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 Y A F G K T V D L S Y A E A E T K V R E E L A K E G F G G V I L T E I N V R K K
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 M Y Y I V E T D K S F E Q A A A D L D A V V R R H Q F G G V L L H V H D L G A T
 Y A I S T T V D Q P F E Q T V T A V R T A L A D D Q G F G G V L L T E I D L A A T
 D L T V R V S V P F A Q A V S L V R D A L T T Q G F G G V L L W E L D F K D K
 Y E V K T D K P F M T A V E D L K K T L S N S F G F G V L L W E L D L A A T
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 M Y G I S V R L A A P A D E V L D R V R A R A L A T Q G F G E I L T E F D D L R H A
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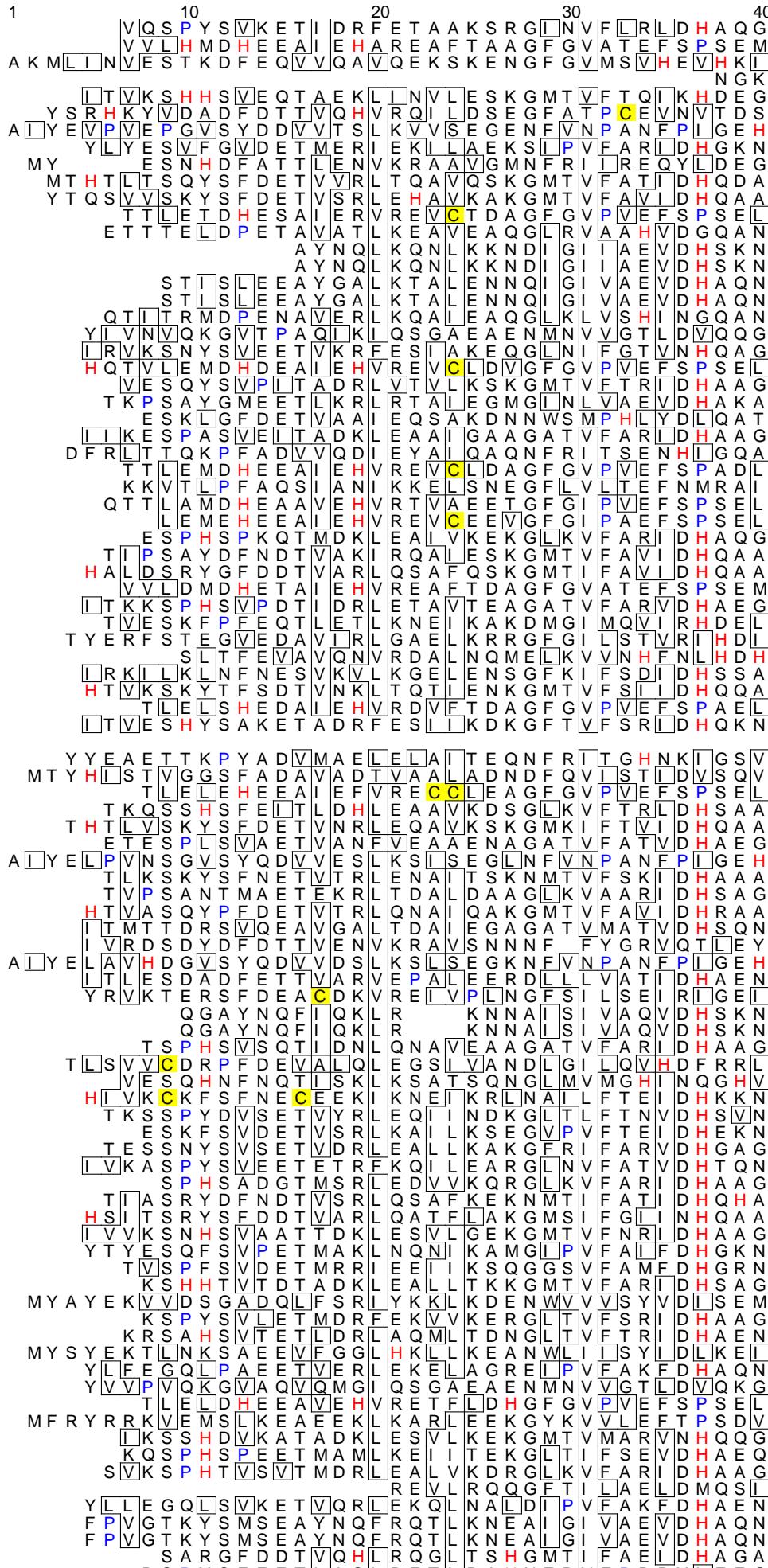
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L E S K G F D L G H E V R I L E V C S A P K A K K A L E T N P A V A Y F L P C K																																																																
L E S K G H P I S Y R C V I V E I C Q P K A A S E V L S R N P Y I S T A M P C R																																																																
L L K K K L D V D F K K Y R I L G A C N P P Y A H E A L Q A E D K I G T M L P C N																																																																
L H N K G K N L D E E C Q V I V D C N P T F A E E F L N G D I S C I L P C C																																																																
U n i R e f 9 0 _ B 3 E 0 3 6	U n i R e f 9 0 _ E 8 N 3 Q 7	U n i R e f 9 0 _ D 5 C R M 9	U n i R e f 9 0 _ X 1 P 1 V 2	U n i R e f 9 0 _ D 8 . 8 E 9	U n i R e f 9 0 _ U 5 E 3 R 5	U n i R e f 9 0 _ S 3 Z A P 2	U n i R e f 9 0 _ H 2 C G W 3	U n i R e f 9 0 _ D 5 U Z P 9	U n i R e f 9 0 _ U P I 0 0 0 3 7 F 3 D E 5	U n i R e f 9 0 _ A 8 E U W 6	U n i R e f 9 0 _ U P I 0 0 0 3 7 F 2 4 3 A	U n i R e f 9 0 _ K 2 F 6 N 1	U n i R e f 9 0 _ D 9 U V P 9	U n i R e f 9 0 _ A 8 V 2 E 4	U n i R e f 9 0 _ U P I 0 0 0 2 4 8 7 2 5 A	U n i R e f 9 0 _ S 3 U N M 8	U n i R e f 9 0 _ G 2 H X J 3	U n i R e f 9 0 _ B 1 Z S 4 4	U n i R e f 9 0 _ D 3 S 2 S 7	U n i R e f 9 0 _ U P I 0 0 0 3 5 C B D 2 B	U n i R e f 9 0 _ W 7 Z S H 6	U n i R e f 9 0 _ H 5 S V 0 2	U n i R e f 9 0 _ G 0 H B S 3	U n i R e f 9 0 _ Q 4 7 E 3 4	U n i R e f 9 0 _ U P I 0 0 0 4 1 B E 1 1 3	U n i R e f 9 0 _ W 7 Y 1 D 3	U n i R e f 9 0 _ I 9 K S R 8	U n i R e f 9 0 _ U P I 0 0 0 3 6 7 2 3 1 B	U n i R e f 9 0 _ T 1 C 7 K 1	U n i R e f 9 0 _ D 3 D I M 2	U n i R e f 9 0 _ U P I 0 0 0 3 7 F 0 3 0 A	U n i R e f 9 0 _ Q 5 S H J 8	U n i R e f 9 0 _ F 8 1 9 J 7	U n i R e f 9 0 _ U P I 0 0 0 4 7 D E 4 2 0	U n i R e f 9 0 _ H 6 R R A 6	U n i R e f 9 0 _ D 3 S R J 1	U n i R e f 9 0 _ F 9 U A E 4	U n i R e f 9 0 _ W 0 J Y R 1	U n i R e f 9 0 _ B 2 H J X 2	U n i R e f 9 0 _ W 0 T L 7 0	U n i R e f 9 0 _ U P I 0 0 0 3 7 7 A 3 1 C	U n i R e f 9 0 _ D 0 W 4 R 6	U n i R e f 9 0 _ S 7 W 1 1 4	U n i R e f 9 0 _ S 7 W 1 1 4	U n i R e f 9 0 _ I 3 Z W F 6	U n i R e f 9 0 _ B 5 J H 5 2	U n i R e f 9 0 _ E 4 U 7 0 8	U n i R e f 9 0 _ L 1 P H 3 0	U n i R e f 9 0 _ U P I 0 0 0 3 8 1 F B 0 1	U n i R e f 9 0 _ V 5 C B 8 0	U n i R e f 9 0 _ S 6 A N 9 2	U n i R e f 9 0 _ I 3 Z W F 6	U n i R e f 9 0 _ U P I 0 0 0 3 6 C 7 4 F 4	U n i R e f 9 0 _ G 3 I V M 6	U n i R e f 9 0 _ U P I 0 0 0 3 7 F 2 5 0 9	U n i R e f 9 0 _ T 0 M X P 2	U n i R e f 9 0 _ M O L Y 8	U n i R e f 9 0 _ W 0 J S 3 3	U n i R e f 9 0 _ F 4 C J 3 7	U n i R e f 9 0 _ F 4 C J 3 7	U n i R e f 9 0 _ I 6 Z 5 S 8	U n i R e f 9 0 _ F 0 I D P 1	U n i R e f 9 0 _ U P I 0 0 0 4 7 0 A 2 7 8	U n i R e f 9 0 _ F 0 F 0 9 3

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



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UniRef90_D7MZH5	R K T V
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UniRef90_UPI00035E2E85	E G I F E R L
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UniRef90_R4VT09	A E T F E R L
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UniRef90_J0V5C5	E K L S E A V
UniRef90_X5DVH0	K Q I L A
UniRef90_A9D5E4	E K L T N A A
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UniRef90_V4XQK7	E A V F E R L
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UniRef90_Q3IMH8	A A F F E A L
UniRef90_L0K027	E E A F A K
UniRef90_H8WBJ0	E Q V I E R
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UniRef90_M0I4X0	D E A L A N L
UniRef90_A3SXQ4	D K L T D K A
UniRef90_I4A2V9	Q S I A E K V
UniRef90_T1AACX6	K E A V D A
UniRef90_G0J1R7	H Q I L D H I
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UniRef90_H6SLQ9	T R V I E R L
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UniRef90_G4CLU8	A K T V T E
UniRef90_V4QY05	K G A L D K L
UniRef90_UPI00035E0BAB	L E I M D R A R
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UniRef90_E2CIL4	A K L T D K A
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UniRef90_C1F4U6	D S I A Q S A
UniRef90_Q96ZL9	Q T I I S S V
UniRef90_UPI00035DC294	K D I T A R A
UniRef90_G9S9W3	T K L V S R A
UniRef90_A4ADJ9	E N
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UniRef90_F3LE38	N K
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UniRef90_K9GRK1	D
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UniRef90_U2AVV7	E E L V R K A
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UniRef90_V4GXL2	D A A
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UniRef90_G8R5S5	E E M V E T V
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1 10 20 30 40

This figure displays a sequence alignment of UniRef90 proteins across 40 positions. The alignment is color-coded to indicate conservation: blue boxes represent conserved amino acids, while red boxes represent divergent ones. The first position is aligned vertically, followed by positions 10, 20, 30, and 40. A vertical bar on the left marks the beginning of each sequence.

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UniRef90_G9ZBM1	R A T I E
UniRef90_F9UAC0	S E I A A A A
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UniRef90_U1PR79	
UniRef90_W4HMF4	N R L T E Q A
UniRef90_Q121T0	K A I S D E A
UniRef90_W5YP55	A G F A E A A A
UniRef90_A1ZSB5	D K L T N A A
UniRef90_UPI000374EB2C	A A V L D A □
UniRef90_K5ZUA1	E K I V N Q
UniRef90_B2V878	K K I I D N I □
UniRef90_UPI000367607B	K Q A V E K
UniRef90_W9D8G8	
UniRef90_UPI00037CE718	T A I I E E A
UniRef90_L2F965	K K T V T E
UniRef90_L2EKI1	E G V
UniRef90_Q1YK93	G K L T D A A
UniRef90_V4JJ41	G R V I E S L □ R
UniRef90_V4XHA5	E R A F A A L
UniRef90_I7EK95	G K L T A A A A
UniRef90_A0A022GZB1	S G L I G A A
UniRef90_F5SZ83	K T I I
UniRef90_F3XX79	□ Q L I K S
UniRef90_B6R500	A K L T S K A
UniRef90_C0QSK3	K K I I D E I □
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UniRef90_U0G0V1	
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UniRef90_C0QDX6	A S I I A E S A
UniRef90_UPI0003781C53	R K L T A K A
UniRef90_W5TJZ7	▀ A V V D E
UniRef90_B9NU10	D K L T N K A
UniRef90_UPI0003621EE8	E R I L A S V
UniRef90_T0LQL7	H A I V S S I
UniRef90_G0HLH7	K Q I □
UniRef90_A0M0W7	K G I L S E A
UniRef90_H2C7E0	
UniRef90_F8XLP8	Q R V A D A V □ R
UniRef90_B7VP17	E A T V A K A K
UniRef90_W0PKF8	Q K L V
UniRef90_K9SG03	
UniRef90_UPI000375ECF7	
UniRef90_B9NMY7	D □ I L D E V
UniRef90_I3BWX6	D K L □
UniRef90_B8KXR9	K G I V D S
UniRef90_T0LNR3	E A I L D S V
UniRef90_UPI00036DE67D	R H I I D A A
UniRef90_I1YKA4	
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UniRef90_UPI000248EF74	
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UniRef90_K9FBQ6	N K L
UniRef90_Q1IQM6	I
UniRef90_W9A5M0	E K A V S A
UniRef90_H1S498	E A L T A K A
UniRef90_G9EQ52	E N L T K A A
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UniRef90_U1NQS6	E T A F E M □
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UniRef90_F8JA65	K V V V E E A
UniRef90_D2V5F4	K E I M D D C K
UniRef90_D3RWC1	A R I L D
UniRef90_H0RRM9	K A I □
UniRef90_W7KTE4	S N I L K G □
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UniRef90_M0MJQ1	R M I □
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UniRef90_Q1Z0W3	S K I A E
UniRef90_Q9X8B8	S K I A E
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1 10 20 30 40

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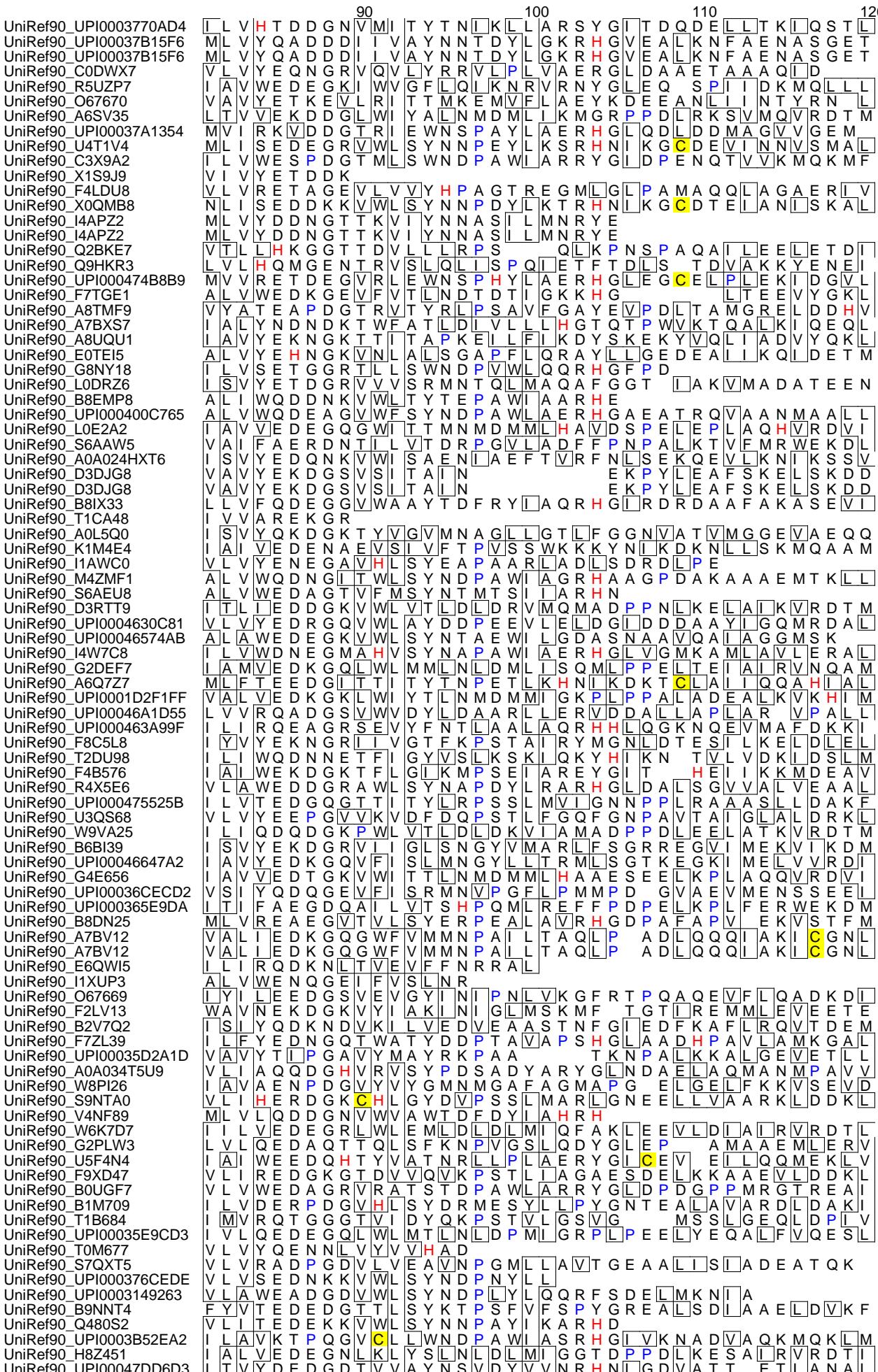
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 UniRef90_UPI0003710916 A A T R G V K I L P G N A V V M V F R N D Y A V R M L Q A S V P A G I E A P L R
 UniRef90_D3SQF8 L T A S G Y E T D R Y R V F F G R G D E V Q A I T E R H P E M I P Y L P W K
 UniRef90_D3SQF8 I I R S R G V K D F P H Y Y I L F G C T S P Q V S D L V K A P A L S N L L P C S S
 UniRef90_G2HDG3 S E E A G L R M P A T R V V I F G N P A V G T L L M L E A P T I A M D L P L R
 UniRef90_UPI000478C3BB M H R A G V A V L P A T I V E L C H S G F A G E I S D V D R Y N L A I L P C R R
 UniRef90_UPI00037553DD F Q T V G D N N A P R V E V F S F L C D L A G R E L L K I I P E M V V F L P C R
 UniRef90_UPI00036A486F L A R T G P E I G A T K Q V F E F C S A T I S R Q M M E A D P H A M V M C P Y I
 UniRef90_UPI000467713A I A K A G I D R K A L R V I I G N P L I A I T M L R H D L T A G L F A P V E
 UniRef90_K6VPU9 A A K A G T T L R P T T L V I V G N P Q G G T P F M Q D Q Q L M G L V L P L R
 UniRef90_D6U850 F S H L I H P L K A P K I M R F V V G N P L I M K E M V K H V P D A G S Y A P V T
 UniRef90_UPI00040052C8 A R M V D A D I G E A Q L L I F G T P K V G T P L A I D N R L A G I M L P L R
 UniRef90_G2D9Y3 I E A K S G K K Y R Y V K I F L F C N S L T A A R M L D Y S D A Y S A Y L P C R
 UniRef90_UPI0004666A10 L R E T T G S K A P K I M R F V V G N P L I M K E M V K H V P D A G S Y A P V T
 UniRef90_A4EJK0 A Q S V D K S I P D A T L L I F G N P A V G T P L M A E C P L M A L E L P L Q
 UniRef90_W2F316 M Q G S G D R W R S V Q Y L M G N Q T I A Q R M F H H D P G V L L Y A P L R
 UniRef90_W0E1E4 I E A I T G E P Y R Y V N F L S F C D A R V G R Q M L E H R N E Y S G F M P C R
 UniRef90_A0A023NXJ5 L L A R G G H S I G K A R Q L L F H P R Y A A R L L E A N P A T L I E I P L K
 UniRef90_D5CSK0 L E R T G K D L G G D D R Q I L E F C S A V V S R K M M E T D P D N I V F C P Y I
 UniRef90_I2K862 A R N V N M N L K P E T V V V F G N P K M G T V L M N C N P S I G L D L P L R
 UniRef90_UPI00046CA3E8 F E S R N I E V I R N I M V Y F I C N A G L A A T V I N E N N A M M G I M P C S
 UniRef90_B8J4J6 A V S Q N M F Q P P A T V I I F G N P A V G T P L M A E C P L M A L E L P L R
 UniRef90_E8V391 L K L Y G I E A K A K Q Y T Y G N P L L A H T M I K H D I G V C F Q V P F H
 UniRef90_L0AB89 A V S V G M K M N R S L L Y I F G N P R N G T L L M Y K D M R I G I L P L K
 UniRef90_L7VCK6 L A A N G L R L P G A H S F F V G N P Q I I G K T F F D A T Q A I G T V V P V R
 UniRef90_L7VCK6 L A A N G L R L P G A H S F F V G N P Q I I G K T F F D A T Q A I G T V V P V R
 UniRef90_B6BM72 A K M V D M K L N E S K M V I F G N A K L G T A L M Q Q D M T V G L D L P L R
 UniRef90_UPI00046A8DDF A T K V D I D L R P T E L L I F G N P K I G S P A M V D Q G T Q A G L D D L P L R
 UniRef90_G5PD25 A Q N V N L K M P P T T V L V F G N P K G G T P L M L A H P E L A L D L P F R
 UniRef90_A0A058X1T7 A K Q A E L D M P P T Q V V V Y G N P K A G T P L M L A A P D F A L E L P L K
 UniRef90_UPI0003B40192 F E D R N I D V P R K L T V Y F V C N A N L A A R V I N T N N A M A G I M P C S E R
 UniRef90_Q73UM8 I T K A G I E R R A L R V I I G N P L I A I T M L R H D V T A G L F A P V E
 UniRef90_I0IKL1 M G M T G L K L R S E T F F V G N P T M G K K L F S A Q K G V G V L I P V R
 UniRef90_C6A589 V K A K L G V D M E P Y K I I L Y V C N P K K F Y E M T K A E Y E I I G S F A P C P
 UniRef90_A0A017HEE8 L N R T G E D V G S D V T I F L F C S A V V S R K V M E A D P A N I A H C P Y G
 UniRef90_V4JAK1 V Q A I T G E E Y R Y V N F L S F C D A Q V G M R L L E Y R N Q Y S G F M P C R
 UniRef90_V9VPB0 A A A R G I T I P G N R V I G L F N N D F A V K I L A L S T A A M I E A P V R
 UniRef90_UPI00037E3C1D V A L E T G K P Q R L L K I F Q Y C N P Q T A M L M V D Y S D A F S A Y L P C R
 UniRef90_UPI00046A5336 A S E A G I T L R P S T L L I F G N P P L G T Q F I T A N P N A G L D W P V R
 UniRef90_S7VJ12 A Q N V G L E L D F T R T V Y F G N P T L L G T P L M Q N N S S A G L D L P Q R
 UniRef90_S7VJ12 A Q N V G L E L D F T R T V Y F G N P T L L G T P L M Q N N S S A G L D L P Q R
 UniRef90_L0DSA5 G E V T I M K I C Y P P I G P D F F Q A D M K A S A M L P C N K
 UniRef90_C5QR13 I K S K W L D F P T N F E V L I E Y N P K Q A K E V L E K R I E V G Y F L P C K
 UniRef90_G7DJM8 L R E S G S M K P K I M R F V V G N P L I M K E M V K H V P D A G S Y A P V T
 UniRef90_A3U7R4 A Q S V N Q S L R N T R I I F F G N P I L L G T P V M Q E N Q L A G L D L P Q H
 UniRef90_A3U7R4 A Q S V N Q S L R N T R I I F F G N P I L L G T P V M Q E N Q L A G L D L P Q H
 UniRef90_K0Q319 A R E H G L S M L Q T R V L V Y F G N P D V G T P V M V E T P L A A L D L P L R
 UniRef90_A6Q696 S I K D G K G N R Y I R I L H Y C S P S I A K Q F I D Y S L A F G A F M P C R
 UniRef90_W6KB64 L K R T G K P Y E E A M L Q F C S A K Y S R A A M E I D P S N I V F C P Y V
 UniRef90_UPI00035DA26D G N A A G S K V F P S R L V V F G N P A L G T T F I T A N P L A G L D W P V R
 UniRef90_S9Q167 A K A R G I T I P G N R V I G V F N N K F A V R I L A L S T A A M I E A P I R
 UniRef90_E0XV92 A Q K V G Q D I G A S E L L I F G N P E V G T P A M V E R E A G L A L P L K
 UniRef90_K5PV7 I G N Y Y G Q T F D D F V L Y T F G N P L Y A K E M M T R D S T T G F G I L P P R
 UniRef90_UPI00047CCE95 I R K T G I Q K K V L R V I I G N P L L A I T M L R H D L T A G L F A P V E
 UniRef90_G0JQZ9 I K A K N K P G F S D V Q S V V F C N P F F F N Q P L L N A H W E S S A A C P L T
 UniRef90_UPI000468D21D A A S A D M E L R P T T L I F G N P K I G T P A M I E N Q T A G L D L P L R
 UniRef90_UPI0003672F01 A K K V G K T L R P T E L V I F G N P K V G T P L M Q C K Q T V A I D L P Q K
 UniRef90_UPI00041D01FB A R Q H G L S M L E T R V L V Y G N P V V G T P V M N D T P L A A L D L P L R

UniRef90_X7GET1 E A A | I
 UniRef90_UPI000371E0EF K E V L | N E
 UniRef90_B4U5W0 K
 UniRef90_B4U5W0 K
 UniRef90_U1NC12
 UniRef90_W1LEH4 K S A
 UniRef90_C6A570 T K I I K T L
 UniRef90_B5WMM5 K G A I K E V K
 UniRef90_A8UQU2
 UniRef90_S3HBM5
 UniRef90_A0RMW8
 UniRef90_I0JY14 T A L I Q N
 UniRef90_C1DVX7 Q K T A D H
 UniRef90_T0KQN3 E E V L N
 UniRef90_T2KMX9 A N I V E S A
 UniRef90_T2KMX9 A N I V E S A
 UniRef90_I3Y735 N E I M A A
 UniRef90_C6ANL1 K L I S E S V
 UniRef90_K2HEJ3 A D L A A K V
 UniRef90_Z5XB44 R A V L A
 UniRef90_F0L100
 UniRef90_A0LBZ2 R E I M Q
 UniRef90_R4RY15 Q S V L A D L
 UniRef90_M3CW87 E K L W E
 UniRef90_UPI00046F43A3 R
 UniRef90_F6DA37
 UniRef90_D6A3W5
 UniRef90_B2JNW6
 UniRef90_I4CEJ8 Q D L L
 UniRef90_C5A3E1 E E L I N S V
 UniRef90_K8ZN08
 UniRef90_E6XOX8 Y T M M D K A
 UniRef90_M1P906 R S M I D E V K
 UniRef90_UPI0003679E24 E A I
 UniRef90_UPI0003710916 H H I L E Q V
 UniRef90_D3SQF8
 UniRef90_D3SQF8
 UniRef90_G2HDG3 R G L A E S V R
 UniRef90_UPI000478C3BB E E I V G K V
 UniRef90_UPI00037553DD E N V M
 UniRef90_UPI00036A486F T D I I K D A
 UniRef90_UPI000467713A A A L A R K V
 UniRef90_K6VPU9 A Q A L D A L
 UniRef90_D6U850 T H L V Q K A
 UniRef90_UPI00040052C8
 UniRef90_G2D9Y3 L D I M K R
 UniRef90_UPI0004666A10 T T L L R E
 UniRef90_A4EJK0 N M L T D K A
 UniRef90_W2F316 A A L L D H L
 UniRef90_W0E1E4 W S I M Q
 UniRef90_A0A023NXJ5 H G V M A H L
 UniRef90_D5CSK0 K D A L Q
 UniRef90_I2K862
 UniRef90_UPI00046CA3E8 K E M L R R I
 UniRef90_B8J4J6 K A L
 UniRef90_E8V391 I A F V A G L
 UniRef90_L0AB89
 UniRef90_L7VCK6 R
 UniRef90_L7VCK6 R
 UniRef90_B6BM72 D K I T T R A
 UniRef90_UPI00046A8DDF D K L T N K A
 UniRef90_G5PD25 E Q L V E K
 UniRef90_A0A058X1T7
 UniRef90_UPI0003B40192 K E M F K R I
 UniRef90_Q73UM8 A A L
 UniRef90_I0IKL1 A M M T G M L K
 UniRef90_C6A589 R A V I D S L
 UniRef90_A0A017HEE8 D D I A K E A
 UniRef90_V4JAK1 R E I M
 UniRef90_V9VPB0 A R I A E R A
 UniRef90_UPI00037E3C1D Q D L M K R
 UniRef90_UPI00046A5336
 UniRef90_S7VJI2 V T I V N S A
 UniRef90_S7VJI2 V T I V N S A
 UniRef90_L0DSA5 E A M L D T V
 UniRef90_C5QR13
 UniRef90_G7DJM8 T T L L R E
 UniRef90_A3U7R4 E S I V N
 UniRef90_A3U7R4 E S I V N
 UniRef90_K0Q319
 UniRef90_A6Q696 Y K M M D
 UniRef90_W6KB64 R E A L D
 UniRef90_UPI00035DA26D M T I A E E A
 UniRef90_S9QI67 R K L T A K A
 UniRef90_E0XV92 E A L L R K A
 UniRef90_K5VPV7 Q A L
 UniRef90_UPI00047CCE95 T G A L T S V
 UniRef90_G0JQZ9 G K L T D K A
 UniRef90_UPI000468D21D
 UniRef90_UPI0003672F01
 UniRef90_UPI00041D01FB

UniRef90_D6TC49
UniRef90_C1D6A1
UniRef90_B0CY62
UniRef90_W0A6V5
UniRef90_E6X054
UniRef90_W6XFA3
UniRef90UPI00047A2ABC
UniRef90UPI000373771A
UniRef90_L0IEJ1
UniRef90_A3JVA2
UniRef90_Q28NK1
UniRef90_Q478Y2
UniRef90_B8GSC6
UniRef90_U2EQL9
UniRef90_G0JRL1
UniRef90_Q3SK08
UniRef90_D7AIJ8
UniRef90_T1D6I4
UniRef90_W9VAR1
UniRef90_D8PRL6
UniRef90_W8L4N4
UniRef90_X6EQ47
UniRef90_Q98KT7
UniRef90_A1VGZ9
UniRef90_Q6L030
UniRef90_S6AG78
UniRef90_D0KYG8
UniRef90_M5FZ42
UniRef90_Q30QZ4
UniRef90_F9U610
UniRef90_V5RT19
UniRef90_C0QUF1
UniRef90_B8ENS8
UniRef90_D6U870
UniRef90_U1MJL5
UniRef90_A0A037ZMA7
UniRef90_W9VV46
UniRef90UPI0004688298
UniRef90_R0FYK3
UniRef90_A3W512
UniRef90UPI0003665B68
UniRef90_W0DMW7
UniRef90_S6BG39
UniRef90_B2JS16
UniRef90_A3TX39
UniRef90_B0UGU0
UniRef90_E1T9M8
UniRef90_L0DYF6
UniRef90_F9UA59
UniRef90_C5NNW9
UniRef90_A0A059INR9
UniRef90_C8X1R4
UniRef90UPI000478460E
UniRef90_W0DMY5
UniRef90UPI000380E7CE
UniRef90_W8KMG3
UniRef90UPI00036437AE
UniRef90UPI0003B416F5
UniRef90_C6CRW9
UniRef90_F2J5Z1
UniRef90UPI0002625206
UniRef90_B1G6K4
UniRef90UPI0004690F95
UniRef90_A3X8H4
UniRef90_K8PRY0
UniRef90_W0DGA7
UniRef90_W0DGA7
UniRef90_H8Z0R2
UniRef90_G8MP36
UniRef90UPI000407AF5E
UniRef90_M4XG41
UniRef90_X5LN16
UniRef90_S9S3R5
UniRef90_Q3SK53
UniRef90_W0JM13
UniRef90UPI000360D898
UniRef90_U7GHJ9
UniRef90_Q3SFT9
UniRef90_B9R0U7
UniRef90_A7F257
UniRef90_E8V392
UniRef90_Q16A40
UniRef90UPI0002ED0965
UniRef90_U7GGA2
UniRef90_J1F7S9
UniRef90_A0A024HX11
UniRef90_A0A024HX11
UniRef90UPI00037DCA4A
UniRef90_A3SQX2
UniRef90_E3J407
UniRef90_W4HQ45

1 10 20 30 40

This figure displays a sequence alignment of protein sequences, likely from UniProt, across various species. The alignment is presented in a grid format where each row represents a different protein. The columns indicate specific amino acid positions, with labels at positions 1, 10, 20, 30, and 40. Amino acids are represented by single-letter codes, and some positions are highlighted in yellow or red. The alignment shows high conservation of certain residues across the different proteins, particularly at positions 10, 30, and 40.

UniRef90_D6TC49
 UniRef90_C1D6A1
 UniRef90_B0CY62
 UniRef90_W0A6V5
 UniRef90_E6X054
 UniRef90_W6XFA3
 UniRef90UPI00047A2ABC
 UniRef90UPI000373771A
 UniRef90_L0IEJ1
 UniRef90_A3JVA2
 UniRef90_Q28NK1
 UniRef90_Q478Y2
 UniRef90_B8GSC6
 UniRef90_U2EQL9
 UniRef90_U2EQL9
 UniRef90_G0JRL1
 UniRef90_Q3SK08
 UniRef90_D7AIJ8
 UniRef90_T1D6I4
 UniRef90_W9VAR1
 UniRef90_D8PRL6
 UniRef90_W8L4N4
 UniRef90_X6E047
 UniRef90_Q98KT7
 UniRef90_A1VGZ9
 UniRef90_Q6L030
 UniRef90_S6AG78
 UniRef90_D0KYG8
 UniRef90_M5FZ42
 UniRef90_Q30QZ4
 UniRef90_F9U610
 UniRef90_V5RT19
 UniRef90_C0QUF1
 UniRef90_B8ENS8
 UniRef90_D6U870
 UniRef90_U1MJL5
 UniRef90_A0A037ZMA7
 UniRef90_W9VV46
 UniRef90UPI0004688298
 UniRef90_R0FYK3
 UniRef90_A3W512
 UniRef90UPI0003665B68
 UniRef90_W0DMW7
 UniRef90_S6BG39
 UniRef90_B2JS16
 UniRef90_A3TX39
 UniRef90_B0UGU0
 UniRef90_E1T9M8
 UniRef90_L0DYF6
 UniRef90_F9UA59
 UniRef90_C5NW99
 UniRef90_A0A059INR9
 UniRef90_C8X1R4
 UniRef90UPI000478460E
 UniRef90_W0DMY5
 UniRef90UPI000380E7CE
 UniRef90_W8KMG3
 UniRef90UPI00036437AE
 UniRef90UPI0003B416F5
 UniRef90_C6CRW9
 UniRef90_F2J5Z1
 UniRef90UPI0002625206
 UniRef90_B1G6K4
 UniRef90UPI0004690F95
 UniRef90_A3X8H4
 UniRef90_K8PRY0
 UniRef90_W0DGA7
 UniRef90_W0DGA7
 UniRef90_H8Z0R2
 UniRef90_G8MP36
 UniRef90UPI000407AF5E
 UniRef90_M4XG41
 UniRef90_X5LN16
 UniRef90_S9S3R5
 UniRef90_Q3SK53
 UniRef90_W0JM13
 UniRef90UPI000360D898
 UniRef90_U7GHJ9
 UniRef90_Q3SFT9
 UniRef90_B9R0U7
 UniRef90_A7F257
 UniRef90_E8V392
 UniRef90_Q16A40
 UniRef90UPI0002ED0965
 UniRef90_U7GGA2
 UniRef90_J1F7S9
 UniRef90_A0A024HX11
 UniRef90_A0A024HX11
 UniRef90UPI00037DCA4A
 UniRef90_A3SQX2
 UniRef90_E3J407
 UniRef90_W4HQ45

50 60 70 80

UniRef90_D6TC49
UniRef90_C1D6A1
UniRef90_B0CY62
UniRef90_W0A6V5
UniRef90_E6X054
UniRef90_W6XFA3
UniRef90_UPI00047A2ABC
UniRef90_UPI000373771A
UniRef90_L0IEJ1
UniRef90_A3JVA2
UniRef90_Q28NK1
UniRef90_Q478Y2
UniRef90_B8GSC6
UniRef90_U2EQL9
UniRef90_G0JRL9
UniRef90_U2EQL9
UniRef90_Q3SK08
UniRef90_D7AIJ8
UniRef90_T1D6I4
UniRef90_W9VAR1
UniRef90_D8PRL6
UniRef90_W8L4N4
UniRef90_X6EQ47
UniRef90_Q98KT7
UniRef90_A1VGZ9
UniRef90_Q6L030
UniRef90_S6AG78
UniRef90_D0KYG8
UniRef90_M5FZ42
UniRef90_Q30QZ4
UniRef90_F9U610
UniRef90_V5RT19
UniRef90_C0QUF1
UniRef90_B8ENS8
UniRef90_D6U870
UniRef90_U1MJL5
UniRef90_A0A037ZMA7
UniRef90_W9VV46
UniRef90_UPI0004688298
UniRef90_R0FYK3
UniRef90_A3W512
UniRef90_UPI0003665B68
UniRef90_W0DMW7
UniRef90_S6BG39
UniRef90_B2JS16
UniRef90_A3TX39
UniRef90_B0UGU0
UniRef90_E1T9M8
UniRef90_L0DYF6
UniRef90_F9UA59
UniRef90_C5NW99
UniRef90_A0A059INR9
UniRef90_C8X1R4
UniRef90_UPI0004748460E
UniRef90_W0DMY5
UniRef90_UPI000380E7CE
UniRef90_W8KMG3
UniRef90_UPI00036437AE
UniRef90_UPI0003B416F5
UniRef90_C6CRW9
UniRef90_F2J5Z1
UniRef90_UPI0002625206
UniRef90_B1G6K4
UniRef90_UPI0004690F95
UniRef90_A3X8H4
UniRef90_K8PRY0
UniRef90_W0DGA7
UniRef90_W0DGA7
UniRef90_H8Z0R2
UniRef90_G8MP36
UniRef90_UPI000407AF5E
UniRef90_M4XG41
UniRef90_X5LN16
UniRef90_S9S3R5
UniRef90_Q3SK53
UniRef90_W0JM13
UniRef90_UPI000360D898
UniRef90_U7GHJ9
UniRef90_Q3SFT9
UniRef90_B9R0U7
UniRef90_A7F257
UniRef90_E8V392
UniRef90_Q16A40
UniRef90_UPI0002ED0965
UniRef90_U7GGA2
UniRef90_J1F7S9
UniRef90_A0A024HX11
UniRef90_A0A024HX11
UniRef90_UPI00037DCA4A
UniRef90_A0A024HX11
UniRef90_A0A024HX11
UniRef90_UPI00037DCA4A
UniRef90_A0A024HX11
UniRef90_E3J407
UniRef90_W4HQ45

90 100 110 120

The diagram illustrates a sequence alignment of numerous proteins, likely from UniProt, comparing their amino acid sequences at positions 90, 100, 110, and 120. A prominent red rectangular box highlights these four positions across a subset of sequences. Most sequences at these positions contain the amino acid Isoleucine (I), while a few sequences deviate, showing Alanine (A), Threonine (T), or Valine (V). The alignment shows varying degrees of conservation across the different proteins and positions.

UniRef90_D6TC49 E A [L L] S A [V]
 UniRef90_C1D6A1
 UniRef90_B0CY62 E K [L V]
 UniRef90_W0A6V5 V A L A E
 UniRef90_E6X054 D S A S D A [K]
 UniRef90_W6XFA3
 UniRef90UPI00047A2ABC R A [L A E
 UniRef90UPI000373771A S K V L D K
 UniRef90_L0IEJ1 G E V W A N [I]
 UniRef90_A3JVA2 R E A I S E
 UniRef90_Q28NK1
 UniRef90_Q478Y2
 UniRef90_B8GSC6 N E [I I] D R A
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50 60 70 80

This figure displays a sequence alignment of UniRef90 proteins. The alignment is centered around residues 50, 60, 70, and 80. A color scale indicates conservation: blue for high conservation, yellow for intermediate, and red for low conservation. The alignment shows a highly conserved central region (residues 50-80) with significant divergence at the N-terminus and C-terminus.

90 100 110 120

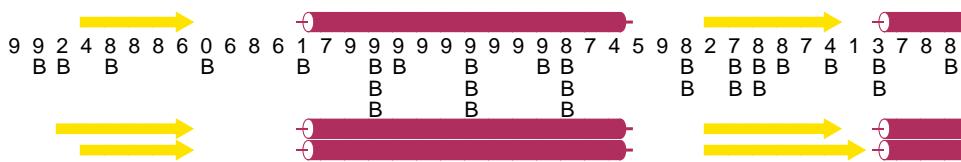
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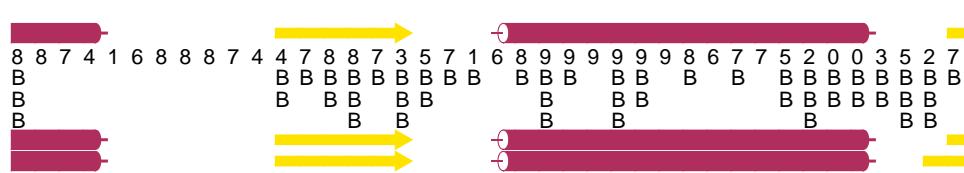
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 jnet
 conf
 sol25
 sol5
 solo
 jhmm
 jpssm



Sequence logo showing the conservation of amino acids at positions 50, 60, 70, and 80 across UniRef90 entries. The x-axis represents positions 50, 60, 70, and 80. The y-axis lists UniRef90 entries.

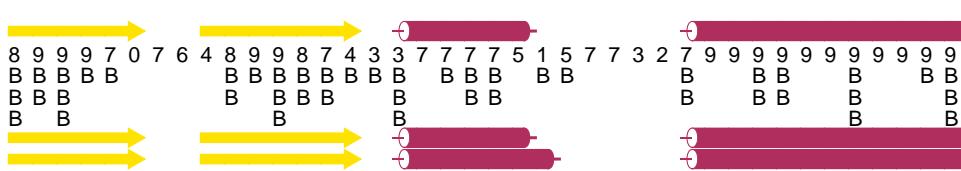
Position	UniRef90 Entry	Conservation
50	WA D N S L E N D R Y Y W V Y S L C H F T F S Y T V F W Q H T D L G A S A P C S	W, A, D, N, S, L, E, N, D, R, Y, Y, W, V, Y, S, L, C, H, F, T, F, S, Y, T, V, F, W, Q, H, T, D, L, G, A, S, A, P, C, S
60	W A D N S L E N D R Y Y W V Y S L C H F T F S Y T V F W Q H T D L G A S A P C S	W, A, D, N, S, L, E, N, D, R, Y, Y, W, V, Y, S, L, C, H, F, T, F, S, Y, T, V, F, W, Q, H, T, D, L, G, A, S, A, P, C, S
70	W A D N S L E N D R Y Y W V Y S L C H F T F S Y T V F W Q H T D L G A S A P C S	W, A, D, N, S, L, E, N, D, R, Y, Y, W, V, Y, S, L, C, H, F, T, F, S, Y, T, V, F, W, Q, H, T, D, L, G, A, S, A, P, C, S
80	W A D N S L E N D R Y Y W V Y S L C H F T F S Y T V F W Q H T D L G A S A P C S	W, A, D, N, S, L, E, N, D, R, Y, Y, W, V, Y, S, L, C, H, F, T, F, S, Y, T, V, F, W, Q, H, T, D, L, G, A, S, A, P, C, S

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lupas_14
lupas_28
inet



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