

	1	10	20	30	40																																					
QUERY	A	V	K	Y	Y	T	L	E	Q	I	E	K	H	N	S	K	S	T	W	L	I	L	H	Y	K	V	Y	D	L	T	K	F	L	E	E	H	P	G	G			
UniRef90_B5FYJ7		P	V	F	T	L	E	E	V	A	K	R	N	S	S	R	E	A	W	L	V	I	H	G	K	V	Y	D	V	T	R	F	L	E	E	H	P	G	G			
UniRef90_R0GMW8		T	K	L	Y	S	M	E	E	A	A	T	H	N	K	N	K	D	D	T	W	V	I	D	G	S	K	V	Y	D	V	T	A	F	L	E	E	H	P	G	G	
UniRef90_B4H8J7			K	S	F	T	R	A	E	V	A	K	H	N	S	R	E	A	D	D	T	W	L	I	E	G	K	V	Y	D	V	T	K	F	R	N	E	H	P	G	G	
UniRef90_A0A034WKZ2	A	A	K	T	Y	T	L	E	E	V	V	K	H	N	S	P	E	D	L	W	I	I	E	G	K	V	Y	D	V	T	K	F	R	N	E	H	P	G	G			
UniRef90_I1C1Y9	S	V	K	L	Y	S	F	E	E	V	V	K	H	N	S	R	E	A	D	D	L	W	M	I	E	D	G	K	V	Y	D	I	T	K	F	Q	D	E	H	P	G	G
UniRef90_G3XTN4			L	T	F	T	L	E	E	Q	V	K	H	N	S	R	E	A	D	D	L	W	I	I	E	G	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G	
UniRef90_A8X389	L	R	I	I	T	A	E	E	V	A	Q	H	S	D	E	D	S	C	W	I	I	L	H	G	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G			
UniRef90_B8NK75	L	P	E	Y	T	A	A	E	V	S	Q	H	S	N	R	K	D	D	L	W	I	I	V	D	N	K	V	F	D	I	T	N	Y	L	Q	D	D	H	P	G	G	
UniRef90_Q9ZWT2		K	V	F	T	L	S	E	V	S	Q	H	S	S	A	K	D	D	L	W	I	I	V	D	G	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G		
UniRef90_UPI00034F88C4		K	N	L	T	L	D	E	V	K	K	H	S	D	E	K	S	V	W	I	I	I	H	H	N	D	V	Y	D	V	T	K	F	L	E	E	H	P	G	G		
UniRef90_Q58E98			Y	T	L	L	E	E	L	R	K	R	N	S	A	K	D	L	W	L	V	I	H	H	E	R	V	Y	D	I	T	K	F	V	L	E	E	H	P	G	G	
UniRef90_G3WMN8			Y	Y	R	L	Q	E	V	A	K	H	N	S	E	K	D	M	W	M	V	I	H	E	R	V	Y	D	V	T	P	F	L	G	E	H	P	G	G			
UniRef90_M0S7P8		K	L	Y	S	M	R	E	A	A	E	H	N	T	R	D	D	C	W	V	V	I	H	G	K	V	Y	D	V	T	S	Y	L	D	E	H	P	G	G			
UniRef90_W9S5V6		K	V	F	T	L	A	E	V	S	D	H	N	T	S	K	D	C	W	L	I	I	V	S	G	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G		
UniRef90_UPI00032A5E22	S	T	K	T	F	T	F	E	D	I	A	K	H	N	S	K	Q	D	C	W	I	I	V	S	G	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G		
UniRef90_F6Z6J6	S	V	T	Y	Y	R	L	E	E	V	A	K	R	N	S	E	K	E	T	W	L	V	I	H	G	R	V	Y	D	I	T	R	F	L	D	E	H	P	G	G		
UniRef90_C8V6G9	L	P	Q	Y	T	S	Q	E	V	A	A	H	N	S	R	N	D	L	W	L	I	I	V	N	G	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G		
UniRef90_S2K181			I	Y	S	L	D	D	V	S	K	H	N	S	K	D	D	L	W	M	T	I	H	H	N	K	V	Y	N	I	T	E	F	V	L	E	H	P	G	G		
UniRef90_C4Y0L8	L	K	V	Y	T	L	D	E	V	K	K	H	N	T	T	D	D	L	W	I	V	I	N	G	Q	V	Y	D	V	T	P	Y	L	D	E	H	P	G	G			
UniRef90_M9MGJ5	L	K	E	I	S	K	A	E	L	A	K	H	N	T	K	E	D	L	W	F	I	I	H	N	K	V	Y	D	V	T	K	Y	Q	T	E	H	P	G	G			
UniRef90_Q6FLF4		K	V	Y	T	L	K	Q	V	S	E	H	N	S	K	E	G	D	C	W	I	I	V	D	G	S	K	V	Y	D	V	T	S	K	F	L	E	E	H	P	G	G
UniRef90_D8RNK1			L	Y	T	L	E	D	V	L	K	H	S	T	R	D	D	C	W	I	V	V	D	G	K	V	Y	D	V	T	K	F	L	L	D	E	H	P	G	G		
UniRef90_A9NST8		T	K	V	Y	R	L	E	D	V	S	K	H	N	T	H	C	W	L	V	I	V	D	D	G	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G		
UniRef90_A8WGS0	G	V	K	Y	R	L	S	E	V	E	A	K	H	N	S	F	K	S	T	W	L	I	I	H	H	N	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G	
UniRef90_S2J8X7	S	A	Q	I	F	S	Y	E	E	V	S	K	H	N	T	R	N	D	L	Y	M	I	I	D	K	K	V	Y	D	I	T	K	F	L	D	E	H	P	G	G		
UniRef90_Q54XV1			K	T	Y	S	I	E	E	V	S	K	H	N	S	K	D	D	C	W	L	I	V	N	N	K	V	Y	D	M	T	E	Y	L	L	E	H	P	G	G		
UniRef90_G9P740	G	L	K	T	V	S	V	R	D	V	S	K	H	N	S	Q	P	D	L	W	M	V	I	H	H	N	K	V	Y	N	V	T	N	Y	L	E	D	H	P	G	G	
UniRef90_U5ESD2				Y	T	L	A	E	V	A	K	H	N	S	K	S	N	D	C	W	L	I	I	H	D	K	V	Y	D	V	T	K	F	M	E	E	H	P	G	G		
UniRef90_W5GUN5			K	V	Y	S	F	R	E	V	R	K	H	N	S	Q	R	K	D	C	W	L	I	V	S	G	K	V	Y	D	V	T	P	F	M	E	E	H	P	G	G	
UniRef90_UPI00021A6C11		T	K	F	Y	T	R	E	E	V	A	K	H	N	S	K	K	D	L	W	F	I	I	H	H	N	K	V	Y	N	V	S	Q	F	R	N	H	P	G	G		
UniRef90_B9RJB1	S	S	K	T	V	S	M	A	E	V	K	K	H	N	S	A	D	S	C	W	I	I	V	H	G	H	V	Y	D	C	T	R	F	L	K	D	E	H	P	G	G	
UniRef90_T1J559	L	K	Q	Y	S	L	K	E	V	S	D	H	S	R	K	S	V	W	I	V	I	V	H	D	L	V	Y	D	V	T	P	F	L	D	E	H	P	G	G			
UniRef90_I1HN08				T	L	E	E	V	A	K	H	N	T	K	D	D	C	W	L	I	I	V	A	G	K	V	Y	D	V	T	K	F	L	N	D	H	P	G	G			
UniRef90_F6SST4		K	V	F	R	L	E	E	V	K	K	H	N	N	V	Q	S	A	W	I	V	V	H	N	K	I	Y	D	V	T	K	F	L	E	E	H	P	G	G			
UniRef90_U5ETY5	V	K	L	F	S	L	A	D	I	A	K	H	N	S	N	K	S	T	F	L	V	I	I	H	N	S	V	Y	D	V	T	E	F	L	N	E	H	P	G	G		
UniRef90_S8F7T0		R	A	I	A	M	E	E	V	K	K	H	N	S	E	K	D	I	W	C	I	I	H	G	V	V	Y	D	L	T	P	F	L	L	K	H	P	G	G			
UniRef90_UPI00042B734E		K	M	H	T	F	E	E	V	S	K	H	N	T	K	D	C	W	L	I	I	V	S	G	K	V	Y	D	V	T	P	F	M	D	D	E	H	P	G	G		
UniRef90_A0A022RQ40		T	K	L	I	T	M	K	E	A	S	E	H	N	T	A	E	D	C	W	V	V	I	D	D	G	K	V	Y	D	V	T	S	A	Y	L	E	E	H	P	G	G
UniRef90_UPI000359C2F9			K	E	F	R	L	S	E	V	S	K	H	N	D	A	K	S	T	Y	L	V	I	H	H	N	K	V	Y	D	V	T	R	F	L	E	E	H	P	G	G	
UniRef90_UPI000258F738	S	T	K	L	Y	T	R	A	E	V	A	N	H	V	E	S	D	K	L	W	L	I	I	N	N	K	V	Y	D	V	T	D	F	Y	R	E	H	P	G	G		
UniRef90_A0A023GCB0	L	P	R	Y	T	L	Q	D	V	C	Q	H	C	H	H	N	D	C	W	I	V	I	H	H	N	R	V	Y	D	V	T	N	F	L	N	K	E	H	P	G	G	
UniRef90_A7TNA5		K	V	Y	T	Y	Q	E	I	A	E	H	N	T	T	E	S	C	W	L	V	I	V	D	G	K	V	Y	D	T	K	F	L	E	E	H	P	G	G			
UniRef90_A0A010RW11		P	E	F	T	A	K	E	V	A	A	H	R	E	A	N	D	C	W	M	V	I	H	G	E	V	Y	D	V	S	K	Y	L	H	D	E	H	P	G	G		
UniRef90_UPI0002658C91			T	Y	S	L	E	D	V	A	K	H	N	S	K	S	C	W	L	V	I	V	H	E	G	I	Y	D	V	T	K	F	M	E	E	H	P	G	G			
UniRef90_M5XK17		T	K	L	F	T	M	Q	E	V	S	K	Q	N	S	K	D	N	C	W	V	V	I	D	D	G	K	V	Y	D	L	T	L	Y	L	D	D	E	H	P	G	G
UniRef90_W3X0M4	M	P	T	I	S	L	A	Q	V	A	E	H	N	K	P	D	D	V	W	F	V	V	H	N	K	V	Y	D	V	T	K	Y	L	E	E	H	P	G	G			
UniRef90_E6R556	S	K	K	E	Y	T	R	E	E	V	A	K	H	N	T	E	K	D	C	W	V	V	I	G	G	Q	V	Y	D	V	T	N	F	L	E	E	H	P	G	G		
UniRef90_F0ZCK5			K	S	Y	T	L	E	E	I	S	K	H	N	T	P	D	D	F	W	V	I	V	R	G	K	V	Y	D	V	T	L	G	D	Y	L	M	M	H	P	G	G
UniRef90_R7Q9D4		V	K	T	Y	T	K	E	E	V	Q	E	H	N	S	E	E	S	A	W	I	V	I	D	D	G	K	V	Y	D	A	T	P	Y	L	D	D	E	H	P	G	G
UniRef90_I1CRH3	L	K	V	F	T	R	D	E	V	A	K	H	N	T	E	N	D	C	W	I	I	V	D	D	G	A	V	Y	N	V	T	T	F	A	Q	L	H	P	G	G		
UniRef90_W6QMR0	S	L	K	Q	F	E	A	S	E	V	A	A	H	N	T	K	N	D	L	F	V	I	I	H	D	G	K	V	Y	D	V	T	D	Y	V	R	D	E	H	P	G	G
UniRef90_V9L5R9		V	K	Y	L	T	L	E	D	V	K	C	H	N	S	C	T	S	T	W	L	V	I	H	D	K	V	Y	D	V	T	K	F	V	L	D	E	H	P	G	G	
UniRef90_X6NX61	L	K	Y	Y	T	L	E	D	V	S	R	H	N	K	A	T	D	C	W	L	I	L	V	Y	D	D	K	V	Y	D	V	T	S	F	V	N	D	E	H	P	G	G
UniRef90_D8U7A2	S	Q	K	V	Y	T	L	A	D	V	K	V	H	T	N	D	K	S	C	W	L	V	V	H	G	K	V	Y	D	V	T	A	F	L	E	E	H	P	G	G		
UniRef90_G9DR03		L	S	V	I																																					

QUERY	50	60	70	80
UniRef90_B5FYJ7	E E V L L R E Q A G G R D A T E S F F E D V G H S T D A R E L S K T F I I	G E E L H P D		
UniRef90_R0GMW8	D D V L L A V T A G K D A T E N D D F E D V G H S T D A R E L M E K Y Y I	G E E L H P D		
UniRef90_B4H8J7	E E V L L I E Q A G K D A T E N D F E D V G H S T D A R E M M T K Y Y K I	G E E L V I E S		
UniRef90_A0A034WKZ2	E E T L D E V G G R D A T R D F F Q D V G H S Q D A R K E M L K K Y Y I	G G D L E V D		
UniRef90_I1C1Y9	E E V L L I D E V A G K D A T G A P F E E I G H S T D D A R K L L K K Y Y I	G G D L V D P A S E		
UniRef90_G3XTN4	K E I L L I E V A G T D A T E A F F E E I G H S T D D A R E Q L E P Y Y F V	G G D L D P S E		
UniRef90_A8X389	A E V I T Q L A G L D S T T E A F F E D V G H S K D A M E M A K E Y L I	G G Q L P S E S		
UniRef90_B8NK75	A E I L L I T A G T D A T E A F F E D V G H S S T A K A M L D E Y Y V	G G T L I K G		
UniRef90_Q9ZWT2	D E V I L T S T G K D A T D D F E D V G H S S T A K A M L D E Y Y V	G G T L I K G		
UniRef90_UPI00034F88C4	A D S L L E V A G K D G T Q A F F E D V G H S D D A R E L L K K Y Y K I	G G T L P P G		
UniRef90_Q58E98	E E V L L E F E Q A G A D A T E S F F E D V G H S I D A R E M L K K Y Y I	G G E V H P D		
UniRef90_G3WMN8	D E V L L V E Q A G G D A T E S F F E D V A G H S M D A K D M L K Q Y Y I	G G E V H P S		
UniRef90_M0S7P8	D D V L L L S A G R D S T E D F F E D A G H S K S A R E L M Q D Y Y I	G E E L D P D		
UniRef90_W9S5V6	D E V L L S S A T G K D A T D D F F E D V G H S D S A R E M M K E F Y Y V	G G E V D D A T S		
UniRef90_UPI00032A5E22	D E S L I L S S T G K D A T V D F F E D V G H S D S A V E M M H K Y Y I	G G Y V D T S		
UniRef90_F6Z6J6	G E V L M E Q A G R D A T E S F F E D V G H S S D A K E M L K K Y Y V	G E V H P V		
UniRef90_C8V6G9	A D V L L I D T A G K D A T E A Y F E D V G H S D A D A D E I L Q T Y L I	G G T L L K		
UniRef90_S2KI81	E E V L L I D E A G K D A T E A F F E D I G H S S D E A R E I L E K Y Y L V	G G T L D E A		
UniRef90_C4Y0L8	E E V I V D C A G T D A T E A F F E D I G H S S D D A H D I L K G L L I V	G K L L E G		
UniRef90_M9MGJ5	I E V L M Q F A A D D A S E M F E A T G H S S D D A R K K L D K L I V	G Q L P S E		
UniRef90_Q6FLF4	D E I I L F E H R G T D A T G D F V D I G H S S D D A K L K I L K I	G E V D P N		
UniRef90_D8RNK1	D E V I I A S T G K D A T D D F F E N V G H S N S A R A M M K E Y Y I	G R		
UniRef90_A9NST8	D E V L I S A T G K D A T D D F F E D V G H S S S A R A M M D E Y Y V	G G E V I D P S		
UniRef90_A8WGS0	E E V L R E Q A G G D A T E S F F E D V G H S S T D A R E M A S S M L I	G G E V H P D		
UniRef90_S2J8X7	D E I L I E E G A K D A T G P F F E D V G H S P D A R E M L E K Y Y V	G G V D P T		
UniRef90_Q54XV1	P N L L F K C A G R D A T D D F F E G M F H S R N A K A I L E R F Y I	G K		
UniRef90_G9P740	V D I L L V G E A G K D A T Q V F F E D V G H S S D E A R E I L L E D L L V	I Q V S		
UniRef90_U5ESD2	A E V L L E E Q A G K E C S T E F F E D V G H S T D A K E L M E K Y Y I	G G I V E A		
UniRef90_W5GUN5	D E V L L A C T G K D A T A D F F E D I G H S S D A A K E L M P Q Y Y C	G G E V D A A		
UniRef90_UPI00021A6C11	K E V L L E Q Q G G D C T E A F F E D I G H S S D A R E L M E V F K Y I	G G E V D S		
UniRef90_B9RJB1	T D S I L I N A G T D C T E E F F D A I H S D K A K K M L E D Y R I	G E E V I D E		
UniRef90_T1J559	E E I L L I E Q A G K N A T E N F F E D V G H S S T D A R E M M K K Y Y I	G G V I D		
UniRef90_I1HN08	D D V L L S S T A K D A T D D F F E D V G H S S T T A R A M L D E Y Y V	G G D V D		
UniRef90_F6SST4	E E V L L E Q A G Q D A T E S F F E D V G H S S D A R E M Q K D Y Y I	G E E L H P D		
UniRef90_U5ETY5	E E V L L E Q A G K E A T E A F F E D V G H S S D A R E M M K K F K V	G G E L I E S		
UniRef90_S8F7T0	V D V L L D F A G Q D A T E A F F E D I G H S S F S A R Q M A P F A I	G V L E G C		
UniRef90_UPI00042B734E	D E V L L S A T G K D A T N D F F E D A G H S S D A R D M M K K Y Y I	G G I D		
UniRef90_A0A022RQ40	D D V L L K A T G K D A T E E F F E D A G H S S K T A R E L M E E F Y C	G E E V I D E		
UniRef90_UPI000359C2F9	E E V L L E Q A G G D S T E A F F E D V G H S S T D A R D L M E E F Y Y V	G E E V H P D		
UniRef90_UPI000258F738	E E V L L E Q N G K D V T E I F F E D I G H S S D A R Q M M E S Y K I	G E I V K S		
UniRef90_A0A023GCBO	E E I L W E H A G R D A T L A F F E D I G H S S D E A V S L L Q Q Y Y C	G I L V E E		
UniRef90_A7TNA5	D E I I L D L A G Q D A T E S F F E D I G H S S D E A L K I L K K Y Y I	G G D L D K T		
UniRef90_A0A010RW11	A D V L V E A A G V D A S E A F F D N A G H S S E D A Y E I M A D F K V	G K L K G		
UniRef90_UPI0002658C91	E E V L L E Q Q G R E S T E V F F E D V G H S S T D A R E L M A K Y K I	G E E L C D E		
UniRef90_M5XK17	D D V V L A A A G R D A T E D F F E D A G H S N I A K D L M G A F C	G E L D V D		
UniRef90_W3X0M4	S V I L Q E V A G K D A T Q E F F E D V G H S D E A N E H L E G L Y I	G D L		
UniRef90_E6R556	V K A I L L Y A G R D A T E E F F D M L H P N A I A K Y A P D T V I	G T I K G		
UniRef90_F0ZCK5	P K L L F K H G G K D A T E E F F E G M F H S R N A K A I L E K F W I	G K V		
UniRef90_R7Q9D4	A A A I V M N A G E D S T E E F M A I H S S K A K S M L E K Y Y I	G E L A D E		
UniRef90_I1CRH3	T Q I L L E L G G K D V T D D F F Y G L H K Q E V L V K Y A P R L K I	G T L E G E		
UniRef90_W6QMR0	A D L L V D V A G K D A T V A F F E D V G H S S E D A S E I L D T Y L V	G N I K D A		
UniRef90_V9L5R9	E E V L F E Q A G G D A T E S F F E D V G H S S D A R E M L T Q Y Y C	A E L D P A		
UniRef90_X6NX61	V N L I V D N S G K D A T E V F F E S V G H T K A L L T L A A D A C C	G H L H P D		
UniRef90_D8U7A2	Y D I L L S S T G K D A T Q D F F E E I G H S S N S A K K L L E K Y L I	G G D F E G G		
UniRef90_G9DR03	V A A I V M N A G K D A T E D F F E A I H S K R A W A M L D E Y L V	G T L		
UniRef90_A0NHD3	E E V L I E F A G K E A D A D F D D V G H S S T D A K E Q M K Q Y Y I	G E E L L E A		
UniRef90_E4XG21	E E I L L E C A G V D A T E G F F E D V G H S S A D A R E L L T D Y L L V	G G D L R E E		
UniRef90_Q013W0	A S F I V A G A G G D A T E A F Y A L H R S E I L E K T A K K Y K I	G T L V I G G		
UniRef90_J3NHY1	E E V M L D V A G Q D A T E A F F E D V G H S S D E A R E T L S S L L V	G G D L D P S		
UniRef90_Q7XCR6	D E V L L A V T G K D A T N D F F E D I G H S S D E A R E M M E K Y Y I	G E I D A S S		
UniRef90_V4VXA4	D E V L L A A T E K D A T D D F F E D V G H S S D A R E M M E K Y H I	G E I D S S		
UniRef90_G4TQ19	E E V I V A E A G K D A T E S F F E D V G H S S D E A R D L L K G M L V	G N T F A G S		
UniRef90_K4BUQ1	E E V L I E S A G K D A T E K F F E D I G H S S K A A K N Y I L K Y Q I	G N L Q G		
UniRef90_W9XD64	I Q S L I E V A G Q D A T E A Y E D V G H S S D A K E I M A P F L R G T	G T		
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UniRef90_W9SDR1	D D V L L S S T G K D A T N D F F E D V G H S S S A K A V M D E F Y Y V	G G D I D T A		
UniRef90_G1TIP6	E E V L L E Q A G S D A S E S F F E D V G H S S S A R E M L K K Y Y I	G D V H P S		
UniRef90_C4JVA5	E D V L L D K A G Q D A S A E F F D D V G H S S D E A R E A L E P L L V	G T L E Q Q		
UniRef90_F2EJC4	A D V L L A V T G M D G T E E F F E D A G H S S K D A K E L M K D Y F I	G E L D L D		
UniRef90_F4WM01	Q D I L L E H A G R D A T L A F I S T G H S S A V A N A T L E R Y K I	G E L P P E		
UniRef90_Q0TVF6	K E F L L E N A G A D A T T A Y E D I G H S S T D A R E I L E N F R I	G K V T D D D		
UniRef90_A8X507	C E V L L E Q A G G D G T E A F F E D V G H S S T D A R H M K E E Y L I	G E V V I E E		
UniRef90_M2Y577	E E V L L E V A G R D A T R E F F E D V G H S S D E A R E L R E K Y L V	G V V R K E		
UniRef90_A0A017S5C3	P E V L V Q Y A G Q D A T T A Y N E A H S P G V I V K S L S P Y L I	G K L D P S		
UniRef90_G9P5Z0	V D V L I E V A G T D A T A Y N E A G H S S D A D E V L S T L I	G T V Q G		
UniRef90_S4R494	E E V L L E Q A G G D G T E S F F E D V G H S S R D A R E L L P Q Y L V	H L H P D		
UniRef90_U6LJ17	H H V I L E V A G Q D A T E T F F E D I G H S S L D A R A M A D E Y I I	G R V K G E		
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UniRef90_S8EF61	D E V I L A E T G K D A T E A F F E D V G H S S D E A R A I L K D L Y I	G E F E K D		
UniRef90_I3S4K4	E E V L K E Q R G K D A T N A F F E D V G H S S T D A R E Q M K G Y Q I	G V L H P D		
UniRef90_G4NI87	A E V L V E A A G A D A S E A F F S A G H S S D A F E I M A E Y R V	G K A K G G		
UniRef90_C5DGY5	E E V L L D L G G Q D A T G P F A D I G H S S D A V K M L E D L Y V	G D V D K D		
UniRef90_A0A058Z5X9	Q E I L V E L A G T D A T D A F A D I G H S S L E A Q Q D L E N Y L V	G P V		
UniRef90_P36841	A E S I L I V A G A D A T D E F F N S I H S S K A K A M L A Q Y Y I	G D L V A S		
UniRef90_M4BEL9	P E I M V D V A G Q D A T D E F F E D I G H S S N D A R S Q L K K F E I	G K L K G D		
UniRef90_D3B216	G D Y I I D N A G R D A T L E F F E D A G H S S K A A L L K D F Y I	G E		
UniRef90_L9JAL3	E E V L L E Q A G A D A S E S F F E D V G H S S G A R D V L K Q C Y T	G D V H P S		
UniRef90_E9EBJ1	A D V L V E A A G T D A T H E F F D N A G H S S D A W D I M K P C L V	G N L Q G H		
UniRef90_F0XN02	P Q A I M N F M G R D A S E E F F E M L H D D E V I P K Y A P D Q V I	G R V Q G V		
UniRef90_C5GGS3	E E V L L D V G G Q D A T E A F F E D V G H S S D E A R E I L E G L I	G K L K G		
UniRef90_F1A272	E E V L K G N G K D A T Q E F F D V G H S S A S A I A K M E A L R I	G R I A G A		

QUERY	D R S K	
UniRef90_B5FYJ7	D R E K	
UniRef90_R0GMW8	S	V P E I
UniRef90_B4H8J7	E R T N	V
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UniRef90_G3XTN4	E Q T E	
UniRef90_A8X389	E	I P E V
UniRef90_B8NK75		
UniRef90_Q9ZWT2	T	V P
UniRef90_UPI00034F88C4	E R	C K I
UniRef90_Q58E98	D	
UniRef90_G3WMN8	D R K E	
UniRef90_M0S7P8	T	
UniRef90_W9S5V6	T	I P K
UniRef90_UPI00032A5E22		
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UniRef90_C8V6G9		
UniRef90_S2KI81	S Q	
UniRef90_C4Y0L8		
UniRef90_M9MGJ5	D R E	
UniRef90_Q6FLF4	S E R	V V
UniRef90_D8RNK1		
UniRef90_A9NST8	T	P S K
UniRef90_A8WGS0	D R D K	I
UniRef90_S2J8X7	S K	P
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UniRef90_W5GUN5	T	P A K L
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UniRef90_B9RJB1	T	
UniRef90_T1J559	E K	
UniRef90_I1HN08		
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UniRef90_U5ETY5	E R K K	I
UniRef90_S8F7T0	E K S	
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UniRef90_A0A022RQ40		
UniRef90_UPI000359C2F9	D R S	
UniRef90_UPI000258F738	E R T K	
UniRef90_A0A023GCB0	E Q	
UniRef90_A7TNA5	S K	P
UniRef90_A0A010RW11		
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UniRef90_M5XK17	T T S	
UniRef90_W3X0M4		
UniRef90_E6R556		
UniRef90_F0ZCK5		
UniRef90_R7Q9D4	S Q	P
UniRef90_I1CRH3		
UniRef90_W6QMR0	Q	P K K V
UniRef90_V9L5R9	D R K K	
UniRef90_X6NX61	D R R K	
UniRef90_D8U7A2	D S A	
UniRef90_G9DR03		
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UniRef90_E4XG21	D	H K
UniRef90_Q013W0	T R R E	I
UniRef90_J3NHY1	P	K S Q
UniRef90_Q7XCR6	T	
UniRef90_V4VXA4	S	V P
UniRef90_G4TQ19	E K	L K
UniRef90_K4BUQ1		
UniRef90_W9XD64		
UniRef90_G8IRI3	D A	V E V
UniRef90_W9SDR1	T	P A K V
UniRef90_G1TIP6	D	L K
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UniRef90_M2Y577	T K E E	L
UniRef90_A0A017S5C3	S R	
UniRef90_G9P5Z0		
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UniRef90_U6LJI7	T	
UniRef90_A0A058Z979		
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UniRef90_G4NI87	S T K K	
UniRef90_C5DGY5	S E	P
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UniRef90_P36841	K	P A
UniRef90_M4BEL9	V V	E A V
UniRef90_D3B216		
UniRef90_L9JAL3	D	L K
UniRef90_E9EBJ1	Q D K K	
UniRef90_F0XN02	E	P T
UniRef90_C5GGS3	D	P A
UniRef90_F1A272	S	P

	1		10		20		30		40																																					
UniRef90_S7ZLH4		K	E	F	S	M	E	E	V	A	K	H	N	S	K	N	D	A	W	L	A	I	R	G	M	I	V	N	V	T	N	W	L	D	E	H	P	G	G							
UniRef90_E9GLB9		L	R	D	I	S	P	N	E	E	L	A	Q	H	N	S	K	N	D	A	W	L	A	I	R	G	M	I	V	N	V	T	N	W	L	D	E	H	P	G	G					
UniRef90_J3S478				Y	Y	K	F	F	E	E	V	L	A	Q	H	N	S	K	N	D	A	W	L	A	I	R	G	M	I	V	N	V	T	N	W	L	D	E	H	P	G	G				
UniRef90_G3AVS9		T	K	V	F	D	H	F	E	E	V	L	A	Q	H	N	S	K	N	D	A	W	L	A	I	R	G	M	I	V	N	V	T	N	W	L	D	E	H	P	G	G				
UniRef90_H2LGY3				V	T	P	E	E	E	V	L	A	K	H	N	S	K	N	D	A	W	L	A	I	R	G	M	I	V	N	V	T	N	W	L	D	E	H	P	G	G					
UniRef90_J3PWG6		L	K	Q	Y	T	L	D	E	E	V	L	A	K	H	N	S	K	N	D	A	W	L	A	I	R	G	M	I	V	N	V	T	N	W	L	D	E	H	P	G	G				
UniRef90_S8BRB6				E	F	T	Y	S	Q	V	G	E	H	D	T	K	E	S	D	D	V	W	V	V	N	G	E	K	V	L	D	V	T	K	F	K	A	D	E	H	P	G	G			
UniRef90_R9TJH3		K	I	I	P	L	A	E	V	E	K	H	I	K	E	D	S	L	W	L	I	I	N	K	K	V	Y	D	V	T	K	F	V	D	Q	H	P	G	G	G						
UniRef90_B0CZW8	S	T	R	I	T	L	D	E	L	R	E	N	K	T	R	D	S	L	Y	I	L	I	H	G	K	V	Y	N	V	T	K	F	M	D	E	H	P	G	G	G						
UniRef90_S2IZD3				E	Y	T	L	E	D	V	L	A	K	H	N	K	P	D	D	C	W	V	V	N	G	Q	V	L	D	V	T	D	F	L	P	D	H	P	G	G	G					
UniRef90_S9V6B7				K	Y	I	S	M	K	E	V	E	T	K	M	T	A	D	A	W	F	V	I	N	N	K	V	Y	D	V	T	K	F	L	D	N	H	P	G	G	G					
UniRef90_E9AC79					Y	T	R	D	Q	V	A	E	H	N	K	K	K	S	G	W	L	I	I	N	N	G	V	Y	D	V	T	S	D	F	Y	D	E	H	P	G	G	G				
UniRef90_S4P7P0				L	K	V	I	F	T	A	E	V	K	H	N	K	E	N	G	V	W	M	I	H	N	N	G	V	Y	D	V	T	S	F	L	E	E	H	P	G	G	G				
UniRef90_U6I871					V	Y	T	I	N	E	V	N	K	H	N	T	E	G	D	C	W	V	V	I	N	D	K	V	Y	D	V	T	S	L	L	G	K	H	P	G	G	G				
UniRef90_MORP26					K	I	Y	R	F	D	E	V	A	K	H	N	D	D	A	E	D	C	W	L	I	V	S	G	K	V	Y	D	V	T	S	F	I	S	M	A	E	H	P	G	G	G
UniRef90_A0A024THV8	A		V	K	V	F	T	L	D	E	V	I	A	T	H	N	T	E	K	D	C	W	I	V	I	S	G	R	K	V	Y	D	V	T	S	F	I	N	S	H	P	G	G	G		
UniRef90_B4JC95				V	P	E	I	T	L	E	E	V	A	H	H	D	S	Y	D	D	C	W	I	V	I	Y	D	R	V	Y	D	V	T	H	F	L	R	E	S	H	P	G	G	G		
UniRef90_G0RCK0					K	V	F	D	A	A	E	V	A	K	H	N	T	A	D	S	C	W	V	I	L	Y	G	H	V	Y	D	V	T	D	F	L	L	E	S	H	P	G	G	G		
UniRef90_E5SXC0				A	K	R	T	F	S	R	E	V	E	E	H	N	S	K	Q	S	T	W	L	I	M	E	N	K	V	Y	D	V	T	D	F	L	L	E	S	H	P	G	G	G		
UniRef90_M0SF98				A	L	K	K	Y	S	P	S	E	I	S	L	H	A	S	K	K	D	C	W	V	S	I	H	G	K	V	Y	D	V	T	T	F	L	L	E	D	H	P	G	G	G	
UniRef90_A0A022RTL6				A	E	K	V	Y	T	F	E	E	V	K	H	N	N	N	H	S	C	W	L	I	I	S	G	K	V	Y	D	V	T	A	F	L	A	D	H	P	G	G	G			
UniRef90_UPI00021A84BD				L	P	R	Y	S	L	K	E	V	A	K	H	N	N	E	G	S	L	W	I	V	I	S	D	M	V	Y	D	T	T	D	Y	K	H	H	P	G	G	G				
UniRef90_C6K2H5	G		V	K	Y	F	T	E	E	E	V	A	K	H	T	E	R	D	D	A	W	F	I	Y	D	G	K	V	Y	D	A	T	P	F	M	D	D	H	P	S	G	G	G			
UniRef90_D8SRW7					K	I	M	A	Y	S	E	L	A	E	H	N	N	R	K	D	C	W	L	I	I	S	G	K	I	Y	D	V	T	K	F	L	E	D	H	P	G	G	G			
UniRef90_L8GMH5				V	R	I	F	T	K	A	E	V	A	K	H	D	T	V	N	D	C	W	M	I	I	S	G	K	V	Y	D	V	T	P	F	F	V	D	E	H	P	G	G	G		
UniRef90_UPI0004414567					K	V	V	S	F	D	E	W	K	Q	H	Q	T	R	S	D	C	W	T	L	I	H	D	K	I	Y	D	V	S	K	F	L	D	E	H	P	G	G	G			
UniRef90_K2NTF7					V	Y	T	S	A	E	V	A	K	H	A	M	K	K	D	G	W	F	I	I	H	N	D	V	Y	D	V	S	K	F	Y	E	D	H	P	G	G	G				
UniRef90_R1FZN5				P	F	M	S	M	A	D	V	E	S	H	N	T	Q	E	D	V	W	M	V	I	H	D	K	V	Y	N	V	T	K	Y	L	D	D	H	P	G	G	G				
UniRef90_F6T1X5						I	S	M	E	E	L	A	K	H	N	S	R	E	S	C	W	V	V	I	R	G	Y	V	F	N	V	T	R	Y	M	E	Y	H	P	G	G	G				
UniRef90_C5LJM6	A	G	K	S	Y	T	M	D	E	I	S	K	H	N	S	R	E	S	C	W	V	V	I	I	D	G	E	V	L	D	V	T	D	F	L	P	D	H	P	G	G	G				
UniRef90_C5LJM6	A	G	K	S	Y	T	M	D	E	I	S	K	H	N	S	R	E	S	C	W	V	V	I	I	D	G	E	V	L	D	V	T	D	F	L	P	D	H	P	G	G	G				
UniRef90_D2A2F2				T	K	F	F	S	L	E	E	I	A	K	N	D	G	K	D	G	T	W	L	I	I	K	N	N	V	Y	D	V	T	D	Y	L	D	G	H	P	G	G	G			
UniRef90_Q5J0W5	S	G		K	E	Y	T	M	E	E	V	A	Q	H	T	T	P	D	S	A	W	F	V	I	H	E	G	K	V	Y	D	A	T	A	F	L	D	E	H	P	G	G	G			
UniRef90_C9ZRS4				L	P	Y	L	S	I	S	E	I	R	R	H	N	T	H	D	L	W	I	V	I	G	S	V	Y	D	C	C	T	K	F	Q	H	F	H	P	G	G	G				
UniRef90_J3MTP8					K	Q	F	T	M	S	E	V	R	K	H	A	S	R	D	S	A	W	I	V	V	H	G	H	V	Y	D	C	C	T	A	F	L	K	D	H	P	G	G	G		
UniRef90_S8E882					K	S	F	S	A	A	E	V	E	K	H	N	S	A	D	S	A	W	I	V	I	H	G	R	V	Y	D	C	C	T	R	F	L	R	Q	H	P	G	G	G		
UniRef90_V9KPJ0								E	E	L	A	K	H	N	K	K	D	D	C	W	I	C	I	I	R	G	M	V	Y	N	L	T	P	Y	L	E	Y	H	P	G	G	G				
UniRef90_T1NI79					V	F	T	M	E	E	V	A	Q	H	H	S	N	D	A	C	W	L	I	I	A	G	K	V	Y	D	V	T	K	F	L	E	E	H	P	G	G	G				
UniRef90_K7J3G9					V	T	P	A	E	E	L	A	K	H	N	T	E	N	D	A	W	I	A	I	R	G	I	V	F	N	V	T	S	R	Y	M	S	F	H	P	G	G	G			
UniRef90_S7QIC6					K	V	V	S	L	E	E	L	A	K	H	T	S	K	D	K	L	W	L	V	I	N	G	K	V	Y	D	V	T	K	F	I	R	N	E	H	P	G	G	G		
UniRef90_C1MGX5	S	A		T	R	Y	T	R	D	E	V	A	K	H	N	T	A	E	S	N	W	I	I	I	D	D	K	V	Y	D	V	T	K	F	A	R	F	H	P	G	G	G				
UniRef90_W8B5N9					K	L	V	T	L	E	E	V	K	K	H	N	P	D	L	W	I	A	I	I	E	G	K	V	Y	N	V	T	K	F	F	R	N	E	H	P	G	G	G			
UniRef90_R4WCP3	S	E		K	V	F	R	L	E	E	V	K	K	A	D	G	K	T	L	V	V	I	I	H	N	S	V	Y	D	V	T	E	F	L	N	E	H	P	G	G	G					
UniRef90_J9FF36				L	K	K	Y	T	L	A	E	V	A	A	H	N	D	A	S	S	T	W	L	I	I	D	N	N	V	Y	D	V	T	K	F	L	E	E	H	P	G	G	G			
UniRef90_C5KZS2						Y	T	K	E	E	V	A	K	H	T	T	E	S	D	C	W	V	I	I	N	G	Q	V	L	N	V	T	N	F	L	P	E	H	P	G	G	G				
UniRef90_G0RLF3					V	L	T	G	E	E	V	A	K	H	N	S	E	K	S	C	W	V	I	I	H	G	K	A	Y	D	V	T	E	F	L	P	E	H	P	G	G	G				
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UniRef90_M5BMP8	D E V I M A E G G K D A T E A F E D V G H S S D E A R D I L K G L Y V G D F E			
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UniRef90_W6KPI7	Q K D <span>V</span> <span>V</span>
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UniRef90_F8NX00	E
UniRef90_K3X4E3	
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UniRef90_M1WC74	T <span>V</span> A K
UniRef90_E9CEY8	S A A S <span>I</span>
UniRef90_M2LXW0	D A A
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UniRef90_J3PGQ3	<span>L</span> A E K <span>I</span>
UniRef90_B3SCI3	
UniRef90_X6MJ26	T
UniRef90_V4KN29	T <span>V</span> <span>P</span>
UniRef90_H1VLT1	T <span>P</span>
UniRef90_C5L9K8	
UniRef90_Q9DEX7	E <span>P</span> S Q
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UniRef90_UPI0002B42672	E <span>P</span> S Q
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UniRef90_C5GGN0	T <span>P</span> E <span>V</span> <span>V</span>
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UniRef90_A0CED5	
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UniRef90_W1QCU5	
UniRef90_R9AA60	S <span>L</span> <span>P</span> E <span>I</span>
UniRef90_B3RLV7	E <span>P</span> N Q <span>V</span>
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UniRef90_I2ECA7	E <span>P</span> S Q
UniRef90_A7AWX5	D
UniRef90_Q5KD34	
UniRef90_B3M954	E A A <span>P</span> <span>I</span>
UniRef90_UPI000440EA6D	
UniRef90_B4KW66	A Q <span>P</span> K
UniRef90_G3JPH1	
UniRef90_UPI0004622029	S A S A <span>V</span>
UniRef90_B3WFS6	
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UniRef90_C7ZG04	T <span>V</span> E E
UniRef90_X6M0Y9	
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UniRef90_G1XS05	A A K K <span>L</span>
UniRef90_E9CDH9	E

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UniRef90_C5LIU3			T	W	D	E	V	A	H	H	S	K	H	D	C	W	T	V	I	N	G	V	Y	D	L	T	S	Y	L	D	Y	L	D	Y	H	P	G	G				
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UniRef90_M2YCK5			T	Y	T	M	D	E	V	A	E	H	D	G	A	E	S	C	W	A	A	I	D	D	G	G	V	Y	D	L	T	S	D	W	I	A	Q	H	P	G	G	
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UniRef90_Q8LLD7			R	E	I	T	S	E	E	L	K	K	H	N	K	H	G	D	I	W	I	S	I	Q	G	K	I	Y	D	L	T	S	E	W	I	K	D	H	P	G	G	
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UniRef90_G8JTQ4			R	K	I	S	L	S	E	V	R	R	H	T	S	A	D	D	C	W	F	I	I	H	N	K	V	Y	D	L	T	I	N	S	F	L	S	T	H	P	G	G
UniRef90_W3X5N1			K	T	F	S	R	D	E	V	A	K	H	T	T	E	D	D	V	W	F	I	I	D	S	K	V	Y	D	L	T	S	D	F	L	D	A	H	P	G	G	
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UniRef90_T0M7G1			V	I	T	E	S	E	L	A	K	H	H	E	V	H	N	L	W	V	S	I	I	R	G	K	V	Y	D	L	T	S	S	Y	V	D	D	H	P	G	G	
UniRef90_I1CEB1	I	K	D	Y	S	L	K	E	V	S	T	H	T	T	S	K	S	C	W	V	I	Y	K	K	K	I	Y	D	L	T	E	F	L	Q	D	H	P	G	G			
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UniRef90_S7Q1Z4	L	K	V	F	T	R	E	E	V	E	K	H	N	S	D	G	D	L	W	V	I	I	D	A	K	V	Y	D	L	T	R	F	K	N	L	H	P	G	G			
UniRef90_W2SG51			T	G	E	E	I	A	K	H	N	S	P	A	E	S	C	W	V	V	I	H	G	K	A	Y	D	L	T	E	F	L	P	E	H	P	G	G				
UniRef90_S2KG31			Y	T	L	E	Q	I	R	E	H	R	T	P	E	D	A	W	T	A	I	I	Q	G	K	V	Y	D	L	T	P	Y	L	K	F	H	P	G	G			
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UniRef90_J9YJ1	V	R	N	I	S	K	D	E	V	S	A	H	A	K	D	G	D	C	W	V	I	I	I	E	G	K	V	Y	D	L	T	S	V	Y	M	A	K	H	P	G	G	
UniRef90_F0XFJ6			T	A	A	E	V	G	K	H	T	S	R	E	S	C	W	V	I	V	H	G	R	A	Y	D	V	T	E	F	L	P	E	H	P	G	G					
UniRef90_J4GJP7			R	T	I	S	G	K	E	I	A	E	H	S	S	R	E	S	C	W	I	V	I	H	G	K	V	Y	D	L	T	E	F	L	P	E	H	P	G	G		
UniRef90_M7UB56			R	E	I	S	E	E	L	R	Q	H	D	N	E	K	E	P	W	F	V	L	I	N	G	E	V	Y	D	L	T	G	A	P	F	L	E	G	H	P	G	G
UniRef90_W8KNJ5	A	L	P	V	I	T	Q	E	E	L	A	R	H	D	Q	P	E	D	C	W	K	A	I	H	G	K	V	Y	D	L	T	T	D	Y	L	P	R	H	P	G	P	
UniRef90_M2Y5H8			I	Y	T	I	E	Q	I	A	R	H	T	T	R	K	D	L	W	V	I	V	H	G	K	V	Y	N	L	S	F	L	D	T	H	P	G	G				
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UniRef90_Q292E3			V	T	S	R	S	E	L	A	L	H	N	K	V	T	D	A	W	M	A	I	I	R	G	R	V	F	N	V	T	R	Y	M	D	F	H	P	G	G		
UniRef90_G4N2Z5			Y	I	D	A	A	E	L	S	R	H	N	S	K	S	C	W	I	V	I	H	G	Q	V	Y	D	L	T	E	F	F	L	E	K	H	P	G	G			
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UniRef90_W9Y4A8			T	L	T	R	S	E	V	R	K	H	S	T	K	K	S	C	W	V	I	I	N	N	A	V	Y	D	L	T	E	F	V	D	S	H	P	G	G			
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UniRef90_UPI0004409417			I	T	P	S	M	L	K	E	H	N	K	K	D	D	A	W																								

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UniRef90_W2S6I8					I	S	Y	S	E	V	Q	Q	H	N	S	K	S	D	C	W	V	L	L	Y	G	E	V	Y	D	V	T	E	F	F	L	P	S	H	H	P	G	G		
UniRef90_C1GHC8			L	P	V	F	S	L	A	E	L	K	L	H	T	T	E	K	S	C	Y	V	T	R	G	S	K	V	Y	D	V	S	S	F	L	N	D	H	H	P	G	G		
UniRef90_C1N6E7					Y	T	F	E	D	V	A	R	H	N	D	A	P	D	D	A	W	C	V	V	H	D	V	Y	D	I	T	H	F	W	I	S	K	H	H	P	G	G		
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UniRef90_C5KQC2					I	T	M	E	E	V	A	R	H	N	T	P	D	D	C	W	I	V	V	N	G	E	V	Y	D	V	T	D	Y	F	L	K	E	H	H	P	G	G		
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UniRef90_H9KPL1			L	A	R	Y	S	L	K	E	V	A	T	R	D	G	K	E	R	V	W	I	V	Y	D	M	V	Y	D	V	T	D	Y	K	D	K	H	H	P	G	G			
UniRef90_F7VRK6			T	R	L	V	T	L	E	E	L	R	E	H	E	D	E	K	P	W	F	V	V	N	G	Q	V	Y	D	G	T	P	F	L	E	G	H	H	P	G	G			
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UniRef90_W2SAB8					S	V	E	E	L	S	K	H	D	T	V	D	D	A	W	I	V	I	N	G	T	V	Y	D	V	T	E	F	A	P	R	H	H	P	G	G				
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UniRef90_K6WNV9					F	T	M	A	Q	V	A	E	H	N	T	A	S	C	W	T	A	I	D	E	G	E	V	Y	D	V	T	N	W	I	S	Q	H	H	P	G	G			
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UniRef90_A1CSK1					F	T	P	A	Q	V	S	S	H	N	T	P	D	S	L	Y	I	I	I	D	Q	A	V	Y	D	V	T	K	F	V	E	E	H	H	P	G				

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UniRef90_S2JU43	D D L I L D Y A G Q D V T A V M K D H H Q S D S A Y E I L L E E Y C V G T I V			
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UniRef90_S7RKZ3	A S V F Y P E T V R D A T K V F F G L H H E V L L L R P Q Y S R L Q I G T I L G Q			
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UniRef90_F7VRK6	A A S I N G A A G Q D V T E E F L A I H S E N A K A M M P T Y H I G			
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1 10 20 30 40

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Y T W D E V L K K H N T P D D A W V V Y H N K V Y D V T G W Y D V H P G G  
T V E Q V L A R S H N T A K S C Y V T R G S K V Y D V T S F L V N D H P G G  
L P I F S T A D L R S H S N T D C W V S Y N R K V Y N I T S F L V N D H P G G  
R I F L A E D L H K H S N T D C W V S Y N R K V Y N I T S F L V N D H P G G  
L K V S K E L L K N H K S Q N D C W T V L K G S D V F D L T D F I V K E F H P G G  
P T F T R Q E V L A R H S E S R V W V T Y G S K S D V F D L T D F I V K E F H P G G  
P T L T P A E I S K H N T L N D I W L V I D G N V W D F S D F V I R E H P G G  
I L T R W E V V R R N D S G E V W L V M Q G M V L D I T R W I P E H P G G  
E L T P E I V S Q H N K K D L W V V L N G Q V Y D L T D F I V K E F H P G G  
T Y T W Q Q V G Q N Q K N G W L V I D G V I Y D P T P Y L N E H P G G  
R K I T A E E L K A Q N D K Q K P W F V V N G E V Y D A T E Y L Q D H P G G  
L P T L T S A D V L Q S H N T D K S C Y I T V N G R N Y D V T D F L P N H P G G  
T V E E V S K H S N P S D C W I V I N D K V Y D V S A F G K T H P G G  
L P Y Y T S Q E V A K H S S K E R I V W T F R G R E V F D I T D F L D M H P G G  
P L Y T R E E V G R H S P E R V W V T H G R E V F D I T D F L D M H P G G  
L Y S L A E V A K H N T R V S T L C T Y N G K V Y D L T S F L D D H P G G  
K Q F T R E E I E N H K E D D C W I V I N N K V Y D A T S V L D W H P G G  
M K T F T L E E V G K H S K E G L W V T F G Q G V Y D I T E F V L D K H P G G  
V L T W D Q V R A H S P N D A W I V I H N K V Y D I T N F N A H P G G  
P S E E V A K H N A K S C W L I I H N E V Y D L T K F L P H H P G G  
Y T A E E V A Q H S S G D D C W I I E D K V Y D V T S Y V N E H P G G  
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C Q I K S H P G G  
A E R E I G G A E L A R H A T P D D C W M A I R G G V Y D L A A Y L P D H P S R  
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S A H E V A T H S S P E S C W I V S G Q V Y D V T E F L S E H P G G  
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		50	60	70	80																																				
UniRef90_B9RRR1	V	S	P	L	L	H	L	A	G	Q	D	V	T	D	A	F	V	A	Y	H	P	G	T	A	W	Q	Y	L	D	K	F	F	T	G	Y						
UniRef90_K0R376	G	G	V	I	F	T	H	A	G	D	D	M	T	D	I	F	A	S	A	F	H	A	Q	G	S	Q	A	M	I	K	K	F	Y	L	G	D	L	I	V	E	
UniRef90_B3RVT2	A	E	I	L	L	D	Y	A	G	E	D	D	V	S	E	V	L	A	S	H	H	S	R	A	A	Y	E	L	L	S	D	Y	L	G	T	V	E	G			
UniRef90_C5GME5	G	D	L	I	L	D	Y	A	G	E	D	D	V	S	E	V	L	A	S	H	H	S	R	A	A	Y	E	L	L	S	D	Y	L	G	T	V	E	G	A		
UniRef90_J3QCR7	D	H	L	L	L	Q	Y	A	G	K	D	L	G	D	A	M	E	D	H	S	H	S	K	A	A	Y	E	M	L	D	D	F	Q	I	G	L					
UniRef90_K0KD99	I	E	E	I	M	K	Y	A	G	R	D	G	T	S	L	F	N	K	Y	H	S	W	V	N	F	E	R	M	L	E	N	C	F	V							
UniRef90_H9GA43	K	S	K	I	L	L	A	A	G	G	A	L	E	P	F	W	A	M	H	N	Q	E	H	V	L	E	L	L	Q	G	F	K	V	G	Q	L	S	P	E		
UniRef90_T0JMD1	I	A	V	I	L	Q	Y	A	G	K	D	A	T	E	V	Y	S	E	V	H	G	P	N	L	V	K	S	T	L	P	A	A	H	L	G	V	L	A	P	E	
UniRef90_H3GHQ8	S	E	L	I	A	R	E	A	M	N	D	S	T	V	M	F	E	I	Y	H	A	S	R	Q	S	F	R	Y	L	K	Q	F	Y	L	G	E	L	S	E	F	
UniRef90_P09437	S	K	I	L	I	R	Y	A	G	K	D	A	T	K	I	F	V	P	I	H	P	D	T	L	E	K	I	P	P	E	K	H	L	G	P	L	S	V	G		
UniRef90_A0CG07	P	A	V	L	Q	N	R	F	G	K	D	A	T	R	D	F	N	E	V	G	H	T	S	G	A	R	Q	L	L	E	K	Y	K	I	G	T	V	D	K	N	
UniRef90_K5W184	A	D	S	I	L	L	V	A	G	D	D	A	T	E	D	F	M	A	L	H	S	I	D	A	K	Q	K	L	A	E	Y	H	I	G	T	L	V	I	G	S	
UniRef90_W6QW65	G	D	L	I	L	E	Y	A	G	Q	D	V	T	D	I	L	K	D	H	E	H	S	D	A	A	Y	E	L	L	D	E	C	H	I	G	F	V				
UniRef90_Q696V8	P	V	I	F	T	Q	A	G	R	D	A	T	D	S	F	K	V	F	H	S	A	K	A	W	Q	F	L	Q	D	L	I	Y	I	G	D	L	Y	N	A	E	
UniRef90_A0A023F6G2	E	I	L	L	L	A	A	G	A	D	P	F	W	N	L	Y	A	V	H	K	Q	E	H	I	L	E	L	L	E	G	Y	R	K	I	G	N	L	N	K	E	
UniRef90_UPI0003C28736	R	S	K	I	L	L	A	A	G	G	A	L	E	P	F	W	A	M	H	N	Q	E	H	V	R	D	L	L	R	E	Y	K	V	G	E	L	H	P	E		
UniRef90_Q5K9V0	D	D	I	L	L	S	Y	A	G	Q	D	I	G	K	V	M	E	D	I	H	H	S	R	A	A	Y	E	M	L	E	E	F	E	V	G	E	L	G	G	G	
UniRef90_S8ANP7	K	A	T	I	L	L	A	H	V	H	A	E	T	T	E	A	F	E	S	L	H	T	D	D	Y	A	E	Q	K	L	S	E	C	V	L	G	V	I	T	E	
UniRef90_W4WW37	S	S	K	I	L	M	A	A	G	G	D	P	F	W	M	M	F	A	N	H	T	S	E	L	H	S	L	S	L	S	E	M	R	I	G	N	I	S	E	E	
UniRef90_F0WD55	G	S	V	M	Y	T	H	A	G	A	D	A	T	D	V	F	A	I	F	H	P	A	Q	A	F	Q	L	L	K	Q	F	Y	I	G	E	V	V				
UniRef90_C7ZMT6	R	R	V	I	L	M	A	H	A	G	R	D	A	T	Q	R	F	N	L	V	H	S	K	D	L	L	D	K	W	L	D	P	T	K	L	G	A	I	S	S	
UniRef90_L8HGK9	D	A	I	L	N	N	A	G	G	D	S	T	T	G	F	N	G	D	Q	H	P	I	E	R	V	R	E	M	I	E	E	F	Y	I	G	K	L	Q			
UniRef90_B7G6R1	G	A	V	I	F	T	H	A	G	D	D	M	T	D	I	F	A	A	F	H	A	P	G	S	Q	S	L	M	K	F	Y	L	G	E	L	L	P	E			
UniRef90_I3UKM7	K	K	A	I	M	L	F	A	G	K	D	A	T	E	E	F	D	M	L	H	P	P	N	V	L	K	K	Y	L	S	P										
UniRef90_G2RGS0	S	D	L	V	L	Q	Y	A	G	K	D	V	A	A	L	Q	D	H	A	H	S	E	A	A	Y	E	V	L	D	D	S	L	V	G	F	L	A	S	E		
UniRef90_UPI0003870A26	E	E	V	L	L	E	Q	A	G	R	D	A	T	E	S	F	E	D	V	G	H	S	T	D	A	R	E	M	L	K	Q	Y	Y	I	G	E	I	H	P	H	
UniRef90_F9FJV6	E	T	V	L	L	K	Q	V	A	G	Q	D	A	T	A	F	Y	N	L	H	R	H	E	V	L	T	K	Y	K	D	K	L	A	V	G	T	I	E	G	E	
UniRef90_UPI000395E15E	A	R	L	L	V	S	H	A	G	Q	D	A	T	D	A	F	Y	N	L	H	R	H	E	V	L	T	K	Y	K	D	K	L	A	V	G	T	I	E	G	E	
UniRef90_C5E0M1	A	E	Y	I	L	K	Y	A	G	R	D	I	T	E	V	L	K	D	H	E	H	S	E	S	A	Y	E	L	L	D	D	Y	L	V	G	Y	L	A	T	E	
UniRef90_F9X4R5	G	D	L	I	L	D	F	A	G	R	D	V	K	E	A	M	E	D	H	A	H	S	E	S	A	W	E	L	L	D	D	Y	L	V	G	F	V	A			
UniRef90_UPI0003D0F32C	A	R	V	I	S	H	Y	A	G	Q	D	A	T	P	F	T	A	F	H	L	D	K	A	V	R	K	Y	M	N	S	L	L	I	G	E	L	A	P	D		
UniRef90_C4XXK0	D	D	L	I	L	E	Y	A	G	K	D	I	T	E	I	M	E	T	H	E	H	S	E	S	A	Y	E	M	L	E	D	M	L	V	G	Y	L	A	T	P	
UniRef90_V5FDX1	S	A	I	L	L	K	Y	A	G	R	D	A	T	K	A	Y	S	E	I	H	A	P	S	V	L	K	D	N	L	P	D	K	L	K	G	N	I	D	A	S	E
UniRef90_UPI0003C378CC	D	K	I	M	L	G	A	G	S	A	I	D	P	F	W	A	L	I	H	N	N	K	E	I	L	S	L	L	E	T	Y	R	I								
UniRef90_U5HD35	K	K	I	L	L	N	S	C	G	K	D	S	S	D	S	F	W	K	F	H	S	K	K	I	L	T	K	T	A	A	K	M	L	I	G	S	V	E	G		
UniRef90_L8GW06	K	D	T	I	L	L	N	A	G	R	D	A	T	Q	L	F	E	A	Y	H	P	V	W	V	S	K	T	L	E	R	Y	R	V	G	S	L	I	D	S		
UniRef90_H3EB61	D	K	I	L	M	A	A	G	G	D	P	F	W	A	L	Y	A	Q	H	K	T	I	D	V	M	E	V	L	E	G	L	R	V								
UniRef90_D4A3Q8	E	E	V	L	S	E	H	V	I	G	G	A	T	E	N	S	E	D	L	R	H	S	T	D	A	R	E	L	S	K	T	S	I	G	E	L	H	P	D		
UniRef90_UPI00045449EF	E	E	V	L	R	E	Q	A	G	Q	D	A	T	E	S	F	E	D	V	G	H	S	T	D	A	Q	E	L	S	K	S	F	I	I	G	E	V	H	P	D	
UniRef90_R7V5K6	E	K	L	V	S	N	W	S	G	Q	N	A	S	E	A	W	Y	A	F	H	P	D	K	K	V	S	K	Y	M	K	T	L	V	V	G	R	V	K	V	D	
UniRef90_B3SAQ3	M	E	Q	I	L	F	G	A	G	R	D	C	T	Q	L	F	E	S	Y	H	S	S	T	Y	K	L	L	E	K	F	Y	V	G	D	L	I	S	N	E		
UniRef90_C5BB93	P	S	K	L	M	L	A	A	G	G	E	P	F	W	A	L	Y	A	A	H	N	Q	P	H	V	C	E	L	L	T	K	Y	K	I	G	E	L	N	P	S	E
UniRef90_V9DRQ8	A	G	E	I	L	R	G	A	G	K	D	S	V	K	L	F	M	E	V	H	P	W	V	N	W	D	G	M	L	S	E	C	L	V	G	E	L	V	S	E	
UniRef90_A1D1H7	G	D	L	I	L	E	Y	A	G	K	D	V	K	E	I	L	R	D	H	N	H	S	E	A	A	Y	E	L	L	D	E	L	L	V	G	F	L	D			
UniRef90_UPI0002BCB7F6	D	F	P	L	I	L	N	L	A	G	Q	D	V	T	D	A	F	V	A	F	H	P	A	T	A	W	K	Y	L	D	K	F	F	K	G						
UniRef90_V8N996	F	R	I	L	I	R	H	Y	S	G	Q	D	A	T	D	A	F	T	A	L	H	K	D	K	D	V	K	K	Y	L	N	F	L	L	I	G	E	L	A	P	D
UniRef90_A0A016USR7	D	K	V	L	A	A	G	G	P	I	E	P	Y	W	A	L	Y	A	Q	H	E	T	K	E	V	M	G	I	L	E	E	L	R	I	G	S	L	D	P	S	
UniRef90_UPI0004560671	D	Q	S	I	R	L	V	A	G	D	D	A	T	E	D	F	M	A	L	H	S	I	D	A	K	K	M	M	R	D	F	E	L	G	R	L	E				
UniRef90_S2JIA8	K	K	V	L	L	K	V	A	G	T	D	A	S	K	Q	F	D	A	Y	H	N	A	S	V	L	Q	N	I	A	K	D	F	E	I	G	Q	M	S	D	S	
UniRef90_G9MJK2	P	E	I	I	H	K	F	S	G	M	D	A	T	E	E	Y	S	R	V	H	S	P	S	L	I	R	E	T	L	A	K	G	H	I	G	S	L	D	T	S	
UniRef90_E9DX26	P	E	I	I	H	Q	Y	S	G	R	D	A	S	V	P	Y	S	E	V	H	A	P	S	L	I	K	S	S	L	D	K	H	H	I	G	T	L	D	T	A	
UniRef90_Q9V4N3-2	E	E	V	L	I	E	Q	A	G	K	D	A	T	E	N	F	E	D	V	G	H	S	N	D	A	R	D	M	M	K	Y	K	I	G	E	L	V	E	S		
UniRef90_E6VE80	P	S	I	I	E	P	W	C	G	K	E	A	T	E	A	Y	D	G	R	K	H	S	P	E	A	D	A	L	L	R	K	Y	R	I	G	R					
UniRef90_K7F586	Q	S	K	I	L	L	A	A	G	G	E	L	L	W	A	M	Y	A	V	H	S	Q	E	H	V	L	G	R	G	Y	K	V	G	E	L	S	P	E			
UniRef90_D8TTX2	E	D	S	I	L	A	H	A	G	T	D	C	S	Q	E	F	R	E	I	H	R	P	V	A	W	R	Q	L	Q	A	Y	Y	I	G	D	L	A	P	E		
UniRef90_V4AT49	A	K	I	I	S	H	Y	S	G	Q	D	A	T	D	A	W	V	A	F	H	D	D	K	D	V	Q	K	Y	L	K	P	L	L	I	G	E	V	K			
UniRef90_X8JGE6	S	A	I	L	L	K	H</																																		

UniRef90_B9RRR1	
UniRef90_K0R376	S T K K
UniRef90_B3RVT2	
UniRef90_C5GME5	P A S K M
UniRef90_J3QCR7	
UniRef90_K0KD99	
UniRef90_H9GA43	E P P Q
UniRef90_T0JMD1	
UniRef90_H3GHQ8	D L A A M
UniRef90_P09437	
UniRef90_A0CG07	S P
UniRef90_K5W184	E P A T V
UniRef90_W6QW65	
UniRef90_Q696V8	E P
UniRef90_A0A023F6G2	D S K
UniRef90_UPI0003C28736	E
UniRef90_Q5K9V0	E K
UniRef90_S8ANP7	
UniRef90_W4WW37	D A K
UniRef90_F0WD55	
UniRef90_C7ZMT6	E
UniRef90_L8HGK9	
UniRef90_B7G6R1	T T G K
UniRef90_I3UKM7	
UniRef90_G2RGS0	
UniRef90_UPI0003870A26	D R K K
UniRef90_F9FJV6	K P Q V I
UniRef90_UPI000395E15E	Q P S
UniRef90_C5E0M1	E A T K L
UniRef90_F9X4R5	
UniRef90_UPI0003D0F32C	Q P S
UniRef90_C4XXK0	E E E R
UniRef90_V5FDX1	T
UniRef90_UPI0003C378CC	D
UniRef90_U5HD35	
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UniRef90_UPI00045449EF	D R S K L
UniRef90_R7V5K6	D
UniRef90_B3SAQ3	E
UniRef90_G5BB93	D
UniRef90_V9DRQ8	E Q E
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UniRef90_UPI0002BCB7F6	
UniRef90_V8N996	Q P
UniRef90_A0A016USR7	E V E E V
UniRef90_UPI0004560671	
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UniRef90_G9MJK2	T
UniRef90_E9DX26	T V T E
UniRef90_Q9V4N3-2	E R T S V
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UniRef90_K7F586	E Q S Q
UniRef90_D8TTX2	E E E
UniRef90_V4AT49	
UniRef90_X8JGE6	T
UniRef90_D7MXR5	
UniRef90_S8EAS9	
UniRef90_C7YKX2	T M P Q
UniRef90_UPI0004560606	T
UniRef90_I1G2X2	E
UniRef90_UPI0003F48BF4	E K
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UniRef90_A0A058Z4H5	
UniRef90_W2SF70	
UniRef90_B8N6B7	
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UniRef90_C0NMK6	
UniRef90_K3XA62	D V A V L
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UniRef90_UPI000441772F	
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UniRef90_W2RQD0	
UniRef90_B7PGM8	D
UniRef90_W9WG16	T
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UniRef90_B9ILU4	
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UniRef90_I1FNN5	E
UniRef90_W9JHY3	
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UniRef90_D8TX78	
UniRef90_T0RHA0	T A A
UniRef90_E2LTM7	A A K K L
UniRef90_U5GYB5	
UniRef90_T0LLV8	
UniRef90_M2V3Q8	
UniRef90_G0TT18	E
UniRef90_N4UUA6	

	1	10	20	30	40																																		
UniRef90_W5IC78	K	Q	F	T	M	S	E	V	R	K	H	G	S	K	D	S	A	W	I	V	V	H	G	H	V	Y	D	C	A	F	L	K	D	H	P	G	G		
UniRef90_J4KR08	S	L	P	R	Y	R	L	S	E	V	K	E	H	D	N	S	E	R	P	W	V	I	H	G	D	K	V	Y	D	I	T	E	W	V	S	A	H	P	G
UniRef90_UPI000441ADFC																																							
UniRef90_D3YN48	R	F	I	T	F	E	S	L	K	A	H	N	K	P	G	D	L	W	I	S	I	Q	G	K	V	Y	D	V	S	D	W	A	K	E	H	P	G		
UniRef90_S9W6F3	P	V	I	T	M	E	E	I	A	K	H	A	S	K	D	N	I	L	V	I	M	F	G	R	A	Y	D	V	S	I	G	D	F	A	F	G	H	P	
UniRef90_A4RWB4																																							
UniRef90_A0A023FSE4	G	L	P	V	I	S	A	S	E	V	A	K	H	D	K	E	T	R	I	W	I	S	F	R	C	G	V	Y	D	V	T	D	F	V	D	E	H		
UniRef90_C1GLP3																																							
UniRef90_G8ZKN3	L	E	L	F	S	R	K	Q	V	S	E	H	N	N	A	N	D	C	W	I	A	V	E	N	Q	V	Y	D	V	T	K	F	L	D	E	H			
UniRef90_R7YL75																																							
UniRef90_W2RL98	K	T	L	T	P	S	D	V	A	H	S	S	K	G	M	W	I	V	D	D	S	V	Y	D	V	T	N	F	V	L	D	E	H	P	G	G			
UniRef90_K1Y3A0	L	P	T	F	L	Q	D	E	V	A	V	H	N	T	A	E	S	C	Y	V	T	L	G	S	R	V	F	D	I	T	D	F	L	D	E	H			
UniRef90_E3KWB0	K	I	I	S	V	Q	E	I	E	N	H	K	D	E	K	S	A	W	V	I	V	E	G	K	V	Y	D	V	T	D	F	L	E	E	H				
UniRef90_M2LU99																																							
UniRef90_G9MQA9	L	P	L	M	T	R	D	E	I	E	A	L	I	A	S	G	R	H	I	I	I	Y	G	G	Y	V	L	R	L	D	G	W	L	Q	Y	H			
UniRef90_Q1HQ61	S	V	H	K	Y	T	R	A	E	V	A	R	D	N	K	Q	N	L	I	I	I	D	N	V	Y	D	V	T	A	A	F	L	E	D	H				
UniRef90_QOCLA6																																							
UniRef90_C7ZQG5	S	E	V	L	T	A	T	E	I	A	K	H	D	N	A	S	D	L	W	I	V	V																	

	50	60	70	80
UniRef90_W5IC78	A D S I L T N A G T D	C T E E F D A I	H K N Q Y V Y D I L Q Q Y F L I	G F V H P A
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UniRef90_UPI000441ADFC	D K V L L Q Q A G R D A T	E N F E D V G	H S M D A K E M L K Q Y F L I	G F V H P A
UniRef90_D3YN48	Y L P L L S L A G Q D V T	D A F V A Y	H P N T A W Q Y L D K F F N	G F V H P A
UniRef90_S9W6F3	F T T L W N N R G K E	C G D V F M R I	H G N R A K E M V T K F Y L	G R L S P D
UniRef90_A4RWB4	S T I L L E Q Y A G R D A T	D A F M A Y	H G G E R A L A R L E T F R I	G R L V D E E
UniRef90_A0A023FSE4	D K I L L G A G G D P F	W N I Y A V	H K T P E I L A L L E T F R I	G R L V A A E
UniRef90_C1GLP3	P N I L L K Y A G R D A T	K A Y S E I	H P S E I Q N N L P P E R L	G I L D E A S
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UniRef90\_L2GCK4 R E I K P A Y A G K D I S H W F D H E K N D I K H Y V H P I T G V L V P  
UniRef90\_G9P7E5 A E W I R L T K G T D I T E L F E S H H I T D K A E R L L P K F Y V  
UniRef90\_H9KKC7 A S W I K L T K G T D I T E A F E T H H I T T R A E N L L P K F K V  
UniRef90\_E2A4W5 E T L I K T A V I G K D A T K A F S G Y R H S N A A Q N V L A D M R V A V I K E S  
UniRef90\_B0W194 D M A I F H V V I G R D A T D E I N A Y H S D E A L A T M G A Y Q I G  
UniRef90\_P21147 A A S L H L F S G S D A T E P F H D V A H S A E A L R I M R S F L V  
UniRef90\_Q6C544 K F W I E E T K G T D I T E A F E T H H I T T G K A E K L L P K Y Y V  
UniRef90\_R1ERA1 D L I L L A S G K D A S V L F E T Y H P R G V P T S L I K K L Q I G V M E E E  
UniRef90\_T1GSY6 D K A I L H M V I G R D G T D E I R A L H C P E T L E Y M Q K Y V V G R I E G  
UniRef90\_B8LEI2 P E L I D E Y A G K D A T S E F D E F H S S D A T K M L K K Y L L A K I  
UniRef90\_H6C2H2 K D L I E K Y A G K D A T S E F F N S H P H S Q N A K R I L A Q Y K T G Q V A G D  
UniRef90\_W4WY68 E E W I R L T K G T D I T E I F E S H H L T E R A Y K L L P K F F V  
UniRef90\_Q23PP8 C Q I L N Q Y A G E D A M  
UniRef90\_UPI000258F282 E K Y I L K M G V I G K D M T A A F N G Y D H S N A A R N L L S L M R V A I V E  
UniRef90\_Q9C135 E E V N K L I E M L Q K T E D A G Y Q R T V T A R E L S K T Y V I G E L H R D  
UniRef90\_UPI000328EACF N S I L A Q F A G D D P V V A L E A A L Q F E D T R D S M H A F C V G  
UniRef90\_G3W6N5 S D L I V P Y L G Q S I D E P F E E N H T K S A R N L F K D L K V G V V H G A  
UniRef90\_J9ET17 R Q L I I K Y L G E A T E F Q D W H S P D I L I E Q V A H L R V G R L V I S E  
UniRef90\_W3WPK8 E A A I K S N V I G K D A G E T F E S M H G S R A H E K L E E F L L G P L E  
UniRef90\_Q4DA56 L K P I V E V A G Q D I S H W F D  
UniRef90\_I3LXW1 R W L L N L A I G R D A T A L F E S Y H R P E V A A S M L K R L  
UniRef90\_I2CYZ4 A L P I M E A A G K D A S W F D S K T Q D V R R Y V D P L  
UniRef90\_G3N841 E S V L R Q Y M G K D A G D T F V R I H S L S T K S R M Q R Y C I G S L  
UniRef90\_G0UNH5 A H F V S L F G G R D A T E A F M E Y H R R A W P K A R M S K F F V G S L D A S  
UniRef90\_Q6VPV2 S R T A T S W D I N S G G E T N V S F S R D Q V S R N M M D S Y F V G Y Y C H S  
UniRef90\_H9K4P9 A F W L K W T K G T D I T E A F E S H H I S K K P E Y M L T K F Y V  
UniRef90\_W8BXF4 Q H V I G D A I G T D A T V I W D Q F R H S E E A K E S M Q Q F L V  
UniRef90\_G4YLN8 A K I L E K V I G T D I T E F Y N R H K N L D I V I  
UniRef90\_A0A015KC43 S D W I S I T K G T D I T E A F E V H H L T S L S E E L M K K Y F V  
UniRef90\_V5GUE1 L D T V L D F A G T D A T T F F E D V G H S S V A R K I M R P M K V  
UniRef90\_F0YLN0 R A L I M S A I G K D S T A F N G Y D H S N G A H N L L S T M R V A I V  
UniRef90\_L0PFP0 Q A L I K T S I G K D A T V A F N G Y A H S N A A H N V L A T M R V A V I  
UniRef90\_W6MKP6 S L G L L H F V I G R D A T S E I D A Y H P Q E T L K H V I K Y S I G T I S S D  
UniRef90\_V2XFC4

UniRef90_UPI00037C1A97	
UniRef90_Q6CUE2	
UniRef90_G3B258	
UniRef90_UPI00044147D1	
UniRef90_C5FNM2	E
UniRef90_E9IEE1	
UniRef90_U5H8V6	K P
UniRef90_R9P0X6	
UniRef90_W5PX54	E P S Q
UniRef90_S8B068	
UniRef90_W9Z005	
UniRef90_R1GJP7	
UniRef90_H9BQR5	
UniRef90_A0A034WVV4	
UniRef90_D5G9Y9	
UniRef90_A3LQC4	
UniRef90_B8PJG4	
UniRef90_X6P526	D
UniRef90_Q1ESZ0	
UniRef90_W9YHW2	
UniRef90_A0A058Z867	E R
UniRef90_W2FRZ9	D
UniRef90_W9C2D2	
UniRef90_C4Y430	
UniRef90_D2Y361	
UniRef90_W9WZF4	
UniRef90_UPI000440E7AD	
UniRef90_G4ZYR6	D V E M L
UniRef90_L9KJC6	D R A K I
UniRef90_G2R5E5	
UniRef90_A1CFC2	
UniRef90_L9L4N7	D R L K V
UniRef90_UPI00045DD9BD	
UniRef90_F9XDI5	
UniRef90_B9WDN2	
UniRef90_M2RA66	
UniRef90_G9N4D7	
UniRef90_R7QBG6	E
UniRef90_F6ZRB9	
UniRef90_UPI0004622548	
UniRef90_S8F5P6	
UniRef90_C5DM66	
UniRef90_C4JEY7	
UniRef90_M2R8W0	
UniRef90_A0A010QKL3	
UniRef90_S8EKL5	
UniRef90_U9SQK6	Q K E E
UniRef90_S9UDP9	D
UniRef90_E9EJA5	
UniRef90_V5FPR2	D
UniRef90_D8PNU8	
UniRef90_L2GCK4	
UniRef90_G9P7E5	
UniRef90_H9KKC7	
UniRef90_E2A4W5	
UniRef90_B0W194	
UniRef90_P21147	K N S A I
UniRef90_Q6C544	
UniRef90_R1ERA1	
UniRef90_T1GSY6	
UniRef90_B8LEI2	
UniRef90_H6C2H2	
UniRef90_W4WY68	
UniRef90_Q23PP8	N K E
UniRef90_UPI000258F282	
UniRef90_F6ZNN2	
UniRef90_Q9C135	
UniRef90_UPI000328EACF	D R S K I
UniRef90_G3W6N5	
UniRef90_J9ET17	D
UniRef90_W3WPK8	
UniRef90_Q4DA56	
UniRef90_I3LXW1	
UniRef90_I2CYZ4	
UniRef90_G3N841	
UniRef90_G0UNH5	
UniRef90_Q6VPV2	E K P
UniRef90_H9K4P9	E P E
UniRef90_W8BXF4	
UniRef90_G4YLN8	
UniRef90_A0A015KC43	
UniRef90_V5GUE1	
UniRef90_F0YLN0	
UniRef90_L0PFP0	
UniRef90_W6MKP6	
UniRef90_V2XFC4	N P

The diagram illustrates the process of a 40-bit message being encrypted using a 10-bit key and a 20-bit initialization vector (IV) to produce a 30-bit ciphertext. The diagram shows the key, IV, and message being combined to form the ciphertext.

Key: 10 bits (represented by a purple bar)

IV: 20 bits (represented by a yellow bar)

Message: 40 bits (represented by a purple bar)

Ciphertext: 30 bits (represented by a purple bar)

The diagram shows the key, IV, and message being combined to form the ciphertext. The key and IV are used to initialize the encryption process, and the message is then encrypted using the key and IV to produce the ciphertext.





