UniRef90 F7B4L5 UniRef90-UPIO003C146F2 UniRef90-G1KLG1 UniRef90 UPI00039923B6 UniRef90-UPIO003EA919 UniRef90-UPI0002A4AD55 UniRef90 W5UKC0 UniRef90-UPIO003F09242 UniRef90-UPIO0045739A2 UniRef90 UPIOOO4 UniRef90-L8Y213 UniRef90-V4UPL1 UniRef90-MOSA16 UniRef90-D6WNJ2 UniRef90-D6WNJ2 UniRef90_S4RX5
UniRef90-I1H020 UniRef90-V7AU88 UniRef90-UPIO0046C2751 UniRef90_K1QAA9 UniRef90_M7ZG57 UniRef90-MOT658
UniRef90 M7AXS2 UniRef90-H2LM77 UniRef90-A9SAL3 UniRef90-V4MCN2 Hase .amawn UniRef90-W1PUD9 UniRef90-MOTR30
UniRef90 LTM4E5 UniRef90-V5GRM1 UniRef90-EOVPE6
UniRef90-R7UEAO UniRef90_N6UOU1 UniRef90_S9R4A3 UniRef90-D8QYX3
UniRef90DDEJV7 UniRef90-MOS848 UniRef90_UPI00046C273C UniRef90-Q4TOS6 UniRef90_UPIO002653C49 UniRet90_UPIo0046CAE12 UniRef90-O54ID5
UniRef90 T1HBP2 UniRef90-B4KV94 UniRef90-T1KXW8 UniRef90-S8ALFO UniRef90-E5A514 UniRef90-Q5TTT7
UniRef90-A0A022PZG1 UniRef90_T1P902 UniRef90_E1ZFB1
 UniRef90-U5EPG0 UniRef90-FOY379 UniRef90-UPIOOO185A641 UniRef90_O55F72 UniRef90-B9HP37 UniR Ref90-BZZZ396 UniRef90_UPIOOO2C34143 UniRef90-A0A024J8B5 UniRef90_Q9UTP4 UniRet90_D8LWT3 UniRef90-M1VAC8
UniRef90
B2AWW5 UniRef90-D5GN42 UniRef90 UPIO0029DAB67 UniRef9- B8P311 UniRef90-D3BRQ3 UniRef90-D2VYM6 UniRef90-UPIO003F498C7 UniRet90_E3KXB1 UniRef90-UPIIOOO2B4291D UniRef90-C3XWA1 UniRef90-10Z4A2 UniRe990_E9B280 UniRef90-R9XKG0 UniRef90-K4CKS1 UniRef90 W9XSK1 UniRef90-Q5BFM7
UniRef90 ${ }^{\text {B0x11 }}$ UniRef90-UPIO004622677 UniRef90-M1W1D6
UniRef90_U4LUDO

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 LDLHGLHVEEALHHADRVLQQKVAETQQTGGKPYLSVICT LDLHGLHVEEAVTHLSRVLQEKSEEHQQTGKPYLCVIT LDLHGLHVDEALRHLKIVLEDKMAECQRSGGKPHLSVI T LD
 LDLHGLHVNEALYHLKNVLDEKLHEHQQKGGKSFLSVIT LDLHGLHVDEAAHHLSQVLLDKCLEFHQGVCPPQLSVITT D DLGGLHVEAAVVLKHELSVLRSTARAAGQRVYICVGT VDLHGFTVGDA: GVLDEFLDKNEQLENGPGQGKHSVGG VDLHGFTVGDAIGVLDEFLDKNLEQLENGPGQGKHSVGG LDLHGLHVGEATAALADVLEQRQRECQGQGKSSVLSVGT

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TI DLHGQHVKQAM
TVDLHGLHANADD
 T I D L H G G Q F V E E A E E I L D K R I Q Q G Q T H L H V I


| $I$ | $D$ | $L$ | $H$ | $G$ | $L$ | $Y$ | $V$ | $K$ | $E$ | $A$ | $D$ | $D$ | $L$ | $D$ | $I$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $I$ | $D$ | $L$ | $H$ | $G$ | $L$ | $Y$ | $I$ | $D$ | $E$ | $A$ | $V$ | $Q$ | $A$ | $V$ | $Q$ | 1 HDQYGTDSQSLRFLRVIT TI DLHGLYVEEALERLNQRFDKRKGTLVI VGGAGNHSANH



TVDLHGLYVAEALEYAQRAL
TVDLHGLYVAEALEYAQRAA
ALSSPEFKQNGGKPYLSVIT
$G A A R E S G Q A D V G Q G Q H S E N G$
 I DLAGLHVTEALEMVSQULDVHTNGEYQGNGLGNHSQGG

TI DLHGQHVKQAM RLL



 TI DL H GQFVEEAEDILEERIRYARKHLHVVIVGKGNHSTGH







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| :---: | :---: |
|  | LPAVKKYLDREGWRYA DSGGCISVTT |
| Ref90－J9EY J 2 | GAKIKPAV的WLEQCGYEYNTSNKGE |
| UniRef90－M2PGW7 | KAKLKPAIEELVEKHGLIVEDPNEGVLIVNL |
| UniRef90－UPIO0035A2F1C | GRG |
| UniRef90－R1G2 | $\checkmark$ OK |
| UniRet90＿10YU77 | I ARLLPAVEDYLKRKNMYYVHEGGGSVLVDI |
| UniRef90 O6CS72 | VAKLKPAl QELCDEANLHVDSKNTGVVII ${ }^{\text {N }}$ |
| UniRef90 K5WV71 | NPK KPA QAFLEKHHFP VEVDP |
| UniRet90－O54MD6 | AKIKPRVNSFLKENSLLFEENKG |
| UniRef90－10YVR7 | VQKLKPALEKLAQEERLTCNKPHD |
| UniRef90－H8X444 UniRef90 N1JCN7 | 1 SKKLKPAVAELCCSESNLKYUDPNT |
| UniRef90 N1JCN7 |  |
| UniRei90 G4TJP2 | VAKLKPAIIEELMVKYQLQ |
| UniRef90－C5E005 | LKPAVEELCDEARLKYDDPNAGV |
| Ref90＿C5BYN8 |  |
| Ref90＿S7RW56 |  |
| UniRef90－UP | GRTLQRAI HEYLREHRFRFAEP |
| UniRef90－UPIO004416124 | VGGKLRPA EELMQKHQLEDDPPRNGVLVVQL |
| Ref90－K3WV24 |  |
| UniRef90－A0A024GR71 |  |
| UniRet90－Q6FNK4 | ПSKIKEETIELCQSLGLNYNSKNT |
| 俍et90＿B9EU66 | GGKIKRAVAELVEKEGVEWHEENAGTVVLRL |
| 40 | L |
| UniRef90＿JoM4B7 |  |
| UniRef90－L2G061 | EALCRELGGLKY E ENAGRIY NL |
| UniRef90－OZK17 | KQKLKGATEDYLKQRQFAYEAASAGSFQVRV |
| UniRef90 L8HBW2 | GSQIKPAVERHLRANNYQFREQGGVVFIRI |
| UniRet90－D5G3V0 | VPRIKPEVERLLAEMGVRYSRAEGGAFMV |
| UniRef90－F8NT | VAK KPAMEELIQKHHLLAEDPNNGVLIVYL |
| UniRef90－D8LQ36 | 俍 |
| UniRef90－UPI000444A7D0 | GAKLKPA |
| UniRef90－W4K3M7 | VPKLKPAI M QFLENDGLAVAEQNAGRL |
| UniRet90＿U9TPW7 |  |
| UniRet90＿S9VCH4 | V |
| UniRet90＿W4KG | VAKVKPAVEKMLKSRGLVVTEQNAGVLIVQL |
| UniRet90－UP100021A4C1F |  |
| Ref90－ $\mathrm{H6CB}$ |  |
| UniRei90－D7G092 |  |
| UniRet90－M0THG8 | 㑑 |
| UniRef90 S9VV37 <br> UniRef90 c97MG |  |
| UniF | ALKLAITGRMQDYHI D |
|  | RIKPKVILMLDS Q |
| UniRef90－V2XVO2 | QPKLRPAVYAAMKKHGFQCSSRNPGVLVLSL |
| UniRe990－X8JL39 | L |
| UniRef90－W4K3U8 |  |
| UniRef90＿UPI0004407A32 <br> UniRef90 S2JF76 |  |
| UniRef90－${ }^{\text {c } 5 \mathrm{Gc}}$ |  |
| UniRet90－H2W1K0 | GARIKPEVVKMLREMGVPFDQYNEGCDTVK |
| UniRef90－A8NA466 | VLKPALKK |
| UniRe990＿UPIO00440 | 㑑 |
| UniRef90－F9WILO UniRef90 D3AWK9 | AKLRRAAVEFFRAEGLVFEEV |
| UniRef90 D3AWK | GHRLPRRVK |
| UniRef90－ICV24 | KDKVGKAVR |
| UniRef90－M5BSD5 | VAK |
| UniRef90＿C4Jk | KIGKAVKNWL |
| UniRef90－K3W5L9 | R LTA QLSL |
| UniRef90－D5G5M3 |  |
| iRef90－UP10004 |  |
| UniRet90＿Q54JQ9 | LPNKIKDYLIL |
| UniRef90－G3AW991 | （ K K AIDDMCDESRLTHRPHNSGVLQLDL |
| UniRef90 M M 4 B571 |  |
| UniRef90 K K X $=12$ |  |
| UniRet90 F31KV99 |  |
| UniRet90－F1KV99 | GRGLRPAIIRYLTQRG |
| UniRef90－S8E | VAKIGPAII QKLMRKQGARLDPKNPGVLIVND |
| UniRef90＿K7V9L1 |  |
| UniRef90－M2XWQ8 | V1YV |
| UniRef90 R7QBV1 | RPALERYFRTKGITVSVVGDDILQUV |
| UniRef90－C5FEG4 | GSKVGKAVKGWLIAEHHYVFRD |
| UniRet90＿L8GKD7 |  |
| UniRet90－Q19803 | K1 K P QV |
| UniRet90＿K2GF10 | （ KEAVVKYCQDEKLSFTEDKEGFV |
| UniReef90－UPIO0004416A74 | AGClTVDI |
| UniRee90－B6 | V |
| UniRef90－M | 旡 |
| $\begin{aligned} & \text { UniRef90_C1GPR2 } \\ & \text { UniRef90 F4RJJ2 } \end{aligned}$ |  |
| UniRef90 ${ }^{-}$K7VWF7 | GSKIKRSVIDELAEKEHIEWREENSGTVALRLL |
| UniRef90－C1E279 |  |
| UniRef90 |  |
| UniRet90－U6PBS9 | A |
| Ref90－C4XYZ7 | KRHSVIKMLNQNGYVYEEEVGQLYV |
| UniRef90＿S7w9T8 |  |

 UniRef90_B9WHF7 UniRef90_M5C9M1 UniRef90_I1ERF1 UniRef90-C4VB32 UniRef90_K9HI15
UniRef90 C1MMZ2 UniRef90-M2WVA8 UniRef90_S8A7J1 UniRef90_M2N8W2 UniRef90-Q6BNF2
UniRef90 E1Z9E8 UniRef90_UPIO002B454DB UniRef90_M1WBD7 UniRef90_C0S6I0 UniRef90-S7QC54 UniRef90_N1PMZ6 UniRef90-FOWYU9 UniRef90_UPI000455F4C7 UniRef90_D5GIH4 UniRef90-E9BW07 UniRef90-M5EBNO UniRef90_H0H1V4 UniRef90-K1VAM8 UniRet90-F8P827 UniRef90-H9MAG8 UniRef90-K2RHY6
UniRef90-E1EW43 UniRef90-H3EZR9 UniRef90-UPIO004417184 UniRef90_L8WS78 UniRef90-W1QEG7 UniRef90-K5WJS7 UniRef90_14YJF5 UniRef90-R7YQY UniRef90-M2R3Q1 UniRef90-GOMEH9 UniRet90-F2U435 UniRef90-Q4DM36 UniRef90_M9LUY6
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UniRef90- W9Y90 UniRef90-D8Q3F3 UniRef90-V2X8X4 UniRef90-C9ZXF6 UniRef90-C4YRB9 UniRef90-UPIo002C3F956 UniRef90 W4KORO UniRef90-O74840 UniRef90-UPIOO046E9F28 UniRet90_L8WJN4 UniRef90-UP10002C3EE6A UniRet90-F9XC88 UniRef90-Q0CKA8 UniRef90-D8U6M4
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UniRef90 G1WYN1 UniRef90-GoWHY8 UniRef90-UPIO00440EFD4 UniRef90-G4TJB3 UniRef90_UPI000471945D UniRef90_R7IKU3 UniRef90-UPIO003F4A4C5 UniRef90-BODON2 UniRet90-E6ZP82 UniRef90-V5GG58 UniRef90-K5VK08 UniRef90-W2S4X6 Unireigo_-Q6FSN7
UniRef90_UPIOOO45617E5 UniRef90-UPIOOO4408134 UniRef90-K9HL37 UniRef90-A7TLPO
UniRef90_Q74EE8
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 RSI GQRQQDCVGT VDLHGGHPEESVQYMSKILMQHQNSTRAITGTGHHSKNG DDLHGMYPNQ VGQVIEEKVADMKKRNWKN NLYVVT A D HGLHSNEATEVVEDFLASLEKEHFY GLIAYLVVGT A DLHGLTVHESLDVVKERCSRELEPLDQITGRGVHSRGN S 1 DLHGLLVSEAQHCVQQVLEQRIDEGTNLRGKGNLDDIT S:DLHGTTVAEADQUVKDVLREPARPDKIITGRGKHSTNG TVDLHGLHPEEAVSYLEAKLLLHSSSVYATTGTGHHSKNG TI DLHGTTVAEAVQIVKDILRAQGASLKIITGRGNHSVNG LDLHFMSVDGARGLVSEAI EADRYYVNNLKDYKRMVVVT TYDLHGLSVTAADREVRELIDDANARRRSGTGSGQHSADG SID HGVNVHEALSIVREHVTKWYASPRTGLNPAPFKIVT

 St DLHGHTVTGAMKVLHTFLRENEEAYKLNRTNRHVTIVTV TLDLHGVTVQQAIKITNERVSRALIPFHIITGIGSHSKGG IDLHGMIVMEALWVAREAIEHRIRRCLLICGVGHHSTNG LDLHGVSVADAKR1ARQRVEERUREYAGGRARKEFRITT T DLHGLHSNEATEVLEQFLGAMGLENEHFLGLAYLVVGT TLDLHGFHVEEADEVVRRRVKLCQQNLQUVTGSGKHSRGG TVDFHGFTVVEAMKLVPLILNHWLQKFGNSASLGSVLII T A 1 DMHGLKIENSDDVLKEEGDKAKNAGKK DLGMGHHNTVG SLDLHGATVREAKTIVRERVAAWIDPFVIVTGRGNHSTGL LDLHGMNVEEARDALDLDKKEA RVTAGRRAVSVIGH




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| UniRef90_UPI0004622AFE | VGVL\|GPA|V|RNALLDTD GWVVDTCDGGLVI |
| :---: | :---: |
| UniRef90-R9XA97 | $V$ S RVRVRI QRLLDRNHYVYDEE P S YFTVK |
| UniRef90_UPI00047B4FBD | G KLAFAVKEFLK |
| UniRef90-C5FCQ9 | GARLGPAVARCLVREGWK VEVE |
| UniRef90_G7X9T5 | GSRLGPAVAKMLAREGWR VEI GA GVLTVV |
| UniRef90-J1E970 | SPVLK GRVQRWLVQKNLAFVQARPGALLVLL |
| UniRef90-UPI0002C3D539 | FSKIKEEVVKQLKSMGEKYTEDKEGFVNVQL |
| UniRef90-F4NUI4 | KAKVLPHVRSYLQQGGWR PKDGT |
| UniRef90-E4ZYA8 | GGKLGPAVAKMLVNEGWK VVIEPGELLVT |
| UniRef90-A5G8C7 | GKGLQTAVA W WL R |
| UniRef90-F0Y5T4 | APKL GAAVRACLEKRRLKAAEVRPGVFDVRV |
| UniRef90_F4NVD6 | QARL Y S GVWS HLQ K C G WS IE A G G G WF FVM |
| UniRef90_UPI0002EA55F6 | EPVLKQKVRNWLKEEVVAFCQAQPGALIVLL |
| UniRef90-A7ZFC3 | G KLAFAVKNFLKEH |
| UniRef90-A0A024GAK9 | K A R I LPCI RASL NRRGI |
| UniRef90-L0P815 | GAKLRPAI LHLL NA D W WLVEEL P GK V V H |
| UniRef90-W9CIZ1 |  |
| UniRef90-N1JCC4 | K S HI GPAVAKMLMREGWKF EAGRGVLAVT |
| UniRef90-A8Q9G7 | GKKLAGSI R D FLIE WEYPYAD |
| UniRef90-G8YLR4 |  |
| UniRef90_D3BV69 |  |
| UniRef90-G7E6X4 | HAVLLP SIISKLLKKEGYS |
| UniRef90-L8WZG9 | GARLLGTAVREWLSEWAYPWSE R G GVLCV |
| UniRef90-B5JY93 | GPVLKPLVNSWLRQRGLAFSDGGAGAVYVLL |
| UniRef90-D8Q0S1 | VSVLKPVVRKALLDEGWS |
| UniRef90-H0EKT6 | RLLKL GPAVGKMLIREGWK VEVGS GVLVV |
| UniRef90_R5CF19 | GA LRNAVQNYLRKQSFDFGEGDAGVTLVNL |
| UniRef90-M1ZM49 | GA LKRAVQDYL R S HR |
| UniRef90-H6QT81 | PRLKAAI EALLEAEGVTHGAHNKGVILAML |
| UniRef90_B9RZ83 |  |
| UniRef90_S3XLQ4 | G KLLSKAVKNFLNSHSYRDGAPNE |
| UniRef90_UPI0004416FF5 |  |

[^1]
[^0]:    lupas_21
    lupas_14
    lupas_28
    jnet
    conf
    sol25
    sol5
    sol0
    jhmm
    jpssm

[^1]:    lupas 21
    lupas_14
    lupas_28
    jnet
    conf sol25
    sol5
    sol0
    jhmm
    pssm

