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 V A D K F R T A D A E Y
 H A D K F R L A D L M E A G N I
 S A E K F R E A D
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 I A E K F R N T D N Q D V A K A E G
 S A K K F R E A D Q
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 I A E K F E Q A D N
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 T A E A V A Q Q D E Q L S Q N F G
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 I A T N F R N V D N S Y
 I A Q R F Q Q A D Q Q
 V A D A T Q A L D E E I A S K F
 I A E K F E K A D L E Y S
 T G A A M Q E R D R D I A S Q F G
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 I A Q K F R Q A D E E Y
 I A E K F R D T D E S Y
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 V A D I K E Q S D R D I A S Q L R
 T K D A I D H D Q R I S Q N F G
 V A E A T E R L D S E M A R K F S
 I A Y K F M Q V D N E Q G N
 Y A N T V A E R D A Q D A K G F G
 S A N K F E Q V D N M D V A
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1 10 20 30 40

UniRef90_D8H4B6	M[V]Q	I[K]V	T[P]E	M[L]E	E[V]A	N[R]A	S[N]T	R[□]A	L[E]	S[I]	H[N]	N[L]	C[Y]	N[E]	I[D]	Y
UniRef90_UP10003805699	M[A]T	I[K]L	T[P]E	E[E]L	R[Q]S	A[V]Q	Y[S]N	G[S]Q	T[V]T	D[V]L	V[L]	T[T]	T[N]	E[Q]	A[V]	
UniRef90_UP10002E48C7E	M[A]K	I[Q]I	T[P]E	E[M]D	N[A]A	A[S]K	F[D]Q	G[A]Q	E[S]E	Q[L]A	Q[L]	N[S]L	M[Q]S			
UniRef90_W1Q450	M[A]G	Q[R]I	T[P]E	E[V]L	A[D]R	K[T]Y	G[N]A	A[T]T	V[D]Q	V[L]	E[Q]L	R[V]L	Q[S]E			
UniRef90_F8CYN8	M[T]T	I[R]V	N[P]E	E[L]E	A[V]A	E[H]V	P[D]A	E[D]G	C[G]S	R[A]R	T[S]L	S[W]E	L[P]S			
UniRef90_UP10002D89EA3	M[P]N	V[N]T	Y[E]E	E[M]R	N[A]A	N[R]L	T[Q]G	K[G]A	D[Q]S	R[Q]Q	C[Y]	C[ST]L	R[N]A	L[N]S		
UniRef90_UP100037BA6EE	M[P]A	I[S]L	T[P]E	E[L]K	S[A]Q	T[Y]T	N[A]S	E[Q]L	K[L]D	A[I]N	K[V]	K[S]M	I[N]N			
UniRef90_D4FST0	M[N]I	K[L]S	P[E]Q	M[E]T	K[A]A	E[F]N	T[R]C	E[C]F	N[Q]V	V[V]S	T[M]R	N[M]V	T[A]G			
UniRef90_R6PQR8	M[A]K	I[L]V	S[P]E	T[L]L	Q[Q]A	S[N]T	F[K]Q	G[G]A	E[S]Q	A[Q]V	Q[K]L	K[A]T	I[N]G			
UniRef90_F8FP78	M[A]Q	I[R]M	T[P]E	E[L]R	T[E]A	N[E]T	R[T]S	D[A]A	S[A]Y	Q[D]L	L[Q]R	G[D]A	R[I]E	K		
UniRef90_Q9KE84	Q[Q]I	R[V]S	T[T]E	T[L]L	Q[Q]A	R[Y]G	K[A]A	D[I]R	V[I]L	N[N]L	Q[R]L	Q[D]T				
UniRef90_A0A024DE74	M[S]G	M[M]R	I[S]P	E[E]L	A[T]I	A[Q]Y	G[M]E	S[G]N	V[L]N	I[V]G	N[D]G	L[M]E	K			
UniRef90_UP1000413AF6B	M[A]E	I[S]L	S[P]E	E[L]V	S[Q]A	A[V]Y	S[N]A	R[D]Q	I[E]T	A[L]Q	A[V]	S[T]A	N[G]E			
UniRef90_T1ZCC0	G[R]I	V[V]D	P[G]T	I[H]R	A[A]E	D[D]C	T[A]T	G[G]E	L[K]T	L[F]D	N[L]Q	S[D]L	S[P]			
UniRef90_D9V3M3	R[I]L	V[V]T	P[E]E	L[E]E	G[I]A	Q[Q]F	K[G]N	S[D]A	R[S]Q	T[A]Q	L[Y]Q	A[L]Q	L[Q]S			
UniRef90_U1Y3C0	M[T]T	[Q]I	P[K]P	E[E]L	E[A]V	A[K]H	H[V]P	D[A]E	D[A]C	Q[R]A	R[T]S	L[S]W	E[L]P	S		
UniRef90_A0A023DG42	M[S]G	P[M]K	V[D]Y	A[T]I	H[Q]A	A[T]D	C[D]N	K[T]G	G[E]L	E[N]L	F[L]T	Q[Q]L	K[S]D	L[A]P		
UniRef90_UP10003A176F2	M[G]P	I[A]V	T[P]D	Q[L]K	S[Q]A	K[I]Y	Q[Q]S	A[L]Q	I[Q]E	A[I]R	K[V]N	T[M]N	Q[Q]			
UniRef90_J6S062	M[A]N	V[N]V	T[Y]E	D[M]R	G[R]A	A[T]K	L[K]L	K[S]G	Q[G]E	E[I]E	G[T]L	D[K]L	K[S]L	V[E]E		
UniRef90_E2SCX8	M[T]A	I[S]S	V[V]T	P[E]Q	L[K]E	Q[A]Q	V[Y]T	R[S]K	E[Q]E	A[I]Q	S[V]Q	N[S]M	N[S]Q			
UniRef90_D3HHU3	M[S]A	I[S]L	T[P]E	Q[L]Q	S[Q]A	A[I]Y	L[S]A	K[D]Q	I[E]Q	A[V]Q	Q[T]V	N[R]T	T[N]G	E		
UniRef90_X8KFA9	M[A]Q	I[R]L	T[P]E	E[L]R	E[G]A	S[F]L	L[Q]K	M[E]A	V[I]D	E[V]N	E[I]K	K[S]K	V[D]A			
UniRef90_R6FQR0	M[S]G	N[Q]L	F[S]P	Q[Q]A	R[S]I	G[R]S	I[K]Q	K[G]D	Q[A]S	L[D]I	K[Q]L	D[K]D	I[K]S			
UniRef90_UP100047BC404	M[A]N	R[R]	D[P]D	T[M]D	Q[R]A	S[Q]Y	R[T]E	A[Q]N	V[Q]N	V[Q]V	I[S]N	M[D]R	L[L]A	N		
UniRef90_R6ZB7J	M[A]N	M[N]	V[T]Y	G[D]M	T[S]A	A[G]R	L[T]S	G[K]D	D[L]I	S[K]L	H[E]L	Q[T]L	V[N]Q			
UniRef90_UP10003B4F1B8	M[A]L	I[K]K	M[A]P	E[E]L	E[Q]L	A[A]K	F[S]A	A[S]E	S[Q]Q	M[V]S	T[L]L	G[S]G	I[A]N			
UniRef90_FOK538	M[A]L	I[Q]V	T[P]D	L[L]N	S[K]A	N[E]L	R[G]L	K[A]Q	H[D]E	A[M]S	K[M]R	T[L]I	L[G]			
UniRef90_B0MM51	M[A]G	K[K]S	V[T]P	E[E]L	E[G]S	A[K]K	I[E]G	K[G]I	G[S]Y	V[N]L	Y[Q]K	N[E]V	D[G]			
UniRef90_UP10001E2D9A4	M[A]R	I[R]I	R[V]S	P[E]Q	L[G]Q	V[A]L	Q[F]Q	Q[A]H	Q[S]Q	T[S]I	A[R]M	R[G]A	I[G]R			
UniRef90_F8FP75	M[A]N	V[N]V	N[V]T	Y	Q[K]M	E[D]A	G[R]L	V[N]G	R[A]E	I[D]G	M[L]G	K[G]L	V[D]Q			
UniRef90_H6RUH3	M[A]D	L[H]	V[T]P	E[V]L	R[E]V	S[T]F	G[T]A	A[E]Q	L[R]A	S[L]G	S[D]L	I[E]V	A[Q]			
UniRef90_X5LAZ9	M[S]T	Q[K]I	V[T]P	E[Q]L	E[H]A	K[A]T	V[R]D	A[R]S	T[L]E	Y[I]H	K[D]L	Y[K]Q	T[E]Y			
UniRef90_C3IUQ8	M[A]D	I[K]L	S[A]E	E[L]L	R[T]Q	A[N]K	M[T]A	L[K]E	Q[Y]T	S[L]F	Q[F]S	I[N]N	E[M]N	T		
UniRef90_R6VMJ6	M[Q]G	E[I]R	I[S]P	S[E]M	E[V]R	V[S]Q	Y[K]T	Q[G]D	A[V]Q	E[V]I	N[K]M	D[E]Y	L[G]A	G		
UniRef90_R7HVT3	M[A]R	I[T]I	Q[P]Q	L[E]E	I[S]R	R[F]K	S[C]O	Q[E]N	Q[N]T	M[A]A	E[L]K	S[L]V	Q[G]G			
UniRef90_H6NNJ7	M[N]L	T[F]N	P[D]Q	A[L]G	V[G]V	K[A]S	I[K]T	K[A]N	N[A]D	T[L]I	K[Q]L	Q[SE]I	I[H]A	P		
UniRef90_W4CGW5	M[A]V	I[V]V	D[Y]A	T[I]T	H[Q]A	E[D]C	Q[R]T	G[S]E	L[E]A	L[F]F	E[D]L	K[S]R	L[A]P			
UniRef90_H5XGE2	M[A]Q	V[V]T	P[E]M	L[T]S	K[A]S	E[L]R	G[R]G	I[K]E	Q[H]D	E[S]M	A[K]M	K[T]L	L[I]S	G		
UniRef90_R6VEE1	M[A]Q	K[L]I	T[P]E	E[L]R	R[S]S	A[K]Y	T[Q]A	T[G]S	Q[V]T	E[V]E	V[L]N	L[L]T	Q[E]Q	A[V]		
UniRef90_UP10002B94242	M[N]G	I[R]V	T[P]E	Q[L]A	T[S]G	R[L]N	S[G]S	A[T]I	E[G]E	L[R]A	M[G]A	G[A]L	A[P]			
UniRef90_A0LR18	M[P]N	L[N]N	V[T]Y	Q[E]M	D[M]D	A[S]G	R[G]R	V[D]I	D[E]A	Q[V]A	L[K]K	M[V]D	V[D]A			
UniRef90_F8B134	M[A]N	V[N]V	N[V]T	Y	G[M]Q	N[A]A	R[N]R	L[T]R	G[K]D	E[V]L	D[K]L	R[R]M	V[N]V			
UniRef90_G8SLR7	M[A]N	V[N]V	N[V]T	Y	G[E]M	Q[M]Q	N[A]A	R[N]R	L[T]R	G[K]D	E[V]L	D[K]L	R[R]M	V[N]V		
UniRef90_UP1000346861E	M[A]D	I[R]V	T[S]E	S[L]S	G[V]S	N[S]N	Q[L]Q	S[G]S	Q[S]I	E[S]Q	N[Q]N	L[K]S	V[D]G			
UniRef90_UP100034D78D7	M[A]N	V[N]V	N[V]T	Y	D[D]L	R[N]Q	A[S]Q	S[R]L	R[N]Q	G[K]S	K[S]Q	I[D]N	D[N]K			
UniRef90_UP10001E2D99E	M[A]E	F[K]V	T[P]Q	V[L]R	R[S]T	S[S]N	I[K]K	S[I]N	T[N]F	Q[G]V	M[K]D	I[E]T	E[M]N	K		
UniRef90_C3CI80	M[A]E	I[K]I	T[P]E	Q[L]D	Q[I]D	A[G]R	F[T]N	A[A]A	E[A]Q	Q[Q]Q	I[N]N	L[G]N	E[I]Q	S		
UniRef90_A0RDH2	M[A]E	I[K]I	T[P]E	E[L]L	E[R]I	A[G]N	F[K]N	A[A]G	E[A]Q	S[Q]S	I[N]R	L[E]E	G[D]I	N		
UniRef90_F0K526	M[L]R	Y[D]V	T[P]V	K[E]L	K[L]S	A[K]I	F[E]K	S[D]E	I[MG]R	I[S]R	L[K]S	A[V]D	S[V]D			
UniRef90_R4SXQ8	M[G]E	M[K]V	D[Y]A	T[I]T	H[A]A	A[D]D	C[K]S	T[G]G	E[L]S	L[F]G	Q[G]L	K[S]D	L[S]P			
UniRef90_UP100016C0091	M[I]Q	V[T]P	S[E]L	R[R]A	R[K]D	V[T]Y	R[T]D	D[N]D	T[V]L	A[D]I	A[A]L	I[R]G				
UniRef90_G4HIY7	M[L]L	M[L]L	R[V]A	E[A]E	C[S]R	A[H]E	Q[L]Q	E[A]M	I[H]I	L[N]Q	N[I]H	M[H]				
UniRef90_J8GER9	M[S]T	Q[K]I	V[T]P	E[Q]L	E[Q]A	K[T]A	R[N]T	R[S]S	L[E]Y	I[H]I	K[D]L	Y[S]Q	T[E]F			
UniRef90_A3DD43	M[A]S	V[I]R	I[T]P	E[Q]V	R[S]A	A[V]K	I[G]K	K[K]T	S[E]T	T[N]F	L[N]I	Q[R]E	I[D]S			
UniRef90_UP10003B5EDD0	M[A]A	L[R]L	D[Y]E	A[L]A	G[S]S	A[K]T	L[R]E	Q[G]D	I[F]F	E[C]I	I[N]K	M[T]S	V[I]D	A		
UniRef90_A7NL38	M[A]P	I[S]L	D[P]E	Q[A]R	S[T]A	R[F]T	S[D]G	G[C]K	T[I]E	G[E]G	L[S]R	M[G]S	V[N]E	D		
UniRef90_A9VN9M9	M[S]G	E[I]T	V[T]P	D[H]D	R[L]K	L[A]S	N[I]E	Q[T]A	H[E]L	S[E]T	Y[Q]R	I[N]Q	Q[Q]L	F[D]		
UniRef90_UP10003622EC5	M[T]T	Q[K]I	V[D]Y	A[T]I	I[N]A	A[A]E	D[C]K	S[T]G	G[E]L	E[A]L	F[L]F	G[D]L	K[K]Q	L[N]P		
UniRef90_W7Y9M9	M[R]I	K[I]E	P[D]Q	L[Q]Q	I[G]T	R[F]F	L[N]C	S[E]Q	N[L]T	M[A]Q	E[L]L	K[S]L	I[D]G			
UniRef90_N1ZQD3	M[G]A	I[S]V	T[P]E	Q[R]L	R[A]S	A[K]V	Y[I]Q	A[Q]S	E[I]Q	Q[Q]Q	M[R]R	V[Q]N	E[N]N	T		
UniRef90_E6TRG4	M[A]R	I[T]T	V[D]P	A[K]L	E[T]A	S[R]T	R[D]I	D[Q]L	T[Q]T	Y[R]Q	L[F]T	E[V]D	G[G]			
UniRef90_D8IP2	M[A]G	I[V]V	N[Y]A	T[I]T	R[A]A	A[A]D	C[T]Q	T[G]G	E[L]L	Q[S]A	F[D]R	L[K]D	D[D]L	R[R]P		
UniRef90_A9VV59	M[M]I	Q[K]I	K[V]T	P[E]M	L[E]E	A[A]A	N[R]A	S[N]T	R[L]T	L[E]S	I[H]I	N[D]M	I[Q]E			
UniRef90_F2F0E9	M[S]G	I[R]V	T[P]A	E[L]E	A[M]A	S[N]R	Y[G]S	E[S]A	Q[V]Q	I[Q]S	R[L]R	K[A]L	V[V]D	G		
UniRef90_A6WCOP9	M[A]N	L[N]N	V[T]F	D[D]M	R[T]A	T[A]N	L[D]H	G[K]A	E[I]A	D[Q]L	Y[D]Q	L[Y]S	E[SET]	N		
UniRef90_R6HVZ2	M[A]K	I[Q]V	T[P]E	L[L]E	S[T]A	G[K]I	E[G]E	G[D]Y	K[T]Q	D[Q]Y	Y[Q]S	E[SET]	N			
UniRef90_C2Q378	K[I]R	L[T]V	S[E]I	D[H]T	A[S]V	F[A]K	N[G]Q	D[I]E	N[V]L	K[K]A	L[T]N	E[K]N	K[N]K			
UniRef90_F0KCF5	M[A]N	M[N]N	V[T]Y	E[E]E	I[D]L	R[S]Q	A[N]Q	L[R]L	G[Q]Q	T[I]T	E[T]T	L[T]N	Q[T]Q	V[N]N		
UniRef90_F6FVC3	M[T]E	I[L]V	K[P]E	M[L]N	R[I]G	E[T]F	I[H]S	R[E]Q	L[E]Q	V[Y]V	S[L]D	K[Q]M	N[R]			
UniRef90_W7YJW3	M[A]R	I[L]I	T[P]D	Q[V]L	D[A]V	N[E]F	R[F]Q	G[R]E	Q[S]Q	Q[I]I	I[D]R	L[N]Q	Q[V]N	N		
UniRef90_UP10003097E81	M[A]Q	I[K]Q	K[L]T	P[D]P	E[L]R	T[Q]A	S[Y]T	E[G]A	T[S]V	R[D]V	L[T]R	L[T]N	T[T]Q	A[E]		
UniRef90_E0PIA8	M[A]Q	I[K]I	T[P]D	Q[V]L	D[A]V	N[E]F	R[F]Q	G[R]E	Q[S]Q	Q[I]I	I[D]R	L[N]Q	Q[V]N	N		
UniRef90_R5LAS7	M[A]D	V[K]V	I[T]F	E[E]E	V[K]T	K[T]K	A[N]E	I[H]T	C[N]V	L[D]Q	K[K]D	I[K]T	N[T]	I[T]S		
UniRef90_F2JHS8	M[A]Q	M[T]T	F[S]V	G[Q]A	K[T]M	S[T]K	L[K]S	E[A]K	V[K]Q	G[D]I	K[K]S	N[L]D	K[K]D	I[K]K	D	
UniRef90_R5XVD4	M[T]T	K[V]D	P[D]P	E[Q]L	R[T]W	A[N]E	I[L]S	N[L]G	G[D]Y	Q[S]N	Y[K]Q	I[Q]A	S[V]D	V		
UniRef90_J1ZV36	M[A]P	A[P]D	L[E]L	K[E]A	R[Q]W	H[L]K	S[E]V	D[V]D	H[I]F	G[A]L	D[K]Q	V[N]A	D[H]			
UniRef90_I8NJ04	M[S]A	P[L]N	V[D]P	A[P]Q	V[H]A	V[S]G	L[A]A	E[V]A	V[D]R	L[Q]R	E[L]D	Q[L]T	H[R]W	E[D]		
UniRef90_A9B0B3	M[A]Q	I[Q]A	K[Y]D	E[L]L	D[Q]V	A[S]R	F[G]K	A[D]T	T[T]T	A[I]F	F[K]S	L[E]S	M[A]N	R		
UniRef90_UP1000248CF25	M[K]I	V[V]D	P[D]P	A[K]L	E[A]A	A[K]N	M[D]G	H[A]A	E[Y]Q	R[L]Y	D[Q]L	F[N]E	V[K]A	Y		
UniRef90_B7C7V6	M[T]Q	I[Q]I	S[Q]S	E[D]V	M[A]Y	S[K]Q	V[D]A	Y[A]N	E[I]R	T[V]F	N[E]I	E[S]K	M[Y]Y			
UniRef90_D3E516	M[S]G	E[I]E	V[S]P	E[E]L	R[R]A	A[D]I	R[S]G	S[D]Y	G[G]E	V[A]R	L[S]Q	V[G]V	I[E]T			
UniRef90_UP1000262A28C	M[A]N	T[V]T	Y[A]E	I[E]Q	A[S]Q	L[G]G	S[G]R	D[E]L	T[E]K	L[R]L	L[Q]S	Q[Q]I	N[N]			
UniRef90_L1QM78	G[Y]M	A[K]I	M[V]D	P[D]S	K[L]K	E[M]A	A[N]K	M[K]E	Q[Q]A	D[Y]A	K[L]Y	Q[K]Q	F[T]E	V[E]A		
UniRef90_A9AUW0	M[A]R	V[Q]V	I[Y]Q	Y[Q]Q	L[E]Q	A[Q]L	R[F]A	K[Q]Q	T[V]Q	A[L]Q	S[L]R	Q[Q]I	A[Q]A			
UniRef90_H3SQ57	R[I]T	I[K]P	E[P]Q	V[D]A	N[V]A	N[Y]H										

50 60 70 80

UniRef90_D8H4B6	L C S Q W I G A S N Q Q F V Q M F N D A R P K A F I S I N S I I Q V E E D L K R
UniRef90_UP10003805699	I S E N W E G S A F D S F E Q Q F N E L S P K I Q E F A E L L T A I N Q Q L L N S S
UniRef90_UP10002E48C7E	L Q G G W E G M T S Q G F Y N R Y E S D K K N M T V Y V E M L R A V G T E L L K S S
UniRef90_W1Q450	L E S E W E G Q A F A K Y T E T Q Y E A L R P K V E Q F A N L L R D L N G Q L L D H
UniRef90_F8CYN8	L V I M E I P G I S T D A I D S L R D E L I H W L D R Y E E K L N E A E E L L Y R R
UniRef90_UP10002D89EA3	L D G R W D G A T K Q R F F T Q F E Q S Q K H M E A Y T Q L L D S I G Q E L L A D A
UniRef90_UP100037BA6EE	L G G Y V T D A S S K E F D R S Y T E F D Q G A T K M A E G L E G M G R Y L L N A Q
UniRef90_D4FST0	L Q G Q W Q G A A F F Q S Y L E Q F Q Q L S V S V T Q M E Q L L E S I H A Q Q L L R D T
UniRef90_R6PQR8	L C D E W A G H S S Q A F Y D Q F Q S L E P S F T A T S D L I T S I A Q Q L L D T D
UniRef90_F8FP78	L Q G Q W E G M T Q Q K F F A D F Q Q A E S M M K N Y V E L L L H N I S T Q L L D T D
UniRef90_Q9KE84	L G S T W E G E A F Q G F A Q W Q D K R K H V E E L I Q L Y E E L G A Q T D D K
UniRef90_A0A024DE74	L R T E W E G A A F Q G F E R F Q L E L P K V V N F A D L M Q Q I N T Q L L D K
UniRef90_UP1000413AF6B	L E E I W E G N A K D A F A G Q Y E E L R P S F M Q M V E L L L E D V Q R Q L L A S
UniRef90_T1ZCC0	M Q A H W K G S A F N S Y L Q Q Y E Q L H G D V V K F Q E L L T S I N Q Q L L T N Q
UniRef90_D9V3M3	L T N S W T G E A K D Q Y H Q A Q N E W N Q K F E E F T Q L L A Q I A A V L I P Q
UniRef90_U1Y3C0	L E G K W D G A T K K R F F D Q F E Q S R R H M E A Y V Q L L D S I D Q E L R A R
UniRef90_A0A023DG42	L V I M E I P G I G S D A I H E L K D E L V Y W L Q I Y E E K L N E A E E L L Y R R
UniRef90_UP10003A176F2	L T N S W T G D A Q Q A W H D R Q E E W N R A L E D M K G L L A R I I A T A L I P Q
UniRef90_J6S062	L I A H N W K G Q A F Q A Y L D Q Y H Q L E V S V K Q M T Q L F E S I Y E Q L L N N
UniRef90_E2SCX8	L G G Y V T D K S S K A F N T S Y E D F N S C A R E M I E G L T G M G E Y L L V K
UniRef90_D3HHU3	L A E E W K G Q A F F N A Y L E Q Y N Q L L Y T H V Q K Q F E E L L L A S I N Q Q L L N N
UniRef90_X8KFA9	M A S Q W K G Q A F F N A Y L E Q Y N Q L L Y T H V Q K Q F E E L L L V S I N K Q L L N N
UniRef90_R6FQR0	V A S E W E G A A Q N S F V A A F E S M L P T L Q K Q F P E I I E G I S N Q L L T V
UniRef90_UP100047BC404	V E G W W K G D S A R A F V D E F N Q L K P A L D K L V W V C V N N I S T Q I L N K
UniRef90_R6ZB7J	L Q S E W E G A S K Y S A N R Y Q D F K P N M Q M K A Q Q L L E E I A S A L L N K
UniRef90_UP10003B4F1B8	L D G F V T D S A S G A F H D S Y T Q F T T G T T N A V N G L D G M S T F L T K G
UniRef90_FOK538	V Q Q N W A G V S A T K F F G E Y Q Q W S K T M T G Y V Q L L Q Q I S N E L L K G
UniRef90_B0MM51	L N E V F K G D A Q D A L V A K Y E S M Q P T F N N F S Q M L E E Y A K L L N T
UniRef90_UP10001E2D9A4	M K S S W S G E A N Q A Y A R Q I D S F R V E F E N L K K V L L D N Y V E F L E K K
UniRef90_F8FP75	L E S Q W S G V T R E E F Y Q S F Q R A S Q I M N R Y L E T L Q K I E G D L K Q
UniRef90_H6RUH3	L D G Y V T D S S S R S F Q A S Y D E F D A G A K N M I G G L D G M A Q Y L N T
UniRef90_X5LAZ9	M L G S W T G S A A S A Y D A V W R E W H E G S S K V V Q G L R A M S E L L A T
UniRef90_C3IUQ8	I A S Q W S G A T S D R F Y H M F N D T K P M M F V N
UniRef90_R6VMJ6	I I N S N W S S L L A N N F A G K I S S V T K S F E N I T G M L E T G S R A A K I
UniRef90_R7HVT3	L Q E E W R G E A S A A Y A E K Y E S L K P N F E N M R D L I Y D I A A D A L Q A
UniRef90_H6NNJ7	L T G D W E G A R E R F F Q S Y T G A H K E L E Q V S V S V M I K E V G E E L L Q A
UniRef90_W4CGW5	V S G W W Q G E S Q T A F I Q Q F D G L M P S F K E M V L C V E N I S K N L T Q
UniRef90_H5XGE2	L V D S W S G D A M E A W Q Q C Q N E W N Q S L D E M K Q V L A Q I A T A L I P Q
UniRef90_R6VEE1	L N E I W K G E A L D A F V Q K Y E S M Q S T F T N F S E M L E S Y A K L M D T
UniRef90_UP10002B94242	I D K N W D G S A F D S F E G Q F N E L S P K I T E F A Q L L E D I N
UniRef90_A0LR18	L G T D W A G M A Q Q R F E M L W A E W Q K S A E G L H Q A L T G I A Q L L N Q
UniRef90_F8B134	L G G Y V T D Q S S S V Q F Q G F Y D R F N T G V T S T L A G L L D G M A D Y L K K
UniRef90_G8SLR7	L G G Y V T D S S S S K Q F E Q S Y D E F N Q G A T K M A D G L E G M G K Y L T A
UniRef90_UP1000346861E	L G G D W S G A A S S S F Q D L Y Q W D Q S A V Q L K E S L A G I S Q L L S R
UniRef90_UP100034D78D7	L S G Y V T D K S S K A F D A T Y S E F N S G A T Q T I Q A I D G M A G F L E S S
UniRef90_UP10001E2D99E	M K K K W E S E A A N A F I S K F T G L K D N F E A Y Y K V I D S Y T N F L L E S
UniRef90_C3CI80	L E G Q W S G A T Q D K F F R A N F E S A R Q E M Q K Y I P I L E H I S T D L K N
UniRef90_A0RDH2	L E G Q W G A T Q A Q K F R G E F I Q S K Q A M Q Q Y I P I L E G I S T D L K R
UniRef90_F0K526	Y G A T W Q G A G H D A F E S K Y K I I E K D I Q N I A K K L D N I A A W E L N N
UniRef90_R4SXQ8	L V I N T W D G D A K V A Y M A A Q Q E W D N K F E E L K Q L L A Q V A G V L I P Q
UniRef90_UP100016C0091	L N E I W E G E A Q R A F E A K F F N N V Q S K F V T F S E E I E K Y A K M M E R
UniRef90_G4HIY7	L E S G W E G T M R S R F Y A D F Q R A H R E M T Q T T E H I H R T S L E L R G
UniRef90_J8GER9	I A S Q W S G A S S V R F Y Q M F N E A K P M M F N I L Q E L D K I A V E
UniRef90_A3DD43	L K S I W E G K A A E A Y V E Q F M A L R K E L E K L N Q C Y C S D L E R S L T S
UniRef90_UP10003B5EDD0	L P D I W E A E T C D R Y V V E E Y D E S K K T L T D V R Q L I E D M A A Q M T Q
UniRef90_R6G5V3	M S G V F E G A A A A A Y V S N F E S Y N G Q F T A F G E L L E S F A A Q K L L D T
UniRef90_A7NL38	V L A T W S G Q S R Q F E A E W D Q W T N R L R N M M E E Q G L A N G L R R
UniRef90_A9VN9M9	L P F Q I S G R D A V L N Q S Q Y A G S M L A T I T T V L K E H S D S L L R K
UniRef90_UP10003622EC5	L V I E T W T G S A Q T E Y Q A L Q K Q W D D S F T E L K Q L L A Q I A T A L I P Q
UniRef90_W7Y9M9	M G G E W E G N S K E R F Y A S Y Q D A H Q Q L L Q S V S T L L L K D V G D E L L T A
UniRef90_N1ZQD3	U M A N E W R G Q A F Q A Y L Q Q F E Q L K G N V D Q M T Q L L E Q I D H Q L E T
UniRef90_E6TRG4	M G A A W Q G V D N V A F V N Q L K G F T D D F E R M T K L M R D Y S E Y L L K M
UniRef90_D8I0P2	L T T T W T G S A K E Q Y D A A Q R T W D Q K F E D L K Q V L A Q I A A A L P Q
UniRef90_A9VV59	L C F Q W I G A S N Q Q F I Q M F N D A K P K A F T S I N S L V Q V
UniRef90_F2F0E9	L Q S M W E G E S S S R A F A D Q Y A T L R P S I Q D M Q R L L Q D V S V Q L K N
UniRef90_A6WCOP9	L S G Y V T D R D S S V A F K D S Y D E F N T Q G I T Q V L E G L T G M S G Y L L N S
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 I A T R F R Q V D G Q
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 I A Q R F R Q A D G Q
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A S I N Y A E A E R Q I A A S F G
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 A A D A F K Q A D E E L A K A L
 A A L S Y E E S E N S I S G T F R
 A A N T L E S T D E Q L A S S I G
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 I A T N F R N A D S S Y
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 A A D G L E F T D Q D L S S R I N N
 I A Q R F K S A D E R V Q I Q F A G

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 UniRef90_UP10003B44EE8 T A Q T [I] G D V D Q Q L A S K L G
 UniRef90_UP10003A2ACD8 T A G N Y Q S S E E E Q A A S I G
 UniRef90_R5E1M3 M A N L Y S T A E Q Q N
 UniRef90_R9LS03 T A L L A Y E E N E A M M E N S F H A
 UniRef90_R9JSH1 A A D N Y A S T Q S N A L N S I N N
 UniRef90_R6GEM2 S A T T M Q S [V] D Q S L F K V F G G
 UniRef90_UP100041E28E I A N E Y Q T A E N T N
 UniRef90_R9JM50 A I E [I] Q Q K A D A D [I] A R Q M R
 UniRef90_UP10003B4F3CF A A T A M Q N T D E Q [I] A R S I
 UniRef90_UP10004793D49 I V I A M F Q Q T D A S D G S S
 UniRef90_UP10003057A8A A A Q S [I] Q S T D E Q [I] A A Q [I] R
 UniRef90_UP100039F1ED5 A A D A Y R Q T E A S N A K M
 UniRef90_UP1000422A598 I A D Q Y V E S D N R S A A R F
 UniRef90_H3SA21 K A E Q F Q T A D Q Q
 UniRef90_UP100016C0092 T A E E F R R S D T E [I] G S S F
 UniRef90_D4IYM6 M A E N Y E T A N V E A A G A [I] S G
 UniRef90_I5AQ37 [I] A R M A R D Q D S E [I] A G M L
 UniRef90_H2GJX4 N A T S F E N V E A D N Q S A F S A
 UniRef90_R7B4Y2 A A E A Y D K A E A D N V S
 UniRef90_A3DBC2 A R D K M I E A D N K A S A
 UniRef90_R5GCF7 I A Q A A E E T E K Q N A A [I] F G
 UniRef90_A0A022L6A1 I S G Q Y V Q T D K S A A G R F G A
 UniRef90_K5BBV4 A A E S Y T R T D E H A A G A V S A
 UniRef90_D4JKW2 Y M Q N R Q D D D A R G A A A V R G
 UniRef90_B7C7V7 T A S V Y E K [I] Q Q D R V Q Q
 UniRef90_A0A034UBS7 A A H R Y E T R D R D N R D A [I]
 UniRef90_R5LT67 T A K R Y R D T Q D E
 UniRef90_B0MM73 C A E S F E N [I] D D V L A K M M
 UniRef90_UP10002D9CF36 N A D N I
 UniRef90_F4H1C0 S G E E Y Q S T E K A N A A R
 UniRef90_A9AU8V [I] A T L F R Q A E E E A A A A [I] F R G
 UniRef90_K6DT32 S A K T Y R D T Q N E V I S
 UniRef90_A3DF74 A R D R M I E E D K K A S N I A G
 UniRef90_D3E5I3 K A G D F S Q T D Q S [I] G N N L N
 UniRef90_R6WD49 M A K V Y Q E S D K A A A D E A S G
 UniRef90_E3YBK4 Y A A K M K S T E N D [I] K S K A S
 UniRef90_H1CB16 [I] H T G M R S A E E A A A A [I] F K G
 UniRef90_A9B6G5 N A Q S F E N T E A D N S Q S F N A
 UniRef90_M1UDH9 [I] A K S F N D A D A A V A K G I R
 UniRef90_F0KCF6 G A K A Y R D A Q N E V K T Q A S
 UniRef90_N0B546 Y A D T V A Q R D Q Q D A S S F G
 UniRef90_R2QPM5

UniRef90_UPI00047BEC1A
 UniRef90_W4V618
 UniRef90_A9AZU7
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 UniRef90_UPI00037D19FC
 UniRef90_W5WSR6
 UniRef90_UPI000462F483
 UniRef90_R6ZUV3
 UniRef90_UPI000360C5A7
 UniRef90_W7T614
 UniRef90_R7Y335
 UniRef90_UPI000362076E
 UniRef90_F8JUN9
 UniRef90_UPI00035C5E4F
 UniRef90_R5YR27
 UniRef90_R6VKR6
 UniRef90_D6B6D5
 UniRef90_R6V547
 UniRef90_UPI00035F9258
 UniRef90_D4JEK1
 UniRef90_F9PMH0
 UniRef90_UPI00037688F6
 UniRef90_S2ZT19
 UniRef90_KOZH31
 UniRef90_W7SX89
 UniRef90_R7AUY3
 UniRef90_R7N579
 UniRef90_UPI000287DAA4
 UniRef90_UPI000237B153
 UniRef90_UPI00045EA7B2
 UniRef90_E8MZS7
 UniRef90_E4NHW8
 UniRef90_UPI000361372B
 UniRef90_J8ALE7
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 UniRef90_UPI0004751773
 UniRef90_R5GLB6
 UniRef90_N6X357
 UniRef90_I0S2P4
 UniRef90_E0DCQ0
 UniRef90_F3ZBH6
 UniRef90_B516R5
 UniRef90_H6C178
 UniRef90_A9B726
 UniRef90_UPI0002ED1FAB
 UniRef90_R5KPN1
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 UniRef90_UPI00037AB450
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 UniRef90_U1MPV1
 UniRef90_UPI00021925F4
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 UniRef90_UPI00040F4C4F
 UniRef90_B516T1
 UniRef90_F8AXP8
 UniRef90_R6C9X4
 UniRef90_W3Z3W0
 UniRef90_A0A031FNR5
 UniRef90_R6UBH9
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 UniRef90_UPI00047E3C0B
 UniRef90_A5UYZ9
 UniRef90_A4FPH2
 UniRef90_U3GZV6
 UniRef90_G4HBC0
 UniRef90_UPI0001FFF1E5
 UniRef90_F3M5U7
 UniRef90_X0NOU1
 UniRef90_B9Y7V9
 UniRef90_R5TJS2
 UniRef90_F4F236
 UniRef90_F8Y94
 UniRef90_UPI0003B63227
 UniRef90_F2R6N7
 UniRef90_R5ZZZ0
 UniRef90_U5F9M1
 UniRef90_F0K539
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 UniRef90_C6WLY0
 UniRef90_UPI00037F71C4
 UniRef90_UPI0003A6A0C8
 UniRef90_UPI0003B697B5

1 10 20 30 40

This figure displays a sequence alignment of 1000 UniRef90 protein entries. The alignment is presented in a grid where each row represents a different protein sequence. The columns represent positions 1 through 40. Conserved regions are indicated by colored boxes (red, green, blue, orange) spanning multiple rows. Specific residues are highlighted with yellow circles. The alignment shows significant conservation of certain motifs and individual amino acids across the dataset.

	50	60	70	80
UniRef90_UPI00047BEC1A	L A A E W K G K D N E A F R □ R I M D F K P D M E T M K A N M D K Y A A F L R S			
UniRef90_W4V618	W E □ R S K E G I D W K V S R A Q D A A R K I A K G L D G M S Q D L I M			
UniRef90_A9AZU7	L N G G W M G D A A K A F F N E M Q E I F P T M Q R L T G V L R E A Q T V T Q Q			
UniRef90_W9AVM9	V G S G W T G L S S G S F A R S F W R W H E G A V Q V H A G L A E M A N L L N T			
UniRef90_UPI00036067FE	V V I A T W D G E T Q R A F H D R H S G W D V K V N H M H E T L L T I S T K L M E Q			
UniRef90_UPI00036B7DD2	S L R Y W E G E A Q S T F H E K L H R W D K E A T D I H E A L T G I G N V V S Q			
UniRef90_UPI000379DD07	L G E H W R G E S A Q A Q F H E Y W E K V G R A V E E T V P L F E Q A A R G L E E E			
UniRef90_UPI00037D19FC	T V G E W R G P A A E A F Q N H W K Q L K S A I D D T T G E F E E C A K G L D E E			
UniRef90_W5WSR6	V S G A W K G Q A Q V S F Y G L M E R W N D S A K Q L N E A L A S I S E N I R A			
UniRef90_UPI000462F483	L A E G W D G K A A A G Y D G S W I E W K Q G A D T V I A A L D E S A A K L A E			
UniRef90_R6ZUV3	L C G M W E G T A R D T F H Q A F L R D R Q Q M D A F Y Q L I E Q Y V Q A L L E			
UniRef90_UPI000360C5A7	L G P A W K G Q A A G A F Q K □ M E Q W D I E A K D L L K A L S D I A D L L D K Q			
UniRef90_W7T614	I V I A D W T G D A A E A Y Q N A Q R N W D A A A K D F K E T L E A I G V A V R Q			
UniRef90_R7Y335	L A S D W T G A A K E A Y R E A K A T W D K A I T D M I I L L N Q A G Q N V D T			
UniRef90_UPI000362076E	L S D T W R D Q E H E R F V Q E Y E T M G V L E K F L D I S D E H V P F L T R			
UniRef90_F8JUN9	V T E K W H G E G Q T A Y Q Q V Q K P W S D T T R D L G D K L R S I A S L L D D			
UniRef90_UPI00035C5E4F	I I S G E W V G S T Y M K F N T D F R D S S F K M A Q F I T I L E P L E K F L L D D			
UniRef90_R5YR27	L T N V W V G D A Q S E L V Q Q F N K L Y P R F Q E Y Y D V I N S Y A D Y L I T			
UniRef90_R6VKR6	M G S G W Q Q G K D N Q A F V S Q I Q G F E K D F Q M A A L M R E Y A A F L K L			
UniRef90_D6B6D5	S T G Y W K G P K A D R F R D D W Q E V K P T F E K W V T T L N E A G K S A Q T			
UniRef90_R6V547	S N H Y W K G E G G E T H R R V Y Q Q S K E G I I E S L E N F K G M V S A L E T			
UniRef90_UPI00035F9258	L R S D W T G A A S E A Y A Q S K A Q W T N A I N D M N Q L L N D I G Q A V A Q			
UniRef90_D4JEK1	V E T I W S S P A S K N L M N Q F Q R M Y P V F D Q Y V Q A L G E Y A L Y L N Q Q			
UniRef90_F9PMH0	L S G F V T D A A S G A F Q T S Y Q E F T T S A T K T I D S L T S I S N N L N Q Q			
UniRef90_UPI00037688F6	L G S G W K G K G A A T A F G T A W D G W H N G A G Q V V R G L Q S M G D M L S L			
UniRef90_S2ZT19	L R S S W E G Q A Q E A Y N A A Q V Q W N Q G L D G L K D V L T R T S A A V D S			
UniRef90_KOZH31	L A G F Q T D Q A S G A F Q A S Y S E F T Q Q G A K S A V Q G L T G M S Q F L L N K S			
UniRef90_W7SX89	L T S V N K G Q M M T K L I A V H Q D W D K A M S D V V S N L H T M A N T L S S			
UniRef90_R7AUY3	L G S I W Q G E A A A S Y G G R F S S L Q S D M D K L R Y M V Q E H V T D L Q E			
UniRef90_R7N579	L C S M W D G Q A K E A F H H A F A R D K E Q M L L F E K L I E R Y V E V M L E			
UniRef90_UPI000287DAA4	L A A T W N S D A S N T I R G N F N A L A P R F E E Y R Q V I D S Y A K F L D N			
UniRef90_UPI000237B153	L D G A W E G A S A D A F V Y M G K M T G G F D K A R E A L Q S S A D V L D R			
UniRef90_UPI00045EATB2	L R A N W S G E A S A S Y E G S K A K W T A A I T D M K A L L A D I G R A V D T			
UniRef90_E8MZS7	L Q S A W M G N S A T E F F G L Y D Q W R S S M N T I L E N L N T M T K L Q T			
UniRef90_E4NHW8	I I A S S W E G A A Q Q G Y Q A R Q A Q W D A K A A D L Q Q V L G R I A A A A L D N			
UniRef90_UPI000361372B	L H D N W R Q G Q A S A A F A T L M N R F D E D A R K L H D A L Q G I S E Q L K A			
UniRef90_J8ALE7	L L Q M R W L G A S S L S F Y N D L P R L N K G H E S H I Q			
UniRef90_A9B3U8	L Q V D W H G T A A K A F F D E M Q T T I P S L S R L K E G L I T A Q Q V T L N			
UniRef90_U4WET9	M E G Q W D G M T K Q K F F Q E F Q E A N R Q M T G F V L L L E S I S H E L H A			
UniRef90_R6IVR8	L S S T W K S D A G E E I R A A M N A L K P R F E E Y K T V V E S Y A K F L V N			
UniRef90_UPI0004751773	L R A S W G G E A Q Q Y Q D V A Q R K W A T T L G E M Q Q L L T Q I A S K T E Q			
UniRef90_R5GLB6	M D A M W D G T A N D S F N Q N F Q G D L Q K F N A L T S L M Q E Y V V A I K T			
UniRef90_N6X357	L R S N W E G D A Q E A Y L V A K Q Q W T E G M T G M R D V L A Q I S T L V E S			
UniRef90_I0S2P4	L G S G W K G G A A S A S Y E G S K A K W T A A I T D M K A L L T S I G E N I R A			
UniRef90_E0DCQ0	L R G A W S G Q A Q S F D E L M Q R W D T N A K D L S D A L T S I G E N I R A			
UniRef90_F3ZBH6	S P D Y W K G P R A D R F R D D W E Q L R P T L S K F V D S L E R A R K E T N S			
UniRef90_B516R5	I S A S W E G S A Q E S Y R A K Q A E W D Q R A A S M Q Q T L E A I A K A L D S R			
UniRef90_H6C178	V D W D V S A R E T V L N H W M Q A K R M S E Q I H A Y L H T S G A Q L N R			
UniRef90_A9B726	L R T D W K G D A A V A F F G E M D D S I P A L K R L Q T T L T S A S A L T T Q			
UniRef90_UPI0002ED1FAB	V A G F W S G G A A T F Q N L M E R L D Q G G Q K I N E A L R E I G D Q L K K			
UniRef90_R5KPN1	L S D G W K N D T A R A F V Q R F Q D D K P A I E K V I A A L L N E I S N Y I S T			
UniRef90_J7KK75	V R G S W A G S A Q A S F D G L M V R W N D A R Q L R E A L A S I S T N I R H			
UniRef90_R9N4D3	M K S I W Q G E A A S A Y G N K F H S L Q N D M D R L Y R M V Q E H V N D L Q E			
UniRef90_UPI00037AB450	V A N T W E G D T F Q A F Q G A T Q N E W N R R A E H M Q Q V L N D V A T R V Q N			
UniRef90_R6CCF7	L K D Y W S A S T A I K Y E E Q Y D T V K P Y L T N A V E M V E M S E Q L I Q			
UniRef90_U1MPV1	L I E D F K T Q H A S G K F G E G Y E E L T S G L E K A I E G I S E M G E A L R G			
UniRef90_UPI00021925F4	V S G A W Q Q G E A Q A A F G Q L M V R W N D S A R E L H Q A L T S I A E N I R A			
UniRef90_UPI0003827E0C	L N S G W R S L A A D A F S E H W K N L D A A M R M K S L P Q L P E A A K S L D E			
UniRef90_UPI00040F4C4F	V Q G N W K G V A Q T N F D S L M E R W T V A A Q N L R D A L T S I A E N I R H			
UniRef90_B516T1	L C E H W R G E S A D A F G A Y W K K I G D T V H E T V P L F G Q A A K G L E E E			
UniRef90_F8AXP8	L S G F □ T D Q A S G K F Q Q S Y D Q W N T G T R N A I A G L E G M S A F L L N K			
UniRef90_R6C9X4	L L D A T W K S D A A T A I I A N M N A L Q P E F E R Y K T I V E S Y A K F L E E K			
UniRef90_W3Z3W0	L L R S Q W K G V A S D T F N D K L E G Y R N D F Q A M E D V L K Q Y A G F L L K S			
UniRef90_A0A031FNR5	L D G F K T E N A S E A Y S T A Y S E L T T S L D D A A E A V V N D M A Q A L D R			
UniRef90_R6UBH9	L L A Y W Q S P A S E K I R S R F H G M L P V F D N Y R S I V E S Y A K F L D Q			
UniRef90_UPI00041A9867	M R S H W D G M E R E R F Y N D Y			
UniRef90_UPI00047C4CB0	L P G Y W V G G D S D R F A N Q W R T S R L V L T S T A D L L D E T A K L L A R			
UniRef90_A1T456	L S R G W S G A A S S A Y S P L W A E W L D G A T T L V D T L L E E L S R K V V A A			
UniRef90_E3DS94	L G G A W Q Q G K A R E T F D Q K F E E T K S D Y D Q F E Q D L I E T S N E L K A K			
UniRef90_C7QGX7	L H K T W D D E T A E H F Y P L L A D F L T E L D T L A E N L A K			
UniRef90_UPI00047E3C0B	T L G V W R G E A Q K S Y T D R F A D L S D D M D R L Y N L C S A Y S T D L I D			
UniRef90_A5UYZ9	V M S T W S G T S R Q F E S Q W E Q W C Q K L R T M M E E L L Q S L S N G L R R			
UniRef90_A4FPH2	L L V S T W E G Q A Q E A Y R Q A Q E E W D K A A A N M Q E I L A A K M G M A V S T			
UniRef90_U3GZV6	V R S S W E G Q A Q V S F D S L M Q R W N T S A R D L L Q D A L L A S I S D N I R S			
UniRef90_G4HBC0	L L I W E T S L K A A V I D E W Q S A Q K L G E H L G A L L V Q L G K H Q N D			
UniRef90_UPI0001FFF1E5	V V I S G W T G D A A T R Y D E A Q R R W D G S A A D D L T G T L Q K I K V L V L V D			
UniRef90_F3M5U7	M M S S W E G T T R S R F F D F Q R A H G E M N K T I E H R I I G Q E L K A Q			
UniRef90_X0NOU1	I T S G W K G Q Q A A S S Y H Q L Q S Q V N E D G N R I N Q L L A E I K E A V D Q			
UniRef90_B9Y7V9	M A A N W I G R D N L A F T T Q I Q G Y Q Y D D F R R V E L L M Q Q Y S E F L K T			
UniRef90_R5TJS2	I E D T W K S Q A A S D L Y E K Y N V L A S K F E M F Y T A I E N Y A R F L Q Q			
UniRef90_F4F236	L L I A T W D G D A R E A Y F Q R Q R E W E S A A N D L R D L L G R I E R A L L R E			
UniRef90_F8YJ94	L L D V W H G V A H N T F Q Y M Q E Y D L Y A N M L H Q A L T G I A S G L R G			
UniRef90_UPI0003B63227	L P G I W Q Q G Q Y E G F Q Q R V R E M A P S F E A M R Q L I T D I G D G V K			
UniRef90_F2R6N7	V A S N W E G E A K I A Y R E S Q D R L T R D M S G M N Q D L G R I A Q L L D E S			
UniRef90_R5ZZZ0	L E A I W K G K D N E A F I R Q L D A F Q P Q L K R M T T L V E Q Y G N Y L Q S Q			
UniRef90_U5F9M1	L L A Y W Q S P A S E T L R T F H S L L P V F D N Y R S V V E S Y A R F L L D Q			
UniRef90_F0K539	L L N D W N E G W N S K D K F V D D F Q N T M K L L Q N C V N N L N N T G N S L L K Q			
UniRef90_UPI00037A372F	I A T T W E G S A Q E A Y R A K Q T E W D Q R A A S M H Q T L E A I A R A L L D T			
UniRef90_C6WLY0	V V I A Q W D G V S S E T Y Q E A Q R K W D T A A A D L Q Q V L A S I G T A V V A A			
UniRef90_UPI00037F71C4	V R S S W V G Q A Q N S F D Q L M V R W N D S A R Q L Q E A L D S I S G N I R S S			
UniRef90_UPI0003A6A0C8	V R G S W A G S Q A Q V S F D A L M E R W N T S A R E L R E A L G S I S E N I R S			
UniRef90_UPI0003B697B5	M Q S V W Q G Q D H Q A F I A Q L E Q F R P Q L Q K I V A I I E T Y A H F L L Y			

UniRef90_UPI00047BEC1A S G E **L** Y Q K T
 UniRef90_W4V618 A R D K M **I** D A D N K A S A T A R
 UniRef90_A9AZU7 **I** S T **I** F Q Q A E Q E A A K G **I**
 UniRef90_W9AVM9 A A T A Y R R Q D E S A A A A L S G
 UniRef90_UPI00036067FE A T E G Y R A N D **L** A Q S R R F **H**
 UniRef90_UPI00036B7DD2 S G G T Y Q E G D K K A A S Y F **H**
 UniRef90_UPI000379DD07 A A D **H** I E E I N D E I
 UniRef90_UPI00037D19FC A A K S I E E I N D E I
 UniRef90_W5WSR6 N A S A F D Q T E M D N A A A F N G
 UniRef90_UPI000462F483 T A N **L** Y E A Q D Q D S S A V I
 UniRef90_R6ZUV3 **I** A A R Y E Q A E A
 UniRef90_UPI000360C5A7 S G T K H Q **V** N D E E Q G Q Q M N
 UniRef90_W7T614 A G D G Y E S A E
 UniRef90_R7Y335 S N Q E Y K A A D A R G A G R F
 UniRef90_UPI000362076E K A E R I **E**
 UniRef90_F8JUN9 S **V** D G Y R D T D R R A A R G F G N
 UniRef90_UPI00035C5E4F S A N K F E K **V** D N M D **V** A
 UniRef90_R5YR27 T A E T Y E A A E E T **L** I S Q
 UniRef90_R6VKR6 S A K T Y R Q T Q D E R A Q M A R
 UniRef90_D6B6D5 S A D N **I** E R A
 UniRef90_R6V547 M A G T Y R S T E T E **V** I S S A D G
 UniRef90_UPI00035F9258 S G G S Y Q D M E K S N S
 UniRef90_D4JEK1 T A S S Y A E N E A N L T A A M S A
 UniRef90_F9PMH0 **V** V S T **L** E E T D T S L A S Q **L** R A
 UniRef90_UPI00037688F6 A G K E Y A K T D S D S A G A L R
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 M V D M R V N F G A I A T A A A D I Q S G A N E V Q S T L D S M D Q Q L Q P
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UniRef90_E8QYV9	L G Q T W R D R E H Q K F V E E F E E A I K Q I D R S M E V V N N Q Y I P F L L R
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UniRef90_UPI00036B1F0F	A A Y W R G N D A N Q F R T Q W R Q S T P S I T A A V K T L R T A A D A L V H
UniRef90_E9T2R0	I R G A W E G S A A I A F H S L M E R W D G S A K K L N D A L Q A I G E N I K S
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UniRef90_V6V7B1	I R G S W A G A A Q V S F D S L M Q R W D A S A G K L R M A L Q S I S D N I R S
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UniRef90_C5NV17	L R G E W E G Q A F Q G F
UniRef90_L0D2V1	L K S M W E G A S S E R
UniRef90_M2XCP3	V N G A W E G S A K V A F D N L M Q R W D Q N A K T L N E A L M G I S E N I R A
UniRef90_U7KVC5	V R G S S W V G Q A Q V S F D D L M Q R Y N T S A Q Q L R E A L A S I S D N I R S
UniRef90_UPI000374D95A	L V A G W T G A A A E Q Y R A R Q R E I D T A W A D L A Q V L G I G G R L L G Q Q
UniRef90_R7AFY0	T Q F Y W I L G E A G N L H R K M F E E K K E D I N T M I K R L E D H P R N L L Q Q
UniRef90_UPI000248CF24	L T S S W D S D A S R T I Q D K F N A N S Q K F S D Y R A V V D S Y A A F L D N
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UniRef90_UPI0004103EAC	L K N I I W T G E A A T T Y Q T S F Q K L M D D C N E A L T V L G K M V N S L Y D
UniRef90_UPI00035F11A8	L V S A N S G A M N T L K R V H E Q W D S E F A R I E Q K L R E M A E Q V R N
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1 10 20 30 40

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UniRef90_UPI0003830475	M E I T Y E G V V E A S N M V R N E A N T L K T D L D T I M R Q V K G
UniRef90_E7MQA1	M S N I Q I S L A E V S D T A A K L R S T N Q V M Y D D L T A M Q K E M T S
UniRef90_A9B1N8	V Q A D F E V M D Q V A Q R L S K N A E S V T A M Q N T L K Q T I E D
UniRef90_E7MQA0	G T M R K I T V E P M Q L E A C A M R M E E R N S S Y L K N V A T L F S A V D A
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UniRef90_G2NJB7	G Q I Y V D Y S H M Q N A A D D M V Q Q T K A I D S I L T N L E A E L L Q E
UniRef90_R5JA40	N I S A D T S A L R T L G N E V L A N A G E Y Q S E V N T L Y R E V E N
UniRef90_C7QIW9	M A G G L N V T Y A D M H D A A G K L S G Y E Q Q T Q D T L K Q A Q A L V Q N
UniRef90_D6ZDK1	V E P A E M R S V Q Q L I G G V A E E M R S E F G K L A R R G D E
UniRef90_J5ASE7	M A G Y L K V T D A E M T A A A S K F D Q E S A E V E N L N Q K I T R L V E N D
UniRef90_J2K339	D P E T L K E A A K L W R D K A A D L R D V V A D Q R R D R S D
UniRef90_D2R5J2	M T Q A V V D P E E L R Q F A Q N L K R F N A Q L R E K A T A L G N Q L A T
UniRef90_I2MTR1	L Y V D Y Q S M S N A A D D L I S Q T K A I D S I L T H L D A E L L N E
UniRef90_UPI000376C331	S P E T I R G V A K R W R G A A G K V D G Y A G R I S A A V R N Q
UniRef90_Q82K72	Q V T Y D A L D F A A T S I G N E A K T L E Q D L Q E L K K L V A Q
UniRef90_R5G8X1	L K V T S E E V R N K A Q E I S T Q R E L L E G Y M Q E M Q N Q V T S
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UniRef90_K4IPE6	M T R F Q V D S D Q I Q T A S G A V S G S I G A I R D A V A G M Y T N L D N
UniRef90_UPI0002F1FFB3	V N Y G S L E Q I A E N I K G Q A D K L K E D L G E I Q S K M G E
UniRef90_W2EQU2	D P A E M Q S M A A Q F S Q Q A D Q V R A T M A N I L D R E A A K
UniRef90_D9XXS7	M A R S V V D T E A I R V A S V D I Q R L S D D I Q S A T T A L R G R L G S
UniRef90_E6SAA7	M P E F I V T A Q E V V K N K A M E L R K I N A A E F K K T A S D L E G E Q T R
UniRef90_UPI0003FEFE5B	R L R G L S K T K F Q A K H T N L D E L I R A I S K G T L E
UniRef90_W7UIA0	M Q P I R Y S F G I D G A A D D I R S T S G T I N G L L G D L K K R I A P
UniRef90_E2MUM2	M A S T Q A E S S V V M A S T A T K F D E V N D Q L Q S M L T T L M N E L S T
UniRef90_UPI000475DCC2	M A S T Q A E S S V V M A S T A T K F D E V N D Q L Q S M L T T L M N E L S T
UniRef90_UPI0003B40A4B	Q D L R A E S Q I F Q D H A D Q V K N V A T E M I E L V L G
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UniRef90_W4CHV9	V S V S P E I R G N A S Q I H S L I N E V N S T S K K L Q S D Y T Q
UniRef90_A0A011T8Y7	M T A F S V D S E A V L S A T G A I R A T A D R L Q S E T A A M L G Q L T Q
UniRef90_F8JU17	D P S V L R A C A Q A W R E M A R D L K G I V E A Q D A E V A R K
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UniRef90_C0C6A3	N I L G I K S D D D V K T Q A Q Q I T Q A M Q E Y T E L R S F L D T I V N S
UniRef90_UPI0003FB9332	G D M T N V D A D K L R Q T A Q K I L G N L A G D L N S N V S K I N D A L L N N
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UniRef90_E8JJP5	M A Q F V V D S E T I I A A K A A Q A K T Q V A N I S A E V T G M T A S L Q D
UniRef90_E3H109	M V D F R V D P A H L D H V V A E I V R F D T T F E T A L L D D A D K R V N Q
UniRef90_UPI00040C4881	Q F T M T E E E M V A F S G K I S S V N S S I Q G E I I S R L L Q T V I D T
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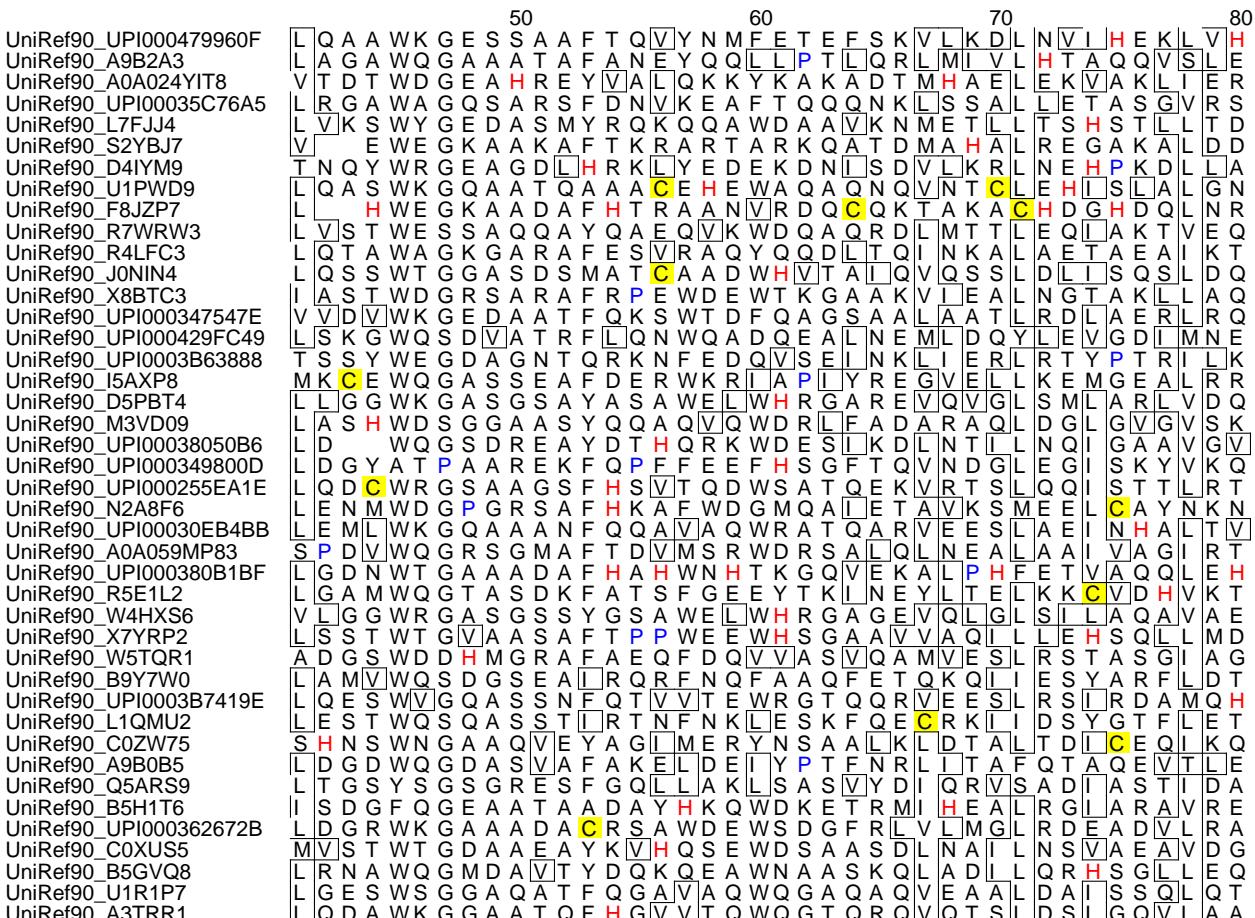
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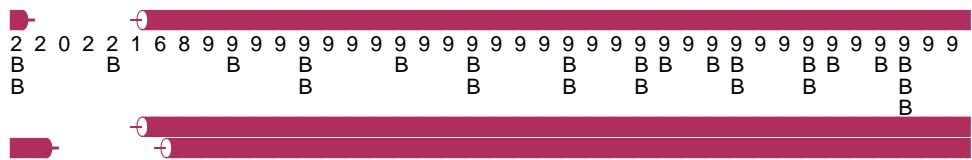
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Sequence logo showing the conservation of amino acids at each position of the UniRef90 database. The x-axis represents positions 1, 10, 20, 30, and 40. The y-axis lists UniProt IDs. Positions 1-10 are highly conserved, while positions 20-40 show more variation.

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UniRef90_UPI000255EA1E	A G Q D Y E [L] V E Q T N R T R F
UniRef90_N2A8F6	A K K Q Y E A C [C] D R K V [A] S [L] I A
UniRef90_UPI00030EB4BB	A T Q Q Y A D A E [L] S N A R M F
UniRef90_A0A059MP83	N G R A Y E D T [V] Q A Q A Q S [L] N
UniRef90_UPI000380B1BF	T A D A [L] K K A N D E [V]
UniRef90_R5E1L2	S A E D Y N S [C] E Q Q I [Y] S M
UniRef90_W4HXS6	A G A G Y Q Q N E T A S A Q A M R
UniRef90_X7YRP2	S [V] E M M [L] D [H] K N T A A K A F A A
UniRef90_W5TQR1	T A N E F A A R D A D N A T R [V] A G
UniRef90_B9Y7W0	A V S S Y D T [L] E A T I [Q] N N A G
UniRef90_UPI0003B7419E	A G Q Q Y E S T E Q A N A A M F R G
UniRef90_L1QMU2	T [V] D S Y T N A E S S I [N] S N A S A
UniRef90_C0ZW75	A A G T F D S T E D D N V I S [L] R G
UniRef90_A9B0B5	V [Q] K [L] F G Q A E E E A A A A L [F] K G
UniRef90_Q5ARS9	T A S A Y E D A E S S A [I] G T F
UniRef90_B5H1T6	A S P A Y Q A G D R K A A G Y F
UniRef90_UPI000362672B	G A N E Y T A A D S R G A A G [V] S
UniRef90_C0XUS5	G N S R M Q Q [V] N N A A A Q S W G
UniRef90_B5GVQ8	[I] V E I [Y] R K [H] E N K S A S
UniRef90_U1R1P7	A A A L Y S D A E A R S T A [L] F A G
UniRef90_A3TRR1	A G A Q Y A E T E A Q N M R M F S

lupas_21
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 solo
 jhmm
 jpssm

