniRef90 Q26EB3
UniRef90－J0S3N1
UniRef90＿G2EG52
UniRef90－F4C3W4
UniRef90 UPI000474890B
UniRef90＿UPI000248CF6
UniRef90＿A0A024FDM8

E V
$V 1 D \square T \square A P$
TESSAD
TSNYNGV
$\stackrel{E M N \square}{N} \mathrm{~L}^{\mathrm{D}} \mathrm{D} \mathrm{P} \square \mathrm{QM}$
E

E L
LQLQESP】EL

T
E $\square$

V V

M【NT
VI

VT K T VN F P VVLS $\square \mathrm{G}$

A L S
Q M
NVK L A P A D VML

V VGSRTAP
E L
$N \square A L V G A D A \square M \square K G$
STADVDFVLRA
$\square$

N【ALDENA
T



E
P V L T VP $\square$ P $\square$
$T V S L Q Q R$
$A T A V N V D L S M S G D$
VIT LQE
VI N V VLAP
D Y G T पE L E
T
$\mathrm{V} \mathrm{V} N \mathrm{~V}$ Q
T $\quad$ L

lupas_21
lupas_14
lupas_28
jnet_
conf
sol25
sol5
sol0
jhmm
jpssm

$$
\begin{aligned}
& \text { B }
\end{aligned}
$$

UniRef90_F9D5U0 UniRef90_UPIO004790FD9


$\longrightarrow \longrightarrow$

