

QUERY	1	10	20	30	40
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UniRef90_I3YB88	P	T	N	D	Q
UniRef90_F7NXX5	L	I	R	R	L
UniRef90_K4LD54	P	L	S	S	L
UniRef90_UPI0003776E26	M	S	S	S	S
UniRef90_U5VRG1	S	S	S	S	S
UniRef90_W8KMP0	N	T	T	T	T
UniRef90_Q2JEZ1	S	S	S	S	S
UniRef90_UPI0004790961	S	S	S	S	S
UniRef90_F4LX21	P	L	T	T	T
UniRef90_D7CPJ7	N	S	S	S	S
UniRef90_I4DCB6	S	S	S	S	S
UniRef90_F5L3J2	S	S	S	S	S
UniRef90_UPI00040EC84C	P	T	T	T	T
UniRef90_R6J6R5	K	L	T	T	T
UniRef90_UPI0004013539	S	S	S	S	S
UniRef90_Q24MT3	S	S	S	S	S
UniRef90_UPI0003613531	A	S	S	S	S
UniRef90_UPI000380BAFB	S	S	S	S	S
UniRef90_A0LVS1	S	S	S	S	S
UniRef90_B6IUW0	P	W	N	N	N
UniRef90_W0TKF0	P	W	N	N	N
UniRef90_D9TC30	S	S	S	S	S
UniRef90_F7NZL3	P	W	T	T	T
UniRef90_E0IEB5	S	S	S	S	S
UniRef90_I9NP77	L	T	T	T	T
UniRef90_A4BK61	A	S	S	S	S
UniRef90_X7EHY3	P	W	N	N	N
UniRef90_S9QRT7	P	W	N	N	N
UniRef90_H6NT85	S	L	S	S	S
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UniRef90_Q1MZP2	K	M	S	S	S
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UniRef90_R6FV54	S	S	S	S	S
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UniRef90_UPI000405C4C3	S	L	V	S	S
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UniRef90_UPI0002E5152E	S	K	M	S	S
UniRef90_E1SN70	P	W	N	N	N
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UniRef90_B8IF29	P	W	N	N	N
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UniRef90_R6C671	S	R	M	L	T
UniRef90_F9MP59	M	I	T	K	S
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UniRef90_E4L8R1	S	K	M	V	T
UniRef90_UPI0003B6DB1A	N	K	Q	V	S
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QUERY UniRef90\_UPI000361F9EC UniRef90\_I3YB88 UniRef90\_F7NXX5 UniRef90\_K4LD54 UniRef90\_UPI0003776E26 UniRef90\_U5VRG1 UniRef90\_W8KMP0 UniRef90\_Q2JEZ1 UniRef90\_UPI0004790961 UniRef90\_F4LX21 UniRef90\_D7CPJ7 UniRef90\_I4DCB6 UniRef90\_F5L3J2 UniRef90\_UPI00040EC84C UniRef90\_R6J6R5 UniRef90\_UPI0004013539 UniRef90\_Q24MT3 UniRef90\_UPI0003613531 UniRef90\_UPI000380BAFB UniRef90\_A0LVS1 UniRef90\_B6IUW0 UniRef90\_W0TKF0 UniRef90\_D9TC30 UniRef90\_F7NZL3 UniRef90\_E0IEB5 UniRef90\_I9NP77 UniRef90\_A4BK1 UniRef90\_X7EHY3 UniRef90\_S9QRT7 UniRef90\_H6NT85 UniRef90\_Q0B0B4 UniRef90\_UPI000368A6DE UniRef90\_Q1MZP2 UniRef90\_UPI000377D9B3 UniRef90\_R6FV54 UniRef90\_W3AEL2 UniRef90\_Q1NMF0 UniRef90\_UPI000405C4C3 UniRef90\_R4KVE4 UniRef90\_A0A037Z9R5 UniRef90\_I1XHJ9 UniRef90\_UPI0002E5152E UniRef90\_E1SN70 UniRef90\_T0MVC2 UniRef90\_I5B0K2 UniRef90\_B8IF29 UniRef90\_W6KC55 UniRef90\_B81Y5 UniRef90\_UPI00037E13ED UniRef90\_UPI0002559895 UniRef90\_H3NXW7 UniRef90\_K2J9C8 UniRef90\_A1U3E9 UniRef90\_UPI00045E820C UniRef90\_UPI0003760F64 UniRef90\_UPI00037DD4C8 UniRef90\_UPI0004050A20 UniRef90\_U2ETF4 UniRef90\_A4J927 UniRef90\_U2N9R1 UniRef90\_D5CP12 UniRef90\_W4LTH8 UniRef90\_I2JG10 UniRef90\_R6C671 UniRef90\_F9MP59 UniRef90\_R7XZG3 UniRef90\_W6LZZ5 UniRef90\_UPI00037F1C81 UniRef90\_U2DLS8 UniRef90\_K0KB92 UniRef90\_R4KEW4 UniRef90\_A6VB75 UniRef90\_UPI00035EAADC UniRef90\_I5BXN0 UniRef90\_UPI0003B6160B UniRef90\_UPI00047D68BF UniRef90\_R6NV23 UniRef90\_UPI0003B4267E UniRef90\_UPI0002379032 UniRef90\_R7CMT2 UniRef90\_UPI0003715D3D UniRef90\_R6MBT9 UniRef90\_G4SYC8 UniRef90\_Q47VS0 UniRef90\_A0LHJ3 UniRef90\_UPI0003F949E6 UniRef90\_L7LBC5 UniRef90\_UPI00031E6EC9 UniRef90\_E4L8R1 UniRef90\_UPI0003B6DB1A UniRef90\_UPI0004297CD2

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K V K M R Y D E K E E Q Q L G P E K M R E F E K V I T L R A V D S K W M D H I D A  
T L V K R A Y D D N R E K A L I G S P N M R E Q L E E K A V M L Q T L D D S K Q W K D H H L D A  
V A E T A Y D N R E E A V F G S E E T M R E L E E K V V M L K V V D D G K W M D H H L D A  
E A L A H W K N R E E E L G S E E T M R E L E E K F I L L R V V D D T K W M D H H L D A  
A A Q E A Y A G R E E E L F G S E E A N M R E L E E K V I M L K V V D D S K W I E H H L D A  
D A Q A A Y A G R E E E L G G E E A V R R E L E R Q V V L L K A V I D D R K W R E H H L D A  
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UniRef90_A4BQH7	S G M V	S R R V I	E E N A Q Q R K V	E G H N F D	E I R K K H
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UniRef90_C4LA32	P W V	S R A I	E E N A Q Q R K V	E Q Q N F D	E I V R K K N
UniRef90_H6RKV9	S K M V	S R A I	E S A Q T Q V	E Q Q R N F	E V I R K K N
UniRef90_A0LCX0	P W I	N K A V	E S A Q Q K V	E G R N F D	E V R K K N
UniRef90_UPI00037ED9C2	S R L I	T R A V	E E R A Q A K V	E G R N F D	E V R K K I
UniRef90_A0A037ZHQ7	P W V	N K S I	E E R A Q A K V	E G R N F D	E V R K K I
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UniRef90_E6U7P6	N R L I	T N S I	E N A Q Q R K V	E G K N F G	E I R K K N
UniRef90_D5UVC3	N K F V	S R A I	E R S A Q T Q V	E Q Q N F F	E I R K K N
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UniRef90_A9D7T3	P W I	N K A L	E E R A Q Q K V	E A R N F D	E I R K K N
UniRef90_F6FRK9	S K M V	T R G I	E Q K A Q S K V	E A R N F D	E I R K K N
UniRef90_A1K3V5	G M V	T R S L	E S A Q Q R K V	E Q R N F D	E I R K K Q
UniRef90_A6TLE7	G M L	S R S I	E N A Q Q K V	E A R N F D	E G I R K K H
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UniRef90_A3V2A4	V	T	K	K	L	S	Q	I	R	
UniRef90_G7UWC5	V	V	T	L	L	A	R	L	R	I
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UniRef90_J2H773	T	T	R	W	L	M	T	V	E	I
UniRef90_B6ELG8	V	V	S	I	L	S	K	V	R	V
UniRef90_F9ZQV3	I	V	A	T	L	A	R	V	H	V
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UniRef90_C2BI73	T	V	R	Y	M	M	N	V	E	I
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L D Q L R R S V I H H L R S Y G Q Q R D P L N E Y F K S E A F N F H N L L E L R A T E  
M D R L K E G G I H H L R S Y G Q Q K N P L T E Y K R E A F E L F E N M S R I I K E E  
M E H L R R Q G G I H H L R R G Y A Q Q K N P N Q E Y K R E S F E L F E N F L D S L K F D  
M D Q L R R Q S I H H L R R G Y G Q Q N P L V E Y Q Q D G F R M F E M I S D I L D Y D  
M D H L R R N S I H H L R R G Y A Q Q K D P K N E Y K K E S F E L F S S M L D S F K Y E  
L D A L R R S V H H L R R G Y G Q Q K D P L T E Y K Q E G Y E M F L E M M L I R R Y  
M D Q L R R Q S I H H L R R A Y G Q Q N P L V E Y Q T E G Y N M F E D M I G A I I R E Y D  
M D S L R R S V H H L R R G Y G Q Q K D P L I E Y K N E G Y D M F L E M M T N M R R R N  
M D Q L R R K G G I H H L R S Y G Q Q R D P L R E Y K R E G H E M F E Y R M L D D I I Q V E  
M D Y L K E G G I H H L R A M A Q Q R D P L V E Y Q R E G G D M F E R M M N D G I K E E  
I E Q V R R Q G G I H H A Y G Q Q R N P L V E Y K Y I S F D M F E E M T D N I K Q D  
M D V L R R Q G G I H H L R R G Y G Q Q R D P T E Y Q F E A T N F N D M I D T L K A E  
M D H L R R Q G G V H H L R R A Y A Q Q T N P L T E Y Q T E G Y E R F Q D M I A I E K D  
M Q E L R R Q G G I H H L R R A Y A Q Q V N P I D A Y K K E S L E M F E E M I S A I Q D E

UniRef90\_V8G9E0 T S K I L L N V Q I  
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UniRef90\_UPI000255EB43 S V R F L F R A E V  
UniRef90\_F9ZH68 V T K I L L T V Q I  
UniRef90\_E3F0B5 V T T K L G Q I R  
UniRef90\_F7UV48 Y L R T L L R L Q V  
UniRef90\_N9RAQ8 V V T D L S R V H V  
UniRef90\_UPI00037384C4 V T R V L V T V Q V  
UniRef90\_D6Z480 T V R T L F R V R L  
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UniRef90\_I0JQJ3 V A R Y V M K A Q I  
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UniRef90\_W7YSP1 V S M Y V M K A Q V  
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UniRef90\_E2SDV3 S V G F L F N V E V  
UniRef90\_B0S3K9 T V R G M F N V Q  
UniRef90\_E0XR23 V T M V L S H V E V  
UniRef90\_D4MYN2 T T G A L F H V Q V  
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UniRef90\_K9UNQ1 V V Y S M F Q F T  
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UniRef90\_R7F784 V V K I L S H V E  
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UniRef90\_I0ALX9 T V S F V F K  
UniRef90\_V1CQR9 T V K F C Y N V T L  
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UniRef90\_E6W090 T V V T L F K V E I  
UniRef90\_S3DJ38 V I I I L S K F S I  
UniRef90\_Q03SQ0 A T R L F M K S E I  
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UniRef90\_F3A7T3 V V S N L L R I R V  
UniRef90\_S4XLB1 T V R Q L F L V R  
UniRef90\_UPI00016BFDAF T V K A V F H I  
UniRef90\_UPI0003B7373A V T K F L F R M Q  
UniRef90\_H3NIA9 V T R Y I M K A Q I  
UniRef90\_R5RZD0 T V R R I F S A R L



UniRef90\_F8EUV9 1 S P I M S K A I I E T A Q R K V V E E A R N Y D D L R K K Q V V E Y D D D V M N N K H R R E E I I I I  
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E T A F Q E S T A H F R A M F L L E L T L S T E E L E R Y D A D D G L V D K L L T E  
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UniRef90\_S7T712 M D H L R R D G I G L L R R G Y G Q K D P K Q E Y K R E E G Y N L F Q D M L A R I K E S  
UniRef90\_S3L8C3 L E A L R R E A V Y L L R S Y G Q K D P L T E Y K L E G F D I F Y A M L D G R I R F S  
UniRef90\_UPI0004714A3E M D I L K T G I Y G L L R R G Y N R K N P L L T E Y K K E S Y E L F V D L V G R L K R D  
UniRef90\_C0QZS7 M D S L R R E G I G L L R R G Y A E K N P L T E Y K L E G Y K M F M A T M N V I H N E  
UniRef90\_U7V6F7 L D A L R R E G I Y L L R S Y G Q K D P L L V E Y K L I S G D M Y S R M L S T I K T E  
UniRef90\_Q1AVJ6 M E Y L R R E G I W R G L G Q R D P L L V E Y K R E E G Y D L F V E M E R G I K R E D  
UniRef90\_T2GFB1 M D H L R R D G I G L L R R G Y G Q K D P K Q E Y K R E E G F E I F Q E M I Y I I K D N  
UniRef90\_Q3ZZG5 M E N L R R E I G G L L R Q A F A Q R D P L T A Y K N E S H V R F F E E L L E T I K H D  
UniRef90\_UPI0004648E36 M D I L K T G I G G L L R R G Y N Q K D P L L V E Y K K E S F T L F F E E L I Q R I K V E  
UniRef90\_A8V0Y3 L D R L R R S V S L L R R G Y A Q R D P L L V E Y K K E S F F E L F E D M L Y K L K Y N  
UniRef90\_B7CBH1 M D K L R R S G I Y G L L R S Y A Q N N P L L Q Q Y V G E G F D M F E E M N Q R I D R E E  
UniRef90\_K2F2E4 I D D L R R N A S V I G L L R A Y A Q Q R D P L L V E K G E A Y E M F E G L L Q R I D R E E  
UniRef90\_E0XP95 I D H L R R N S V I G L L R A Y A Q K N P K N E F K K E A Y T M F E S M L S E I D S E E  
UniRef90\_Q6IVT2 I D H L R R G S I G G L L R R A Y A Q Q K N P K N E F K K E A Y S M F E S M L D A I D S E E  
UniRef90\_M1WM35 M D H L R R D G I G G L L R R G Y A Q Q K D P K Q E Y K R E E G F E L F Q E M I Y I I K D N  
UniRef90\_J2ZPN0 M D Y L K E G G I G G L L R A M A Q R D P L V E Y A N E G A R M F R A M M E G I R E E  
UniRef90\_U7D2Y5 M D H L R R D E V I Q Q Y R S F G Q K K P L F E Y K K E G L L L F E Q F R E D L A V Q  
UniRef90\_D0RQ47 L E Q L R R Q V I G G L L R R G Y G Q K N P I D E Y K R E S F N L F Q Q L F R E K I K E N  
UniRef90\_R7K985 M D A L R R R G I G L L R A L Q Q R D P V L S Y R Q E G W N M F D D M I E R I H G E  
UniRef90\_F7XV72 L D N L R R G G I S G L L R A Y A Q Q K D P L N E Y K V E A F R M F G S M L A E L D E L  
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UniRef90\_K2DT85 M D D L R R S G I G L L R R G Y A Q R D P L L I E Y K R E E G F D L F E K L M V E I D Y E  
UniRef90\_UPI0004677138 M D E L R R R G I G L L R A L Q Q K D P L L E Y Q F E S Y N L F Q A M M E R V R E S  
UniRef90\_H9UH82 L E A L R R E A V Y L L R S Y G Q K N P L L E Y K L E G F E L F E E M L L Q I R V S  
UniRef90\_R5QUJ3 M T K L R R N G I Y L L R A Y A Q K N P L S E Y T E E A F Y M F E E M K L S I V D M  
UniRef90\_UPI000361F275 I D E L R R E G I N L L R S Y G Q K D P L L V E Y Q R E A T L M F E E M M E D V F K E  
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UniRef90\_F9Q7K2 M D Y L R R Q G I H L R R G Y A Q K D P K Q E Y K K  
UniRef90\_J9YWH3 L E Q L R R Q V I G G L L R S Y G Q R D P L V E Y K K E A F E L F E A L L D K L K L D  
UniRef90\_A7ZD16 M D I L K T G I G L L R R G Y N Q K D P L V E Y K K E S Y N L F M E L V G R L K K T E

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 UniRef90\_C7LP74 T M K A L T H L R I  
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UniRef90\_B9D3I3 Y K F R R N E I L L D F E V G E K I K Q N R A E F V E H L L A Q A E I Y A G E D P K S E  
UniRef90\_D3DFX9 Y G I R R R N E I L L D G K V L K E Y V E E F I R D V V L E E S R L H A L L G F V E S G D R A  
UniRef90\_D3UMF5 Y K F R R N E I L L D G D Y N T Q R I Q E E N R V Q V L Q S L I A R L L G F I S G D R A  
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UniRef90\_C7N969 Y E Q R R D A I L L K N E N L K E L I T A M I S D T V D D I V V N S A Y V G N E G S G D  
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UniRef90\_T1CSN7 Y E Q R R N E L L D F A S E V A E S L H D I R A D V F A E L V N R H V P P D S V D  
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UniRef90\_R7ETX7 Y E Q R D E I L L H E A D L S G Q I K T M I A S T I A E A V E G A T A S P E K S E E  
UniRef90\_D0GIT9 Y T Q R D A I L L K S N E L K E L I L S M M R E T V S E E T V N S A L V F A N V K D D  
UniRef90\_F0RYW6 Y A E R D A I L L K S E H L L E R V R A I C H E I S F Q I V D T V F A N V K D D  
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UniRef90\_R6Z195 Y A E R R K V L D G K D L A G H I T D V M A S T I V E R C V A E F C P K D S K K G  
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I A T K L L T D K K N E V P I E V Y N E F L K V I M L S V I D D T Y W M R H H L D V  
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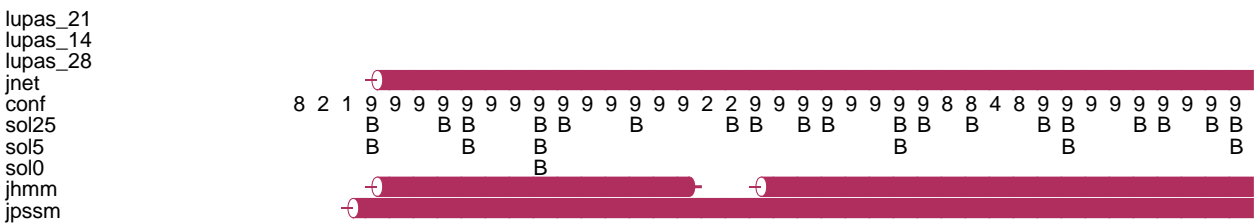


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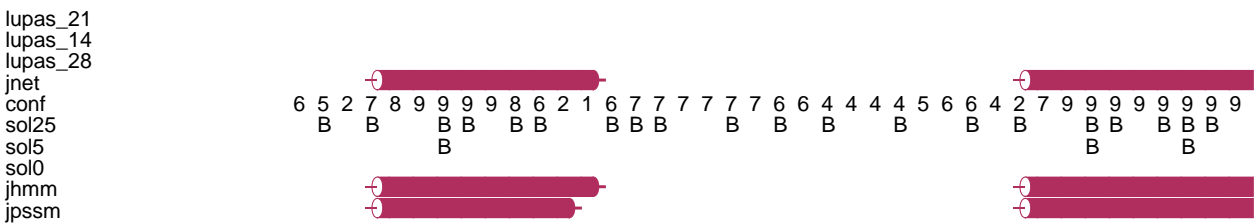
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UniRef90_UPI000248DA95	H	L	A	Y	V	S	Y	L	R	E	S	L	H	L	T	S	L	T	N	R	N	P	I	D	E	F	H	V	Q	L	I	Q	A	Y	E	Q	I	P	A	K			
UniRef90_UPI00035C7059	E	E	A	L	I	D	P	M	L	Q	R	Q	L	E	H	M	Q	R	M	M	L	G	Q	N	F	E	M	Q	Q	E	L	N	R	Y	S	D	M	I	E	D			



UniRef90\_C5Y6R9  
UniRef90\_Q4E6R5  
UniRef90\_F3E7P8  
UniRef90\_F3R627  
UniRef90\_V4KTM1  
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UniRef90\_X5DMC8  
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130              140              150              160
F F T E K E K Y F N S Q H T T D L W N T I V K Q M M I M T L D H L W R E H L S V
E L V K W I T F D L K G R S Q Q L Q E K R E A M I M L L A I D N Q W K V M L E E
T S S I D M E D F Y L P H
K A K N I L Q D R K Q K F D K N Y Y S N I L R T I M L R N I D I H F K N H N S D
L L R S T Y P E T T E D L D D D E L N K M G R D I A L Y H L D R L W A E H L A E
L A Q E I L D K K R L Y L T K D F V D L E R N S V L K A I D E C W V E E V D Y
K C P V L Y D R Y L D L V G K D V L Y K V E K Q I T L F H I N K C W A E Y L E Y
      K A G R L Q A E G I S Q E V L E Q A A R E I M L Y H L D Y E W S E H L A Y
Y Q R K L E S I Q E F R E D A N Q V          E R S V A I S A L D Y F W R M H L A N
E Y H R R E F K E I V R R G V E A A R E S F R E V          V I D N
T S T V S Y Q Q I T I S T H          Y L N I S K K L I L E V M D Q K W T E Y G E R
I N R E S S N M L V K L G G S N D P A K W E K F G L T Y T I N D Q Y M E Y L Q N
Q R R I L Y E E R R I L I G E Q S M S P V E Q R V R L F Y I D E F W A E H L S Y
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lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

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UniRef90_C5Y6R9
UniRef90_Q4E6R5
UniRef90_F3E7P8
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UniRef90_V4KTM1
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170                                      180                                      190                                      200

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

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lupas\_21  
lupas\_14  
lupas\_28  
jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

9	9	9	9	9	9	3	0	0	0	0	2	4	7	6	5	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
B		B		B	B	B	B	B	B	B	B				B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B		
B		B		B		B									B		B		B		B		B		B									

UniRef90\_C5Y6R9  
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 UniRef90\_U7JXM0  
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T H R A H F K

T E T F  
 T F R H L L L S E V  
 I I E T F L K A N V  
 A R E T F S E V D I  
 T V E S L L K

I I T S I I N  
 S A S M A K E

lupas\_21  
 lupas\_14  
 lupas\_28  
 jnet  
 conf  
 sol25  
 sol5  
 sol0  
 jhmm  
 jpssm

9 9 9 9 8 7 5 0 8 9  
 B B B B B B  
 B B B B  
 B B