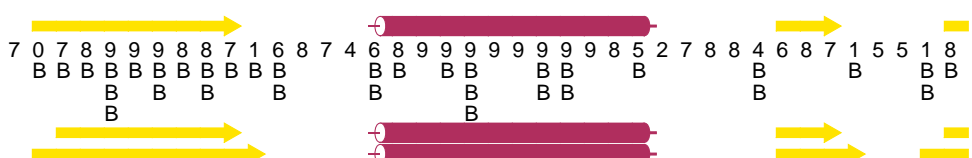


Table showing protein sequence alignment between UniRef90 entries and a query. The top row is labeled 'QUERY' and contains the reference sequence. Below it are 101 UniRef90 entries, each with a sequence of 40 amino acids. Columns are numbered 1, 10, 20, 30, and 40. Amino acids are shown in black, with some highlighted in yellow (e.g., G, C, R, F, S, Y, P, M, T, D, N, F, V, D, I, L, M, S, A, K, E, V, D, T, S, K, W, T, K, T, D, H, S) and others in red (e.g., H, P, L, Q, G, A, I, V, V, W, Y, R, G, M, C, H, F, S, Y, P, M, T, D, N, F, V, D, I, L, M, S, A, K, E, V, D, T, S, K, W, T, K, T, D, H, S).

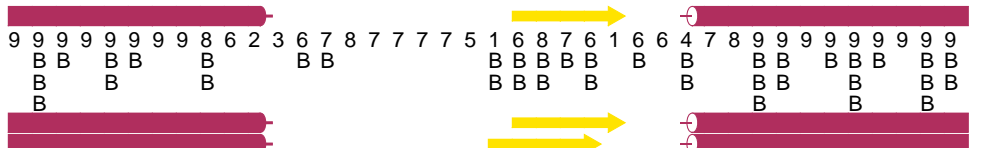
lupas_21
lupas_14
lupas_28
jnet
conf
sol25
sol5
sol0
jhmm
jpssm



QUERY
 UniRef90_UPI0004728B59
 UniRef90_UPI0002628F69
 UniRef90_E5WEQ6
 UniRef90_K5A3K9
 UniRef90_UPI0002FBC6EC
 UniRef90_UPI000310317E
 UniRef90_T0JGA4
 UniRef90_UPI0004077C44
 UniRef90_UPI0003093737
 UniRef90_H3NR10
 UniRef90_H3SDR5
 UniRef90_W3AGN3
 UniRef90_V9GG79
 UniRef90_H1PY05
 UniRef90_UPI000369166D
 UniRef90_S2XCK8
 UniRef90_U1LWA0
 UniRef90_UPI0003F72125
 UniRef90_W4RMF9
 UniRef90_X6KF49
 UniRef90_UPI00030B5AF1
 UniRef90_M9RFA2
 UniRef90_A6NTV9
 UniRef90_R6QIX2
 UniRef90_C4L2L1
 UniRef90_K2H8M2
 UniRef90_I4YV74
 UniRef90_UPI000370F04F
 UniRef90_A0A011RPY5
 UniRef90_UPI0004634CAB
 UniRef90_C8NFD5
 UniRef90_I5C6S9
 UniRef90_J2AU37
 UniRef90_UPI00047B5A44
 UniRef90_L5N2M0
 UniRef90_UPI000478B577
 UniRef90_D4YIX6
 UniRef90_UPI0002490D63
 UniRef90_H3NG93
 UniRef90_U2UMV8
 UniRef90_A3VL14
 UniRef90_G4RB93
 UniRef90_T2NKB5
 UniRef90_F9YB11
 UniRef90_Q2CH18
 UniRef90_D7CSE8
 UniRef90_UPI000379FCFC
 UniRef90_UPI0002DA85D4
 UniRef90_E3H9K7
 UniRef90_T0TZF5
 UniRef90_H1LGU9
 UniRef90_D1BBX1
 UniRef90_UPI00041F7BDA
 UniRef90_UPI00026C7140
 UniRef90_UPI00036F024A
 UniRef90_UPI0003B6F0D0
 UniRef90_D5DCI8
 UniRef90_UPI000345C834
 UniRef90_H9ULD6
 UniRef90_A0A021VR96
 UniRef90_C7R586
 UniRef90_UPI000262A741
 UniRef90_UPI000469E83D
 UniRef90_UPI0003B5468F
 UniRef90_R4Q812
 UniRef90_F4H3G3
 UniRef90_H3NF64
 UniRef90_H3NF64
 UniRef90_UPI0003B73DA9
 UniRef90_D9X8S6

130 140 150 160
 L I M E A V D I A K A Q G T F V Q G V H Y A S E R L D G D A H D V F S T L E A V F
 K I Y G A V D I A K A Q G T F G G V H Y A S E R L D G D A H D V F S T L E A V F
 A I Y E Q I D E L L A K A H R N V K V S A A H Y A T R R L D D G E N A H D V F F A T L L Y Q S F F
 V I M N Q V E G L A K A Q E G T F D E S A H Y A S R R L D D G E N A H D V F F A T L L Y Q S F F
 T I Y E I I G L A K A Q E G T F D E S A H Y A S R R L D D G E N A H D V F F A T L L Y Q S F F
 V I V D G V N T A K D E E G V L V A S V H Y A T H L D D G D T H T I F F R T T I K E D A F F
 M I Y N Q I E E M K L H G I D V S S I H Y A T R R L D D G D G E K V V F D G L L E R V F F
 V I A D Q V A V A D E H G T F T K G V I H Y A S R R L D D G D V H N V F Q S L L E E S F F
 V I Y D Q V E H C K E L G I T Y T K G I H Y A T R R L D D G D A R H V F F K S L L E E S F F
 T I Y D I V D I A K D K G L N P K S I H Y A T R R L D E G D V Q D I F F N Y F L G E I T
 T I Y D I V G L A R E E G T F T K G V I H Y A S R R L Q G D A H D V F A T L L E H A F F
 V I Y R E V D D R A K E R S G T F N E S M H Y A S R R L H G D I L H E V F A S Y E E A F F
 V I Y R E V D D R A K E R S G T F N E S M H Y A S R R L H G D I L H E V F A S Y E E A F F
 H I A K A V M T A K D K G V F A K S S H Y V S I L D E G D V H D V F G V L E E I F F
 K I N E Q I D L A S K E R G V T V S P T H Y A T R L D G G E V I N D V F F R A I L E T A F F
 V I Y Q E V A F A K E R G V F N D S M H Y A S R R L H G D I H D V F F S F Y E E A F F
 V I A D Q V Q T A E K H G T F S G G V H Y A S R R L D G D N V N S V F A T L L E E A F F
 I I M D Q I D I A K D K G L N P K S I H Y A T R R L D D G D V Q D I F F N Y F L G E I T
 E I Y G C I D F L K Q S G V F E R S K N F C T K L R G D A G A V F A T L L E N E A F F
 Q I Y T Q I E A M K H G T F V S S K T H Y A T R L D D G E V N I F N G L L E K V F F
 P I M G C I D F L K Q S G T F D R S K N F C T R R L T G D A G P V F F R Y L L T S V C
 H I A K V W H M A E D A G L Q P T S I L H Y A T R R L T G D V Q D V F F R Y L L T S V C
 E I A K V W Y M A Q D E G L N Y N K T L H Y A T R R L D G D V Q D V F F R Y L L T S V C
 V I Y D E I E M A Q Q A G V Y N D S M H Y A S R R L H G N L V D V F S Y Y E S A F F
 V I Y K G I E R M K E S G I E V S E A H Y A T K L S G D T N T M F K G L L E S E F F
 E I Y G C I D F L K R S G V F E R S K N F C T K L C D A G P V F A T L L E E A F F
 E I Y G C I D F L K R S G V F E R S K N F C T K L R G D T G A V F A A L L S E A F F
 T I A E V I N E G I D R G V V T G S G H Y G T N L G G S V Q D V F A Y L L E Y V S
 E I Y G C I D F L K S S G T F E K S K N F C T R R L R G D A G P V F A A L L S E A F F
 T I E K V V N L G I D Q G T I T G T G H Y V T F L R G D V H E V F F A Y L L E E A F F
 E I M G C I D F L K S S G T F D R S K N F C S R L T G D A G A P V F A T L L E Q A F F
 E I Y G C I D F L K R S G T F D R S K N F C T K L R G D A G A P V F A T L L E E A F F
 L I Y Q Q I E A M K E F V T V S P L A T R R L A G E A I Q V F N G L L E K V F F
 T I Y E K I E R M R E Q G I S V T P A H Y S T R L E G D I H D I F H G L L E N V F F
 E I Y G C I D F L K Q S G V F D R S K N F C T K L R G D T G A I F S A L L E Y A F F
 L I E E V V N N G I D R G V V A G S G H Y T T Y L Q G D V H D V F F R Y L L E E V A F F
 D I V Q I V D L A K N A G L N P Q S M H Y A T S L S G S V N D L F Q Y F N D A L C
 V I A D A V N K G I D R G V I K E S A H Y G T V L S G D V H E V F H Y I L E E V C
 C I E T V I N R G I D R K G L V T G T G H Y V T F L S G D V H E V F F R Y L L E E V C
 E I Y G C I D F L K S S G T F L E S K N F C T R L R G D A G A P V F E T L L R Q A F F
 E I Y G C I D F L K A S P L V S D R A K A N Y C T R L A G D A S Q L F E A L S A W
 E I A T I V Q L A E T H G L F P R S A H Y V T M L T G S A S Q L F A Y F E A A L
 E I Y G C I D F L K T S G T F L R S K N F C T R L R G D A G A V F E T V R Q A F F
 E I Y G C I D F L K T S G T F Y K A K N F S T R L R G D A G A V F E T L L R Q A F F
 A I Y D Q I K A A R S R G L R V T P Q H F C T R L E G D I S R V F A E L P Q V F
 T I A R A I T S V Q D D G V F G G A S H F C T R L E G D I S R V F A E L P Q V F
 K I E S Q I D L S A E P A I D V K P A L G A T R L D G E A G D I F R I I L K T F F
 V I V E E I E K A M A S N V D V E S Y H Y C T R L D G T A K S I F N L L E S F F
 E I A H I V S L A D A M G L Q P Q A H Y V T L L S G T A A Q L F A Y F E Q A L
 D I E K I V N E M A E D K G L N P V E G M H Y A T K L T G S I D D L E D Y F N E A L
 D I Y A A I E Q A R A A G T V V G S D H Y V T R L A G D V A D V L T T V V D A W
 P I Y A A I E Q A R A A G T V V G S D H F A T R L D G D L A G V L T T A A N A W
 D I Y A A I D H A K D L G T F R G S E H F V T R L E G D A G D V I A T A F L A G W
 D I Y A A I D H A K E N G T F R G S Q H F V T R L E G D A G R V I A S A F A G W
 G I Y A A I D H A R D L G V L T G S E H Y A T R L D G D L A D V L A A V T G G W
 I I K S G I G A V K Q Q G V F A E T V P F A T A L E G D V D K V E A S L Y E C F
 P I Y A A I E E A K R S G I F S G S D H F A T R L D G D L A Q V L Q T A A N A W
 E I M R E V E L F R Q A A L L E V Q A K H F C T R L D G E L S E V F H Q L A M A F
 P I L A A I D T A Q R A G L Y G G A E N F A T R L D G D L A D V L A T V V D T W
 A I Y A A I E S T R A A G L Y R G S E H Y V T R L E G D L G L I L G H V T A A W
 P I Y A A I E Q A K T A G V Y S G S D H Y A T R L D G D L A A V L T T A A N A W
 P I Y A A I E E A K A A G V Y S G S D H F A T R L D G D L A S V L E T A A N G W
 D I Y A A I D Y A K T S G I S V H T E H F V T R L E G D L A Q V L Q A I A A G W
 E I Q E I V N L A E K V G L E P S E I H Y A T T L T G N I S Q L F T Y F N Q A L
 A I E Q A V A V A R T R A V V T P S T F V T R L D G D L A D V L G A V V D G W
 D I D N Q I D Q E L N G L T Q V S K G E Y E L R G K F S H V T A Y I E Q V Y
 P I Y A A I D Q A K A S G V T V T S E H Y A T I L R G D L A D I L G V V N A W

lupas_21
 lupas_14
 lupas_28
 jnet
 conf
 sol25
 sol5
 sol0
 jhmm
 jpssm



	170	180
QUERY	R M A E Q Q T N H I T M T V N L S A N S P S R K N R	
UniRef90_UPI0004728B59	T H T Q E S V S H V V M T V N L S A N S P S S R A R	
UniRef90_UPI0002628F69	D S V Q E K V S H V T M S F T L S A N S P S S N K A	
UniRef90_E5WEQ6	E S C K K S D S H I T M T V N M S A N S P S K K K G	
UniRef90_K5A3K9	N R A Q K D K S H V V M T T T I S A N S P S T K	
UniRef90_UPI0002FBC6EC	L S S H K E A S H V V M T V N L S A N S P S T K R K	
UniRef90_UPI000310317E	V K A Q A S A S H V V M T A T I S A N S P S K K E R	
UniRef90_T0JGA4	T N M E N K S S H T V M T T T I S A N S P S K K E K	
UniRef90_UPI0004077C44	V N A S K T H S H V T M T A A V S A N S P S T K D K	
UniRef90_UPI0003093737	A R A Q E S A S H V V M T A A V S A N S P S R Q N Q	
UniRef90_H3NR10	K Y L E V R L S H Y I I H F T I S V N S P T	
UniRef90_H3SDR5	E R A K K S S T H I V L T A N L S A H S P S R K S	
UniRef90_W3AGN3	T N A R E E H R H L V M T V S M S I N S P S H G G K	
UniRef90_V9GG79	L H A Q S D H S H L V M T A T V S A H S P S V K Q R	
UniRef90_H1PY05	Q Y G E A N L S H Y I L Q V T I S V N S P T K	
UniRef90_UPI000369166D	T K V Q A V V S H T T M T F T L S A N S P S N R	
UniRef90_S2XCK8	T H A R E Q H K H L V M T V N M S I N S P S H K G	
UniRef90_U1LWA0	D R V R A K T S H V V M T V T F S V N S P S H E G R	
UniRef90_UPI0003F72125	V N A S K D R G H V T M T A T V S A N S P S T K A	
UniRef90_W4RMF9	E G A R S D S S H I V M T V T M S A N S P S R K E	
UniRef90_X6KF49	C R F G P G A G H V T L D I T I S A N S P S	
UniRef90_UPI00030B5AF1	I D M E E S S S H T V M T V S M S A N S P S A K N	
UniRef90_M9RFA2	C Q F G P P D G H V T I D L T V S A N S P S K R	
UniRef90_A6NTV9	R L M E Q S V P H Y I L H C T L S V N S P T Q E E	
UniRef90_R6QIX2	E L M T E P A V H H Y V L H F T M N C N S P S T E E N	
UniRef90_C4L2L1	N R T R E K N R H V V M T V T F S V N S P S H G G Q	
UniRef90_K2H8M2	S D T E K S S S H T V M T V A M S A N S P S Q E	
UniRef90_I4YV74	L R F G A P Q G H V A L D L K V S A N S P S K	
UniRef90_UPI000370F04F	V R F G P P A G H V T I D L T V S A N S P S K R	
UniRef90_A0A011RPY5	K T V G S K V S H Y V S Q I T L L C N V P	
UniRef90_UPI0004634CAB	L R F G A P N G H V A L D L T V S A N S P T K	
UniRef90_C8NFD5	K I L E Q D V S H F V I Q V T L L C N V P	
UniRef90_I5C6S9	C R F G P P E G H V T V D L T V S A N S P S	
UniRef90_J2AU37	Y R F G D P E G H V T L D I T I S A N S P S K	
UniRef90_UPI00047B5A44	N A V E G S S H T V M T I S I S A N S P S H	
UniRef90_L5N2M0	K E T E A G S S H T V M T V S I S A N S P S K K E	
UniRef90_UPI000478B577	S R F G P G A G H V T I D V T V S A N S P T	
UniRef90_D4YIX6	E R A G K D V S H Y I I E A S L C N L P	
UniRef90_UPI0002490D63	S Y A H D H I R H Y V I E A T I S V N S P S	
UniRef90_H3NG93	H F V Q E R V S H Y V I E L T L H M N I P	
UniRef90_U2UMV8	H E L D A N V S H F V I Q L T L L C N L P	
UniRef90_A3VLI4	L R F G P A E G H V T I D L T A S A N S P S	
UniRef90_G4RB93	L S F G D P N A H V A I D L T A S A N S P S	
UniRef90_T2NKB5	A Y A H D H L P H Y V L E A T V S V N S P S K K E	
UniRef90_F9YB11	L R F G P A E G H V T I D L T A S A N S P S A R	
UniRef90_Q2CH18	L R F G P A D G H V T I D M T A S A N S P G R R	
UniRef90_D7CSE8	D A A E R T P H V V I H A T L A A N S P S R R	
UniRef90_UPI000379FCFC	E S V T A D T P H V V L H L T A S K G S P S K K	
UniRef90_UPI0002DA85D4	S N V S E N V G H T A M A F T I S A N S P S D G G	
UniRef90_E3H9K7	E G V S K R I P H T I I H A T F S K G S P S K	
UniRef90_T0TZF5	A Y A H E K L P H Y V L E G T V S V N S P S L K E	
UniRef90_H1LGU9	S Y A H E H I R H Y V M E V T I S V N S P S E	
UniRef90_UPI0001BBX1	V T V G Q S V R H V T T H V T I S V N S P S E A A R	
UniRef90_UPI00041F7BDA	I A V G H K V Q H V T T H L S V S M N S P S	
UniRef90_UPI00026C7140	L L V G R G V Q H V T S H L T L S L N S P S H E G R	
UniRef90_UPI00036F024A	V L A G R T V Q H V T S H L T L S V N S P S H A G	
UniRef90_UPI0003B6F0D0	L L V G R D V R H V T S H V S L S L N S P T N	
UniRef90_D5DCI8	M K S V I Q Q A R V V M T V N M S A H S P S S K	
UniRef90_UPI000345C834	I G V G A V V Q H V V T H L T V S I N S P S	
UniRef90_H9ULD6	I R S G H T T R H V V L T A T V S K G S P S	
UniRef90_A0A021VR96	T G V G R E V A H V A A H A T V S V G S P S R R G	
UniRef90_C7R586	V A V G A S V Q H V T S H L T L S L N S P S H A S	
UniRef90_UPI000262A741	I G V G A V I Q H V V T H L T V S I N S P S L R G	
UniRef90_UPI000469E83D	I G V G G V V Q H V T T H L T V S L N S P T Q	
UniRef90_UPI0003B5468F	I L V G R T V Q H V A T H A T V S I N	
UniRef90_R4Q812	A Y	
UniRef90_F4H3G3	L A A A R H V R H V V A H A T I T L H S P S	
UniRef90_H3NF64	A K L A T S F D H F A I D L K Y Y T H S P	
UniRef90_H3NF64	A K L A T S F D H F A I D L K Y Y T H S P	
UniRef90_UPI0003B73DA9	A K V G Q E	
UniRef90_D9X8S6		

