## QUERY

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 H S K S F T A K WLF EVR HS K S F T A K WL F EVVR DCK $\square$ GNGETYRGKTS $\square$ T $\square$ L G VTCQAWSAQSPHQHNFTP ET

Y H G N G
Y H G N G
Y H G N G
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DCMF G $\square$ GRGYRGKKATTADGTPCQGWAAQEPHKHSFTPES DCYHGDGQSYQGTSSTTVTGRTCQAWSSMEPHQHNRTTEN DCYHGDGQSYQGTSSTTVTGRTCQAWSSMEPHQHNRTTEN DCYHGDGQSYQGTSSTTVTGRTCQAWSSMEPHQHNRTTEN DCYHGD GQSYQQGTSSTTVTGRTCQAWSSMEPHQHNRTTEN CKIG N G R SYR GTMSKTTKTGGITCQKWSATVPHRPKYTPDK
 DCMFGNGKGYRGKKATTVTGMPCQEWAAQEPHRHNFIPGT DCMF GNGKGYRGKKATTVTGMPCQEWAAQEPHRHNFIPGT DCMFGNGKGYRGKKATTVTGMPCQEWAAQEPHRHNFIPGT
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 D DCI H S N Gll DYR GTVVAR TAR GRIICQEWS
CMIGNGRGYRGKRATTVTGTPCQGWA

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## D

CLSGKGRSYRGTWSKTK
ECVNGNGQDYRGPTSITAALGTVYRGTKSKTNSGKICQRWDSSSYP
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DCYVGRGSAYRGAVNVTSDGLECQPWSVQAPHGHAFTPAN CFNSSGLDYRGTVSMTRSGRQCQPWNSQYPHSHSFAAGR ECYYGNGQNYRGSMATTVTGRTCQCWSSMTPHQHQRTPEN
$E C V N G L G T D Y R G T K A K T K S G K V C Q R W E A R F P H R P N T T P Q T$
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## QUERY <br> UniRef90_C3ZT44 UniRef90-H2TA21

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YPNGGLTRNYCRNPDAETRPWCYTMDPSVRWEYCNDTQCP YPSSGLEENFCRNPSSSSGPWCYTTDPKERWELCDIPDC FPNADLRRNFCRNPDNDRAPWCYTTNPGVRWEYCNLEKCS YPN Y P N $\mathrm{Y} P \mathrm{~N}$
$\begin{array}{lll}Y & P & N \\ Y & P & N\end{array}$

## $Y P N$

NPRAGLEENYCRNPDDDNGPWCYTTNPRKLFDYCDVPQC






 $N P R A A A L L E R N Y$ C R N P D G D T G P W C Y T M N P K K L L

 Y P N A G L I R N Y C R N P D P V A A P Y C Y T M D P N V R WE Y C N L T Q C S Y P S A G L K R N Y C R N P D G G S G V W C Y T T D R K T R W E R C D I P V C G YPE EGLLE ENYCRNPDNDEGPWCYTMDPNERYGYCDTPECE YPEEGLE E E Y CR NPDNDEGPWCYTMDPNERYGYCDTPECE
 N K WA G L E K N Y C R N P D G D N GP WC Y T M N P R K L F NK WA G L E K N Y C R N P D G D N GP WC Y T M NPRRK L F D Y C D I I P L C A



## N N K

## K K F F H



## 

N
Y
N

YAGGLDDNYCRNPDGWYA TWCYTTDPSORWDYCDVP YC FPELSKSENYCRNPGGSERPWCYTMDRSVRWEYCNVPRC
HPSFGLEONYCRNPDSDSGVWCYTTDPDKRWDFCDVPFCD


 FPELGGGHAYCRNPGGQEGPWCFTQNKNVRVELCDVPPCS
HPRAGLEKNYCRNPDGDNGPWCYTTDPRKAWDYCEAS
HP R HPRAGLEKNYCRNPDGDNGPWCYTTDPRKAWDYCEISECP


 YPNEGLEKNYCRNPDNDPGPWCYTTDPDTRYEYCDVPECE



 YPSKGLEENYCRNPDQDPGPWCYTTDPEKRYEYCDIPECE
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E ECLTTN NGADYR GTASETDSGGTKCQAWSSMRPHMHEKTPPQK


ECYEGRGEGYRGTM
GATTPDGLACQRWDS
DCYHGDGQSYRGTSSTTVTGRNCQSWSSMIPHWHQRTPEAN


- m EN
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## E <br> E


 CLVGDGSTY $\quad$ G TVVNVTSTGKTCQRWDSQSPHSHQHTA ECANGIGGTDYRGTKSRTKSEKVVCQRWDASYPHRPNFTPQS E C A N Gll G T D Y R G T K S R T K S E K V C C Q R W D A S Y P H R P N F T P Q S CKR GUGTDYRRGTEAK TQRRGIPCCQKWAEEIDPHKPNYTPEK DCYTGFGENYQGKQARTRSNLPCAPWKDHRSSGERGLMVA DCYTGF GENY Q GK QARTRSNLPCAPWKDHRSS GER GL MVA
 E


 ECRRGSSGFTYRGTKSQTVVSGITCQKWSSSTPHVPRYKPNN E C K T G N GK S Y R G T M A K T R S GLAACQK WS D N F P HV P K Y $\quad$ P E K C QVGGD GVV Y R GTVVSVTES GKTCQRWDS QSPHEH DETLDN CFR GK GE GYRGRVNVTVSGDPCQRWDSQDPHKHHEVPEK

## D

DCMYGNGKEYRGKTAVTAAGTPCQEWAAQEPHSHRFTPQT E CVIN GI G M D Y R GTK S K T K S GK K C Q R WA SKY P H K P N M T P S T $E C V N G I G M D Y Y G T K S K T K S G K K C Q R W A S K Y P H K P N M T P S T$
$D C Y E G F G E N Y H G E Q S R T R S N L P C A P W R D H L S S F M S G V I T T$
 $\begin{aligned} & C M T C N G E D Y R G T \\ & D \text { V } \\ & \text { C R G G G K S Y Y M G N }\end{aligned}$ DCYRGNGKSYMGNLSKTRFGLTCSTWDKNILRRHUQUFRE

 E $N \mathrm{LV}$ GNGASYRGTVSVTKTAKTCQRWDRQSPHQHSRAPHD
 N C I G K G A N Y K G TM S VTMS G $\square$ Q C Q A WN S M $\square P H E H S Y R$ ECIIGNGQNYMGTK SVTRRSGRTCQQWNSMSPHEHSFLNLK
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EYNYDGSEYGRNDGAERPWCYTTDPSVRWOYCPVKSCD YPCKDLKENYCRNPDGQEFPWCFTTDPRVRTMFCQUPQC YPN
YPN
YRCKDLRENYCRNPDGRDVPWCDT TDPNDPWFCSTPGCE YPNASLEENYCRNPDHDKGPWCYTTNPETRFDFCNIPECE YPNASLEENYCRNPDHDKGPWCYTTNPETRFDFCNIPECE HPDKGLDSNKCRNPDGDNGPWCYTTDPNKKWDYCQIPECA

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 YTSAGLEENYCRNPDGTAYDWCYTEDPSVRHEECVIPRCT $H$
$H$ $\frac{\mathrm{H}}{\mathrm{L}}$

 PHQSRLEGNYCRNPDGDHGPWCYTNNSAISWDYCSIKP YPTQDLRDNFCRNPNNDPGPWCYTTDPNVRAEECGIIPHCS FPTAGLDANYCRNPDGSATPWCFTTDPDVQWAPCAL TPQNGLEENFRNPDRDPGPWCYTTDPAKRYQSCGLKSC HPRADLDSNFCRNPDGDKGPWCYTTDSQKRWEHCNVPSCS HPRADLDSNFCRNPDGDKGPWCYTTDSQKRWEHCNVPSCS
 NLEGSYCRNPDNDHGPWCHTNKSG\|PWDYCHVKPCE FPQAGLQDNYCRNPNNDVKPWCYTTDPLTRTEFCPVPNC HALMSGTRAWKWDPDGDHGPWCYTMDPRTPFDYCALRRCD YKCQDLRENYCRNPDGAELPWCFTVDTKVRTAFCNIPRCD FKCKDLKENYCRNPGGEEVPWCFTTDPAVRDGFCQUPRC YPDKNLDDNCRNPDGSERPWCYTTDREHPREFCHI PRC ThQNGLEENFCRNPDGDPRPWCYTTDPTVRFQSCG|KSC TLQNGLEENFCRNPDGDPRPWCYTTDPTVRFQSCGGMKSCA FPYAGLEANFCRNPDNDSGPWCYTQDPKKRWEYCRLPECE
YPSEGLEENYCRNPDNDGGPWCYTNPDVRFEFCDPECE YPSEGLEENYCRNPDNDHGPWCYTTNPDVRFEFCDIPECE
 NPRAGLEKNYCRNPDGDNGPWCYTMNPRKLYDYCNIPLC
 PNFANLEGSYCRNPDNDKHPWCHTNKSGMPWDYCHVKPCD HKHRDLRDNLCRNPDNTTGPWCFTTDPKLRHQDCSIPQCS YPDKGLDDNYCRNPDSSERPWCYTTDPGREREYCRARVC PDVSKLKKNYCRNPDDDHGPWCYTDDPGVPWDYCPISRCE TPHAKLKENYCRNPDGDHGPWCYTTDPQTLFDYCALGRCE
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 NPNKGLEGNHCRNPDNDAGPWCYTTDREKKYDYCDIPQCE GKDLQENYCRNPRGEEGPWCFTSNPERRHEVCDIPLCS FPTLNDAS位 YECKDLRENFCRNPDGSEAPWCFTSRPGMRVAFCQUKRCP APQAGLEANFCRNPDGDHGPWCYTLDPDILFDYCALQRCD



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##  <br> D

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E CYEDSGESYRGSLSTTRSGIPCADWSHHINRWDSHSTES CVPDRGREYRGRLAVTTSGSRCLAWSSEQAKALSKDQDF
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CSQGLGI NYRGKVSLTOSGLTCQRWSH C

CFKRHGLGGRGTVNKTTSGTPCQPWNSQVPHQHQLTPEN ECYHGAGEQYRGSVSKTRKGVLCQPWSAKTPHKPQFTPAQ
DCYVGDGYSYRGKVSKTVNQNPCVYWNSHQETYNMFMEDA
$C Y T G N G A G Y E G T I$
I
 KGLSYRGTLSVTVSGDQCLDWASEKVRQLSDKKDV CYF GKGLTYRGTHS LT T T S S

KCENGGTECQRRWDLQHPRHKHPYYLPNK CYKDLGVTYRGTWSVTESGSECLNWNLSQKKYNGRRADA CYTGNSVDYRGTLAKTQSGKTCQRWDSQYPQTHRYKPQD CYHGNGELYRGKI SKTRKG川TCQKWSAGSPHTPQリSPAM CYEGKGSGYRGTVAVTKSGIPCQAWNKETPHVHFLRASQ CYKGQGDTYRGTWSTAESGAECDNWNSSQKPYSGRRRDA
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b

DCY|V|DDGESY ${ }^{10}$ (TVETVDGDECLYWNSHFTLANPFTSFE CYHGRGLSYRGAARTTLSGAACQPWTSEATYLNVSAHQE CYHGRGLSYRGTADTSLSGARCQPWASEVTYRNLTAEQA CYEDRGLSYRGKAGNTLSGAPCQRWASEATYRNMTAKQK CYKGKGITYRGTWSTADSGAECANWNSSVLWYTGRRPDA ECYRDRGRDYRGTLHVTLHGEVCQKWTDQFPHQHTVTPEN ECYRDRGRDYRGTLLHVTLHGEVCQKWTDQFPHQHTVTPEN

## D D D

C F WCN
D CVVA
NGED CEPEKGMLYTGTLSVTVSGAKCLPWNSEKAKYVDYTPSD DCYSGKGTDYRGTHSTTMSGTSCLRWNSPYLTSKFYTNNA DCYFGKGLAYRGTHGFTTSGASCLQWDSLILLGKTYTSNA



N KTGRGTDYRGSHSVTR

D GHASYRGTWSVSLS GY CLNWNS SAVAHTVYNARR CYKD A GVVTYRGTVSTTTESGA E CLLNWNSNGLDMYSSRRREDA D C QLYA GASYRGTVAVTKTGRTCQRWGSQTPHEHYNS LAF DCYEGLGMNYRGTVNVTRSG』ECQLWKSRYPHKPEDNSTT CYSNGHRRYRGMAQSSS
$C Y E D N G E D Y R G T A T M T$
$C Y R D V G T A Y R G T W S T T$ NGGDYRRGNVNVTVSGAECLNWNITALVQKRYNGRA
 CYED R GI GYR GTWSTTES GAQCVNWNS SWLP Y S GRKPNA $C V V Y K G I P Y$ R GTVIAVT K S GK T C QP WA S Q T P H S H K Y T P V V ECQQDSGATYRGEVSHTVS GRTCQKWTVQAPHEHNRTPEE

 NCYVGNGSTYRGTHSLTTSGAS T K N G
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DCYEEDSSTYRGRVSQAENGRTCLDHNSHHLLLDHPFNAFA
 CIS G T G V V Y Y G N I N IT E S G R Q C Q Y WR S S FP HP II R E Y N A
 CRMGD GASYRGTVGSVTETGKTCCQRWDSQTPHGHEYTTAAK
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DCCF DN DGAKYA GKV S VT K S GK A CQY WK SN F P H K DRD E F N DCYEEDGE F Y R GMV SETVEGGE CLDNWNSYQKGSDPULRQFA
 CTVGNGRTYR GDI RVTK S GKE CQYWASNYPHRTTENPST



ECYEEDGKDYRGVVNTTMNGEECA\|WTSDNTHQHGKTPEN CYDANASAYRGSAS $\square T \square S G F A C Q N W D A N T P N D H T F H S Y R$ DCY T S D GEESYR GTVVSET S E GD E C LLY WN S H F VVAN P F K S F V V E C VVGS G Q T Y R GTA S V TK S G S K CLLP WD S PA I R RKVNN A WR
E CCLTS R GA DY F GH T N R T ITS G R T C M M W D S Q S PH DH GY
CYT GN G $\square$ G Y R G T G N T TVVSGA P C L H WD S D I I E H E V S M Y G G


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 SKWGLGNHNYCRNPDGDDKPWCHVKDRKDTWEYCDLPQCS
 FPNAGLVENYCRNDPGSLAPWCFTEDPKRPREFCPIEMCE
 FPNDDLAHNHCRNPSNDPGPWCLTTDPAIRWQYCRILFCS F LD KNLDDNYCRNRSG
NPQSGLEANYCRNPTNADTPWCYTKSTFKRWEYCD $\square$

## LASESNFCRIAA DEPSPWCYTMDNATRWDWCSVPYCF

FPNAGLDDNYCRNPSNGDTAWCYTTNPGDRWEYCDVPRC DPEVELQENYCRNPDDDEGVWC VTNESPYFDYCDL HYCD


 FMELKNAENYCRNAGGEERPWCFTTNPGIRWQHCEI PRC YPG LGDHNYCRNPSSESAPFCDTAVETVKEEYCNV HLLRDLRENFCRNPDGSEAPWCFTSRPGMRVAFCQIRRCA HLLRDLRENFCRNPDGSEAPWCFTSRPGMRVAFCQIRRCA YQLGLGSHNFCRNPDNDSKPWCHVKGKQLTWEYCDVPTCS
 PGLGLGNHNFCRNPDNDGAPWCHVYKHQVTWETCDIPTCP EGHGLGEHNFCRNPDGDQKPWCFVSNTRVKWEYCDISPCS A E LGLGNHNYCRNPDEDSRPWCY KKGGKY GWE HCSVVPSCS
 YPNTGGEHNYCRNPDTSDMAWCYTTDSNVRWEYCSI

 $T K L G L G N H N F C R N P D K D D K P W C Y I K G G K Y T W E Y C S T P S C S$
$Y P Q G G L E Q N F C R N P D G K N R P W C F T T D P S V R F E Y C N V S L D C Q$ LDET LYENYCRNPDKTEGPWCFTRDPTVRREQCTVPKC
 FPTMGLFHNQCRNPDGDLRPWCFTTHPDDPWEYCNVPSC YPNSGLDHNYCRNVGASSTAWCYTTDSDERWEYCPV DDHMAQEENYCRNPDSSARPWCYVKGDTKVKEDCKIPSCA DDHMAQEENYCRNPDSSARPWCYVKGDTKVKEDCKI PSCA FPEVVLVENYCRNPDGDEGVWCVTHEEPHNFNYCDLDYCD FHFQAL GHNYCRNPDGDAKPWCHVKDRKPTREYCDLSQCS YPSFGLDHNSCRNPDNGDGDWCYTTDPGVRYEYCD
 HPDAGLEENFCRNPDNKERPWCYTTDEGWRWDYCEVMECA Y Q S S G GDHNYCRNPDGSSRTWCFTMDVNTRWEYCDV YPNAGLTNNYCRNPSKSDAPWCYTTS SK RWAFCAIPKC SQRPDGQTQLLPNPDGDAKPWCHVKDHEDKWEYCNVRQCS DSYGIGEHNFCRNPDEDEKPWCY RNNEVDWEYCDVSLCA FPDADLRENYCRNPDGERTAWCFTTDPSRQWELCDV

 LSWGLGDHAFCRNPGNDSRPWCFVLGGRLTWEYCDLARCC
 VPVDGGEHNYCRNPDGDLDRTWCYTMNVSSRWEYCEIPRKCP

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$P G T G P G Q T Q L L P N P D G D A R P W C H V K N R E L K W E Y C D V P Q C S$



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GADYFGHVNTTVSGRTCMRWDSQSPHSHDYGYAK $C \square Y G K G S Q Y A G N A S D T A S G K D C D S W G D E Y P D E D N V V N R E ~$
$C Y R D R G L S Y R G M A G T T L S G A P C Q S W A S E A T Y W N V T A E Q V$ $C Y R D R G L S Y R G M A G T T L S G A P C Q S W A S E A T Y W N V T A E Q V$
$C D M N N G V G Y Q D T M A T T V G G L S C Q A W S H K F P N D H Q Y M P T L L$
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