QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 TSPSSSP Q8NDW5 Q9N3Y9 jnet jpssm jfreq jhmm jalign jpred 50 60 70 80

P A K P Q L S T A K S R T R L F G K G D S E E A F P V D C P H E E G E L D S C P

E S T R Y E S S V V P G P K K A P M D S L F D Y G T Y R H H P

V F R L E T L D G G Q E D G S E A D R G K L D L P P M E S Q F Q G E D R K F A P **QUERY** Q8NET8 Q8NDW5 Q9N3Y9 jnet jpssm jfreq jhmm jalign jpred T I T V S P V I T I Q R P G D G S T G A R L L S Q D S V A A S T E K T L R L Y D S D N K R WR R K V V E K Q P Q S P K A P A P Q P P P I L K V F N Q I R V N L N Y R K G T G A S Q P D P N R F D R L Q N K K G W N E M L D E T F L L Y T KAEGPGSQLQKLLPEQDWDQHLDKLHMLQQ Q8NDW5 inet jpssm jfreq jhmm RRSIFEAVAQNNCQDLESLLLFLQKSKKHLITDNEFKDPET
RPILFDIVSRGSTADLDGLLSFLLTHKKRLTDEEFREPST
RDRLFNAVSRGVPEDLAGLPEYLSKTSKYLTDSEYTEGST
KHPLFYAAQKNNAGCIMKLL GCSSTNIFERGAL
DT jalign jpred QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NDW5 inet jpssm jfreq jhmm jalign jpred **QUERY** Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 jnet jpssm jfreq jhmm

lacksquare

SPQPEPF

Q9ES76 Q9Y5S1 Q7T2Z4

QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q9N3Y9

Q8NET8 Q9N3Y9

Q9N3Y9

jalign jpred

240 H G R G C G V T K G T G S G 210 QTA QTS HSA VTP QTA GQTA 220
R N M A L V T L L
C K H Y V E L L
S L Q C V K L L
N I N L V Q H L
C Q G D I A A L L
N V N L V R A L
N A E F V R Y L QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 10
A L H I A I E R R
A L H I A I E R R
A L H I A I E K R
P L H I A V V N Q
A L N I A I E R R
A L H I A V V N Q
V L H M G I V S E 230
N G A D V Q
Q G A D V H
R G G D A A
A G A D V N
R R A S V S
S G A D V H T D S Y Y
R D I Y Y
T D D Y Y
I T S E L F
T E E A Y
T C E A F
L S D E Y V V V I L L EAESATK KRRQEAY 9999999 AQRPHRR AAARAAC AAATAAA jnet jpssm jfreq jhmm jalign 250
K G R P G F Y
D E G G Y F Y
G Q G T C F Y
R I G G L I Y
Y Q H E G F Y
P R N L I Y
D Q K G S I Y 270
QLGIVKFL
QPHIVNYL
QWDVVSYL
NEDIISLI
QPEIVQLL
SEELVRL
QPECIRML 260 S L A S L A S F A A L A S F A S F A QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 F G E F G E F G E F G E F G E WG E L P L L P L H I L T P L H P L Y P L L Q N T E N L E N I D A M I E H V A H T N T N K G N V N S KPKRPHC FFFYFFF KQQFNRT TK KKSD AAAAAA SPPGGGG 0000000 ΗЕ jpssm jfreq jhmm jalign jpred 300 310

| E V A D N T A D N T K F |
| A I A D N T R E N T K F |
| MI S D N S A E N I A L |
| L Q P N K T I |
| T V A E D F K T Q N D F |
| L Q P N K T F |
| H E N 290 R G G G G R R L N QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 DISAR
DMRRQAT
SIQAT
STRVQ
DITSR
DIRAQ
DVNAA N T V L
N T V L
N T V L
N T V L
N T V L
N T V L
N T V L
N T V L H A L V H A L V H A L V H V L V H A L V H I L I H I C T VTS VTK VTS ACQ VKR ACQ YE MY N E I L MY D L L MY D G L L A M D L I M MY D M I L MY N L L L MF K M A L AAAATAA SSSYSST L L M L inet jpssm jfreq jhmm jalign jpred 330
LGAKLHPTLK
KCSRLFPDSN
AGARLCPTVQ
RDAELDQSVP
RSGN
YDGHGDHLQP 340 G M T G L S D L T G L T G L T G L T 350 G T G K T G K E G K E G K M G V E G F L A QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 L E E L T N K K
L E T V L N N D
L E D I R N L Q
L D M V P N S R
L E T T R N N D
L D L V P N H Q
I Q N R Q L A L A L M M A L K L A F K L A L Q L A F K L A L T L A GVLA GVFQ EIFR VAFQ EILK VMFQ EMMQ KI KI NR KA KK KK PPPPPP AAAAAGA YHIL HHL HHL LILV jnet jpssm jfreq jhmm jalign jpred 370

| Q E P E C R H L S
V T D E D T R H L S
F S G L S H L S 380
F T E WA Y G
F K D WA Y G
F T E WC Y G
V V Q WS L G
F T D WA Y G
H I Q WT Y G
T V N WT Y G 390 Y D L Y D L Y D L Y D L Y D L Y P L V H S S L V Y S S L V R V S L L T S Y L V S S S L L T S I L T Q S A A QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 REIQEPECRHLS
REVTDEDTRHLS
REFS GLSHLS
K
REIKEKRLRSLS
K
EE C E C E W D T W E L R K R K R R R R R R N N N N L PPPPPR SSATTTE CSSENEH TTSSTSS KEEGDEP QRQNSQE L>\_>\_> jpssm jfreq jhmm jalign

410 420

VIAYSSSETPNRHDMLLVEPLNRL
ILVYN SKIENRHEMLAVEPINEL
IIAF HCKSPHRHRMVVLEPLNKL
LIVGSQQK EARGLLELTPVMRL
ITVYNTN IDNRHEMLTLEPLHTL
LVV SSDKREARQILEQTPVKEL
IAVYGEKV EHLSLLPHLLEQL QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 V L E V L E V L E V L E V L E F L E V L T SSSSSSS Y F R Y L R S M L S L R W L Q I I R I I Y K | G D T T V D V G N T R E D H K M G T R E D Q V S T FFFFFF 490

| L S V L G G V Y F F F R G |
| V I T L F T G V L F F F T S I
| I L I L L G G I Y L L V G Q L
| V I S V L G A L V I L L L E I
| M F V L I W A M C I S V K E I
| L V S I V G A V I L L L E I
| L I C V T G A T L Y L V Q A L 500

Q Y F L Q R R P S M K T L F V D

K D L F K K C P G V N S L F V D

WY F W R R H V F L W S F L D

P D L L R P S D L Q S L L S D

P D I F R V G R Y F G K T L L G

L H L K N V G Y H L Y V L L S G QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 E M Q L E I H V H F H V K A T G E A G E T G H V G E L G R Y S F P F P F A SGSGAGE V L L L L L 560 QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 5 WT N ML Y
6 WM N A L L Y
6 WS N V M F
6 WS N V M F
6 WA N ML Y
7 W C S V M Y
7 T S K F L F GGGGGGL 590

L C R F M F V Y I V F L F G F L F R F L L V Y L L F M I G Y L L R F L L I Y L V F L F G F L T K F M W F S F I V L I G Y V L K F L F V Y I V F L L G F L M R F C W L M A V V I L G F L M R F F L I Y L V I V V G F 580

E K MI L R D

Q K I L F K D

Q K V I L R D

Q K V I L F G D

Q K MI F G D

Y K I I R D T A T A A A A A A A **QUERY** TTTATTC RRRRRR SAASGAS

Q9N3Y9

jnet jpssm jfreq jhmm jalign jpred

**QUERY** QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9

jpssm jfreq jhmm jalign jpred

inet jpssm jfreq jhmm jalign jpred

jnet jpssm jfreq jhmm jalign jpred

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jpssm jfreq jhmm jalign jpred

610 620 630 64

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

M K V C D E D Q S N C T V P T Y P A C R D S E T F S A F

L V S L S Q E A W R P E A P T G P N A T E S V Q P M E G Q E D E Q Y R G I L E A

L W V V Y M T Q D P D S M P

L A S L I E K C P K D N K D C S S Y G S F S D A

F Y I I F Q T E D P T S L G

F Y V I F L G Y K R S D S G N R E P S I M S N QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 jnet jpssm jfreq jhmm jalign jpred 650 660 670

G M G D L E F T E N Y D F K A V F I I L L L A Y
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G M G E L A F Q E Q L H F R G M V L L L L A Y
G L I D L P V D H R I M T P P I V H V L H C T F
G L G D L N I Q Q N S K Y P I L F L F L L I T Y
I V I D A P A N Y D V D L P F M F S I V N F A F
I M S L T E F T V F F E Q L V I G K I T F V V Y C L E L F K F T I L L D L F K L T I S L E L F K F T I L F S E F E L S V V L E L F K L T I L F T T F E L F L V A E S Y V R M F **QUERY** V I I I V L S L V I A I M L LLLVLI Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 jnet jpssm jfreq jhmm jalign jpred 690 700

| A L M G E T V N K | A Q E S K N | A L M G E T V G Q V S K E S K H | A L M S E T V N S V A T D S W S | A M M S D T H W R V A Q E R D E L A L M G E T V E N V S K E S E R | A M M G D T H W R V A Q E R D E L A M M T N T Y T E V S G N S L E 710

WK L Q R A I T I L

WK L Q WA T T I L

WK L Q WA T T I L

WK L Q V V A T T L

WR L Q R A R T I L

WR A Q V V A T T V

WL R Q WS A I L N M L I N M L I N M L I N L L I N M L I N L F I N M L I DTEDE QUERY Q9ES76 Q9Y5S1 L L L L L L L L KRNRKRO Q91331 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 inet jpssm jfreq jhmm jalign 730 740

K C M R K A F R S G K L L Q V G Y T P D G K D D V F L R K A F R S G E M V T V G K S S D G T P D W C R K K Q R A G V M L T V G T K P D G S P D R C L W P R L G C G L E Y G L K E W L R S R F R M G E L C K V A E D D R C L W P R S G C G C E F G L G P A T R L R Y jpred 750 760
Y R W C F R V D E V N W T T W N
R R W C F R V D E V N W S H W N
E R W C F R V E E V N W A S W E
E R W Y L R V E D R N
F R L C L R I N E V K W T E W K
D R W F L R V E N H N 760 QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 jnet jpssm jfreq jhmm jalign jpred 770 780 790 800
T N V G I I N E D P G N C E G V K R T L S F S L R S S R V S G R H W K N F A L V Q N L G L I N E D P G K S E I Y Q Y Y G F S H T V G R L R R D R W S S V V Q T L P T L C E D P S G A G V P R T L **QUERY** QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9 THVSFLNEDPGP **V**RRTADFN jpssm jfreq jhmm jalign

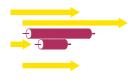
jpred

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jnet jpssm jfreq jhmm jalign jpred

QUERY Q9ES76 Q9Y5S1 Q7T2Z4 Q8NET8 Q8NDW5 Q9N3Y9

jnet jpssm jfreq jhmm jalign jpred 810 820 830 840
PLLREASARDRQSAQPEEVYLRQFSGSLKPEDAEVFKSPA
PRVVELN KNSSADEV





ASGEK