

QUERY	1	P	K	A	L	I	V	Y	G	S	T	T	G	N	T	E	Y	T	A	E	T	I	A	R	Q	L	A	N	A	G	Y	E	V	D	S	R	D	A	A	S	40				
UniRef90_UPI000381A159	K	D	V	T	V	L	Y	G	S	Q	T	T	G	N	A	E	T	L	A	E	E	L	A	S	Q	L	A	N	A	G	F	N	V	T	L	S	S	M	D	D	F				
UniRef90_UPI00036A9C6B	K	E	V	T	V	L	F	G	S	Q	T	T	G	N	A	Q	R	V	A	E	S	K	A	Q	L	A	N	A	G	F	D	V	T	L	S	S	M	G	D	Y					
UniRef90_UPI0004722126			L	T	V	L	Y	G	S	Q	T	T	G	N	A	E	G	V	A	T	A	T	C	A	Q	L	A	N	A	G	F	T	T	R	L	S	S	M	D	Y					
UniRef90_UPI0004782774	P	P	V	T	I	L	Y	W	A	S	Q	T	T	G	N	A	E	G	V	A	T	A	T	C	A	Q	L	A	N	A	G	H	E	V	R	L	V	E	M	D	S	Y			
UniRef90_W4PYR2	K	E	V	T	I	L	Y	G	S	Q	T	T	G	N	S	Q	N	L	A	K	E	S	T	E	K	L	K	E	Q	G	F	D	V	K	V	S	S	M	S	D	F				
UniRef90_A0A059NYT3			V	T	I	L	Y	G	S	Q	T	T	G	N	A	E	C	Q	N	L	A	K	E	S	T	E	K	L	K	E	Q	G	F	T	V	K	L	S	S	M	D	D	Y		
UniRef90_UPI0002DAC8F4	K	L	T	I	L	Y	A	S	Q	T	T	G	N	A	K	G	V	A	E	A	L	E	A	S	A	K	A	D	G	V	D	V	A	L	F	S	A	D	D	Y					
UniRef90_M1AYF7	K	K	L	T	I	L	Y	A	S	E	T	T	G	N	A	I	D	A	A	E	R	L	E	A	S	A	K	A	D	G	V	D	V	A	L	F	S	A	D	D	Y				
UniRef90_U5UQ28			L	T	I	L	Y	G	S	E	T	T	G	N	A	E	I	D	A	A	E	R	L	E	A	S	A	K	A	D	G	V	D	V	A	L	F	S	A	D	D	Y			
UniRef90_H8GK75			L	T	I	L	Y	G	S	Q	T	T	G	N	A	E	S	V	A	N	D	A	A	Q	I	A	K	A	H	G	L	K	P	V	V	K	G	M	D	E	V				
UniRef90_H0E6V6			L	T	V	L	F	G	S	D	T	T	G	N	S	K	E	L	A	G	Q	L	A	D	A	V	R	P	H	G	L	E	A	K	V	V	D	M	A	D	Y				
UniRef90_UPI00047C4CAA			A	T	V	L	Y	G	S	Q	T	T	G	N	S	H	K	L	A	T	K	L	S	K	K	L	T	D	Q	G	V	Q	T	T	L	S	S	M	S	D	F				
UniRef90_V9KCB0	K	N	I	V	V	F	Y	G	S	Q	T	T	G	T	A	E	E	F	A	N	R	L	S	K	D	T	Q	R	Y	G	M	D	P	E	E	Y	D	M	S	E	L				
UniRef90_A0A059FIB3	K	L	A	I	L	F	G	S	E	T	T	G	N	A	E	V	A	R	S	L	E	A	K	A	Q	Q	A	Q	A	G	L	V	P	S	V	Q	I	D	M	A	D	Y			
UniRef90_UPI0003702B35			V	T	V	L	F	G	S	Q	T	T	G	N	A	E	C	Q	R	L	A	S	G	L	S	R	K	L	E	E	Q	G	F	Q	V	T	T	M	A	M	S	F			
UniRef90_Q1KUY9	K	L	L	V	L	Y	A	S	Q	T	T	G	N	A	L	D	A	A	E	R	I	G	R	E	A	E	R	R	G	C	A	S	V	V	S	T	D	E	F						
UniRef90_L8J3E2	K	L	T	I	L	Y	A	S	Q	T	T	G	N	A	K	G	V	A	A	E	R	L	A	K	E	A	D	A	G	V	A	V	E	L	F	A	A	G	D	Y					
UniRef90_J3DA01	P	A	V	T	L	L	Y	W	A	S	Q	T	T	G	N	A	E	T	L	A	E	R	L	A	R	L	D	A	G	G	F	A	V	E	L	F	A	A	G	D	Y				
UniRef90_P18086	K	S	L	I	L	V	Y	G	S	T	T	T	G	N	T	E	T	A	A	E	Y	V	A	E	A	F	E	N	K	E	I	D	V	E	L	K	N	V	T	D	V				
UniRef90_UPI00047680D0			V	N	I	L	Y	G	T	E	T	T	G	N	A	E	E	I	A	E	T	F	E	G	K	L	K	E	H	N	F	N	A	H	L	W	D	M	D	D	Y				
UniRef90_UPI0002EACDAA	K	L	T	I	L	Y	A	S	Q	T	T	T	G	N	A	K	G	V	A	E	A	L	K	E	Q	A	E	S	R	G	L	A	V	K	L	V	N	M	A	D	Y				
UniRef90_Z5XM69			L	T	I	L	Y	G	S	Q	T	T	G	N	A	K	R	L	A	Q	R	F	A	A	E	S	A	A	G	L	S	V	Q	L	V	D	V	A	D	Y					
UniRef90_E1VH81	K	K	C	V	I	F	Y	G	S	Q	T	T	G	T	A	E	D	Y	G	T	R	I	A	K	E	I	K	S	R	G	I	S	S	L	V	C	D	P	E	D	Y				
UniRef90_G0SZ04			I	V	I	F	Y	G	S	Q	T	T	G	T	A	E	E	F	A	R	L	L	A	K	E	A	N	R	F	G	L	K	A	M	V	A	D	P	E	E	C				
UniRef90_A0A023FK14	K	N	I	L	V	F	Y	G	S	Q	T	T	G	T	G	E	E	F	A	N	R	L	S	K	D	A	Q	R	Y	G	M	K	G	M	A	A	D	P	E	E	Y				
UniRef90_H2T154			L	T	I	L	Y	G	S	Q	T	T	G	N	A	K	G	V	A	S	A	I	Q	A	Q	A	E	A	R	G	L	P	V	T	L	T	S	M	A	D	Y				
UniRef90_Q5KIY3	K	R	C	V	I	F	Y	G	S	Q	T	T	G	T	A	E	E	Y	A	I	R	L	A	K	E	A	K	S	R	G	L	S	S	L	V	C	D	P	E	E	Y				
UniRef90_Q8EQP1			V	T	I	L	Y	G	S	E	T	T	G	N	G	E	T	I	A	K	D	L	G	E	K	V	E	S	R	D	F	K	V	T	L	S	S	M	D	N	F				
UniRef90_G7GRH3	K	R	L	L	I	V	Y	G	T	Q	T	T	G	N	A	E	Y	I	V	A	E	Q	V	E	T	A	A	A	E	H	G	F	A	E	T	K	D	M	G	D	M				
UniRef90_UPI0004560338	K	R	L	A	I	F	Y	G	S	Q	T	T	G	T	A	E	E	Y	A	T	K	I	A	K	E	A	K	A	R	G	T	S	S	L	V	C	D	P	E	E	Y				
UniRef90_Q1IDH0			V	V	W	A	S	Q	T	T	T	T	G	N	S	E	L	A	E	R	C	A	H	L	R	E	A	G	L	P	V	R	L	S	C	M	D	A	L	Y					
UniRef90_H4EAV1			V	T	V	L	Y	G	S	E	S	T	T	G	N	A	M	R	L	A	E	I	F	S	E	R	L	S	D	I	G	Q	V	V	L	M	S	M	D	E	Y				
UniRef90_M5N8U1	K	L	T	I	L	F	A	S	Q	T	T	T	G	N	A	K	G	V	A	Q	A	L	L	K	E	A	Q	A	E	G	I	N	A	Q	L	F	D	A	S	D	Y				
UniRef90_S9RKQ5	K	P	I	Y	V	L	Y	G	S	E	T	T	G	T	A	E	E	S	E	R	L	Y	R	N	L	T	R	L	G	Y	R	V	V	T	L	P	M	D	E	F					
UniRef90_UPI0002884538			V	V	I	L	W	A	S	Q	T	T	G	N	A	E	E	F	A	V	A	T	A	D	R	L	T	Q	G	G	H	A	A	S	L	V	E	M	D	Q	A				
UniRef90_UPI00021A76AB	R	I	T	I	L	Y	G	S	E	T	T	T	G	T	A	Q	D	V	A	E	Q	I	W	K	T	A	K	R	K	G	L	E	S	S	V	F	A	M	N	D	Y				
UniRef90_R7ZJR9	K	E	V	T	I	L	Y	G	S	Q	T	T	T	G	N	S	Q	E	G	L	A	E	K	Y	A	S	L	D	K	D	V	E	V	I	S	I	A	S	L	A	S	F			
UniRef90_UPI000359C6E1			V	I	V	F	Y	G	S	Q	T	T	T	G	T	A	E	E	F	A	T	R	L	A	K	D	A	S	K	R	Y	G	M	K	G	M	V	A	D	P	E	E	C		
UniRef90_T1LR36	R	L	L	V	L	Y	A	S	Q	T	T	T	G	N	A	I	D	A	A	E	R	V	G	R	E	A	E	H	G	G	C	P	V	D	V	L	P	M	D	S	F				
UniRef90_I1NRG5			R	L	L	V	I	Y	A	S	E	T	T	G	N	A	M	D	A	A	E	R	V	G	R	Q	A	E	R	G	G	C	P	V	D	V	L	P	M	D	S	F			
UniRef90_UPI000347CA9D	P	S	L	T	V	L	Y	G	S	Q	T	T	T	G	N	A	E	G	L	A	E	M	L	G	D	Q	A	N	A	L	G	I	N	A	R	A	V	D	M	A	D	F			
UniRef90_G5JKG4	K	N	M	V	I	L	Y	G	S	Q	T	T	T	G	N	A	E	D	Y	A	S	R	L	A	K	E	G	S	A	R	G	L	K	T	M	V	A	D	L	E	D	Y			
UniRef90_U4L503			I	T	I	L	F	G	S	Q	T	T	T	G	N	A	E	D	Y	A	S	R	L	A	K	E	G	S	A	R	G	L	K	T	M	V	A	D	L	E	D	Y			
UniRef90_I0JLL2			I	T	I	L	F	G	S	E	T	T	T	G	N	A	E	C	Q	A	L	A	D	E	Y	A	G	K	L	E	K	E	Q	D	Y	Q	V	T	V	S	S	M	D	D	F
UniRef90_UPI000262806A			V	T	I	L	F	G	S	E	T	T	T	G	N	A	E	Q	Q	I	L	A	E	D	M	L	Q	K	L	E	A	Q	D	M	S	A	T	I	S	A	L	D	D	F	
UniRef90_V5ASD3	K	E	V	C	V	L	F	G	S	Q	T	T	T	G	T	A	E	M	F	A	K	T	L	V	R	E	G	T	Q	L	G	V	P	I	R	I	C	D	T	E	N	Y			
UniRef90_F2S113	K	N	C	V	I	F	Y	G	S	Q	T	T	T	G	T	A	E	D	Y	A	S	R	L	A	K	E	G	S	Q	R	G	L	K	T	M	V	A	D	L	E	D	Y			
UniRef90_H2N0W1	P	S	L	L	V	L	Y	G	S	Q	T	T	T	G	T	A	Q	D	A	A	Q	R	I	G	R	Q	A	Q	R	R	R	L	P	V	R	V	M	A	L	D	S	Y			
UniRef90_G7EAE6			R	L	T	V	L	Y	G	S	Q	T	T	T	G	N	A	E	D	V	A	N	R	I	A	R	E	A	R	R	H	W	I	A	R	S	L	A	M	D	D	Y			
UniRef90_J0DCY0	K	R	I	V	I	F	Y	G	S	Q	T	T	T	G	T	A	E	E	Y	A	I	R	L	A	K	E	A	K	S	R	G	L	A	S	L	V	C	D	P	E	E	Y			
UniRef90_E8X512			V	A	V	L	Y	A	S	Q	S	T	T	G	E	R	L	A	K	K	V	A	K	E	L	K	A	K	G	H	T	A	K	L	S	S	L	D	V	Y					
UniRef90_F4GV72			L	T	I	L	Y	G	S	Q	T	T	T	G	N	A	K	R	V	A	E	S	L	A	E	R	A	G	G	Q	G	L	N	I	R	L	V	R	A	D	S	Y			
UniRef90_F0FVQ0	P	K	V	V	L	W	A	S	Q	T	T	T	T	G	N	I	E	S	L	T	E	D	Y	A	T	Q	L	M	N	A	G	F	E	I	R</										

QUERY	50	60	70	80
UniRef90_UPI000381A159	K P K N I L K N L D H L F V V V S T H G E G D D S I E L Q D D F I P L F D S L E E T			
UniRef90_UPI00036A9C6B	K P N N L K K V Q N L L V L V S T Q G G E G D P P D D N A L P F Y E F L H S K K R A P			
UniRef90_UPI0004722126	S K K D F K E G P G H Y L I V V S T Q G G E G E P P D D T A E G F Y E F L D G R K K A P			
UniRef90_UPI0004782774	A M G D L P K T R L L L V V A S T F G S G E G E P P D D N G T A F W Q L L Q A S N A P			
UniRef90_W4PYR2	K P N N L K K L H N L L I I V S T H G E G D P P D D N A L S F H E F L V Y S K R A P			
UniRef90_A0A059NYT3	K T K S L K N E E D L I I L T S T H G D G D P P D D N A L T F Y E F L Y S K R A P			
UniRef90_UPI0002DAC8F4	K P R D L A K E T H V I I V A S T N G E G E G E P P D D N A L S L H E F L Q S K K A P			
UniRef90_M1AYF7	D P S S L P D Q E L V I F V V S T T G Q G G D N P D D S I K V F W K F L L Q R N L T			
UniRef90_U5UQ28	K P K D I K K V E D L F I I T S T H G E G D P P D D N A L E L H E Y L H G R K A P			
UniRef90_H8GK75	E A N A L A E M N Y L L V I T S T Y G E G E G M P P D D N A Q M L W D A V K S D A M P			
UniRef90_H0E6V6	K P R A L K D E Q D L V V V T A T H G E G E G P P D D N A I G F F E F L G S G R K A P			
UniRef90_UPI00047C4CAA	K V N G L K K V Q D L F I V V S T H G E G E G P P D D N A I A F Y E F L H S K R A P			
UniRef90_V9KCB0	S R L T E I E N S L A M F C V A T Y G E G D P T D N A Q D F Y D W L Q E T D A			
UniRef90_A0A059FIB3	K V R K I A E E Q D I L I I V S T H G E G E G P P D D P A M N F F E F L E S R K A P			
UniRef90_UPI0003702B35	K P N V L K K T E N L L L V S T H G E G E G P P D D N A R S F H E F L N S K R A P			
UniRef90_Q1KUY9	D P S Y L P H E E A A I F V V S T T G Q G D P P D S F K A F W R F L L Q R N L G			
UniRef90_L8J3E2	K G K N L A K E T H V I I V A S T H G E G E A P D D D A I E L H E F L Q S K K A P			
UniRef90_J3DA01	P A S K L A S T Q N L A L I S S T F G D G D P P D N G E G F W H T L N N D Q T			
UniRef90_P18086	S V A D L G N G Y D I V L F G C S T W G E E E I E L Q D D F I P L Y D S L E N A			
UniRef90_UPI00047680D0	P K E T L T E V I E H L F I I C S T Q G V G E A P I D N A L D L Y D Y L H S D E A P			
UniRef90_UPI0002EACDAA	K A K S L A K E T H V I I V A S T N G E G E A P D D N A I E L H E Y L Q S K K A P			
UniRef90_Z5XM69	K P T A L K K E K F I T V V V S T Y G E G E G P P D E D A E S L H E F L T T K K A P			
UniRef90_E1VH81	A V R K L K S E T H L F V V I S T Q G D G E P P D S A R E F F E F L H G K K A P			
UniRef90_G0SZ04	D F D N L D A V P E D H L V V F C M A T Y G E G E P T D N A V Q L M D F L K E E			
UniRef90_A0A023FK14	E M E D L T K T N S M A I F C M A T Y G E G D P T D N A Q D F Y Q W L Q D G S V			
UniRef90_H2T154	D M A E L I E N S L A I E C M A T Y G E G D P P D N A Q D F Y D W L Q E N D D E			
UniRef90_V9ZUN7	K P K Q L K K E S H L I V V V S T Y G E G E P P E S A V D L F E Q L K K G K I G			
UniRef90_Q5KIY3	D M N M L D Q V P E C V I F V M A T Y G E G E P T D N A N A M M E L L Q E P E P			
UniRef90_Q8EQP1	K A K D L K K V Q D I F I I T A T H G E G E P P D D A I S F H E F L H G R K A P			
UniRef90_G7GRH3	D L D T L A A A K H L V I V C S T Y G E G E M P D D A E D F W Q E V A G P D A P			
UniRef90_UPI0004560338	E F E K L D Q L P S D C V A C F V M A T Y G E G E P T D N A V G L M E F L D G E			
UniRef90_Q1IDH0	G P A Q L Q G A A S V L L I A S T F G D G D A P D D C A T A F W Q A L Q G E E G G			
UniRef90_H4EAV1	D M T N I A Q L E D L F I I T S T H G E G E P P D D N A W D F F E F L E D D N A P			
UniRef90_M5N8U1	K G K D L A K E T H V I F V A S T N G E G E A P D D N A L A L H E F L K S K K A P			
UniRef90_S9RKQ5	D T Q K L I E P L L C V E V C S T T G Q G G E M P D N N M R K F W K F L L K K R L P			
UniRef90_UPI0002884538	D P A M L P S D A D L L L I T S T F G D G D A P D N G A G F W A G L T A P D A G			
UniRef90_UPI00021A76AB	N V Q N L D T E K M I V F V V A T T G Q G D P P D N M R Q F W R L L L R K N L P			
UniRef90_R7ZJR9	K P N N L K K I T N L L V V S T H G E G E P P D Q A M Q F Y D F L H S K R A P			
UniRef90_UPI000359C6E1	D M E D L S K E N S L A I F C M A T Y G E G D P T D N A Q Q E F H E F L N G D A			
UniRef90_T1LR36	N P S C L P D E R F M I F I V S T T G Q G D P P D S M K N F W K Y L L R N H L G			
UniRef90_I1NRG5	D P S C L P S E R F V V F V S T T G Q G E P P D D S M K G F W R Y L L K K N L G			
UniRef90_UPI000347CA9D	K P R Q L K S E S F V A V I T S T H G E G E P P D N A I D L H E F I H G R K A P			
UniRef90_G5JKG4	D T T T V S Q I E N L F I I T S T H G E G D P P D N A W D F Y D F L E S K Q A P			
UniRef90_U4L503	D Y E N L D C F P H D K V A V F V L A T Y G E G E P T D N A V E F Y E F I Y N G			
UniRef90_I0JLL2	K P K A L K K V E D L L V L T S T H G D G D P P D N A L S F Y D F L F S K R A P			
UniRef90_UPI000262806A	K P K N L K K V E D L L I I T A T H G E G D P P D N A L S F Y E T L F S R K A P			
UniRef90_V5ASD3	E G H D L E Y E Q L V I I C S T Y G E G E P T D S M K A F H D W L M D D S R T			
UniRef90_F2S113	D Y A C L D K F P E D K V I A F F V L A T Y G E G E P T D N A V E F F Q F I T G D			
UniRef90_H2N0W1	A V A D L I A E S L V V F V C S T A G Q G E P P D N M K N F W R F L F R K S L P			
UniRef90_G7EAE6	D K S E V L E E Q W L I F V A A T S G Q G E P S N M R S F W Q F L L R S D L P			
UniRef90_J0DCY0	D F D N L D Q I P E D S C A I F V V A T Y G E G E P T D N S V Q L L Q N L S D D			
UniRef90_E8X512	P V H E L A V E E C A V I V A S T Y G E G D P P D G V K G F F D S L C A E G A P			
UniRef90_F4GV72	T T R E L K D E Q L L Y I V M S T Q G D G D P P D D S L S F V E F L D S R R A P			
UniRef90_F0FVQ0	P V A S L A G A Q Y M L M T S T F G D G D P P D D N G R E F S D A L H D A S A A			
UniRef90_G3IXM7	K L P Q L K A E K N L L V I V S T Y G E G E P P D N A R E L V E Y L F S K R A P			
UniRef90_E4T717	K V R D L Q S E K N L L V I V S T H G E G V P P F A A R E L H E F I Y S K R A P			
UniRef90_B1HXC0	K A S N L K K I T N L L L I V S T H G E G D P P D Q A I Q F Y E F L H S K R A P			
UniRef90_I1CQW0	E Q A P L Q T T D L L L V C S N T G D G D A P D N S L K F W K F L R R N K D K			
UniRef90_S8EQ94	D F E K L P E D C Q V F F V V A T Y G E G E P T D N A V T L C Q N L S D D S F E			
UniRef90_H1V6A3	Q L S T L L Q Y T L V V L V I S T T G Q G D M P D N S G T F W R S L L R K K L P			
UniRef90_L5N636	K P K A L K N V E D L L I L T S T H G E G D P P D N A L S F Y E F I H G K R A P			
UniRef90_A0PNS8	A V A D L V S T Q R L L L V T S T T G G E G P P D D N G A A F W R E L C A P T A P			
UniRef90_H9GJF6	S V A S L I H E P L V V F V C A T T G Q G D P P D N M K N F W R F I F R K P P S			
UniRef90_W5TKF6	A A D A L P K Q A D L L V V S T F G D G E A P D N G A A F W D S L N A L P D G			
UniRef90_F4PE90	N K A L L P N E S L V L F V C S V T G Q G E P P D N M K R F W K F L L R K N L P			
UniRef90_H3F6Y6	D I E S L P S E R A V L F V M A T S G Q G E F P T A R A S W R W M L R K S H R			
UniRef90_W7LTU7	D Y N D L S E L S E Q V V L M F V L A T Y G E G E P T D N A Q D F Y T E Q P D V			
UniRef90_F0ESU3	K A K T I A D E K Y L L L V T S T Q G E G P P E E G V V L H K L L N G K K A P			
UniRef90_H2YB52	G K K F D I S Q I T C A V F V C S T T G D G D P P E N A R K F L R T L S R K T L			
UniRef90_P19618	D M S E L S R G N S L A I F C M A T Y G E G D P T D N A Q D F Y D W L Q E T D G			
UniRef90_UPI0003679B5B	R Q P H L K K E Q R V V F V S T H G N G E P P D D D A R T F F Q F I N N E R A P			
UniRef90_UPI000374C94	T T R E L K D E Q R L Y I V I S T Q G D G E P P D D S I G F V E F L G S R R A P			
UniRef90_V5CAF5	K F K Q I A Q E R L L V I V A S T Q G E G D P A E E A V A L H K Y L H S K K A P			
UniRef90_A7ETE7	D F D N L D T L G E D D K V A I F V L A T Y G E G E P T D N A V D F Y E F F M N E			
UniRef90_M0S2F4	E Y E E K M K K E T L A L F F M A T Y G D G E P T D N A A R F F K W F K E R E N			
UniRef90_UPI0003B56D06	K T K N M K K V E N L L V I V S T H G E G D P P D N A I S F H E F L N G R K A P			
UniRef90_I0H271	A A E L L E P G A D L L L V T S T F G D G E A P D D N G A A F W Q S L A G D A P			
UniRef90_W9CIH5	D I R E L S K Y D F V I F T I S T T G Q G D P P K N S R K F W N N L L K K R A P			
UniRef90_M1ZMI3	D V S Q L P M E K V V L F V V S T T G Q G E M P P N M R K T W K L L L R K S L G			
UniRef90_A4CFU2	K P N S L K K E K F L T I V V S T Y G E G E P P E D A E N L H E F L G S K K A P			
UniRef90_UPI00035C9490	T P A R L A G T D L L I V T S T F G D G D A P D N G A D F W Q A L A A P D T G			
UniRef90_E9ED08	N L N E L L Q H Q F V L F V I S T T G Q G D M P H N S L L F W K K L L R K K L P			
UniRef90_UPI000362E0B6	R F T D L P K E E Y F F V V I S T Q G E G P P I L A K K F Y D Y I H E N Q L			
UniRef90_Q4SRM0	N V A N L I S E N L V V F V C S T T G Q G D P P D N M K N F W R F I F K K S L P			
UniRef90_UPI00047EE0F6	P L R D L K S E T L L L V V I S T Q G D G D P P D D S R A F V E H V L G P R A P			
UniRef90_V5HRG0	K A D T L S S Y A T I I A V S T T G Q G D F P A N A R S F W R T L L L K R L P			
UniRef90_K5X0H3	T L E N L V I E D F V F V S T T G S G V E P A R A M T P M W N M L L S A N L P			
UniRef90_I2JTT3	P A K D L L D Y H V L L V I C S T T G Q G E I P R N A R H F W R F L L R K S L P			
UniRef90_M5EBQ5	E M D K L D L V P E D C V V F V M A T Y G E G D P T D N A V N M M E F L L K S P			
UniRef90_Q1JPJ0	P V V N L I N E P L V I F V C A T T G Q G E P D N M K S F W R F I F R R S L P			
UniRef90_F9WC78	R P S D I S G E K C A I I V C A T Y G D G E P T D S M L A F H E W L M D E S R T			

QUERY	G	A	Q	G	R	K	V	A	C	F	G	C	G	D	S	S	Y	E	Y	F	Y	C	Q	T	G	A	V	D	A	E	E	K	L	K	N	L	G	A	E	I	V	Q	
UniRef90_UPI000381A159	K	L	D	G	L	N	Y	S	V	L	A	L	G	D	S	S	Y	E	Y	F	Y	C	Q	T	G	K	D	F	D	K	R	L	E	E	L	G	A	S	R	I	T		
UniRef90_UPI00036A9C6B	Q	L	A	D	A	K	Y	A	V	L	G	L	G	D	S	S	Y	E	F	F	F	C	Q	T	A	K	D	F	D	K	R	L	E	E	L	G	A	E	R	I	V		
UniRef90_UPI0004722126	K	L	D	G	S	H	F	A	V	L	G	L	G	D	S	S	Y	E	F	F	F	C	Q	T	A	K	R	T	D	K	R	L	E	E	L	G	A	E	R	I	H		
UniRef90_UPI0004782774	K	L	T	G	V	R	Y	A	V	L	G	M	G	D	S	S	Y	E	Q	F	F	C	Q	T	G	R	L	L	D	A	K	R	L	T	E	Q	L	G	A	E	R	L	C
UniRef90_W4PYR2	K	L	N	D	L	R	Y	S	V	L	S	L	G	D	S	S	Y	E	F	F	F	C	Q	T	G	K	E	F	D	E	R	L	A	E	E	L	G	A	E	R	I	H	
UniRef90_A0A059NYT3	K	L	D	G	V	R	Y	S	V	L	A	L	G	D	S	S	Y	E	F	F	F	C	Q	T	G	K	E	F	D	E	R	L	A	E	E	L	G	A	E	R	I	H	
UniRef90_UPI0002DAC8F4	K	L	D	K	L	Q	Y	A	V	I	G	L	G	D	S	S	Y	E	F	F	F	C	Q	T	G	K	D	F	D	A	R	L	S	K	Q	G	A	K	A	I	V		
UniRef90_M1AYF7	Q	N	W	R	V	N	Y	A	V	F	G	L	G	D	S	S	G	Y	Q	K	Y	N	F	V	A	K	L	D	K	R	L	S	D	L	G	A	K	A	I	V			
UniRef90_U5UQ28	K	L	E	G	V	R	F	S	V	L	A	L	G	D	S	S	Y	E	Y	F	F	C	Q	T	A	K	D	F	D	E	R	L	A	E	E	L	G	A	E	R	I	V	
UniRef90_H8GK75	R	L	E	K	L	Q	Y	S	V	L	A	L	G	D	T	S	Y	D	L	F	Y	C	Q	A	G	K	D	W	D	E	R	L	A	E	E	L	G	A	K	R	L	Y	
UniRef90_H0E6V6	K	L	P	G	V	R	F	A	V	L	A	L	G	D	T	S	Y	E	H	Y	C	Q	S	A	G	R	Q	V	D	E	R	L	E	E	L	G	A	E	R	L	A	V	
UniRef90_UPI00047C4CAA	Q	L	D	D	L	R	F	S	V	L	A	L	G	D	T	S	Y	E	F	F	F	C	Q	T	G	K	D	F	D	E	R	L	E	E	E	L	G	A	G	K	R	L	V
UniRef90_V9KCB0	D	L	S	G	V	K	Y	T	V	F	G	L	G	N	K	T	Y	E	H	F	N	A	M	G	K	Y	L	D	S	K	R	L	E	E	E	L	G	A	K	E	R	I	F
UniRef90_A0A059FIB3	T	L	G	D	T	R	F	S	V	L	A	L	G	D	T	S	Y	E	F	F	F	C	Q	A	G	K	Q	L	D	S	R	F	A	A	L	E	L	G	A	E	R	I	L
UniRef90_UPI0003702B35	Q	L	G	H	L	R	Y	S	V	L	A	L	G	D	T	S	Y	E	F	F	F	C	Q	T	G	K	D	F	D	S	K	R	L	E	E	L	G	A	E	R	I	L	
UniRef90_Q1KUY9	K	T	W	L	Q	G	V	R	C	F	G	L	G	D	S	S	G	Y	Q	K	Y	N	F	V	A	K	L	D	K	R	L	S	D	L	G	A	T	A	I	T			
UniRef90_L8J3E2	K	L	P	N	L	K	Y	A	V	I	G	L	G	D	S	S	Y	E	F	F	F	C	Q	T	A	K	D	F	D	E	R	L	S	K	L	G	A	E	R	I	M	L	
UniRef90_J3DA01	R	L	E	S	L	R	K	F	A	V	L	A	L	G	D	P	A	Y	D	R	F	C	Q	H	G	K	Q	L	D	F	L	Q	E	L	G	A	E	R	I	L	L		
UniRef90_P18086	D	L	K	G	K	K	V	S	V	F	G	C	G	D	S	D	Y	T	Y	F	C	Q	G	A	V	D	A	L	E	E	K	L	E	K	M	G	A	V	I	G			
UniRef90_UPI00047680D0	Q	L	D	T	V	N	F	A	V	L	A	L	G	D	S	S	D	F	F	D	F	C	Q	A	G	K	D	F	D	A	H	L	D	E	L	G	A	E	R	I	A		
UniRef90_UPI0002EACDAA	K	L	P	N	L	K	Y	G	V	I	G	L	G	D	S	S	Y	E	F	F	F	C	Q	T	G	K	D	F	D	A	F	L	S	K	Q	G	A	E	R	I	P	I	
UniRef90_Z5XM69	K	L	D	G	V	K	V	A	V	I	G	L	G	D	S	S	Y	E	F	F	F	C	Q	T	A	K	D	F	E	E	R	F	N	K	L	G	A	E	T	I	F		
UniRef90_E1VH81	K	L	D	T	L	Q	Y	A	V	L	A	L	G	D	S	S	Y	P	D	F	G	V	G	R	K	L	D	E	R	L	A	A	L	G	A	E	R	I	H				
UniRef90_G0SZ04	P	Q	F	S	N	R	Y	V	I	F	G	L	G	N	S	T	Y	E	H	F	N	A	V	S	R	K	L	D	E	R	L	A	E	L	G	A	H	R	V	G			
UniRef90_A0A023FK14	D	L	P	G	V	N	Y	A	V	F	A	L	G	N	K	T	Y	E	H	F	N	A	M	G	K	Y	V	D	K	R	M	E	E	L	S	A	T	R	V	F			
UniRef90_H2T154	E	L	S	G	L	N	Y	T	V	F	A	L	G	N	K	T	Y	E	H	F	N	A	M	G	K	Y	V	D	K	R	L	E	E	L	S	A	T	R	I	L			
UniRef90_V9ZUN7	K	L	E	G	L	K	F	A	V	L	G	L	G	D	S	S	Y	E	F	F	F	C	Q	T	G	K	D	F	D	D	F	L	S	K	A	G	A	E	R	I	H		
UniRef90_Q5KIY3	E	F	S	Q	G	N	Y	V	I	F	G	L	G	N	R	T	Y	E	F	F	F	N	E	V	A	K	L	D	K	R	L	T	E	L	G	A	K	R	I	G			
UniRef90_Q8EQP1	K	L	K	D	V	R	F	S	V	L	S	L	G	D	S	S	Y	E	F	F	F	C	Q	T	G	K	E	F	D	N	R	L	E	E	L	G	A	E	R	I	L		
UniRef90_G7GRH3	R	L	D	G	A	F	F	G	V	V	A	L	G	D	S	S	Y	D	G	F	C	Q	A	G	K	N	F	D	A	R	L	A	E	L	G	A	E	R	I	L			
UniRef90_UPI0004560338	D	V	Q	F	S	N	Y	V	I	F	G	L	G	N	R	T	Y	E	H	Y	N	A	I	A	R	K	L	D	A	R	L	E	S	L	G	A	K	R	I	G			
UniRef90_Q1IDH0	H	C	A	T	L	P	Y	A	V	L	A	L	G	D	S	S	Y	E	D	Q	F	C	G	F	G	R	K	L	D	Q	R	L	A	E	L	G	A	E	R	I	L		
UniRef90_H4EAV1	N	L	N	H	V	R	Y	S	V	L	A	L	G	D	S	S	Y	E	F	F	F	C	Q	A	G	K	D	V	D	V	L	L	E	N	L	G	A	E	R	I	C		
UniRef90_M5N8U1	K	L	P	N	L	K	Y	G	V	L	G	L	G	D	S	S	Y	E	F	F	F	C	Q	S	G	K	D	F	D	Q	F	L	E	N	L	G	A	Q	R	F	V		
UniRef90_S9RKQ5	M	N	D	D	M	Q	Y	A	V	F	G	C	G	D	T	S	Y	V	D	R	Y	N	W	A	S	K	L	D	S	R	L	R	Q	L	G	A	E	R	I	C			
UniRef90_UPI0002884538	R	L	E	G	R	R	Y	A	V	L	A	F	G	D	S	S	Y	V	D	F	C	G	H	G	R	K	L	D	D	R	M	D	E	L	G	A	V	R	L	L			
UniRef90_UPI00021A76AB	T	T	S	D	V	K	Y	G	I	L	G	L	G	D	S	S	Y	Q	K	F	N	F	A	A	K	K	L	N	R	L	M	Q	L	G	A	E	E	L	L				
UniRef90_R7ZJR9	N	L	E	H	L	H	Y	S	V	L	A	L	G	D	S	S	Y	E	F	F	F	C	K	T	G	Q	D	F	D	E	Q	F	E	K	L	R	A	T	R	I	A		
UniRef90_UPI000359C6E1	D	L	S	G	I	R	Y	S	V	F	G	L	G	N	K	T	Y	E	H	Y	N	S	M	G	K	F	V	D	K	R	L	G	E	L	G	A	E	R	I	V			
UniRef90_T1LR36	A	R	W	L	K	H	Y	A	M	F	G	L	G	D	S	S	Y	R	E	Y	N	F	P	A	I	K	L	D	Q	R	L	F	D	L	G	A	K	R	I	T			
UniRef90_I1NRG5	A	R	W	G	V	R	Y	A	V	F	G	L	G	D	S	S	G	Y	Q	K	Y	N	F	A	A	K	K	L	D	K	R	L	H	L	G	A	E	R	I	L			
UniRef90_UPI000347CA9D	S	L	K	H	L	K	Y	G	V	L	A	L	G	D	T	S	Y	E	H	Y	C	Q	T	G	K	D	F	D	E	A	F	A	R	L	G	A	E	R	I	V			
UniRef90_G5JKG4	R	L	D	H	V	S	F	S	V	L	A	L	G	D	Q	T	Y	E	F	F	C	Q	A	G	K	D	A	D	T	G	L	E	K	R	L	G	A	Q	R	I	L		
UniRef90_U4L503	E	P	N	F	S	K	Y	V	T	F	G	L	G	D	N	T	Y	E	H	Y	N	A	M	V	R	V	D	E	S	L	T	E	K	L	G	A	E	R	I	G			
UniRef90_I0JLL2	K	L	D	G	V	R	F	S	V	L	S	L	G	D	S	S	Y	E	F	F	F	C	Q	T	G	K	D	F	D	K	R	L	E	E	L	G	A	E	R	I	L		
UniRef90_UPI000262806A	K	L	E	D	V	R	F	S	V	L	S	L	G	D	E	S	Y	E	F	F	F	C	Q	T	G	K	D	F	D	K	R	L	E	E	L	G	A	E	R	I	L		
UniRef90_V5ASD3	P	D	R	N	V	K	Y	A	V	F	G	L	G	D	R	Q	Y	R	Y	F	C	E	E	G	I	V	V	D	R	K	R	M	A	E	L	G	A	E	R	I	L		
UniRef90_F2S113	D	A	S	F	M	R	Y	V	A	F	G	L	G	N	N	T	Y	E	H	Y	N	A	M	V	R	L	V	D	K	A	L	T	K	C	G	A	K	R	I	G			
UniRef90_H2N0W1	S	L	S	R	L	D	C	A	V	L	G	L	G	D	S	S	Y	P	K	F	N	F	V	A	K	K	L	H	K	R	L	L	Q	L	G	A	N	M	L	M			
UniRef90_G7EAE6	A	Q	D	Q	L	R	F	T	V	F	G	L	G	D	S	S	Y	S	K	Y	N	W	P	A	R	K	L	W	N	R	L	L	M	L	G	A	E	R	I	H			
UniRef90_J0DCY0	S	F	A	F	S	N	G	D	H	F	G	L	G	N	R	T	Y	E	H	Y	N	A	M	A	R	K	V	D	A	C	L	E	A	A	G	G	K	R	I	G			
UniRef90_E8X512	R	L	E	R	L	E	Y	S	V	L	A	L	G	D	S	S	H	Y	E	H	F	C	K	F	G	V	D	L	D	E	R	L	Q	D	L	G	A	K	R	S	I		
UniRef90_F4GV72	K	L	P	Q	L	K	Y	A	V	L	G	L	G	D	S	S	Y	P	I	F	C	Q	G	I	A	Q	R	I	D	A	R	L	Q	E	L	G	A	E	R	I	H		
UniRef90_F0FVQ0	R	L	D	G	A																																						



QUERY	D	G	L	R	I	D	G	D	130	P	R	A	A	R	D	I	V	G	W	A	H	D	V	R	G	A	I		
UniRef90_UPI000381A159	D	R	V	D	C	D	V	D					F	D	E	D	A	A	K	W	A	N	N	V	L	E	S	L	
UniRef90_UPI00036A9C6B	S	R	A	D	C	D	V	D					F	E	E	Q	A	A	E	W	I	D	Q	V	L	S	A	L	
UniRef90_UPI0004722126	D	R	V	D	A	D	V	D	Y	D	D		T	A	E	Q	F	I	D	T	A	L	N	A	F	D	A	L	
UniRef90_UPI0004782774	E	R	L	D	A	D	S	D					Y	E	D	Q	A	E	S	W	I	S	S	L	E	P	L	L	
UniRef90_W4PYR2	D	R	V	D	C	D	L	D					F	E	E	P	A	A	E	W	V	Q	G	V	L	N	G	L	
UniRef90_A0A059NYT3	P	R	V	D	C	D	L	D					F	E	E	D	A	E	A	W	W	E	A	V	F	N	Q	L	
UniRef90_UPI0002DAC8F4	P	R	L	D	C	D	V	D					Y	D	A	D	A	E	T	W	S	A	D	V	L	S	K	V	
UniRef90_M1AYF7	E	G	L	G	D	D	Q	H	S	S	G		Y	E	E	G	A	L	D	P	W	M	S	T	L	W	K	A	L
UniRef90_U5UQ28	D	R	V	D	C	D	I	D					Y	E	E	D	A	E	K	W	M	A	N	V	I	N	A	I	
UniRef90_H8GK75	D	R	A	D	C	D	V	D					F	E	E	P	A	E	A	W	I	K	A	V	I	P			
UniRef90_H0E6V6	D	R	V	E	C	D	V	D					Y	E	E	D	D	A	A	W	I	A	D	V	A	G	R	L	
UniRef90_UPI00047C4CAA	P	R	I	D	C	D	V	D					F	D	E	A	A	T	E	W	I	A	Q	V	S	G	A	L	
UniRef90_V9KCB0	D	L	G	V	G	D	D	D	G	N			L	E	E	D	F	I	T	W	R	E	Q	F	W	P	A	L	
UniRef90_A0A059FIB3	P	R	V	D	C	D	V	D					F	E	D	D	A	D	N	W	I	K	S	V	L	E	Q	L	
UniRef90_UPI0003702B35	P	R	V	D	C	D	L	D					Y	D	E	Q	V	A	E	W	T	G	Q	V	L	S	A	L	
UniRef90_Q1KUY9	E	G	L	G	D	D	Q	H	P	S	G		Y	E	G	S	L	D	P	W	M	L	S	L	W	S	T	L	
UniRef90_L8J3E2	P	R	F	D	C	D	V	D	Y	D	A	P					A	A	E	W	R	H	Q	A	L	E	K	V	
UniRef90_J3DA01	E	R	V	D	C	D	I	D					T	E	F	E	R	A	D	T	W	L	E	Q	L	Q	K	T	L
UniRef90_P18086	D	S	L	K	I	D	G	D	P				E	R	D	E	I	V	S	W	G	S	G	I	A	D	K	I	
UniRef90_UPI00047680D0	D	R	V	D	C	D	F	D					F	E	E	T	A	E	Q	W	I	S	N	M	L	E	L	L	
UniRef90_UPI0002EACDAA	E	R	I	D	C	D	V	D					Y	E	N	A	A	Q	Q	W	R	K	D	V	K	D	A	L	
UniRef90_Z5XM69	Q	R	A	D	L	D	V	D					Y	D	D	E	A	A	K	W	I	D	G	A	L	D	A		
UniRef90_E1VH81	N	R	G	D	C	D	L	D	I	E	T	V	A	E	P	W						W	V	D	T	L			
UniRef90_G0SZ04	P	R	G	E	G	D	D	D	K	S			M	E	E	D	Y	L	A	W	K	D	E	M	F	D	A	I	
UniRef90_A0A023FK14	E	L	G	L	G	D	D	D	A	N			T	E	E	D	F	V	T	W	K	E	R	F	W	N	A	V	
UniRef90_H2T154	D	L	G	L	G	D	D	D	G	N			L	E	E	D	F	V	S	W	R	E	Q	F	W	P	A	V	
UniRef90_V9ZUN7	E	L	A	S	L	D	V	D					Y	Q	D	A	A	S	A	W	G	E	Q	A	V	N	A	V	
UniRef90_Q5KIY3	E	R	G	E	G	D	D	D	K	S			M	E	E	D	Y	L	A	W	K	D	P	M	W	T	A		
UniRef90_Q8EQP1	P	R	V	D	C	D	V	D					F	D	D	L	A	A	E	W	I	D	G	V	L	H	E	L	
UniRef90_G7GRH3	D	R	V	D	C	D	V	D	Y	Q	G	P				A	D	E	W	I									
UniRef90_UPI0004560338	E	R	G	E	G	D	D	D	K	S			M	E	E	D	Y	L	A	W	K	D	G	M	F	E	A	L	
UniRef90_Q1IDH0	A	R	V	D	C	E	G	D					I	D	E	A	F	S	G	W	L	D	A	L	M	K	Q	L	
UniRef90_H4EAV1	K	R	V	D	C	D	I	D	Y	E	D	A	E						G	W	Q	T	S	L	I				
UniRef90_M5N8U1	E	R	L	D	A	D	V	D					Y	Q	T	S	A	A	E	W	R	A	K	V	L	G	I	L	
UniRef90_S9RKQ5	P	R	G	E	G	D	Q	H	P	Q	G	V	E			G	G	F	A	F	W	C	T	H	L	S	S	A	L
UniRef90_UPI0002884538	P	R		I	D	C	E	P	D				Y	E	T	Q	A	S	E	W	L	D	Q	V	L	G	A	L	
UniRef90_UPI00021A76AB	P	G	L	A	D	D	Q	H	D	L	G	I	D	A	V	V	D	S	W	V	E	E	M	W					
UniRef90_R7ZJR9	P	R	T	D	C	D	L	D					Y	D	E	P	A	A	Q	W	F	A	A	V	Q	Q	E	L	
UniRef90_UPI000359C6E1	E	L	G	L	G	D	D	D	A	N			I	E	E	D	F	V	T	W	K	E	K	F	W	P	A	V	
UniRef90_T1LR36	E	G	L	G	D	D	Q	H	S	L	G		Y	E	G	E	L	D	P	W	L	L	S	L	W	T	S	L	
UniRef90_I1NRG5	Q	G	L	G	D	D	Q	H	P	S	G		Y	E	G	A	L	D	P	W	L	L	S	L	W	E	S	L	
UniRef90_UPI000347CA9D	E	R	A	D	C	D	V	D					Y	D	D	E	A	E	A	W	I	A	N	L	L	E	Q	L	
UniRef90_G5JKG4	P	R	V	D	C	D	I	D					Y	E	E	D	A	E	K	W	M	A	N	V	I	N	T	I	
UniRef90_U4L503	P	A	G	E	G	D	D	G	A	G	T		M	E	E	D	F	I	S	W	K	E	A	M	W	A	E	L	
UniRef90_I0JLL2	P	R	V	D	C	D	L	D					F	E	E	P	A	G	E	W	F	D	G	V	L	A	L	L	
UniRef90_UPI000262806A	P	R	V	D	C	D	V	D					F	D	E	D	A	S	E	W	I	E	G	V	F	G	V	L	
UniRef90_V5ASD3	G	L	G	C	G	N	A	G	E	N			I	E	E	D	F	D	E	W	H	R	D	L	W	P	A	V	
UniRef90_F2S113	D	A	G	E	G	D	D	G	A	G	T	M	E	E	D	Y	L	A	W	K	E	P	M	W	K	A	L		
UniRef90_H2N0W1	P	G	L	G	D	D	Q	H	D	V	G	P		D	A	V	V	D	P	W	L	A	S	F	W	G	S	V	
UniRef90_G7EAE6	E	K	G	E	A	D	Q	H	Y	A	G		I	E	G	T	L	D	P	W	L	E	D	L	W	R	T	L	
UniRef90_J0DCY0	E	R	G	E	G	D	D	D	K	S			M	E	E	D	Y	L	E	W	K	E	G	M	W	K	A		
UniRef90_E8X512	P	I	V	T	A	D	V	D					V	D	E	P	F	E	R	W	K	A	A	L	L	A	S	L	
UniRef90_F4GV72	E	V	G	T	A	D	L	D					I	E	T	V	A	L	P	W	Q	E							
UniRef90_F0FVQ0	A	R	V	D	C	D	V	D					E	F	Q	R	D	A	D	Q	W	L	E	R	V	I	A	R	I
UniRef90_G3IXM7	P	R	V	D	C	D	V	D					Y	E	A	G	A	E	A	W	M	D	A	V	L	N	E	L	
UniRef90_E4T717	P	R	I	A	C	D	V	D					F	E	E	A	A	E	N	W	L	K	A	T	L	P	A		
UniRef90_B1HXC0	P	R	T	D	C	D	V	D					Y	D	D	A	A	A	W										
UniRef90_I1CQW0	E	K	G	L	A	D			D	A	E	G	L	E	E	T	V	D	P	W	I	E	K	L	W	E	V	L	
UniRef90_S8EQ94	E	R	G	E	G	D	D	D	K	S			M	E	E	D	Y	L	E	W	K	D	G	M	W	E	A		
UniRef90_H1V6A3	P	R	G	E	A	D	Q	S	D	G	V	D	E	R	Y	M	P			W	A	A	D	L	R	N	R	L	
UniRef90_L5N636	P	R	V	D	C	D	L	D	Y	E	D	A	E	E	W	W	R	G	V	S	Q	Q	L	G	S	A			
UniRef90_A0PNS8	D	R	V	D	C	E	P	D					Y	E	E	S	A	A	R	W	L	Q	E	V	L	D	G	L	
UniRef90_H9GJF6	P	V	L	G	D	D	R	H	D	L	G	P		D	A	V	I	D	P	W	L	L	D	L	W	G	K	V	
UniRef90_W5TKF6	D	R	V	D	C	E							P	E	F	E	D	T	A	T	A	W	L	E	Q	V	R	A	L
UniRef90_F4PE90	P	R	G	D	D	D	Q	H	D	L	G	L	D	G	A	L	D	P	W	L	D	Q	V	W	S	V	I		
UniRef90_H3F6Y6	Q	L	A	D	D	Q	H	E	S	G	I	D	G	A	L	L	P	W	K	D	Q	L	W	P	R	L			
UniRef90_W7LTU7	G	V	G	E	A	D	D	A	A	G	T	T	E	E	D	F	L	A	W	K	Q	D	M	W	P	K	L		
UniRef90_F0ESU3	K	R	V	D	A	D	L	D	Y	S	A	T	A	E	Q					W	I	R	D	I	V	A			
UniRef90_H2YB52	H	S	G	F	A	D			D	G	T	D	M	E	L	V	V	E	P	W	L	E	E	L	W	P	A	L	
UniRef90_P19618	D	L	G	M	G	D	D	D	G	N			L	E	E	D	F	V	T	W	R	E	Q	F	W	P	A	M	
UniRef90_UPI0003679B5B	A	R	I	D	C	D	V	D	F	A			D	H	A	T	R	W	R	E	Q	I	L	E	K	V			
UniRef90_UPI00037F4C94	E	V	I	G	Q	A	D	L	D	I	E	T	I	A	K	P	W	T	Q	K	A	L	E	Q	A	Q	A	V	
UniRef90_V5CAF5	D	R	I	D	A	D	V	D					Y	Q	Q	A	V	A	W	R	Q	Q	I	V	T	I	L		
UniRef90_A7ETE7	E	A	G	E	G	D	D	G	A	G	T	M	E	E	D	F	L	A	W	K	E	P	M	W	T	A	L		
UniRef90_M0S2F4	P	L	G	L	G	D	D	D	Q	C			I	E	D	D	F	T	A	W	R	E	L	L	W	P	E	L	
UniRef90_UPI0003B56D06	P	R	V					D	C	D	V	D	F	D	D	D	A	E	E	W	I	Q	G	V	L	S	S	L	
UniRef90_I0H271	P	R	V	D	C	E	P	D					F	E	D	T	A	T											

		1		10		20		30		40																																		
UniRef90_G4QJS1	P	T	L	T	L	L	S	A	S	Q	T	G	N	A	R	G	V	A	N	S	Y	K	A	S	A	L	E	Q	G	Y	K	A	N	V	S	M	S	D	Y					
UniRef90_F7XXM5			L	T	L	F	W	G	S	Q	T	G	N	A	R	G	V	A	N	S	Y	K	A	S	A	L	E	Q	G	Y	K	A	N	V	S	M	S	D	Y					
UniRef90_V7YSW8		K	L	L	V	L	F	W	G	S	Q	T	G	N	A	R	G	V	A	N	S	Y	K	A	S	A	L	E	Q	G	Y	K	A	N	V	S	M	S	D	Y				
UniRef90_Q5NRM1			L	T	L	L	S	A	S	Q	T	G	N	A	R	G	V	A	N	S	Y	K	A	S	A	L	E	Q	G	Y	K	A	N	V	S	M	S	D	Y					
UniRef90_P50126	K	N	T	L	L	L	F	W	G	S	Q	T	G	N	A	R	G	V	A	N	S	Y	K	A	S	A	L	E	Q	G	Y	K	A	N	V	S	M	S	D	Y				
UniRef90_I3Y8U5			L	T	L	L	F	W	G	S	Q	T	G	N	A	R	G	V	A	N	S	Y	K	A	S	A	L	E	Q	G	Y	K	A	N	V	S	M	S	D	Y				
UniRef90_V6MNP3	K	K	V	T	L	L	S	G	S	T	M	G	S	A	E	K	V	A	E	H	L	A	E	I	L	S	D	E	G	F	E	T	D	L	H	H	G	P	S	L				
UniRef90_G8TQF5		K	I	T	I	A	Y	G	T	E	T	G	N	S	K	K	E	L	A	D	L	A	A	K	A	K	K	S	G	I	Q	A	K	V	S	L	D	Q	Y					
UniRef90_E0IB58	P	K	V	L	L	L	Y	F	A	S	M	S	G	N	S	E	E	M	A	D	A	I	A	E	G	V	K	L	A	G	V	E	P	L	V	M	N	V	M	D	A			
UniRef90_B6HNU0			V	L	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	G	A	L	T	E	R	L	R	F	A	T	H	V	S	E	L	N	Q	C			
UniRef90_H5F3F7	P	G	I	T	I	L	S	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	L	N	V	K	L	V	N	A	G	D	Y				
UniRef90_UPI0003290C43			R	F	L	L	L	Y	A	T	Q	K	G	Q	A	K	A	I	A	E	E	I	R	E	Q	A	I	R	H	G	F	S	A	E	L	H	C	I	S	E	S			
UniRef90_A4BVP1	P	A	I	T	I	L	F	G	S	E	T	G	N	A	R	E	V	A	E	E	L	G	A	L	T	E	R	L	R	F	A	T	H	V	S	E	L	N	Q	C				
UniRef90_G7XSA7			A	L	V	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	G	A	L	T	E	R	L	R	F	A	T	H	V	S	E	L	N	Q	C		
UniRef90_G1KJY1			R	F	L	L	L	Y	A	T	Q	K	G	Q	A	K	A	I	A	E	E	I	R	E	Q	A	I	R	H	G	F	S	A	E	L	H	C	I	S	E	S			
UniRef90_I3NIN6	K	K	V	T	I	F	G	T	Q	T	G	T	A	E	G	F	A	K	A	L	A	E	E	A	R	T	R	N	T	S	V	K	V	I	D	L	D	D	Y					
UniRef90_J7S8N6	K	N	Y	L	V	L	F	G	S	Q	T	G	T	A	E	D	V	A	E	K	K	F	S	K	E	L	L	N	K	G	L	K	V	I	C	V	D	V	E	N	Y			
UniRef90_B4H635			R	L	L	V	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	G	A	L	T	E	R	L	R	F	A	T	H	V	S	E	L	N	Q	C		
UniRef90_M0QPX0	P	P	V	R	I	L	L	W	A	S	Q	M	G	T	A	E	D	F	A	S	T	V	A	G	R	L	T	E	A	G	H	P	V	S	T	A	S	M	D	E	Q			
UniRef90_Q0AGU2			L	T	I	L	L	S	A	S	E	T	G	N	S	E	L	A	I	R	L	A	A	A	L	A	E	Q	G	L	N	P	T	L	V	D	I	A	D	Y				
UniRef90_UPI000382049D	P	Q	L	R	I	L	L	Y	G	T	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I
UniRef90_Q493N4	K	T	I	T	L	L	S	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_F4H441			L	V	V	L	W	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_D7FGS7			L	V	V	L	W	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_UPI0004409370			V	L	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I
UniRef90_X2H875		K	V	L	L	L	S	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_H6N3D6			I	T	L	L	S	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_V4TBP9	K	V	T	V	F	Y	G	T	Q	T	G	T	A	E	S	F	A	K	A	L	A	E	E	I	K	A	R	K	A	A	V	K	V	V	D	L	D	D	Y					
UniRef90_D8LBE4			I	N	V	Y	F	G	S	Q	T	G	T	A	E	S	F	A	K	A	L	A	E	E	I	K	A	R	K	A	A	V	K	V	V	D	L	D	D	Y				
UniRef90_S4XCH1			L	V	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I
UniRef90_T2M3V1			L	V	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I
UniRef90_L8J5S4			I	T	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I
UniRef90_W4YVF9	K	R	F	L	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I
UniRef90_L8DH19	P	A	V	F	L	L	W	A	S	Q	T	G	T	A	E	E	Y	A	Q	S	C	L	S	H	L	R	G	A	G	L	N	T	A	E	Y	S	M	D	S	F				
UniRef90_D7W2P9	K	K	I	T	L	L	A	Y	G	T	E	T	G	N	S	K	K	L	A	T	A	L	A	T	I	V	K	K	G	L	Q	V	K	L	A	D	L	S	Q	Y				
UniRef90_Q3JB2			A	T	V	L	F	G	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_L7KHC6	P	K	V	E	V	L	W	A	S	Q	T	G	T	V	E	D	Y	A	P	V	V	A	H	S	L	S	S	N	G	I	T	A	V	A	R	T	L	D	D	A				
UniRef90_UPI000468B01D	P	S	I	T	L	L	S	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_R7WHD5			P	E	V	T	V	A	W	A	S	Q	T	G	T	A	E	Q	L	A	A	V	L	T	G	A	G	H	S	A	A	V	D	M	A	E	L							
UniRef90_A0A010RGE5	K	D	V	V	V	F	W	G	S	Q	S	G	T	A	E	G	F	A	N	R	L	A	R	E	L	H	Q	R	H	L	N	T	M	S	A	D	L	S	D	Y				
UniRef90_C6MAV5			L	V	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I
UniRef90_Q2I6J8	K	K	V	S	I	F	Y	G	T	Q	T	G	T	A	E	G	F	A	K	A	L	V	E	E	A	K	V	R	Y	E	K	T	S	F	K	V	I	D	D	E				
UniRef90_G0W7W0	K	N	Y	L	V	L	Y	A	S	Q	T	G	T	A	E	D	Y	A	K	K	F	S	K	E	L	I	S	K	G	L	K	V	M	C	A	D	I	E	S	Y				
UniRef90_X2H843	K	K	V	T	I	L	S	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_K0KUX3	K	Q	Y	L	V	L	Y	F	A	S	Q	T	G	T	E	D	Y	A	N	K	F	A	K	E	L	K	S	K	K	L	N	V	M	V	A	D	I	E	D	Y				
UniRef90_A1S9I5			L	T	V	L	Y	A	S	Q	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_B6HMT8	K	N	I	V	V	F	W	G	S	Q	S	G	T	A	E	G	F	A	N	R	L	A	R	E	I	S	R	W	Q	E	A	M	T	A	D	L	S	D	Y					
UniRef90_H1V672			L	T	V	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I
UniRef90_UPI000472B650	K	I	L	V	V	Y	A	S	L	T	G	N	T	E	E	I	A	E	L	I	A	E	G	I	R	Q	S	G	G	E	A	V	L	K	L	V	T	D	C					
UniRef90_S8DNM2			V	T	I	L	Y	A	T	E	T	G	T	A	Q	E	V	A	D	R	I	A	A	Q	Y	R	R	T	H	V	R	T	R	V	I	N	L	E	A	Y				
UniRef90_J6FAK4	K	Q	L	A	V	F	G	S	Q	T	G	T	A	E	N	E	Y	A	L	R	I	A	K	E	A	K	S	R	G	V	T	S	L	V	C	D	P	E	E	Y				
UniRef90_K5VG95			V	L	L	Y	F	A	S	E	T	G	N	A	R	E	V	A	E	E	L	R	D	D	L	L	A	A	K	S	Q	G	F	D	V	K	V	S	G	L	D	E	I	
UniRef90_S8BA48			I	F	Y	G	S	N	T	G	T	C	E	A	F	A	Q	R	I	A	S	D	A	A	A	H	G	F	R	A	T	I	G	T	L	D	S	A						
UniRef90_W9WCL8	K	P	M	L	I	L	Y	F	A	S	E	T	G	N	S	G	T	C	E	A	F	A	N	R	L	A	S	D	A	S	T	H	G	F	K	A	K	V	D	S	L	D	G	A
UniRef90_R7DZX0																																												

	50	60	70	80																																						
UniRef90_G4QJS1	K	P	R	Q	L	K	N	E	T	H	L	V	V	I	V	S	T	H	G	E	G	D	A	P	D	D	A	V	E	L	Y	E	F	L	A	S	K	K	A	P		
UniRef90_F7XXM5	K	F	K	Q	I	A	Q	E	K	L	L	V	V	I	V	S	T	H	G	E	G	D	D	P	S	D	E	A	V	A	L	Y	K	Y	L	F	S	K	K	A	P	
UniRef90_R7YSW8	D	P	E	T	I	P	Q	E	K	F	A	I	F	I	V	M	S	T	T	F	G	E	G	D	P	S	D	E	A	V	A	L	Y	K	Y	L	F	S	K	K	A	P
UniRef90_V9L9V0	T	L	A	D	L	I	Y	E	K	L	V	M	F	V	I	C	S	T	T	Q	G	E	G	E	S	P	E	D	N	M	K	H	F	W	R	F	F	R	R	N	L	P
UniRef90_Q5NRM1	K	F	K	Q	I	L	D	R	E	K	L	L	M	V	I	S	T	T	Q	G	E	G	E	S	P	E	E	A	V	A	L	Y	K	Y	L	F	S	K	K	A	P	
UniRef90_P50126	D	W	D	N	F	G	D	I	P	N	D	I	L	M	V	I	S	T	T	Y	G	E	G	E	P	T	D	N	A	D	E	F	H	T	W	L	T	D	E	A	P	
UniRef90_I3Y8U5	R	A	R	D	L	E	R	E	G	L	L	I	V	V	I	S	T	T	H	G	E	G	E	P	P	D	A	A	R	E	L	H	G	F	L	F	S	R	R	A	P	
UniRef90_V6MNP3	N	D	L	P	N	E	G	L	I	L	V	V	I	V	S	T	T	H	G	E	G	E	P	P	D	D	N	L	Q	P	F	A	S	E	I	S	A	D	S	V		
UniRef90_G8TQF5	R	L	N	D	L	A	K	E	E	Y	F	F	T	I	L	S	T	T	Q	G	E	G	E	P	P	A	T	A	K	K	F	Y	D	H	I	H	Q	N	G	F		
UniRef90_E0IB58	E	A	S	Q	L	A	D				Y	D	A	I	L	S	T	T	G	A	Y	T	W	G	D	G	E	L	P	D	E	M	L	D	Y	Y	E	A	M	D	G	
UniRef90_B6HNU0	K	P	E	S	L	F	S	Y	T	L	I	F	V	A	S	T	T	Q	G	E	G	E	P	P	D	N	A	R	S	F	W	K	S	L	L	L	K	K	A	P		
UniRef90_H5F3F7	K	F	K	Q	I	A	S	E	K	L	L	I	V	V	I	S	T	T	Q	G	E	G	E	P	P	E	E	A	V	A	L	H	K	E	L	F	S	K	K	A	P	
UniRef90_UPI0003290C43	D	K	Y	S	L	K	E	T	A	P	L	V	I	V	I	S	T	T	G	E	G	E	P	P	D	T	A	R	K	F	V	K	E	L	Q	D	K	T	A	P		
UniRef90_A4BVP1	R	K	S	D	L	K	K	V	D	N	L	M	V	V	I	S	T	T	H	G	E	G	E	P	P	D	P	A	E	E	F	Y	A	L	M	H	G	R	K	A	P	
UniRef90_G7XSA7	R	P	E	V	L	K	S	H	T	L	V	I	F	V	V	A	S	T	T	G	Q	G	D	F	P	A	N	A	E	S	F	W	R	S	L	L	L	K	R	L	P	
UniRef90_G1KJY1	D	K	Y	S	L	N	E	K	D	P	V	V	I	V	I	S	T	T	T	G	T	G	E	P	P	D	T	A	I	K	F	V	K	E	I	N	D	K	T	A	P	
UniRef90_I3NIN6	A	I	D	D	L	S	K	E	T	L	V	F	F	L	I	S	T	T	Y	G	D	G	E	P	T	D	N	A	R	F	Y	K	W	F	E	K	E	N	G	E	E	R
UniRef90_J7S8N6	D	F	N	Q	L	P	E	N	V	M	V	S	V	F	L	S	T	T	Y	G	E	G	E	P	P	D	G	A	L	N	F	E	E	Y								

	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120													
UniRef90_G4QJS1	K	L	P	N	L	K	F	A	V	V	G	L	G	D	T	S	S	Y	E	F	F	C	Q	T	G	K	D	F	E	S	R	L	L	A	L	G	A	T	A	L	V			
UniRef90_F7XXM5	A	L	S	N	D	T	K	F	A	V	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M
UniRef90_R7YSW8	S	L	S	N	D	T	K	F	A	V	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M
UniRef90_V9L9V0	A	N	C	L	V	D	S	F	A	V	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M
UniRef90_Q5NRM1	K	L	T	H	T	A	F	A	V	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_P50126	T	L	T	T	L	R	Y	T	V	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_I3Y8U5	R	L	S	K	V	E	F	A	V	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_V6MNP3	D	L	S	K	V	T	F	G	A	V	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M
UniRef90_G8TQF5	K	L	P	Q	I	K	Y	G	V	L	A	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_E0IB58	D	L	S	G	K	Q	A	A	T	F	G	S	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_B6HNU0	A	T	F	G	I	D	F	T	C	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_H5F3F7	K	L	E	N	T	A	F	A	V	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_UPI0003290C43	A	D	F	G	A	H	L	Q	Y	G	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_A4BVP1	A	L	K	G	K	R	E	T	V	L	A	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_G7XSA7	G	D	F	L	D	G	V	R	F	F	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_G1KJY1	P	Q	D	Y	F	S	H	L	R	Y	G	L	G	D	S	S	N	Y	K	Y	F	N	A	K	V	I	G	D	V	F	A	R	L	E	K	F	L	G	A	Q	R	L	M	
UniRef90_I																																												



UniRef90\_G4QJS1 E R L D C D V D Y E S V V A D W T V S L N A K L  
UniRef90\_F7XXM5 D R V D A D V D Y Q V T E E Q A E A W R T A M V D R L  
UniRef90\_R7YSW8 P V G K A D V D A E G G T E E D F A M A W R D L F A  
UniRef90\_V9L9V0 T G L G D D Q H E L G P D A V I D P W L T E F W A K  
UniRef90\_Q5NRM1 P R V D A D V D Y E E A A A E W R K E V T E L L  
UniRef90\_P50126 D Y G E G D D G T G T L D E D F L T W K D N V F D T L L  
UniRef90\_I3Y8U5 S A H W C D V D F Q P V A E Q W S A Q A L K  
UniRef90\_V6MNP3 D R L E L D Q K Y D I P E D P A E E W M A S W K N L L L  
UniRef90\_G8TQF5 P L I K C D T D Y Q G D A D G W F S Q V L H S L  
UniRef90\_E0IB58 D S M K V E L N P T N E Q E Q Q R A L G R R L A E L V  
UniRef90\_B6HNU0 P T G E A D Q H P E G L E G T L L P W M T D F R K H L  
UniRef90\_H5F3F7 D R V D A D V E Y Q A A A S E W R A R V V D A L L  
UniRef90\_UPI0003290C43 D S G Y A D D C V G L E L V V E P W I D G L W A A L  
UniRef90\_A4BVP1 P C V D C D V D F D D P A S D W I D A V L E  
UniRef90\_G7XSA7 D A G E A D Q H P F E D L E G T F F I P W L T G L R T H L  
UniRef90\_G1KJY1 E M G Q A D D A V I E L V V E P W I A N L W V A L  
UniRef90\_I3NIN6 P L G L G D D D Q S V E D D F A A W R E L V W P E L  
UniRef90\_J7S8N6 P L G E G D D G K G T T D E D F L S W K E T V L N E L  
UniRef90\_B4H635 P G L C D D Q H D Y G H L G V S L T W T R D L W T S L  
UniRef90\_MOQPX0 E R V D C D P E Y E D A A G A W L D R I A D Q L  
UniRef90\_Q0AGU2 P R I D C D V D Y E E L A A A W S S N I L A L L  
UniRef90\_UPI000382049D P R T D C D V D Y E A Q A A D W I Q S A L M A L  
UniRef90\_Q493N4 D R V D V D I D F K E E A N V R K K I V  
UniRef90\_F4H441 E R A D C E P G D D D T A R A W I E S A V A A L  
UniRef90\_D7FGS7 E G L G D D Q S P R G M W G D L D P W L A S L W A G L  
UniRef90\_UPI0004409370 T R G E G D Q H P L G A E G A L D V W M P E V F  
UniRef90\_X2H875 E R T D C D V D Y Q S S A A A W Q D K I I A L I  
UniRef90\_H6N3D6 D R V D C E P D F E E P A G A W L E R V L S R L  
UniRef90\_V4TBP9 P L G L G D D D Q C I L E D D F T A W R E L V W P E L  
UniRef90\_D8LBE4 E Y G E G D D D F N Q L E E D F E A W R E K M W M A L  
UniRef90\_S4XCH1 P R V D C D V D F E D D A A E  
UniRef90\_T2M3V1 P G L A D D Q H K L G L D A V I D P W V K S L L T K I  
UniRef90\_L8J5S4 E R L D I D V S K D P V L P E D A E A W L A E W K N A  
UniRef90\_W4YVF9 P T G Y A D D A T G L E V V V E P W I E G L W K A L  
UniRef90\_L8DH19 D R V D C E P D Y E G E A A T W L D A V V D T L  
UniRef90\_D7W2P9 P L K K C D I D Y E Q E A S H W I E H V F E T V  
UniRef90\_Q3JB2 Q R  
UniRef90\_L7KHC6 E R A D C E P D F E S T A Q G W L D A V A E E L  
UniRef90\_UPI000468B01D A R V D A D V E Y A A F E A E A W R K Q I V I E I L S K A  
UniRef90\_R7WHD5 E R A D C E P D A H E H T A S R W L T D V L S A L  
UniRef90\_A0A010RGE5 P V G R A D D A V I G A T E E D F L S W K D D L Y K  
UniRef90\_C6MAV5 D L G I C D L E F E Q S A A D A W I E A V V P L V  
UniRef90\_Q2I6J8 P V G L G D D D Q C I L E D D F T A W K E L V W P E L  
UniRef90\_G0W7W0 P F G E A D D D G S G T T D E D Y I S W T E S V L E A L  
UniRef90\_X2H843 L R V D A D T D F Q T V S T N W R Q A V I D K L  
UniRef90\_K0KU3X E F G K G D D G A G T L D E D Y L S W K E G V L D V L  
UniRef90\_A1S9I5 E P A L L D V D Y G D G A K N W Q E A A L D V F A P L  
UniRef90\_B6HMT8 P V G K A N D A E G A T E E D F M S W K E D L F  
UniRef90\_H1V672 E G L G D D Q D P D G Y Q T G Y Q E W E P K I W S A L  
UniRef90\_UPI000472B650 A S L K I E Y G P T A V E E E C R K F G Q R F A E A  
UniRef90\_S8DNM2 A R G E D D Q H H L G I L D G A F E P W L R G L T E I L  
UniRef90\_J6FAK4 E R G E A D E I V G T E M G Y L D W K D G M W A L  
UniRef90\_K5VG95 P R G E G D A G S S E L F E A F E K W E A G L W E A L  
UniRef90\_S8BA48 E R G E A D A A A G D M F S D F G N W V D G F W P S L  
UniRef90\_W9WCL8 E R G Q S D V A E G N V F D D F D A W Q E K L W P A L  
UniRef90\_R7DZX0 P V A L S D G D Y D D T F P E W Q E D A L A E K L  
UniRef90\_K8W635 E R I D A D V E Y Q A I A S E W V I E N L T Q I L K A  
UniRef90\_A3WNN4 E R L E I D M M E D P E D K V S K W V T E L I D K L  
UniRef90\_W3XC2K P R G E A D E H E D D G I D G A F L P W L I S R S H L  
UniRef90\_F7NR15 A R A D L D V D Y A A Q A A S W T E T A V Q A  
UniRef90\_N1QH40 C G L G D D Q D P D G Y Q T G Y Q E W E P K I W D A L  
UniRef90\_UPI0004131DBC P L Q K C D L D Y E E L A H S W F S D L L K S  
UniRef90\_A1CS83 E L G L A D V S S M V V Q E T F E T W G N Q L W P A L  
UniRef90\_E9F787 P L H S T D A K D R D M F S D F E A W E D D L W P S I  
UniRef90\_K8ETT1 E S V K I D L A A E E E D Q K L E A F A K E L V S K L  
UniRef90\_K4JMN0 E L G L G D D D A N I E E D D F I T W K D K F W P S V  
UniRef90\_M5P6N1 K L G E G D A N D D F E G S F E A W Q N G I V P N L  
UniRef90\_UPI00035A1119 A T G F A D D G V G L E I V A E P W L E G I Y P A L  
UniRef90\_K5X5C1 T R G E G D A G S S E F F E A F E A W E A K L W E I L  
UniRef90\_F8FCR6 E G L K V E L G S S E D E V C K S L G E T L A R S L  
UniRef90\_D3UY09 D R L E I D Q K Y E I P E D P A E D W V K E W A K L L  
UniRef90\_F2BCP6 P R T D C D L E F Q A E A E A W M A K I V P A V  
UniRef90\_A0A023RRB0 D R L E I D V T Q H E I P E D A E A W I H D W  
UniRef90\_UPI0001850AB9 K S L K I E L S P N E S D E K I E D F V N E A W N H I  
UniRef90\_M4DBF1 E V G L G D D D Q S I E D D F N A W K E S L W P E L  
UniRef90\_B7GI59 D G L K V E L T P T N E E K Q C R L F G R D F V K H L  
UniRef90\_UPI000441709D D G L G D D Q D P D G P E T G Y K V W E P L V W K A L  
UniRef90\_S8CJZ1 P V G L G D D D Q C I L E D D F S A W R E S A W P E L  
UniRef90\_M3VHW0 D R V E C E P D F E E K A G G W L D E V I R T I  
UniRef90\_GORLA6 P L A T T D A A D S D M F S D F E S W E D E L W P A L  
UniRef90\_UPI000203AFD1 E L G L G D D D  
UniRef90\_M3UJP4 A R V S C E P G D D A V A D A W I A A L L P Q L  
UniRef90\_W0Q6K1 D R T D A D L E F Q T T A D S W I E H I T A V L  
UniRef90\_W5IQD1 E H G Q H D A S S G E L P G D A L A W A K G L L G Q L  
UniRef90\_W7YEI1 E L I E L D I D F K E Q L D E V L P A L  
UniRef90\_E5YHM2 D R A D A D V D F K A A A E A W R K Q V V E V L  
UniRef90\_C7ZDG9 E I G L D T D T S D R D P F T D F E T W E D N L W P A L  
UniRef90\_X8AY43 E R V D C E P D Y E Q A A A K W E A D V I E A L  
UniRef90\_D5UEK7 E R L D R E P G D D D A V E R W V A T L L A L  
UniRef90\_J4HUV4 P G L G D D Q D A D G P E T G Y R L W E P Q V W K A L  
UniRef90\_G4MVB5 E A G E G D E H D D S I E T V Y L P W K Q S L R S H L  
UniRef90\_UPI0002A4C64F P A G F A D D G V G L E L V V D P W L E G L W K A V



	1	10	20	30	40																																						
UniRef90_C7YV68	L	V	L	F	G	T	Q	S	G	T	A	Q	T	I	A	E	K	L	A	R	E	A	H	A	R	G	L	E	C	L	A	P	F	D	D	Y							
UniRef90_M5G4P0	L	L	V	L	F	G	T	D	S	G	T	C	E	E	F	A	E	Q	L	A	S	K	M	A	V	I	H	G	F	N	T	P	K	V	G	E	M	D	S	F			
UniRef90_Q7SEJ6	L	L	L	L	F	G	S	T	E	T	G	S	E	E	E	F	A	M	E	A	A	K	D	A	V	E	R	L	H	F	N	T	V	K	I	G	E	A	M	D	S	F	
UniRef90_W8VEK9	V	G	I	F	V	G	T	M	Y	G	N	S	L	L	V	A	E	E	A	E	A	I	L	S	G	L	G	H	F	K	A	T	V	V	Y	E	T	P	Q	V			
UniRef90_UPI0004418009	P	P	V	Y	V	L	Y	G	S	N	G	S	S	E	A	F	A	Q	R	L	A	T	D	A	A	S	H	G	F	R	A	T	E	L	G	T	L	D	S	A			
UniRef90_S0K5G8	P	L	A	K	I	V	Y	A	S	L	T	G	N	T	E	E	I	A	D	I	V	A	T	D	A	E	D	L	D	F	D	V	E	L	G	E	C	N	S	A			
UniRef90_G8Y0Z0	P	L	T	I	L	Y	G	S	E	T	G	N	A	Q	K	D	Y	A	E	L	N	R	R	L	K	Y	G	I	S	S	T	L	T	S	L	N	N	Y					
UniRef90_R7S050	P	L	L	V	L	Y	A	S	D	G	A	A	E	K	D	A	K	R	L	A	E	R	R	A	E	A	G	E	L	R	G	F	S	T	Q	V	A	S	L	I	D	S	T
UniRef90_T1XGG8	P	L	L	V	L	Q	G	S	N	L	G	T	A	E	S	D	V	A	R	Q	L	A	E	A	G	E	L	R	G	F	S	T	Q	V	A	S	L	I	D	S	T		
UniRef90_A9LZ73	P	V	T	V	L	S	A	S	T	G	N	A	K	S	V	A	D	K	A	E	A	D	S	L	E	A	A	G	I	Q	V	S	R	A	E	L	K	D	Y				
UniRef90_X5LJ79	P	I	V	A	Y	A	S	T	D	M	G	N	S	E	D	A	A	M	T	F	A	A	D	S	L	A	D	A	G	I	E	V	E	A	R	E	L	N	Q	V			
UniRef90_UPI0003704A20	K	L	V	M	I	F	A	S	M	S	G	N	T	E	E	M	A	D	H	I	A	G	A	I	L	R	E	A	G	K	E	I	E	V	I	D	I	M	S	S			
UniRef90_QOHGU7	K	V	N	L	V	F	G	T	V	Y	G	S	A	Q	F	T	A	E	T	L	E	K	A	L	T	E	L	G	Y	D	A	K	L	W	Q	M	N	E	I				
UniRef90_B3V6E2	P	L	V	L	S	G	S	Q	S	G	N	S	A	E	I	A	A	K	I	L	E	G	K	L	A	G	N	Y	S	L	E	A	T	V	K	G	M	D	E	Y			
UniRef90_CONPG6	P	L	T	I	L	F	A	S	D	N	G	N	A	E	N	I	A	K	R	L	A	N	R	G	K	A	R	G	L	K	T	M	V	L	A	M	D	E	Y				
UniRef90_UPI00040E5219	K	I	T	V	F	W	A	S	Q	T	G	R	A	E	T	A	T	E	V	A	A	G	L	K	D	A	G	R	R	V	S	I	A	C	L	D	T	Y					
UniRef90_UPI000470E710	K	A	L	I	I	Y	A	S	M	S	G	N	T	E	E	M	A	D	A	I	A	A	G	V	R	E	A	G	E	D	L	T	V	M	E	S	V	T	D	A	Y		
UniRef90_H3SML9	K	I	L	I	Y	A	S	M	S	G	N	T	E	E	M	A	D	A	I	A	A	A	G	V	R	E	A	G	E	D	L	T	V	M	E	S	V	T	D	A	Y		
UniRef90_K8F527	P	L																																									

UniRef90_C7YV68	D	F	N	N	M	C	K	S	A	D	T	L	V	L	V	M	A	S	Y	G	D	G	P	P	P	P	T	D	A	C	Q	W	L	D	E	P	G	N						
UniRef90_M5G4P0	E	D	V	A	N	L	P	R	D	A	P	V	I	L	T	S	S	R	E	G	Q	Q	M	P	P	P	N	T	V	R	F	V	Q	A	L	K	R	T	A	T				
UniRef90_Q7SEJ6	K	L	T	D	L	L	R	Y	S	D	L	A	I	F	V	T	S	T	S	R	Q	Q	D	M	P	P	K	N	T	T	L	W	K	L	R	R	T	K	L	N				
UniRef90_W8VEK9	N	D	W	E	S	Y	T	G	K	Y	V	L	V	V	T	S	T	T	G	Q	Q	G				D	L	P	D	S	I	V	P	L	Y	E	K	I	D	M				
UniRef90_UPI0004418009	T	G	H	V	P	T	D				G	P	V	V	V	I	T	A	S	Y	E	G	E	P	P	P	D	N	A	Q	F	V	S	L	E	S	A	L	K	G	T			
UniRef90_S0K5G8	D	A	Q	D	F	L	D				A	D	L	C	I	V	A	T	Y	T	Y	G	D	G	D	L	P	D	E	I	V	D	W	L	Y	D	S	L	P	E	L			
UniRef90_G8Y0Z0	P	L	E	K	N	L	I	T	K	T	K	Y	L	V	V	T	S	T	T	G	Q	Q	E	L			P	R	N	A	K	K	F	M	R	F	L	K	K	K	L			
UniRef90_R7S050	S	I	E	A	L	A	Q	E	E	H	V	A	F	I	V	T	S	T	A	G	Q	Q	E	P	P	P	P	N	A	R	L	F	F	K	A	I	N	A	K	G	E	K		
UniRef90_T1XGG8	A	E	R			L	P	A	N	G	A	I	A	I	V	C	A	S	Y	N	G	E	V	A	P	P	P	D	N	A	A	E	F	H	R	W	L		D	K	A	D	D	
UniRef90_A9LZ73	K	A	K	N	I	A	G	E	R	L	L	L	V	T	S	T	S	T	Q	F	G	E	G	E	P	P	P	P	E	A	V	V	L	H	K	L	N	G	K	K	A	P		
UniRef90_X5LJ79	E	P	A	E	L			Q	D	A	T	H	F	V	V	T	S	T	Y	T	Y	G	D	G	E	F	P	P	D	T	A	T	L	F	W	E	A	I	S	G	E	T	E	
UniRef90_UPI0003704A20	P	K	A	S	I	L	E	E	Y	D	G	I	V	L	G	A	Y	T	W	G	D				G	D	L	P	D	D	F	L	D	F	Y	D	E	M	D	K	V			
UniRef90_Q0HGU7	S	Q	F	T	P	Q	D	E	L	V	V	V	T	S	T	T	G	Q	Q	G	D	L	P	P	P	P	P	P	D	D	I	Q	P	W	Y	H	L	K	E	T	A	P	Y	
UniRef90_B3V6E2	Q	I	G	D	L	A	G	Y	Q	R	I	L	V	V	T	S	T	W	G	E	G	E	M	P			P	D	N	A	E	D	L	W	N	A	E	N	A	D	G	A	P	
UniRef90_CNONG6	P	I	E	D	L	A	T	E	E	N	V	A	F	I	T	S	T	A	G	Q	Q	E	F	P	P	P	P	P	Q	N	G	R	A	L	W	E	V	I	K	N	S	G	D	L
UniRef90_UPI00040E5219	S	A	D	R	L	P				N	G	P	V	V	F	V	T	S	T	Y	T	Y	G	D	G	P	P	P	D	C	A	I	A	F	W	N	G	L	H	E	A	R	N	E
UniRef90_UPI000470E710	M	G	D	D	F	L	D	Y	D	I	C			I	V	G	T	Y	T	Y	G	T	D	G	D	L	P	P	P	D	E	I	V	D	L	Y	E	D	L	K	E	I	L	
UniRef90_H3SML9	N	A	A	D	L	A	G	Y	D	G	I	L	L				G	A	Y	T	W	G	D	G	E	L	P	P	P	P	P													

[illegible]

UniRef90\_C7YV68  
UniRef90\_M5G4P0  
UniRef90\_Q7SEJ6  
UniRef90\_W8VEK9  
UniRef90\_UPI0004418009  
UniRef90\_S0K5G8  
UniRef90\_G8Y0Z0  
UniRef90\_R7S0S0  
UniRef90\_T1XGG8  
UniRef90\_A9LZ73  
UniRef90\_X5LJ79  
UniRef90\_UPI0003704A20  
UniRef90\_QOHGU7  
UniRef90\_B3V6E2  
UniRef90\_C0NPG6  
UniRef90\_UPI00040E5219  
UniRef90\_UPI000470E710  
UniRef90\_H3SML9  
UniRef90\_K8F527  
UniRef90\_V7ZE92  
UniRef90\_V6Q2I1  
UniRef90\_Y0KFY1  
UniRef90\_M4GF48  
UniRef90\_Q6CRI8  
UniRef90\_B6K6E0  
UniRef90\_J7TR76  
UniRef90\_T0S6G6  
UniRef90\_H6BRR0  
UniRef90\_H0RGM6  
UniRef90\_G0QTT9  
UniRef90\_H3SM19  
UniRef90\_A0A044V583  
UniRef90\_K6XRR3  
UniRef90\_UPI00038ECB8D  
UniRef90\_F1SY14  
UniRef90\_M7P867  
UniRef90\_M3AIK2  
UniRef90\_V5XBQ7  
UniRef90\_A1UI27  
UniRef90\_H2TGW1  
UniRef90\_UPI00039DE7E7  
UniRef90\_F2DP99  
UniRef90\_U1M2E3  
UniRef90\_Q898L5  
UniRef90\_UPI000455D790  
UniRef90\_H3RGX4  
UniRef90\_K8Z9W0  
UniRef90\_T1VL11  
UniRef90\_R8L9Y5  
UniRef90\_UPI000367E646  
UniRef90\_J3P678  
UniRef90\_A0A024TA74  
UniRef90\_UPI00029A5BDC  
UniRef90\_F0B8Y1  
UniRef90\_S6W7N0  
UniRef90\_C6CET7  
UniRef90\_S0K929  
UniRef90\_Q09590  
UniRef90\_UPI0004646090  
UniRef90\_UPI000311E7C4  
UniRef90\_I7LRI5  
UniRef90\_S6E049  
UniRef90\_F5ZHC2  
UniRef90\_UPI000255C01D  
UniRef90\_A0A024PXT4  
UniRef90\_S7P4M8  
UniRef90\_J3HYR9  
UniRef90\_G9MZ17  
UniRef90\_C9Y3H1  
UniRef90\_UPI0003724339  
UniRef90\_M5CAN5  
UniRef90\_UPI0004411252  
UniRef90\_V9KHA8  
UniRef90\_M5E4X4  
UniRef90\_X1WJ14  
UniRef90\_A0A022FSC3  
UniRef90\_S3FWM8  
UniRef90\_G4L587  
UniRef90\_W7R3Y3  
UniRef90\_Q3IK38  
UniRef90\_UPI0004041158E  
UniRef90\_J9HY60  
UniRef90\_LOGR22  
UniRef90\_UPI00035C513E  
UniRef90\_B1LS98  
UniRef90\_Q56GD6  
UniRef90\_UPI00044097A1  
UniRef90\_UPI000287DA39  
UniRef90\_F9X5V5  
UniRef90\_S3BZ97  
UniRef90\_A9IU94  
UniRef90\_D2TKI2



		1		10		20		30		40																															
UniRef90_Q2NQ96		V	T	I	L	S	G	T	S	G	S	A	E	Y	V	A	E	H	V	A	G	L	L	E	Q	Q	G	L	S	T	D	I	L	H	G	A	E	L			
UniRef90_X5LF56		V	T	I	L	F	G	T	E	S	G	N	S	A	E	M	V	A	D	D	I	S	K	S	L	E	D	N	G	I	K	S	N	E	V	F	D	M	E	G	Y
UniRef90_V4Q9Q4		L	L	I	A	F	A	S	Q	Q	G	S	A	E	R	L	A	E	R	T	A	A	T	L	T	L	A	D	A	G	V	D	A	R	A	C	I	S	N	E	L
UniRef90_UPI0003694376		L	L	V	V	I	A	S	Q	Q	G	S	A	E	R	L	A	E	R	T	A	A	T	L	T	L	A	D	A	G	V	D	A	R	A	C	I	S	N	E	L
UniRef90_UPI000395A2AE		V	K	I	F	Y	G	S	Q	T	G	T	A	K	R	F	A	K	A	L	A	E	A	V	S	S	L	N	L	P	V	E	I	I	N	M	E	D	Y		
UniRef90_Q39NW6		L	L	V	L	F	G	G	N	T	G	S	A	E	D	I	A	N	L	I	A	G	D	A	S	R	H	G	F	H	A	T	C	A	P	L	D	D	F		
UniRef90_C4L110		K	L	L	I	G	V	S	M	S	G	N	T	E	D	I	A	N	L	I	A	R	H	T	W	Q	D	A	G	H	D	V	S	I	S	L	D	D	L		
UniRef90_Q12181		K	K	I	V	I	L	Y	G	S	E	T	G	N	A	H	D	F	A	T	L	S	H	R	L	H	R	W	H	F	S	H	T	F	C	S	I	G	D	Y	
UniRef90_UPI000265554A		K	R	V	T	I	L	F	A	T	E	T	G	K	S	E	A	L	A	W	D	L	G	A	L	F	S	C	A	F	N	P	K	V	L	C	M	D	K	Y	
UniRef90_UPI00045D5368		K	V	T	I	L	F	A	T	E	T	G	K	S	E	T	L	A	R	D	L	G	S	L	F	S	C	A	F	N	P	K	V	L	C	M	D	E	Y		
UniRef90_E3DZD0		L	L	V	L	Y	G	S	N	L	G	T	A	E	E	G	L	A	E	E	L	A	D	I	G	R	Y	Q	G	F	Q	T	E	T	A	P	L	D	D	Y	
UniRef90_W9AC47		I	T	L	I	T	G	S	T	L	G	G	A	E	Y	V	A	D	H	L	A	E	L	L	T	A	Q	G	H	Q	A	D	I	V	N	Q	P	A	L		
UniRef90_I3I9B4		K	I	Q	I	F	I	G	S	V	Y	G	A	E	E	V	A	E	L	V	G	E	E	L	R	S	L	G	H	E	V	T					L	N	T	Y	
UniRef90_D2V/NQ7		L	L	V	L	Y	G	S	N	S	G	T	C	E	S	F	A	S	M	L	H	Q	D	A	K	S	K	G	F	D	C	K	V	G	R	L	N	T	F		
UniRef90_R7WII3		V	V	I	L	Y	G	S	E	A	G	T	A	E	Q	V	A	E	H	L	V	D	V	L	S	E	F	G	G	D	V	A	L	Y	D	M	T	D	Y		
UniRef90_UPI000255CC94		L	T	I	L	Y	G	T	E	H	T	G	R	S	A	A	I	A	Q	S	L	H	E	K	A	L	K	L	N	I	K	S	V	Y	P	M	D	E	Y		
UniRef90_Q04GK6		K	V	D	I	I	Y	A	T	I	T	G	N	N	E	L	L	A	N	A	V	A	N	E	F	K	K	R	G	Q	T	P	E	I	H	E	F	D	D	T	
UniRef90_H3NI48		A	L	I	I	F	A	S	L	T	G	N	T	E	E	M	A	D	I	V	A	N	R	L	E	E	K	Q	T	T	D	V	L	E	N	S	Q	A			
UniRef90_A0C5T1		I	N	V	Y	Y	G	T	T	S	G	N	S	R	L	A	F	Q	F	A	D	E	A	T	Q	K	K	F	I	P	K	V	F	N	L	M	E	T	Y		
UniRef90_A6XKZ4		R	V	C	V	L	Y	A	T	E	T	G	N	S	E	R	Y	A	Q	R	L	G	K	F	L	S	A	F	A	A	V	T	V	S	N	M	E	T	Y		
UniRef90_C5DUC5		K	K	I	A	I	L	Y	G	S	E	T	G	N	S	H	D	F	A	Q	L	L	S	F	K	L	H	R	L	H	F	T	H	T	L	S	S	L	A	D	Y
UniRef90_UPI0002E5959E		K	K	I	I	V	Y	T	S	M	T	G	T	T	E	L	M	A	T	T	I	A	K	L	E	L	R	S	L	G	E	T	V	D	Q	K	D	M	E	I	
UniRef90_UPI000464D5EE		K	E	V	T	V	L	Y	G	S	Q	T	G	N	A	Q	G	L	A	E	N	A	G	K	Q	L	E	Q	S	G	F	Q	V	T	V	S	S	M	S	D	F
UniRef90_A0A031GGE7		L	L	V	A	Y	A	S	Q	S	Q	G	A	E	R	L	A	L	E	S	A	R	A	L	Q	Q	A	G	V	A	V	L	D	V	Q	S	L	M	D	R	F
UniRef90_C1FEE9		R	V	A	V	Y	Y	G	T	G	T	S	A	R	L	A	R	E	L	E	A	H	R	Y	G	K	Q	V	H	V	R	L	M	D	R	A					
UniRef90_D5E795		K	V	L	V	I	Y	D	S	M	W	G	S	T	E	M	M	A	K	A	I	A	E	G	V	R	A	S	G	T	D	V	G	L	F	H	L	R	K	N	
UniRef90_UPI000464E7E5		P	K	V	T	L	L	W	A	S	Q	T	G	T	V	E	G	L	V	E	P	F	A	M	R	L	M	G	A	G	C	E	I	R	T	A	C	M	S	D	V
UniRef90_UPI0004699CE2		V	K	I	I	F	A	T	I	T	G	N	N	E	I	A	D	V	I	S	E	S	L	E	N	K	N	L	T	V	D	V	E	E	I	S	O	A			
UniRef90_U6BDQ6		L	A	I	G	F	V	S	M	S	G	N	T	E	D	I	V	S	I	Q	H	E	L	E	Q	H	G	V	N	V	T	I	T	E	L	D	Q	F			
UniRef90_U5H6A1		V	V	I	H	A	T	V	T	G	T	A	S	D	V	A	E	R	L	A	R	G	V	R	A	G	H	T	S	V	K	H	V	S	Q	F					
UniRef90_M2A851		L	L	V	V	Y	A	S	E	T	G	F	A	S	D	V	A	E	R	L	A	R	G	V	R	A	G	H	T	S	V	K	H	V	S	Q	F				
UniRef90_M2SZY8		K	S	V	S	I	F	Y	G	S	N	S	G	T	C	E	A	L	S	N	M	F	A	N	D	C	A	K	A	G	F	I	V	Q	P	I	R	A	L	N	
UniRef90_D1YYG4		P	K	L	V	V	Y	L	S	T	Q	G	N	T	K	K	M	A	D	A	I	A	E	G	A	E	D	R	G	I	D	T	H	S	V	S	F	Y	E	A	
UniRef90_F4H9S5		K	K	I	T	I	Y	S	G	S	T	L	G	G	A	E	Y	V	A	E	H	L	E	D	C	L	Q	Q	G	F	K	T	N	L	F	H	G	P	D		
UniRef90_UPI00035DA91C		L	L	V	L	W	A	S	Q	T	G	T	A	E	E	F	A	A	G	A	A	H	L	G	R	T	G	R	T	P	E	V	L	S	M	A	D	A			
UniRef90_E6RN63		I	S	I	F	V	G	S	V	Y	G	G	A	E	R	L	S	E	Q	V	S	D	T	L	E	Q	A	G	H	Q	V	S	V	F	E	Q	P	T	L		
UniRef90_UPI00036A78FD		L	T	L	I	S	G	S	T	L	G	S	A	E	Y	V	A	E	H	L	A	Q	K	L	E	E	A	G	F	S	T	Q	T	L	H	G	P	T	L		
UniRef90_P36587		A	A	V	F	F	G	S	Q	T	G	T	A	E	D	F	A	Y	R	F	S	T	E	A	K	A	N	N	L	T	N	M	V	F	D	L	E	N	Y		
UniRef90_C6CQW2		I	T	L	I	S	G	S	T	L	G	S	A	E	Y	V	A	E	H	L	E	S	S	Q	D	D	F	T	T	R	L	L	H	G	P	E	L				
UniRef90_W7STI8		K	E	I	S	V	L	W	A	S	Q	T	G	N	A	E	Q	F	A	A	E	A	R	R	L	A	E	S	G	W	R	P	V	V	S	M	A	E	A		
UniRef90_M7BYX4		V	K	V	F	Y	G	S	Q	T	G	T	A	K	G	F	A	T	I	L	A	E	A	I	L	S	L	N	L	P	A	E	I	I	N	M	R	N	Y		
UniRef90_W4S325		L	I	G	F	A	S	Q	S	G	F	A	E	R	L	A	W	Q	A	A	G	H	L	Q	A	A	G	L	P	V	Q	V	R	S	L	A	Q	L			
UniRef90_W6KEQ2		L	L	V	L	Y	G	T	G	T	A	E	Q	V	A	E	R	V	A	R	L	A	L	K	R	G	I	P	V	R	C	L	P	A	D	E	V				
UniRef90_H0WT42		P	Q	L	L	V	L	Y	G	S	Q	T	G	T	A	Q	D	V	S	E	R	L	G	R	E	A	R	R	R	L	T	C	R	V	Q	A	L	D	S	Y	
UniRef90_Q0CXM9		K	P	M	R	I	F	F	G	S	N	M	G	T	C	E	A	F	A	W	R	L	A	H	D	A	L	Q	Y	G	F	R	A	E	V	K	A	L	D	A	
UniRef90_UPI0003687A0C		K	I	A	I	V	G	S	V	Y	G	A	E	E	L	A	E	T	T	L	T	R	L	D	A	G	F	E	A	E	I	F	V	D	T	S	L				
UniRef90_W9ASR0		L	A	V	L	H	G	S	N	L	G	T	C	R	A	L	A	K	Q	L	A	E	E	A	G	D	I	G	C	A	A	T	V	G	P	L	D	D	A		
UniRef90_UPI00047D0970		K	I	V	I	A	Y	A	S	M	S	G	N	T	E	E	I	A	E	L	K	V	S	I	E	P	F	G	H	E	T	E	M	M	E	M	E	H	M		
UniRef90_S9X3G1		K	V	L	F	G	S	Q	T	G	T	A	E	D	F	A	Y	R	F	S	T	E	A	K	S	K	F	A	N	S	T	E	D	L	D	D	F				
UniRef90_R7CLL3		K	V	A	V	Y	W	S	T	G	N	T	E	A	M	A	N	A	V	A	D	G	I	R	E	K	G	G	E	A	V	L	H	T	C	E	D	F			
UniRef90_Z9JMN5		V	L	E	A	W	A	S	Q	T	G	F	A	K	T	L	A	E	R	S	A	A	A	L	Q	Q	A	G	C	N	V	Q	T	L	P	L	E	W	L		
UniRef90_B4W8T9		V	L	V	A	F	A	S	Q	T	G	F	A	E	Q	L	A	W	M	T	A	K	A	L	Q	D	G	G	V	G	A	R	V	L	S	F	A	D	L		
UniRef90_A0A024HNM2		L	I	G	Y	A	S	Q	S	G	F	A	E	Q	L	A	W	K	S	A	G	Q	L	Q	A	A	G	L	P	V	R	V	E	P	L	A	R	L			
UniRef90_E3PV83		K	K	I	K	V	I	Y	W	S	G	T	G	N	T	E	M	M	A	K	A	V	A	D	G	A	S	S	G	S	V	V	E	L	I	D	V	S	K	A	
UniRef90_UPI0002C2FA3B		K	A	T	I	L	Y	A	S	E	T	G	R	A	Q	S	Y	A	Q	L	G	R	L	F	R	K	A	F	D	P	R	V	L	C	M	D	E	Y			
UniRef90_S6ARR4		K	K	I	G	I	Y	F	A	S	T	G	S	T	Q	G	V	A	E	K	I	G	E	K	L	E	E	K	G	V	T	V	D					I	K	E	I
UniRef90_F3ZPU1		K	A	K	V	V	F	A	S	I	T	G	N	N	E	I	A	D																							

		50	60	70	80
UniRef90_Q2NQ96	A E	L S T E	G M W L L V T S T	H G A G E L P E N L Q P L L E E L K A Q T	P
UniRef90_X5LF56	D V G D L	G T Q S M V I L V S S T	Y G E G D L P Q T A L P F F N A L N D V K	P	
UniRef90_V4Q9Q4	D P A T L	T D A R R L L F V S S T	Y G E G E A P D N A A R F E R R L L A S R A		
UniRef90_UPI0003694376	D P G L L	G A A G R I L F I C S T	Y G E G D A P D T A A R F A G K I M G E S	H	
UniRef90_UPI000395A2AE	D P E D G L	S S R N I C V F L V A T	Y T E G Q P P E S A V W F C K W L E E A A N		
UniRef90_Q39NW6	A G K	L G G Y P A L V I V T A S	Y E G Q P P D N A K S F V P Y V E A L D E E S		
UniRef90_C4L110	E S L R I E	Q F A E Y D G V I L G T	Y T W G D G D V P Y E A E D F V D D L E E S		
UniRef90_Q12181	D P Q D I L	K C R Y L F I I C S T	T G Q G E K G E R P V I T F W S F L K R K N L P		
UniRef90_UPI00026554A	R L S C L	E E E R L L L V V T S T	F G N G D C P S N G E K L K K S L F T L K E L		
UniRef90_UPI00045D5368	R L S D L	E E E Q L L L V V T S T	F G N G D S P G N G E K L K K S L F L L K E		
UniRef90_E3DZD0	I G N L P	A K G A V V I V T A S	Y N G A P P D N A A G F V K W I E T L E A G		
UniRef90_W9AC47	S Q	L N Q D T L W L I I C S T	H G A G D Y P D N F I A F A N A L K Q Q Q P		
UniRef90_I3I9B4	A R A E D L	A R D A N E I I L C H S N	T G S G E L P D N I Q P L Y L H R D Y P		
UniRef90_D2V/NQ7	T G N I P	L D T P L I V T A S	Y E G Q P T E D A K Q F V G W L E H V P E N		
UniRef90_R7WII3	D P G D L	D P E D F H V V V C S T	Y G D G E L P T G A E P F H E A L E D D D E P		
UniRef90_UPI000255CC94	N V R Q L	K N E K N I L V I V T S T	H G E G D P P L M A E D F Y Q Y I T G K R S P		
UniRef90_Q04GK6	D	I F D L E D S D I L V L V C	Y T Y D N G S I P D E S L D F F D D M Q E I		
UniRef90_H3NI48	E A E D F L	D Y D A C L I G S Y T	Y G V D G I L P D E M L D F Y D D L V Q L		
UniRef90_A0C5T1	N D V F I	Q T R A L I F G S Y T	Y G V G P T S D A I D F N N W L Q D R K Q N		
UniRef90_A6XKZ4	D A Q K L	E K E E V V I C V A S T	F G D G D S P S C A S S F K S K L E E G N L		
UniRef90_C5DUC5	T P Q D I L	S C R Y L F I I C S S T	Y G Q G E L P R N V D R H N T I W S F L K K R		
UniRef90_UPI0002E5959E	F V E E L	K S Y D K I L I G S Y T	W G D G E L P D E L L D F Y N E V K N T		
UniRef90_UPI000464D5EE	K P N Q L	K K V N N L L I V V S T	H G E G E P P D N A L S F H E F L H G R R A P		
UniRef90_A0A031GGE7	D P A Q L	R Q Y E R A L I A S T	F G E G E A P D G T R R F A R L L H A T S G T		
UniRef90_C1FEE9	E V I F T R	G H E P L A I F L Q S T	Y G D G E P T D S S L E F I H W L R D Q A D		
UniRef90_D5E795	D W S M L	I K E L M E C R V F A L G C	P T M H N G M F F T M G G F L T Y L K G L		
UniRef90_UPI000464E7E5	M P A S F	A S G R Y L L V M S S T	F G D G E A P D N G Q A F W E G L N G M A D G		
UniRef90_UPI0004699CE2	D A F D L	E N F D A V V V C P Y T	Y D G G S L P E E G L D F F D D L E E V		
UniRef90_U6BDQ6	V G E D L	S R F D G L L L G S Y T	W G D G D L P Y E A E D F V E E L R E Q		
UniRef90_U5H6A1	E K T E L	L E L G L I V F V V P T T	G N G A T P P C F L P L W T S L H P E L P		
UniRef90_M2A851	S V I E Q L	Q T V P H A F F V A S T	A G D G E P P V H A F E F A E E V M S S Q H		
UniRef90_M2SZY8	S A K E D	F T S N E L V V I T A T	Y D G R P T D N A T E F V D W L N S L T G K		
UniRef90_D1YYG4	D M N E L	K D A N A L A L G S S T	F W Y K M H A P M E H F I E R M G K		
UniRef90_F4H9S5	E L N Q V	I E D K N W L I V T S T	H G A G D L P D N L Q P L F E Q I N E E K P		
UniRef90_UPI00035DA91C	T P D R L	T A G T D V L L V T S T	F G D G D A P D S G A A F W Q A L A A P D A P		
UniRef90_E6RN63	D D	I L K N A S H I L I V T S T	T G Q G D I P D N L A D L Y H Q L N S T F P M		
UniRef90_UPI00036A78FD	A E	L P A S G I L W L V V S S T	H G A G D L P D N L Q P L F D E L A Q Q R P		
UniRef90_P36587	D L T D L	D N F D R S K L L V F F L A T	Y G E G E P T D N A E A F L Q L L E G D		
UniRef90_C6CQW2	N E	V K S E N L W L V I T S T	H G A G D L P D N L Q P F Y A D L Q T Q R P		
UniRef90_W7STI8	S A D T L	R A G N P V L M I T S T	F G D G D A P D N G V I T F W D H L S T Q D T L		
UniRef90_M7BYX4	D P D D C	L A E K N I C V F L V A T	Y T D G Q P T E N A A W F C K W L E E A V N		
UniRef90_W4S325	T A Q H L	Q G T R H A L F V V V S T	F G D G E P D T A R S F E R E L L R Q R M		
UniRef90_W6KEQ2	P V I E R W Y	D M T Y E Y G D E P Y S C	N A N Q G D A P E S F R K S W E S E P S L		
UniRef90_H0WT42	P V I G Q L	K S P R F L F F F Y C V T	F G E Y S F P C T S E N F W R F I F R K S T		
UniRef90_Q0CXM9	R E N	L S R G D P V A F M T A S	Y E G Q P P D N A T H F F E W L K G L E G D		
UniRef90_UPI0003687A0C	A D V Q S	F G A E V W L I T S T	T G A G D V P P N I E D F Y F Q T R D T V P N		
UniRef90_W9ASR0	T G G	L P K A D A V V I V A S S	Y N G Q P T D D A R E F L S W L T D P D A T		
UniRef90_UPI00047D0970	D V H D L	K Y D G I L G S Y T	W G D G D L P Y E T E E F Y E N L L I T V		
UniRef90_S9X3G1	D F T D M D K	L D P S K L L V F F L A T	Y G E G E P T D N A E S F I E L L I E S E		
UniRef90_R7CLL3	D G S K V	A E Y D A I A F G C P A M	G D E V L E D T E F E P M F D G C K G A L K		
UniRef90_Z9JMN5	D N K T L	K A T C V L E V I S T T	G E G D P P D H A Q P F V H V L A T S L P		
UniRef90_B4W8T9	D S A T L	K A A G R A L L I V S T	T G E G D P P D T A A R F V R K T M G O G A		
UniRef90_A0A024HNM2	G R E Q L	E S T R N A L F V V S T	F G D G E A P D G A R G F E R Q L L G Q S L		
UniRef90_E3PV83	S V D T V	A Q A D A V A L G C S A M	G A E V L E E G E M E P F I E S I K G V V S		
UniRef90_UPI0002C2FA3B	D V V S L	E H E T L V L V V T S T	F G N G D P P E N G E V R S Y K I R F N S V S		
UniRef90_S6ARR4	D G G T L	A Q A R N A L F V V S T	F G D G E A P D N A R G F E R K V L G Q A S		
UniRef90_F3ZPU1	A K F S S	D E F Q N Y D V L I L G T	S T W G E G D L Q D D W Y D A L D E I I K N M		
UniRef90_J0UPE8	S Q C D P	S D F E D V D L C I V V P	Y T Y D E G A L P D E G I D F F E D L N D L		
UniRef90_W4PN52	S K L T E	A L V I Q E F D V L V L G S	T W G A G E L Q D D W Y D G V K I L K S C		
UniRef90_C3YDE3	T F T E E	M E A G S V C V F I L S T	Y T D G Q P P E G A A W V C R W L E E S S T		
UniRef90_K2JUK4	A G V I Q	D R D A L L V V T S T	T G Q G D I P D N L V P F F V A L K D A F P M		
UniRef90_S5U598	E E G T L	A D W Q K Y S T V L V I S	T T G Q G D L P D T I A P L F Y E L R D N		
UniRef90_L8H415	E P D M L	G K P S E V Y V F V Q A T	F G Q G E G T D N A K G F F E W D D K S R F		
UniRef90_G8E4B8	E P E D L	P N E T L V L I V A S T	W E D G K P P D A A K F F A D W L T E S A T		
UniRef90_G1NC69	D I V H L	E H E T M V L V V T S T	F G N G D P P E N G E K F G C A L M E M K N P		
UniRef90_UPI0004061532	D P A E L	T P E R F Y L V V C S T	H G E G D L P N T A I P F A E A F D A A L P		
UniRef90_G8WAY5	D D	L Q A E G I W L V I S S T	H G A G D I P D N L L P F Y E A L Q E K Q V		
UniRef90_A0Q1A8	K V I E D	I E N A D A V G L G C P S M	G A E Q L E E S E M E P F V D S I S S A I K		
UniRef90_UPI000219750C	D A	A D F E D S D I C V V A S	Y T Y D Q G I V P D E A L D F Y D D M Q D L		
UniRef90_L7GEU2	D A A Q L	R G V R R A L F V V S T	F G D G E A P D P A R G F E K K V L R Q A Q		
UniRef90_Q4XLZ7	N I M K F	Y N E N I I V V S T	T G Y G C P A H N M S K F W I N L H K C N N I		
UniRef90_S6GVW4	T E R D L	S Q S Q N A L F V V S T	F G D G E A P D S A R G F E R K L L G S Q L		
UniRef90_UPI0004716B60	S Q W L D	E S L Q I R I I T S T	T G Q G D F P D T I A R L Y S D M K D Q C G		
UniRef90_UPI0004767B96	P G E A G	P P E G P L I V V A S S	Y N G K A P D N A Q R F D A L G T L P		
UniRef90_R5C5N1	D K L T A	E A N T Y D V L V L G T	S T W G D G E L Q D D W Y D A I K V L K G M		
UniRef90_W7GA38	D A T L L	A G S A R V L F I V S T	T G E G D A P D H A L P F L R K V M S T P P P		
UniRef90_K4BVB3	E P E D L	H K E S F V I V A S T	W E D G K P P P N A G F F V D W L T E S A D D		
UniRef90_C5F3B4	L A S D F	E D V D L C V T A T Y T	S D V G D G E L P D E A V D F Y E E L Q E L		
UniRef90_G7FS88	N E I	L D Q H N T L W L I C S T	Y G A G D Y P D N L L S F V I E Q V A Q T		
UniRef90_UPI00037B55F9	V A D L G	L D G R D V V L I V T S T	H G L G E L P D N I I P V H D D L A A N R P		
UniRef90_UPI00033192A8	G K F D L	T E R A P L V V V S T	T G T G D P P D S A R A F V R D I Q D Q S L P		
UniRef90_S9NZD8	A G K	L P K Q G A V V V T A S	Y N G Q P P D N A R A F H T W L S S V P A G		
UniRef90_UPI00031D2742	D	E A N K Y D L L V L G S	T W G S G E L Q D D W Y P F L D A L K A K		
UniRef90_M5CGW6	V N N I	P T D G P V V I V T A S	F E G E P A D N A G H F V K A L T T S D D S K		
UniRef90_U2LFR6	V I A	N D N L L L G T S T	W G A G E L Q D D W Y D G L N V L K A A		
UniRef90_A5MZ81	S V D D V	K G A D M V L L G S P A M	G A E V I E E S E M E P F V D S I A S S V S		
UniRef90_R0CVC7	T A A D L	S G R A L F V V S T	T G E G D A P D S A R A F L R D V M T E G R		
UniRef90_UPI000466D536	V Q L L A	S K P D T V W L V V T S T	H G A G Q V P D N L H A F T Q D L V I Q K P L		
UniRef90_UPI000405CC67	T M L D I	E G Q H I W L I C L A T	H G A G D Y P D N F K M F V E Q I N D L S D E		
UniRef90_U2YSP1	T I E R L	A A A P R A L L F V S T	T G E G D A P D S A V A F L R R M N R L		
UniRef90_A9CKN2	S M D S L	G S M K R V I V V T S T	Y G E G E M P D N A Q L F W E A L A D S A P		
UniRef90_R6VMU0	D P S V V	L R D V F R Y I V G S	P T Y N G E L F P P V E Q L L R R I E A R C I P		

UniRef90_Q2NQ96	S	L	S	T	V	T	F	G	A	L	G	I	G	N	S	A	Y	D	T	F	C	G	A	I	D	T	L	D	R	Q	L	T	S	L	G	A	K	R	I	G		
UniRef90_X5LF56	D	L	S	S	T	R	F	A	A	F	G	L	G	D	S	T	Y	D	T	Y	N	R	G	F	A	T	L	D	R	A	F	I	D	S	L	G	A	T	Q	V	F	G
UniRef90_V4Q9Q4	D	L	S	S	G	L	Q	Y	A	M	L	G	L	G	D	S	S	Y	A	N	Y	C	G	F	G	R	A	L	D	R	A	W	L	S	R	G	A	T	P	L	F	M
UniRef90_UPI0003694376	D	L	S	R	H	L	H	Y	A	V	L	A	L	G	D	S	S	Y	A	N	Y	C	G	F	G	R	A	L	D	R	A	W	L	S	R	G	A	T	P	L	F	M
UniRef90_UPI000395A2AE	D	F	R	V	G	R	Y	A	V	F	G	L	G	N	S	Y	A	N	D	H	Y	N	T	V	A	R	R	M	D	R	A	W	L	S	R	G	A	T	P	L	F	M
UniRef90_Q39NW6	A	L	D	G	V	H	F	S	V	L	G	C	Y	G	N	K	Q	W	A	R	T	Y	Q	A	I	K	R	V	D	E	A	L	E	K	A	G	A	T	R	I	V	H
UniRef90_C4L110	S	L	N	H	L	P	Q	A	A	F	G	S	G	D	T	D	Y	P	K	Y	C	A	A	V	D	T	V	E	H	A	F	Q	T	A	G	G	N	V	L	V		
UniRef90_Q12181	S	N	N	G	L	Q	T	A	M	L	G	L	G	D	S	S	Y	P	K	F	N	Y	G	I	R	K	L	E	Q	R	I	T	S	L	G	A	S	Q	L	T	T	
UniRef90_UPI000265554A	T	N	K	F	R	Y	A	V	F	G	L	G	S	S	M	Y	P	Q	F	C	A	F	A	H	D	I	D	Q	K	F	S	H	L	G	A	S	Q	L	T	T		
UniRef90_UPI00045D5368	L	T	N	K	F	R	Y	A	V	F	G	L	G	S	S	M	Y	P	Q	F	C	A	F	A	H	D	I	D	Q	K	F	S	H	L	G	A	S	Q	L	T	T	
UniRef90_E3DZD0	E	L	K	G	V	N	Y	A	V	F	G	C	Y	G	N	R	N	W	G	T	Y	Q	R	I	P	R	L	I	D	E	T	L	A	A	K	G	A	N	R	L	I	
UniRef90_W9AC47	A	L	K	Q	L	K	F	A	V	I	G	L	G	D	S	S	N	Y	D	T	F	C	A	A	G	K	N	I	E	A	L	L	L	Q	L	G	A	T	A	I	A	G
UniRef90_I319B4	R	I	S	G	R	R	F	G	V	I	N	L	G	D	S	S	Y	D	T	T	F	N	E	A	G	V	M	L	A	A	A	F	E	D	L	G	A	T	P	I	A	G
UniRef90_D2VNQ7	T	L	K	G	L	K	Y	A	V	F	G	C	G	H	S	D	W	T	Y	Q	R	I	P	T	F	I	L	D	A	N	K	L	S	E	A	G	G	E	R	I	A	G
UniRef90_R7WII3	D	L	T	G	V	R	F	A	L	F	G	M	G	D	S	V	Y	D	T	T	F	N	R	G	E	I	M	A	K	L	V	S	L	G	A	E	Q	V	I	G		
UniRef90_UPI000255CC94	R	L	E	G	G	V	T	Y	S	V	L	A	L	G	D	K	S	Y	K	H	Y	C	K	T	G	I	D	I	D	R	A	F	S	R	A	G	S	P	L	I	T	
UniRef90_Q04GK6	D	W	T	D	K	I	C	A	I	L	G	S	G	D	K	F	Y	G	Q	F	C	K	A	V	D	T	F	A	E	Q	I	K	K	T	G	A	N	L	A	T	I	T
UniRef90_H3NI48	D	L	S	G	K	V	F	G	V	F	G	S	G	D	T	Y	E	Y	F	C	A	A	V	D	H	F	E	K	A	F	L	S										

UniRef90\_Q2NQ96 D V L K I I D I T Q H E I P E D A E V W V A E W I T Q I L

UniRef90\_X5LF56 E T G R H D A D S G D A S D V A V L W A N D L F A G

UniRef90\_V4Q9Q4 D R L D I V D R L D A S D T L R H W Q Q Q L F G Q

UniRef90\_UPI0003694376 G R I L D V D R G A P A A L A E W Q H Q L

UniRef90\_UPI000395A2AE A R A E G D C N H G S I E A D F E A W K D K F L T R L

UniRef90\_Q39NW6 F R G E L D S G G D F F G E F D R W Y T E M W N

UniRef90\_C4L110 P A L K I L E F D P D T D E E A C L A F A H T F L Q Q L

UniRef90\_Q12181 D R L E A D D

UniRef90\_UPI000265554A P T G E G D E L S G Q E E D A F R S W A V Q T F K A

UniRef90\_UPI00045D5368 P T G E G D E L S G Q E E A F R S W A V Q T F K A

UniRef90\_E3DZD0 P I G E G D A A D D F F E S S Q E E W E Q R F W E

UniRef90\_W9AC47 E R L D I D V S M T P V P E E F E E W

UniRef90\_I319B4 E P L V L D A S S D D A A T E A R T W V K H W A T L I

UniRef90\_R2VNQ7 Q R G I L G N A A K D L F C E F D Q W R K T L W

UniRef90\_D7WII3 E H A R H D A S G S V K P A Q A E E W A R K I L G A

UniRef90\_UPI000255CC94 P V E T C D V D Y E A K A N Q W I E K T L S I L

UniRef90\_Q04GK6 S P V K I Q L A P D E S D A P A K

UniRef90\_H3NI48 A T C K I N L N A E E S D Q K L Y A L A D G I A S H I

UniRef90\_A0C5T1 Q L G K G N S C D E T T D N D Y S V W V E G L F T A L

UniRef90\_A6XKZ4 P L A K G D E I A G S E P T F K K W I G S L W R N L

UniRef90\_C5DUC5 D R L E A D E

UniRef90\_UPI0002E5959E D G L K V D R E S D E Q

UniRef90\_UPI000464D5EE

UniRef90\_A0A031GGE7 P L I E V D K H D P A A L A D W S Q A L A

UniRef90\_C1FEE9 K L H L G D D D R Y D L Q E G D F R R W K E A L W A S I

UniRef90\_D5E795 D P Y K V K F D Y E K Q D E G C R Q L G I K L L G E

UniRef90\_UPI000464E7E5 A R I E C E S D D L A L A D Q W L D Q V I A I

UniRef90\_UPI0004699CE2 E N I K I N F A P D T T E D N L R L A A D L S Q K L

UniRef90\_U6BDQ6 D G L K I N F D P N T P E K Q A A

UniRef90\_U5H6A1 E R G E A D Q N L W G V E S T F P S W L E R F Y Q A I

UniRef90\_M2A851 E R I E V D D A D P L A L S A W Q A L V E E F A G

UniRef90\_M2SZY8 P R G A V N V A T S E P F S V I F E D W E E L W P A L

UniRef90\_D1YYG4 P V L R V Q F T P T E K D E E C K R L G K D I A N T V

UniRef90\_F4H9S5 P S L R I D M S C T D P E T E A E Q W L P N L L N

UniRef90\_UPI00035DA91C P R A D C E P D Y E E T A G R W L D Q V T A A L

UniRef90\_E6RN63 N R L E I D A C E D F E P W P V E P W L Q A W L G K L

UniRef90\_UPI00036A78FD E T L K I N V L D H E I P E D A E I W L G S W Q K L

UniRef90\_P36587 N L G L G D D A A G M L E E D Y L Q W K D T L P E I

UniRef90\_C6CQW2 S L L K I D I T Q H D I P E D A E A W L G S W I N L L

UniRef90\_W7ST18 P R T D C E P D Y Q S T A R R W L D Q V I V A L

UniRef90\_M7BYX4 T R A E G D C N H G S I E A D F A W K A R F L A R L

UniRef90\_W4S325 P P V E M D N T D P Q A L A Q W H A Q L A Q I A G A

UniRef90\_W6KEQ2 R G L G D E S D A K G I D A I L P W L M K L W T A L

UniRef90\_H0WT42 P P L G D D Q H E L G P D A I L D P W L R D L W

UniRef90\_Q0CXM9 E I G T A D A A N S D M F T D F D S W G E S V W P A V I

UniRef90\_UPI0003687A0C E T L I E I D A C E T D T A E A S A W L D K Y I T A I L

UniRef90\_W9ASR0 P L A A A D T S G D L T G T L E E F S A A L W S A L

UniRef90\_UPI00047D0970 A G L K V E F T P D T Q E E R C V D F A V Q F A N Q V

UniRef90\_S9X3G1 P I G L G D D A A G L L E E D Y L Q W K D E V F P E I L

UniRef90\_R7CLL3 D S V I C Q E E P D D E A T D A C K A L G A A L

UniRef90\_Z9JMN5 E R I E V D N G D P Q A L R K W Q Q Q L T N H I

UniRef90\_B4W8T9 D L V E V D N G E A G A I R R W Q H Q L

UniRef90\_A0A024HNM2 D G V E V D N G D A A L R D W Q Q R L A Q

UniRef90\_E3PV83 D G L I I N E T P D A D A L E Q Q C K D L G K L L

UniRef90\_UPI0002C2FA3B Q L G G G D E L C G Q E E A F R G W A Q A F Q A

UniRef90\_S6ARR4 D P V I E V D N G D G G A L Q H W Q Q L

UniRef90\_F3ZPU1 D G Y D F S D S Q S L V D G S F V G L P L D

UniRef90\_J0UPE8 N S V K I N L A P D T D E Q L D V F V N E L V A K I

UniRef90\_W4PN52 N G Y T F D S S I A V V D Q K F I G L P L D

UniRef90\_C3YDE3 P R G E G D Q N V A G S E Q D F T V W R D E L L G A V

UniRef90\_K2JUK4 A P L K V D A C E T D P E G D A L P W L D N W S A A L

UniRef90\_S5U598 E I L K I D S M D I A E P E V F I N W L E N W A T L L

UniRef90\_L8H415 E R G E G D D N G D I E T N F E E W V D K L F P K L

UniRef90\_G8E4B8 P V V D G D V E D G E L D A V F E D W S K R V V A

UniRef90\_G1NC69 R M G E G D E L C G Q E E S F R T W A K K V F K A

UniRef90\_UPI0004061532 D Y G R H D A S S W D M S D V A L E W L P G V L E A

UniRef90\_G8WAY5 E T L K I N V L E H E I P E D A E I W L G S W K N L L

UniRef90\_A0Q1A8 D L L I N N T D D D E G E K C K E L G E T L A K A

UniRef90\_UPI000219750C Q S V K V E L D P E Q D D N L D H F A E S I Y K K

UniRef90\_L7GEU2 P A V E V D N A D P Q A L A Q W Q R K L S A

UniRef90\_Q4XLZ7 Y S L G N Y Q H S S M H F T N F N T W K N K V

UniRef90\_S6GVW4 A S V E V D S A D P A A L Q H W Q Q Q L

UniRef90\_UPI0004716B60 E I L L I D A Q E H V P E E V A L P W V E H W I T L L

UniRef90\_UPI0004767B96 E R G E A D T D G D F D G D V S A W T A R L W

UniRef90\_R5C5N1 D G Y S F G S S I A V V D G C F V G L A L D

UniRef90\_W7GA38 D A I E V D N A D P A A L R H W

UniRef90\_K4BVB3 E V C E G D V D E G S L N E V F G K W S K R I V G I L L

UniRef90\_C5F3B4 E D V K I D L A P E E D D K H L E A F T K Q L V E K

UniRef90\_G7FS88 E R L E I N L D E S L P E D T A L A W L D T W V

UniRef90\_UPI00037B55F9 E R L E I D A C T Q P P D E E A V M W S K E W L A Q L

UniRef90\_UPI00033192A8 D T G H A D D

UniRef90\_S9NZD8 T R G E A D A R A D F F G D F D Y W Y S P F W T R V

UniRef90\_UPI00031D2742 E G Y D V T D S L V C S D G R F V G L A I D

UniRef90\_M5CGW6 G L G E G D A G G N N L F I E S F N E W E E N L W T V L

UniRef90\_U2LFR6 E G Y T V D S E A V V D D K F V G L A L D

UniRef90\_A5MZ81 E G L I V Q E A P E G S E E E C R N F G R E A A A

UniRef90\_R0CVC7 D A V E V D D G D P A A L R H W Q Q Q L

UniRef90\_UPI000466D536 E R L E I D V T Q H E I P E D A A D L

UniRef90\_UPI000405CC67 N I F N I D V V D S P I P E D V D D W I P L W I K D L

UniRef90\_U2YSP1 D R V E V D N G E A G A I R H W Q H Q L

UniRef90\_A2CKNP A R I D C D I D F E D A A A W I

UniRef90\_R6VMU0 P P V E M K Q G Y S T A N G E C R Q L A E A V A A A M



UniRef90_E0NPW0	1	K	K	T	V	V	T	Y	G	S	10	T	G	T	C	Q	S	I	A	E	K	I	A	A	K	L	G	V	E	A	I	D	V	A	N	L	N	A	D	A	40		
UniRef90_UPI0002196273				A	K	I	V	Y	A	T	S	M	T	G	N	T	E	G	I	A	S	E	I	L	E	T	A	F	E	D	E	G	L	D	V	E	R	V	F	A	D	E	A
UniRef90_UPI0003B55D9D				I	Q	I	L	Y	G	T	E	S	G	N	A	T	E	G	L	L	A	M	D	L	E	E	E	I	A	D	S	G	H	E	F	A	D	I	F	Q	E	Y	
UniRef90_V6SLD4		K	P	L	I	V	Y	G	T	E	T	G	N	A	K	K	I	A	S	Q	L	L	I	G	N	F	K	K	S	K	I	Q	A	K	S	I	D	I	F	Q	E	L	
UniRef90_M1N2H4				I	I	Y	W	S	G	T	G	N	T	E	K	M	A	S	E	L	I	K	N	G	I	V	E	A	G	K	N	A	E	V	T	S	V	S	D	V	L		
UniRef90_S6GM50		K	R	V	L	V	S	Y	G	S	G	T	G	N	S	Q	R	L	A	Q	S	L	I	T	E	T	A	F	G	S	T	T	H	L	E	V	L	A	L	H	L		
UniRef90_UPI000316F11F		K	V	G	L	F	Y	G	T	T	T	G	K	T	E	S	V	A	E	I	I	T	K	Q	E	F	F	G	S	N	V	L	T	V	L	H	N	I	D	V			
UniRef90_R6LR15		K	V	A	V	V	Y	W	S	T	G	N	T	E	S	M	A	N	A	V	A	D	G	A	K	E	A	G	A	E	V	T	V	F	E	T	A	D	F				
UniRef90_G4D177				V	V	I	Y	G	S	M	Y	H	S	T	E	R	M	A	E	A	V	A	K	G	V	V	E	G	G	V	I	D	V	R	I	R	D	I	S	K	T		
UniRef90_Q30WF7		K	R	A	V	I	V	F	D	T	M	W	H	S	T	E	K	M	A	R	A	I	A	D	G	L	E	A	E	G	V	P	A	R	L	M	W	L	K	A	N		
UniRef90_T0L0Q9		K	K	I	G	L	F	Y	A	S	S	T	G	N	T	E	D	M	A	T	E	I	K	E	S	L	S	D	L	D	I	T					M	H	D	V			
UniRef90_R5J9V7				K	I	G	V	F	Y	G	S	T	G	T	E	S	I	A	R	K	I	A	E	K	L							N	V	P	Q	G	D	I	H	D	A		
UniRef90_UPI00034D1500				K	I	G	L	F	F	G	T	T	G	N	T	E	S	I	A	Q	T	I	Q	K	E	L	G	G	D	S	V			V	E	L	Q	D	V	A	Q	A	
UniRef90_R5C3C2					V	V	I	A	Y	G	S	M	Y	G	N	T	E	Q	M	A	E	A	I	A	A	E	L	S	A	Q	G	I	K	I	V	M	H	N	V	S	K	S	
UniRef90_UPI00047883F0					L	H	I	A	Y	G	S	E	S	G	N	A	E	K	I	A	Q	Q	L	I	Q	K	N	F	L	K	Y	S	P	T	I	S	T	L	N	E	T		
UniRef90_UPI0002FE6068				K	I	G	L	F	Y	G	T	Q	T	G	N	T	Q	T	E	A	E	L	I	Q	K	E	F	G	G	D	S	V			V	D	I	Y	D	I	S	K	V
UniRef90_W6QYU9					L	V	G	F	A	S	Q	S	G	F	A	E	Q	L	A	W	Q	S	A	G	Q	L	Q	A	A	G	I	P	V	R	V	E	P	L	S	R	L		
UniRef90_UPI000219730B				K	I	L	I	T	Y	T	S	M	T	G	R	N	E	K	I	A	K	Y	L	A	D	Y	L	E	K	N	D	A	D	V	A	L	E	Q	I	I	D	T	
UniRef90_E1NYY9				K	A	Q	I	V	F	A	S	M	T	G	N	N	E	D	M	A	E	I	L	S	E	E	L	T	T	L	G	F	D	V	T	N	T	D	V	S	F	A	
UniRef90_L8ESE0					L	L	L	L	H	G	T	N	Y	G	T	C	R	D	F	A	E	R	I	A	D	E	A	T	G	L	G	F	T	T	E	V	A	P	L	D	A	A	
UniRef90_V5UKX5					V	L	I	G	Y	A	S	Q	S	G	V	A	E	G	L	A	W	Q	T	A	G	M	L	Q	G	A	G	V	P	A	Q	I	P	L	A	Q	I		
UniRef90_F5LES5					I	V	V	Y	A	S	L	T	G	N	T	E	E	M	A	D	A	V	V	E	G	I	K	Q	A	G	G	T	V	T	V	K	D	I	L	D	A		
UniRef90_Q21BK4					I	I	V	L	V	G	S	Q	G	G	T	T	W	G	F	A	E	R	L	A	A	R	L	I	E	A	G	H	L	V	D	L	A	M	N	N	L		
UniRef90_R7EPD9		K	K	T	G	V	F	Y	G	S	S	T	G	T	E	C	Q	E	E	L	A	N	I	A	E	K	L	G					V	S	T	S	D	V	H	S	V		
UniRef90_UPI0002B47F38				K	A	T	I	L	Y	A	T	E	T	G	K	S	C	E	I	F	Y	A	K	T	L	C	E	I	F	K	H	A	F	D	A	K	C	L	L	V	E		
UniRef90_R1EC16					A	V	V	A	Y	G	S	E	T	G	N	A	E	E	L	A	V	Q	L	S	Q	L	T	R	R	L	R	I	W	T	T	I	K	P	L	N	A	L	
UniRef90_I2NJU1					I	C	I	T	G	S	T	G	G	A	E	Y	V	A	D	H	L	E	S	C	L	T	P	T	K	G	F	E	V	E	L	F	N	N	A	E	L		
UniRef90_A0A031J8M2					I	V	V	A	F	A	S	Q	T	G	T	A	E	R	L	A	G	A	L	L	T	P				G	A	A	V	V	P	I	R	S	L	D	T		
UniRef90_D6KF56					L	T	L	L	H	G	S	N	L	G	T	C	S	G	M	A	R	D	L	A	A	D	G	D	E	H	G	F	T	T	A	V	A	S	L	N	D	Y	
UniRef90_UPI0002F54A02					L	I	V	F	T	S	M	T	G	T	E	M	M	A	Y	A	L	A	S	E	A	I	E	K	T	G	D	E	V	V	V	K	D	A	F	D			
UniRef90_I1FX65					V	R	V	L	Y	A	S	Q	T	G	T	G	K	R	F	A	E	Q	L	M	S	E	I	K	L	R	G	F	H	C	S	S	D	V	S	H	I		
UniRef90_C9XJN3		K		I	Y	I	V	Y	W	S	G	T	G	N	T	E	K	M	A	N	F	V	A	E	G	V	K	L	K	G	K	T	P	E	V	L	D	V	S	L	L		
UniRef90_E8WC82					V	V	V	L	W	A	S	Q	T	G	N	A	E	E	V	A	A	A	A	R	R	L	A	A	E	G	R	P	A	T	L	L	G	M	D	E	S		
UniRef90_A0A024IGL0																																											
UniRef90_UPI0004687EBC		K	N	W	L	I	G	F	A	S	Q	S	G	F	A	E	Q	L	A	W	Q	T	A	G	Q	L	Q	A	A	G	L	P	V	T	V	Q	S	L	A	S	L		
UniRef90_L8GIJ7		K	Q	V	L	V	L	Y	A	T	E	Y	G	F	S	E	E	V	G	K	K	L	F	D	H	L	Y	A	P	A	C	Q	P	R	V	V	N	A	R	D	R		
UniRef90_UPI0003718734					L	I	V	Y	A	S	Q	T	G	T	A	E	Q	L	A	W	R	T	A	T	S	L	Q	E	A	H	Q	P	V	T	V	K	A	I	Q	E	L		
UniRef90_S7MPI9					K	A	T	I	L	Y	G	T	E	T	G	K	S	Q	A	Y	A	K	T	L	C	E	I	F	K	H	A	F	D	A	K	V	I	S	M	E	D	Y	
UniRef90_A8G1X7	P			K	I	E	L	L	V	G	T	L	G	G	A	E	Y	V	A	D	E	L	A	A	Q	L	T	R	F	G	H	E	N	Q	I	H	L	T	P	K	L		
UniRef90_I3IBY2					I	L	I	A	Y	A	S	Q	T	G	N	A	A	R	I	A	R	Q	T	A	Q	Q	L	N	A	S	G	K	N	Q	L	I	T	L	N	Q	L		
UniRef90_UPI00037B7190				K	I	A	I	V	V	G	T	V	Y	G	A	A	Q	F	V	A	E	Q	A	A	E	V	L	E	G	L	S	H	Q	V	N	V	Y	D	D	P	E	V	
UniRef90_S3TNT7					L	V	V	Y	A	S	Q	S	G	H	A	E	V	W	A	K	H	T	A	E	Q	L	R	L	D	D	Q	V	I	V	K	D	I	Q	D	L			
UniRef90_UPI0003D08560					V	K	I	F	Y	G	S	Q	T	G	T	A	K	G	F	A	A	V	L	A	E	A	V	I	A	L	T	P	A	E	I	N	M	R	E	Y			
UniRef90_D7GPV1		K		V	I	V	A	Y	W	S	Q	T	G	N	T	A	M	A	A	A	I	I	G	E	G	I	T	E	A	G	K	E	A	V	V	T	D	I	S	S	V		
UniRef90_I3DGE6					I	C	I	T	G	S	T	L	G	G	A	E	Y	V	A	D	H	L	E	S	C	L	T	A	K	G	F	N	V	S	L					F			
UniRef90_W8HDT7					V	V	I	L	Y	G	S	E	G	G	T	S	E	L	V	A	D	N	I	A	D	V	L	G	D	Y	G			D	T	S	L	Y	D	M	M	E	F
UniRef90_UPI0003C01AAA		K	A	T	I	L	Y	A	S	E	T	G	R	A	Q	S	Y	A	Q	Q	L	G	R	L	F	R	K	A	F	D	P	R	V	L	C	M	D	E	Y				
UniRef90_G9I595		R		C	T	V	L	Y	A	T	E	T	G	K	S	K	T	F	A	K	K	L	N	T	M	M	N	Y	A	F	S	S	K	V	V	H	C	M	G	D	Y		
UniRef90_E1W2V4					I	C	V	I	S	G	S	T	L	G	G	A	E	Y	V	A	E	H	L	E	D	V	L	K	T	Q	N	F	S	T	A	L	F	H	G	P	E	L	
UniRef90_A8HAH5		K	V	D	I	L	V	G	T	T	L	G	S	A	E	Y	V	A	D	E	I	S	D	Q	L	S	D	L	G	H	E	T	I	V	H	L	G	A	N	L			
UniRef90_B2IVX9	K		I	G	L	F	Y	G	T	Q	T	G	N	T	E	S	D	A	E	K	I	R	D	E	F	G					G	D	V	V	T	L	H	P	I	Y	E	A	
UniRef90_G8UQW8		K	T	A	I	I	Y	G	S	T	T	G	T	T	E	N	I	A	G	R	I	A	E	Q	M	N	I	A	S	E	D	V	Y								E	V	
UniRef90_R0KQL4					I	I	L	Y	G	S	Q	G	G	T	S	K	S	V	A	L	L	L	Q	S	E	L	N	L	E	N	K	K	T	S	I	I	E	M	D	K	F		
UniRef90_UPI000288D923					V	V	I	Y	G	S	M	Y	G	N	T	E	T	M	A	E	A	V	A	R	G	L	S	Q	G	G	K	I	K	V	R	D	I	T	K	T			
UniRef90_H1HMU8				K	T	C	I	I	Y	G	S	T	G	T	C	Q	D	L	A	S	R	I	A	A	K	L	G	V	D	N	A	D	V	F	D	A	G	S	I	S			

UniRef90_E0NPW0	S	E	A	E	N	L	I	L	G	T	S	T	W	G	A	G	E	L	Q	D	D	W	V	D	G	L	E	T	L	K	S	G	L							
UniRef90_UPI0002196273	D	D	A	D	E	D	F	F	D	D	A	D	I	C	V	V	A	T	Y	T	N	D	G	E	L	Q	D	F	F	D	F	H	E	S	D	Q				
UniRef90_UPI0003B55D9D	E	V	S	S	L	L	A	K	E	S	L	V	L	F	I	V	S	T	Q	G	E	G	E	F	L	P	Y	T	F	A	F	F	E	T	L	V	E	S	T	P
UniRef90_V6SLD4	D	V	V	K	L	A	K	E	S	L	V	L	F	I	V	S	T	Q	G	E	G	E	F	L	P	Y	T	F	A	F	F	E	T	L	V	E	S	T	P	
UniRef90_M1N2H4	N	V	D	E	L	L	K	E	S	L	V	L	F	I	V	S	T	Q	G	E	G	E	F	L	P	Y	T	F	A	F	F	E	T	L	V	E	S	T	P	
UniRef90_S6GM50	D	P	H	T	L	D	D	D	D	L	L	L	V	I	T	S	T	F	G	D	G	E	P	P	A	N	A	D	D	F	I	E	Q	L	Q	R	S	Q	T	L
UniRef90_UPI000316F11F	D	D	S	D	F	E	D	Y	Q	Y	L	I	I	G	C	P	T	W	N	I	G	E	L	Q	D	D	W	E	G	Y	F	P	E	L	D	N	I			
UniRef90_R6LR15	E	A	A	K	V	D	E	F	D	A	I	A	F	G	C	P	A	M	G	D	E	V	L	G	E	D	E	F	E	P	M	F	S	C	E	E	K	L	S	
UniRef90_G4D177	N	L	S	Y	L	L	A	D	T	W	K	Y	I	L	G	S	C	S	Y	N	N	N	I	F	P	P	M	S	F	L	I	E	E	L	K	H	Q	K	M	K
UniRef90_Q30WF7	H	S	A	S	A	V	M	T	E	L	A	D	C	G	A	V	I	V	G	S	P	T	H	N	G	I	M	N	V	A	K	M	L	T	Y	M	K	G	D	A
UniRef90_T0L0Q9	A	Q	S	A	S	D	E	M	T	K	Y	D	A	L	I	I	G	V	S	T	W	G	D	G	L	Q	D	D	W	E	D	Y	I	V	N	L	D	D	A	
UniRef90_R5J9V7	S	T	L	T	D	A	L	V	K	E	Y	D	V	L	V	L	G	T	S	T	W	G	A	G	E	L	Q	D	D	W	Y	D	G	V	K	V	L	K	K	A
UniRef90_UPI00034D1500	E	V	E	D	L	A	E	Y	E	Y	L	I	I	G	C	P	T	W	N	I	G	E	L	Q	D	D	W	E	G	Y	F	P	E	L	D	N	I			
UniRef90_R5C3C2	N	P	S	Y	L	L	K	D	I	F	K	Y	I	V	G	S	P	T	Y	S	N	Q	L	Y	P	E	V	D	S	L	L	S	K	I	L	V	R	E	V	K
UniRef90_UPI00047883F0	D	L	S	Q	F	T	A	H	T	A	L	L	I	I	T	S	S	T	F	G	D	G	E	P	P	E	N	A	D	E	F	T	E	K	L			E	N	L
UniRef90_UPI0002FE6068	E	S	S	D	F	E	N	Y	N	I	I	I	G	C	P	T	W	N	I	G	E	L	Q	D	D	W	N	S	F	D	E	L	D	N	I	D	F			
UniRef90_W6QYU9	D	A	D	R	L	R	Q	T	Q	K	A	L	I	F	V	V	S	T	F	G	D	G	E	A	P	D	A	A	Q	S	F	E	R	K	V	L	G	S	L	
UniRef90_UPI000219730B	D	A	Y	E	L	S	E	Y	D	A	V	I	V	D				T	Y	T	Y	N	D	G	E	V	P	E	A	Q	D	F	Y	E	D	L	A	D	V	
UniRef90_E1NYY9	D	A	T	S	Y	L	D	A	D	L	C	I	M	V	T	Y	T	Y	G	E	I	F	T	D	E	L	D	F	Y	E	Q									

	90	100	110	120
UniRef90_E0NPW0	D L N G K T V A L F G C G	D S Y G D T F C G A M A E I Y N E I K D K G V T F V G		
UniRef90_UPI0002196273	D L S G K V F G V A G T G	D S Y P D Y F C H A A D Q F E E A F A A T G A K K G S		
UniRef90_UPI0003B55D9D	D L S D V Y A A M F G L G	D R F Y D T Y S Q G S E V L D K K L S E L G A T R V G		
UniRef90_V6SLD4	D L S H L N Y A M F G L G	D T S Y P L F C N A S V L L D E V L E Q K G A K R L L		
UniRef90_M1N2H4	G K K V A L F G S Y G W G	D T S Y P L F C Q W M R D F E E R M I G Y G C S I I D		
UniRef90_S6GM50	S H F K Y A V F G L G D	V A Y P H F C Q F A K T L D A A L Q Q S G A I R A I		
UniRef90_UPI000316F11F	D F S G K K V A Y F G T G	D Q Y A D N F G Q D A M G I L E E K I T E L G G T T V G		
UniRef90_R6LR15	G K K I G L F G S Y G W G	D G D W M H N W E A K C K E D G A V L V A		
UniRef90_G4D177	N N I W G F F	G S Y S W S G G A M K R F D Q F A E E M K Y N V L D		
UniRef90_Q30WF7	R P Q N K V A A A F G	S F G W S G E S V K N I T G W L E D M G F E V P A		
UniRef90_T0L0Q9	Q L S G K T V A L F G L G	D Q Y P D H F L S A M G T I Y E K V V S L G A N V V G		
UniRef90_R5J9V7	D L S H K F V A L F G C G	D S Y S D T F C D G I G I L Y E D L K D T G C F I G		
UniRef90_UPI00034D1500	D F T G K K I A Y F G A G	D S Y C D N F C Q D A M G I L E E K I S S L G G K T V G		
UniRef90_R5C3C2	G R Y L G W F	G S F T W A G A A V K R I A E F A E K S K L E I V G		
UniRef90_UPI00047883F0	T A C H M R Y A I F G G D	I T Y D K F C G Y S K Q L D T L L Q A K Q A E T P L I		
UniRef90_UPI0002FE6068	N G K K V A Y F G V G L G	D Q N G Y P D S F Q D A M G I L E E K I S E L G G E T V G		
UniRef90_W6QYU9	P L E Q L S Y A V L A L G	D R Q Y Q H F C G F A R R I N D W L S E L G G A Q R L F		
UniRef90_UPI000219730B	D L E R T K F T V L G S S	K G H I F G R A V D Y F T M R L N S S N G E Q V A		
UniRef90_E1NYY9	D L S G K F A V M G S G	D K Y K E H Y C E N V D D F K K A F E K C S G A T Q A A		
UniRef90_L8ESE0	A E G V P Y A V L G V G	D R N W A T Y Q R V P T L L D E R L A A L G A E R L L		
UniRef90_V5UKX5	A L P T L R F A M L S L G	D S H Y D R F C G F G R K L D G W L R A Q G G V A A F		
UniRef90_F5LES5	K L N G K I G A V F G S C	D S S Y A Q Y G A A V D L L T E K L S S L G C M M Q		
UniRef90_Q21BK4	A T L P P A F A V L G F G	D R E A K A F C G F A E A V D A A L L A T G A K		
UniRef90_R7EPD9	D L S M K F V A L F G C G	D S Y C D T F C C D G I G V L Y E D L K D S G C T F L G		
UniRef90_UPI0002B47F38	P L A N V R F S V F L G S	R A Y P H F C A F A R A V D T L L E E L G G E R I L		
UniRef90_R1EC16	S N C K C V F T S F G L G	D S S Y P Q F N W A H R K L G N R I E Q L G A Q R I L		
UniRef90_I2NJU1	D L S Q M K F V V L A L G	S D Y D T F C H A V D I V E N A L K A K G A A Q V F		
UniRef90_A0A031J8M2	D L S H L R Y A V L A L G	D R E Y P E F C A F G H Y V D Q W L H K A K A E R L F		
UniRef90_D6KF56	S L D G L T Y A V L G V G	D R N W A T Y Q R I P T L I D E R L T A A G A T P L L		
UniRef90_UPI0002F54A02	D L T G K K A A A F G S G	D S S Y E H F A R A V D L L E E G L K T C G C D I T		
UniRef90_I1FX65	D C R V S C A V F G C G	S N S Y K D H Y N M A A K N L F D W L V Q L S A K S V C		
UniRef90_C9XJN3	G K Q I G L F G S Y G W G	N C E W M R D W E E R M Q N A G A T T I G		
UniRef90_E8WC82	R L D G V R Y A V L A L G	D S S Y D D F C C G H G R R I D E R F G E L G A V R L V		
UniRef90_A0A024IGL0	S L S H L R Y G L L A L G	D K T Y A H F C C G F G R A L D G W L T A R G A Q P L F		
UniRef90_UPI0004687EBC	A L G E L S Y A V L A L G	D R Q Y Q Q F C G F A R R L H G W L T R Q G A S S L F		
UniRef90_L8GIJ7	D L S H L R Y S V L A L G	D S N Y T H Y C C K T G R T I A T L E A L G A K R V V		
UniRef90_UPI0003718734	L S H L R Y A V L A L G S	K E Y P D S Y C O D F G H R L A A W L Q R N Q A H A L F		
UniRef90_S7MPI9	N S V Q E R F S V F G L G	S R A Y P H F C C A F G H A V D T L L E E L G G E R I V		
UniRef90_A8G1X7	D L S Q T K F A I C A I G	D S S Y D T F C C L G P E K L S K V L E E C G A Q V V Y		
UniRef90_I3IBY2	A L S S L E Y L V L G L G	D S S Y C C G F A Q Q L H N A L H H C G A H A M A		
UniRef90_UPI00037B7190	L T G K Q F A V I A L G D	S S Y G E T Y C G G G A Q L D A L F E E L Q A T R L K		
UniRef90_S3TNT7	D L S H L S F S V L A L G	D R R Y A N F C Q Q F G R T L E Q W L V Q Q Q A Q V L F		
UniRef90_UPI0003D08560	D F R F G K T Y L K G M N	S V Y I D H Y N T V G K N I D K W L W M L G A N R V M		
UniRef90_D7GPV1	G K K I G L F G S Y G W G	D G D W M R D W E D R M K A A G A T V V G		
UniRef90_I3DGE6	D F S Q M K F G V V G L G	D S D Y D T F C H A V D I V E N T L K A K G A T Q V C		
UniRef90_W8HDT7	D L T G V Q F A L F G L G	D K Y E E T Y N R G G E I A E K L V S L G A V Q V G		
UniRef90_UPI0003C01AAA	Y N S S P R F C V F G L G	S R A Y P H F C A F A R A V D T R L E E L G G E R L L		
UniRef90_G9I595	R H Q V R Y S V F G L G	S R M Y P H F C A F A H T V D D R F A A L G A I R V S		
UniRef90_E1W2V4	D L S S L R F A V V G L G	S D Y D T F C H A V N K V E T Q L S E K S A V K I C		
UniRef90_A8HAH5	D L S Q V K F A L C A I G	D S S Y D T F C Q G P E K L V D L L I Q C G A Q V V V		
UniRef90_B2IVX9	G F S G K L V A Y F G D G	D Q Y S D N F Q D A M G I L E E K I S Q R R G G K T V G		
UniRef90_G8UQW8	D L T G K K I A F F G A G	D S S D T F C G A L G V L Y E G L K S S G A T F V G		
UniRef90_R0KQL4	N F L S H N F A V F G L G	D S S Y N T Y N Y C S K K L F N L L K R L G A K P L I		
UniRef90_UPI000288D923	N N Y W G I F	G S Y S W S G G A L K N L K Y M E E G K Y D V L D		
UniRef90_H1HMU8	N L N G K T V A I F G C G	D S S Y S D T F C G G M G E L Y N A A K E A G A K V I G		
UniRef90_C4Z9A9	G K T I G L F G S Y G W G	D G E W M R D W V I E R M T A A G A T V V G		
UniRef90_UPI00035D0BDA	D L S G L K F A L F G L G	D R Y E D T F N R G G E I A E K L V E L G A V Q V H		
UniRef90_Q46AU0	N K P K G L G A A F G	D S Y G W S G E A P L I A E K M R D M G M T V I D		
UniRef90_R5LWM7	N L K D K T I A L F G C G	D S Y G D T F C S A I G E I Y N A L K D S G A R F V G		
UniRef90_K9UF39	D F K G K T V A Y F G V G	D Q Y P D S F M D A I G L E E K I S A L G G K T V G		
UniRef90_B8DMX9	N R I G A A F G S Y G	D S Y F G W S G E S V K A I T W L E S M G M E L P A		
UniRef90_A6FI70	N L S S V K Y A V I A L G	S K S Y D Q F C N A G H M I D R Q L A K L N A K K V S		
UniRef90_D8DZB4	G L A G K T V A L F G T G	D S Y P D T F N G A L K E L Y D A V Q A A G A N V L A		
UniRef90_H6C447	E A S G V K Y A V F G C G	N R D W Q H Y H K I P R L V D A T L A E R G A E R L V		
UniRef90_I4WM23	P L G G L R Y G L L A L G	D S D Y E D F C G F G R Q L Q R W L E A S G A R A L F		
UniRef90_G7M4Y8	G K K V A L F G S Y G W G	D T Y G E T F G K W M R E F E E R M T G Y G C T V I D		
UniRef90_M0QGZ5	D L A G L R F A V F G L G	D T Y G E T F N R G G E L M A E L L T K Y G A T Q V G		
UniRef90_S8GZM2	H R Y L G W F	G S F S W A G A A V K K I G E Y N E K L K F E Q V G		
UniRef90_F9MRD4	N H I F G Y F	S S Y S W G G G A E K E F A A F A E K C K W D L L E		
UniRef90_I7LPN8	D L S G K V F G V V G S G	D S Y P D A F C Q A A I D F E K A F E T T G A T K G A		
UniRef90_B8CGG3	F L S G V K F A L C G L G	D S H Y T T Y F R N P T V I E E A L T T L G A V R V G		
UniRef90_UPI00046CD5EF	A K K V A R F	G S Y G W S G G A Q R E L E R W F E T L R W D Q V L		
UniRef90_UPI0003151F49	A L R Q L R Y G I L A L G	D S S Y A R F C A F G H A L S G W L Q R H Q A Q Q P W F		
UniRef90_N9DMC5	D L S Q M S Y A V L A F G	D R R Y A N F C H F G Q E L N A W L L K Q Q A Q P W F		
UniRef90_D7N610	G K N V V I F G S Y E W A	D D G E W M R L W Q E E I E A T G Y G C K L I A		
UniRef90_L1M1J6	S L Q G L N Y S L L A L G	D R Q Y P H F C G F G R R L H A W L G E R G A H A R F		
UniRef90_Q82QD5	S L S N V R F A L L A G A	N T Q W A T Y Q G F P K R I E A G L L A A G A T R V I		
UniRef90_Q0D1W9	L Q G V S Y A V F G C G	H H D W A K T F Y R I P I L I D D L M H K A G A T R L T		
UniRef90_UPI00031B10E6	S L T H L N F A V I A L G	D S S Y D T F C G A Q H A D N L L A S L G A Q R D V		
UniRef90_N8WNT9	L N H L N Y A V L A L G S	Q E Y P D T Y C S F G H R I D Q W L Q Q N G A K Q L F		
UniRef90_UPI0003834742	Y T S T S Q F S V F G L G	S R A Y P H F C A F A R A V D T R L E E L G G E R V L		
UniRef90_R4X6J0	R G V K F G I F G A G H H	D W V Q Q S Y M H V P R Q F E T T L I E C G A K P L L		
UniRef90_G7XDP8	E L E G I N Y A V F G C G	H H D W T T F Y R I P K A I N E L V G E H G G N R L C		
UniRef90_C1FJ07	A K K E A G V C G A G V G	D Q N Y S A F M A V P R S F T A A M E K A G A K A F Y		
UniRef90_Q03TQ9	D L G R T K F A V L G S S	K T H I F G R A V D Y L T M Q L N S S N G E Q V A		
UniRef90_F6W1L2	P A H N I L Y A V F G L G	S S M Y P Q F C A F A H T V D Q R L A Q L G A Q I S		
UniRef90_I7KHM0	N L T G K K F A V M G S G	D T Y K D H Y C E N V F D F Q K A F K K I G A Q E V A		
UniRef90_J2W0X2	P L P Q K S F G V L A L G	D R S Y T Q Y C V F G H A L A R W L Q R R Q A R L F		
UniRef90_UPI00047C37D0	G K K I A L F G S Y G W G	D G Q W M R D W E E R C N A A G A T L V V		
UniRef90_A4BRG7	P L S G I E T A I L S F G	D S T H Q H F C A F G R F L R A R F E A S G A T V A		
UniRef90_D0KYA9	A L P T L S F A I L L A L G	D R Q Y R Q F C G F G I L R Q S L L A A Q A T E W F		
UniRef90_F6DN05	S K I G A A F G S F G W G	G G A L K G I E E K L Q E A G V E L I Q		

UniRef90\_E0NPW0 D G Y T F D D S E A V I D G K F V G L A L D

UniRef90\_UPI0002196273 NT V K I E N E A D D E D D E K L R A F V K E L I A A

UniRef90\_UPI0003B55D9D E Y G R H D A S S L E V S D D A A L E W L P Q A L A A

UniRef90\_V6SLD4 S L V K A D V D F A E T V T N W E N D L

UniRef90\_M1N2H4 T P L I I Q N E P D G N E Q E C L D F G K K I A L A

UniRef90\_S6GM50 NR V D A D T H Y Q Q F F K Q W L T T L D A L L

UniRef90\_UPI000316F11F D G Y D F N E S K A L R N G K F V G L A L D

UniRef90\_R6LR15 D G V I C Q E E P D D E A V I N C A L G K A L

UniRef90\_G4D177 I K P E I K G A A T D E Q Q E L K D L G K E M A K R I L

UniRef90\_Q3QW7 E G V K C K H V P H E T Y E E C Y N L G K A V A Q A L

UniRef90\_T0LQ9 D G F E F D E S T A V D D G M F V G L A L D

UniRef90\_R5J9V7 A G Y T F D A S V A V V N G K F V G L

UniRef90\_UPI00034D1500 D N Y D F N E S K A V R N G K F V G L A I D

UniRef90\_R5C3C2 D P V I E M K Q A K E I T Y E C Q E N L A R A M A D R L

UniRef90\_UPI00047883F0 E R V D A D L N Y Q A I I F K Q W L P L V E Q T L K

UniRef90\_UPI0002FE6068 G G Y D F T E S K A V R D G K F V G L A L D

UniRef90\_W6QYU9 D S I E V D G A D K V A L Q R W Q Q Q L

UniRef90\_UPI000219730B D S V K I D Q D P D E D D

UniRef90\_E1NY9 N P V K I E N A V D D H D

UniRef90\_L8ESE0 P R G E A D A S G D L N G A V K A F T A T L R T E L

UniRef90\_V5UKX5 E P I E V D R G D P G A W A R W Q V R L G E

UniRef90\_F5LE5 E G L K I E L C P S A P E E A C R E F G R Q

UniRef90\_Q21BK4 P M L S L E R I H R S E T D Y A A W V E R L L A A L

UniRef90\_R7EPD9 D G Y S F S S S I A V V D G A F V G L P L D

UniRef90\_UPI0002B47F38 R M G E G D E L C G Q D L J E S F R T W A K K V F K A

UniRef90\_R1EC16 E A G E G D Q H P E G G D

UniRef90\_I2NJU1 D S E R I D V T N F E H D E T A E R W L E G F L E K

UniRef90\_A0A031J8M2 D L V I E M D G Q D D D A Q R Q W Q Q Q L

UniRef90\_D6KF56 E R C A A D A S G D F A S V D R W T E E L W N A L

UniRef90\_UPI0002F54A02 N G L K V D C D E E E I Q A K C K W F V E K L

UniRef90\_I1FX65 Q L G L G D A N V S Q S E N D F A A W K N Q F L E S L

UniRef90\_C9XJN3 E G I T A M E D P N E E A D E C I E L G K T L A E

UniRef90\_E8WC82 P R T D C E P D Y E E P A G Q W L D E V S A A L

UniRef90\_A0A024IGL0 E R I D V D K S D P E A L R Q W R Q H L A

UniRef90\_UPI0004687EBC A P V I E V D G G D V I E A L A S W R R Q L

UniRef90\_L8GIJ7 D K A E V D Q E D W P V I D A W F A A V K A K L

UniRef90\_UPI0003718734 D T I E V D N A N S A D V Q R W N Q A L A Q

UniRef90\_S7MPI9 K M K E G D E L C G Q E E A F R T W A K K V F K

UniRef90\_A8G1X7 D K I Q I D I Q Y D H I P E D A L A W L T Q W Q D Q L

UniRef90\_I3IBY2 D M I S V D K L D E S A L R H W

UniRef90\_UPI0003B7190 G M L K I D C E Y M Q P E D A A L P W I K S W A E N L

UniRef90\_S3TNT7 D T V L V D Q M N S R D L J E Q W L S G L E Q L

UniRef90\_UPI0003D08560 T R A E G D C N G S I E A D F A A W R A R F L L R L

UniRef90\_D7GPV1 E G V I C Q E T P D D E A E N C K A L G K E L A A

UniRef90\_I3DGE6 N S E R I D V T N F E H D E T A E N W L E G F L V K L

UniRef90\_W8HDT7 E H G R H D G S S I P K D Q A E E W A K N I G E

UniRef90\_UPI0003C01AAA Q L G Q G D E L C G Q E E A F R G W A K A A F Q A

UniRef90\_G9I595 A T G E G D E L N G Q E E A F S A W A

UniRef90\_E1W2V4 D S L K I D V L H V D D Q E Q F E D W L P Q F I N A L

UniRef90\_A8HAH4 D K I Q I D V Q Y D P I P E E A L A W L S G W Q D Q L

UniRef90\_B2IVX9 E G Y E F E N S R A L K N G K F V G L A L D

UniRef90\_G8UQW8 Q V Y T F D S S E A V I D G Q F I G L

UniRef90\_R0KQL4 R R G G D D Q D K E G W L T D F K P W C K E L I D

UniRef90\_UPI000288D923 T Q L E I Q G A A T D E E K K L I E F G E E M A A K I

UniRef90\_H1HMU8 D G Y T Y D D S E A V D D G Q F V G L A L D

UniRef90\_C4Z9A9 E G V I C Q D A P D D D A K A C E E L G K K L A A

UniRef90\_UPI00035D0BDA E H A R H D S S S I K P K A A E E W A R E L T G L L

UniRef90\_Q46AU0 P V L R I L H K P T D K D Q E C K R L G V D I A E K L

UniRef90\_R5LWM7 D G Y T Y D D S A A V I D G E C F V G L A I D

UniRef90\_K9UF39 D G Y D F N E S R G V R D G K F I G L A L D

UniRef90\_B8DMX9 E P V K V K H V P H D T Y G K C F E L G K T V A A A L

UniRef90\_A6F170 K T L E I I C T P D A I D D W F P E W S N N W L

UniRef90\_D8DZB4 D D Y T F D D S E A V D D G K F V G L A L D

UniRef90\_H6C447 P I G V A D A N D A N I D R Y D I W K E L W P A L

UniRef90\_I4WM23 D P V E V D S E D A S L R H W Q H L A

UniRef90\_G7M4Y8 E P L I V Q N E P D E M A E E C I N L G K K I A

UniRef90\_M0QGZ5 E H A R H D N S A A I K P A K A E W A E G L S P I I

UniRef90\_S8GZM2 T P V I E M K Q A M N A V E A E C R T L A K A M A D R I L

UniRef90\_F9MRD4 T T P N V I Q G A L K E D D E C A M K L G R E M A A A L

UniRef90\_I7LPN8 D T V K I E N A A E D D I D T L K A F V A A L L

UniRef90\_B8CGG3 K L G K A D A S G T D D M E Q I D R W I G D L W G V L L

UniRef90\_UPI00046CD5EF E P F E F V G A P S D A D E R G R F G R D F A R A L

UniRef90\_UPI000315F149 D M V I E V D N G D P G A L R H W Q N H L S A

UniRef90\_N9DMC5 D L V C V D Q S S A A D L N T W T H L E K A

UniRef90\_D7N610 D G F A A Y D N P D E D A E E C E A L G K E L A N A

UniRef90\_L1M1J6 A P V E V D S A D P L A L Q R W Q Q Q L A E

UniRef90\_Q82QD5 E R G I A D A A G D F D G M A T R W M D T L W T T L

UniRef90\_Q0D1W9 A L G T A N A A V S D L F S D L E L W E E N L L P A L

UniRef90\_UPI00031B10E6 P R L E I D L N D P L P E P A E V W L S T W K K S

UniRef90\_N8WTN9 K T I E V D N A N N E H I Q Q W T N A L A

UniRef90\_UPI0003834742 P M G E G D E L C A Q E E S F R T W A R N L V F Q A

UniRef90\_R4X6J0 E R G E G V A G D F I G E F E A W K E N L F Q V L

UniRef90\_G7XDP8 D I G L V D T A I A D M F T D F D N W S E A L W P A I

UniRef90\_C1FJ07 P R G E A D E T L G L Y E Y C E K W Q D G L W E P L

UniRef90\_Q03TQ9 D S V K I E N A A E D D I D T L K A Q R V L T S L

UniRef90\_F6W1L2 L T G E G D E L S G Q E E S F L N W A V Q T F K A

UniRef90\_I7KHM0 K P V T I E N A V K D E D I A L I D Q A A Q M A E A

UniRef90\_J2W0X2 D V V E V D N G D E G A L R H W Q H Q L

UniRef90\_UPI00047C37D0 D S V M A N D A P D D S A I A A C E A L G G A L

UniRef90\_A4BRG7 V G E V D R G D P Q V L A A W R E L A D

UniRef90\_D0KYA9 P M L M A D Q A D P V V L D E W V S Q L A S V W G

UniRef90\_F6DN05 P G I G V K W A P T E E E T S C R E L A M K V A E R L



UniRef90\_W4J0P7  
UniRef90\_H1LGR2  
UniRef90\_L8M7Y3  
UniRef90\_F0LQG9  
UniRef90\_UPI0003B6F4F5  
UniRef90\_UPI000479C916  
UniRef90\_UPI000249418B  
UniRef90\_D8FKJ4  
UniRef90\_N9WH55  
UniRef90\_H0QY39  
UniRef90\_W4YLP3  
UniRef90\_H0QK38  
UniRef90\_F7P160  
UniRef90\_W9DQS9  
UniRef90\_F2KR81  
UniRef90\_UPI0003513FD7  
UniRef90\_R5J506  
UniRef90\_U1LP71  
UniRef90\_U0EZC9  
UniRef90\_R5PGJ5  
UniRef90\_UPI0003B6C500  
UniRef90\_R6NQ80  
UniRef90\_K9YVJ2  
UniRef90\_F0GZ59  
UniRef90\_A0A031JY18  
UniRef90\_Q7MS46  
UniRef90\_K9RJK7  
UniRef90\_R6R1E2  
UniRef90\_C7XW25  
UniRef90\_C9VQM9  
UniRef90\_UPI00047AB43C  
UniRef90\_Q03GI7  
UniRef90\_UPI000225B3BA  
UniRef90\_V4PV46  
UniRef90\_M2Y9E4  
UniRef90\_X0P9A2  
UniRef90\_A4XKY2  
UniRef90\_B0S0G0  
UniRef90\_R5YIL2  
UniRef90\_R9AYK4  
UniRef90\_D1YYG2  
UniRef90\_A0A024U8M1  
UniRef90\_E6L0L0  
UniRef90\_Q6LTC9  
UniRef90\_C5BTG7  
UniRef90\_K0T749  
UniRef90\_Q8KUI0  
UniRef90\_L8MJ90  
UniRef90\_F9EMH2  
UniRef90\_I3EGE8  
UniRef90\_F9DRP6  
UniRef90\_A0A019B2S2  
UniRef90\_I8R8I3  
UniRef90\_R6YVV1  
UniRef90\_R7MJG2  
UniRef90\_E7RCI5  
UniRef90\_M7DBC6  
UniRef90\_U6RJG2  
UniRef90\_G4QNK2  
UniRef90\_UPI00036C938C  
UniRef90\_H2X2E4  
UniRef90\_UPI000478B678  
UniRef90\_V7NWS7  
UniRef90\_V4QIM1  
UniRef90\_A6WUK2  
UniRef90\_E6L7S2  
UniRef90\_UPI000289E706  
UniRef90\_S7TQN7  
UniRef90\_E8Q6X5  
UniRef90\_B6AHS8  
UniRef90\_G5H5P1  
UniRef90\_Q28UM2  
UniRef90\_R6EY26  
UniRef90\_B0NBH8  
UniRef90\_J6HQW9  
UniRef90\_W7YB49  
UniRef90\_R0G1I3  
UniRef90\_K6YEI9  
UniRef90\_G7YRK5  
UniRef90\_C2CKC7  
UniRef90\_R9N3E9  
UniRef90\_G9RSX7  
UniRef90\_B2JA61  
UniRef90\_UPI000344A729  
UniRef90\_R7AS96  
UniRef90\_R7X2F8  
UniRef90\_B9M4E5  
UniRef90\_I3Y900  
UniRef90\_C8RZQ1  
UniRef90\_D8JNZ5  
UniRef90\_A7IQ69  
UniRef90\_H6Q5X5

1 10 20 30 40

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

UniRef90_W4J0P7	N	K	E	E	I	K	S	F	G	L	R	F	L	V	A	T	Y	G	D	G	E	P	T	D	N	A	V	E	F	F	K	W	L	K	S	L	N	N	D			
UniRef90_H1LGR2	D	P	S	V				F	E	D	V	D	I	C	V	V	G	P	T	Y	T	D	E	G	A	L	P	E	E	G	M	D	F	F	D	D	L	S	D	L		
UniRef90_L8M7Y3	D	S	D	S	D	F		E	Q	Y	D	F	L	I	I	G	A	P	T	Y	W	D	I	G	E	L	Q	A	D	W	D	G	F	Y	N	D	D	L	S	D	L	
UniRef90_F0LQGG9	A	E					I	P	A	Q	G	T	W	L	I	I	T	S	T	H	G	A	G	D	Y	P	D	N	I	Q	P	F	L	I	Q	A	L	Q	A	T	P	P
UniRef90_UPI0003B6F4F5	P	D	E				L	Q	T	E	T	P	M	L	V	V	T	S	S	Y	D	E	G	E	L	P	T	S	I	R	P	L	H	A	Q	L	L	S	R	H	T	
UniRef90_UPI000479C916	T	P	M	E	A	L	E	Y	D	R	I	A	F	G	C	P	S	M	G	I	E	E	L	E	P	E	E	F	L	P	W	Y	E	E	V	E	P	F	L	G		
UniRef90_UPI000249418B	T	E	K			L	A	G	S	Q	G	P	V	V	I	V	A	A	S	Y	N	G	R	P	T	D	D	A	A	E	F	V	A	S	L	E	N	L	A	P	G	
UniRef90_D8FKJ4	P	L	S	Y	L	T	D	T	W	R	Y	R	G	V	I	L	G	S	C	S	Y	D	N	S	L	F	P	M	N	F	L	L	T	E	I	S	H	Q				
UniRef90_N9WH55	S	K	E	D	I	T	N	C	D	L	V	M	L	G	S	P	A	M	G	S	E	V	I	E	E	M	E	M	E	P	F	V	E	E	I	K	E	V	V	S		
UniRef90_H0QY39	A	V	E	D	L			D	T	E	D	F	L	V	V	V	C	S	T	Y	G	E	G	E	L	P	T	G	A	E	P	F	A	D	E	L	D	E	V	K	P	
UniRef90_W4YLP3	S	Q	L	A	D	I	E	N	S	L	A	I	F	C	V	A	T	Y	G	E	G	E	D	P	T	D	N	A	Q	E	F	Y	D	W	L	Q	D			G	N	G
UniRef90_H0QK38	T	V	E	K	I	S	D	E	A	L	F	V	F	I	C	S	T	Y	G	E	G	E	L	P	N	T	A	L	P	F	Y	T	A	L	L	S	E	T	R	P	L	
UniRef90_F7P160	N	D	V	L	A	F	A	P	D	I	W	L	V	I	T	S	T	T	G	Q	G	D	V	P	D	N	L	L	P	F	F	I	A	D	V	K	D	R	F	P	L	
UniRef90_W9DQ59	D	W	S	M	T	M	K	E	L	M	D	A	P	V	V	A	I	L	G	S	P	T	M	N	N	G	M	F	T	N	A	G	F	L	T	Y	L	T	G	L		
UniRef90_F2KR81	P	W	S	E	I	V	A	E	I	K	A	I	A	I	G	S	P	T	M	H	G	G	M	F	P	P	V	A	G	F	L	N	Y	L	K	G	L	K	P	R		
UniRef90_UPI0003513FD7	A	V	A	N	L	I	R	E	P	L	V	I	F	V	C	A	T	T	G	Q	G	D	P	T	D	N	M	K	N	F	W	R	F	I	L	F	R	K	N	L	P	
UniRef90_R5J506	H	A	S	Y	L	S	D	I	L	W	K	Y	I	L	G	S	C	Y	T	G	N	N	S	V	P	P	N	M	N	Q	L	M	Y	T	L	K	M	N	K	L	T	
UniRef90_U1LP71	E	Q					I	P	K	S	A	D	N	L	L	F	I	S	S	T	T	G	Q	G	D	I	P	E	N	L	L	P	L	V	L	Q	M	S	Q	F	P	
UniRef90_U0E2C9	S	E																																								

	90	100	110	120
UniRef90_W4J0P7	N D Y F R N T K Y M G L	G S K Q Y K H	N K I A K K L D T F L L	N F K A H Q L S
UniRef90_H1LGR2	D L K G K V Y G V A G S	G D T F Y E Y Y N T S	V D K F D E A F K K T	G A T K G S
UniRef90_L8M7Y3	D F S G K T V A Y F G T	G D Q S Y E N F Q D A	M G L E S K I S S E	D G G K T V G
UniRef90_F0LQG9	N T R D L T F A V V A I	G D S S Y D T F C A A	G K H A F D L L E	S E D I G A T P L A
UniRef90_UPI0003B6F4F5	D L T S L R Y A I F G L	G D N S Y E F F S R G	A D L D E S L Q V S	G A R R I G
UniRef90_UPI000479C916	S K L T A L F G S Y G W	G E G E W M D A W H	E R V R D L G L N L	F L E
UniRef90_UPI000249418B	S L T G L R Y A V L G V	G D R N W A T Y Q R I	P T L I D E R L A	A A G A V P L L
UniRef90_D8FKJ4	R M K N N F W A I F G	S Y S W S G G A L	K N L K K Y M E D	G K Y N V L E
UniRef90_N9WH55	G K D M I L F G S Y G W	G T G E W M E L W E	E R M E G Y G A N	L V K
UniRef90_H0QY39	D L S G L R F A V F G L	G D T Y G E T F N R	G G E I M A E R L	T A L G A R Q V G
UniRef90_W4YLP3	D L S G V K Y T V F G L	G N K T Y E H Y N A	M G K Y L D K R L	E E L G G E R I F
UniRef90_H0QK38	D L T G V K F A I F G L	G D S F Y E T F G H	G S L K L G A E L	E E L G A H R V G
UniRef90_F7P160	L T G K H Y A V I C L	G D S G Y G D T F G	A G K Q F S E L L A	E L Q G T A L A
UniRef90_W9DQS9	H P K G K K Y F L F G	S Y G W G G G A V	K G M E K M M E S	A K F E L A M
UniRef90_F2KR81	K K L G V A F G S C G	W G G G A V R E I N	K M L E Q M G F E	L I D
UniRef90_UPI0003513FD7	A T C Q L G D F A V L	G L G D S S Y A K F	N F V A K K L H	R R L L Q L G G S A L L
UniRef90_R5J506	N H S L G I F	G S Y G W S G G A	V K E L T Q F A S E	G G N F E V M
UniRef90_U1LP71	M L T G K T V G V V A	L G D S S Y D T F C	G A G R Q I L D A	L V Q E L N A T V T E
UniRef90_U0EZC9	R M S G L R F A V I A	L G D S S Y D T F C	A A G O H A L A	L A D I G T V T
UniRef90_R5PGJ5	G L Q G K T V A L F G	C G D S Y G D T F C	D A L G A L Y E	G L K D S G C T F A G
UniRef90_UPI0003B6C500	G K K I A L F G S Y G W	G D G W M R D W Q D	R L T S A G A T I L	G
UniRef90_R6NQ80	G K N V A L F G S Y G W	G D G E W M R E W E	K R V T D A G A K L	G A N
UniRef90_K9YVJ2	G	G S Y G W S G E A	I D I L E Q K I	K D A G F R F G F
UniRef90_F0GZ59	D K P V L I F G S Y Q W	A D G E W M E I W Q	D R C K N D G I N L	V R
UniRef90_A0A031JY18	A A K D L D Y A V L A	L G D R E Y P Q F C	A F G H E V D R W L	H T G G R R L F
UniRef90_Q7MS46	D L G S K K V A L F G L	G D Q E G H A Y L	N G M K T L H D	S A K K L G A T I V G
UniRef90_K9RJK7	D F S G K T V A Y F G T	G D Q Y D E N F Q D A	M G L E E K I S E	R G G K T V G
UniRef90_R6R1E2	G K T I G L F G S Y G W	G D G Q W M R D W V	D R M T S A G A T V	V G
UniRef90_C7XW25	D L H G K V Y G V A G S	G D T A Y D D F C	V A V D K F G E A	F D V A G A T K G A
UniRef90_C9VQM9	K S P A A P L A V L G	F G D R S F P D Y C	A F A K A I A D	G A R A K G W K E L I
UniRef90_UPI00047AB43C	G K K V A L F G S W G W	N G E W M T E W E	K R M E S Y G A I L I S	
UniRef90_Q03GI7	D L S D K V F G V A G S	G D T F Y E Y Y C	L A V D K F S E A	M T K A H A I L Q G A
UniRef90_UPI000225B3BA	Y K P N N I A V F G T	G D T Q F G Y Y C	G A V D R L V N F	F N S K W
UniRef90_V4PV46	D L A N R R F A V L A	L G D R K Y D R F C	A F G H R V F A W L	E S N K A H P L M
UniRef90_M2Y9E4	E L Q N L N F A V L A	L G D R G Y P H F C	R A G K L I E E	T L K N T G K E S I V
UniRef90_X0P9A2	D L N Q L T Y G V V G S	G D R Y G A D F C	R A V T I F D A	A L A H A G A N R G A
UniRef90_A4XKY2	V H G K I A G A F G	S Y G W S G E A	V S N I E T R L	K Q L R F K V V E
UniRef90_B0S0G0	N H V V S V F	G S F G W S G G A	V K N L K E F V E	E G K F E T T E
UniRef90_R5YIL2	D L S G K K V G L F G C	G D S Y P D T F C	D G V G L I Y E A	L A S T G C T F V G
UniRef90_R9AYK4	L S H V H F A V L A	L G S K E Y P D S Y C	S F G H A I A A W L	K Q N Q A H A L F
UniRef90_D1YYG2	G	G S Y G W S G E A	P I F I A K R M R E	L G F D V L D
UniRef90_A0A024U8M1	D F R H V H V A V Y	G L G N S E Y D N F	G K A S K A L S K H	F S T L G A S R L C
UniRef90_E6L0L0	D L S T L K F A V I F G	L G N S D Y D T F C	F A V D T V E Q C	L L A K S A V K M T
UniRef90_Q6LTC9	D F S T K L V A I F G C	G D Q E D E Y F C	D A M G T V R D I	I E G R G A T I V G
UniRef90_C5BTG7	D F S G K T V A I Y G L	G D Q Y P D E F V	D A M A E I Y E F	V K E R G A T I V G
UniRef90_K0T749	P L T N V A Y A T L G L	G D T N Y D Q F C	A S G K L L D R K	L N E W G A V R A L
UniRef90_Q8KUI0	D L S G V D Y L V L G C	G N L D W A T Y Q R	V P T L I D E A	M A A G A R R I R
UniRef90_L8MJ90	G	G L E F A V L G F G	D S R F P R Y C	G Y A V K V D Q Q L A R N R G L T P L I G
UniRef90_F9EMH2	G L K N R Y L G I F G	S N M M W S G G G	V K R I K E F A A T	L G L E Q I L G
UniRef90_I3EGE8	N A F E F Y F A V I G L	G D S S Y P K Y N Y	A A K R L F N R L	K Q V G I P L C
UniRef90_F9DRP6	P E P V Y V F G T G D	T Q F G G D E L F C	K A A E K L A R F	Y N S P F
UniRef90_A0A019B2S2	N L N H V R Y S V L A	L G D Q T Y E L F		
UniRef90_I8R8I3	D L T G K I Y G C A G S	G D T F Y D D Y C	K A V T D F S Q A	F K K A G A T Q G A
UniRef90_R6YYV1	G K T I G L F G S Y G W	G D G Q W M R D W S	D R M K Q A G A Y V	L G
UniRef90_R7MJG2	G K K I G L F G S Y G W	G D G E W M R N W K D D	C E S A G A V F A H	
UniRef90_E7RCI5	G N K E L R T A V F G T	G D S F F A E F C	G A V D R F R D M L	
UniRef90_M7DBC6	Q P G R P F G I V L G	D S S Y G D T F C	G A G D L M E E A	A L Y E T A A R K V G
UniRef90_U6RJG2	N G K N I A V F G T G D	S S Y S D T F C	D A I G Q L A D A	V Q K A G A V L V G
UniRef90_G4QNK2	D L Q G V N A I I V G L	G D S S Y D T Y C	G A M K M E T L I	V N Q G A T L L T
UniRef90_UPI00036C938C	D L S G K K V A L F G C	G D S S Y D T F C	D A V G L K E E L	S N S G C T F V G
UniRef90_H2X2E4	P N E N V N I A V L G L	G D S S Y Q N F N	F A G K K L F R R L	L Q L G A K M L T
UniRef90_UPI000478B678	D V K R I L T G I V G T	G D S C Y P K F C	G A V D E F R D M L	Y V H T K L I
UniRef90_M7NWS7	G Y K P P N T F I F G T	G D T Q F G L F C	R A A V K L A R F	Y E S P L
UniRef90_V4QIM1	D L S A Q S F A I A L G	D R S Y E D F C	A F G H R I D D W L	K A C G A T A K K
UniRef90_A6WUK2	D L S Q V N F A L C A I	G D S S Y D T F C	Q G P E K L I S A I	Q D C D A K A F V
UniRef90_E6L7S2	S G K V V A V F G M G D	S E S Y D T Y C	G G M G K L A Q N L	K D A G A T L V G
UniRef90_UPI000289E706	D L T G V T Y A V L G V	G D S R N W A T Y Q	H V P T R I D E R L	A E L G A T R L T
UniRef90_S7TQN7	N	R I G A A F G S F	G W S G E S V K I L E	K E L A G M K F N M V A
UniRef90_E8Q6X5	N F Y D K K V A I F G	G D Q S S E Y F C	D A M S L Y K I V L	K N G A K V I G
UniRef90_B6AHS8	K F K T F Q V F I F G L	G D R C F G N F N	L T A R K L H H R L	I Q M G A S E L N
UniRef90_G5H5P1	N L S G K L V G L F G C	G D S Y P D T F C	D A M G H L Y D D L	S G T G C R F I G
UniRef90_Q28UM2	D L S H V R F A I F G L	G D M F A E T F A	F G S K L M E K L V	E Q G A T M V G
UniRef90_R6EY26	D H L L G I F	G S Y T W A G Q A	V K I F T W N E R	M K F E L V G
UniRef90_B0NBH8	G K K I A I F G S Y G W	G D G E W M R E W E	T N C K Q A G A V L A C	
UniRef90_J6HQW9	N H T L G I F G T Y G W	S S G G G V K T L V N	L P K S N P A D F I E	
UniRef90_W7YB49	G V I Q N H Y L G I L G	S F S W S G A A	V K K L T A I G E	Q L K W E I V G
UniRef90_R0G1I3	A P P Q L Q F G V L A L	G D R S Y Q Q Y C	A F G Y A L H A W L	G R R H A Q P L F
UniRef90_K6YEI9	D L S G T T F I L V L G L	G D S S Y D T F C	H G A L K I E K L	L K N S G A R L D T
UniRef90_G7YRK5	N P T N L R F A V L G L	G D S S Y P K F N I	V A K K L Y R R L	V Q L G A T P L G
UniRef90_C2CKC7	N K P T V I F G S Y E W	N D G Q W M Y D W Q E	R C K D D G I N L I A A	
UniRef90_R9N3E9	G K K I A L F G S Y G W	G D G E W M R S W E D	M C R S D G A I F T C	
UniRef90_G9RSX7	G K K V A L F G S Y G W	G D G Q W M R D W Q D	C A A A G A V L C	
UniRef90_B2JA61	A T N N K L A G V F G	S F G W S G E A	V D L I E G K L K D A	G Y R F G F
UniRef90_UPI000344A729	D L N G K K V A Y F G T	G D Q Y S D N F M D A	I G L I A E K V E E	R G A G I T V G
UniRef90_R7AS96	G K T I A L F G S Y G W	G D G E W M R T W A D	R M K A A G A N V I G	
UniRef90_R7X2F8	I P G G V A F G V L G F	G D R Q F P H F C	G Y A R T V H D A L	T A K G L D A L T
UniRef90_B9M4E5	H L K T N I A V F G	S Y G W S G E A	C R L A E E R L K G	L N F A L P V
UniRef90_I3Y900	D F S G T R I A L F G L	G D Q Y P T Y F C	D A L K D L H D V F	T E A G A E L V G
UniRef90_C8RZQ1	T G P T M P V A V L G F	G D R M F A Q Y C	G Y A D T V A A L Q	A D G W P Q L L
UniRef90_D8JNZ5	L K H I N Y A V L A L G	S K E Y P D T Y C	S F G H V V D L W L	K T N G A H A L F
UniRef90_A7IQ69	L P G Q P A V A V L G F	G D R S F P T F C	R F A R V A D A L E	A R G C P Q L L
UniRef90_H6Q5X5	K D K M V A I F G C	G D Q E D Y S E Y F C	D A M G L N E L I	Q N Q A K M I G

		130	140
UniRef90_W4J0P7	E T I Y G D D D	D N I Y H D F E V W K N K F F M Q L	
UniRef90_H1LGR2	E D V K I N L E P	D E D D T K L D A F A K E L I T K	
UniRef90_L8M7Y3	D G Y E H E A S K A E K N G K F V G L A L D		
UniRef90_F0LQG9	D C F T I D Q E Y P V P E D A A E V W L N E R L A A		
UniRef90_UPI0003B6F4F5	E I G R H D A G G G T L A D Q A A R W V G A V I E E L		
UniRef90_UPI000479C916	E G L R I N S T P S K E A E D C K E F G K R F A		
UniRef90_UPI000249418B	E R G S A D A S G D F G G T V D Q W T E G L W Q A L		
UniRef90_D8FKJ4	H Q P E I Q G A A T R E E E D L I N L G K E M A A K I		
UniRef90_N9WH55	N G V I T N E F P E G E E E K L I E I G K S V V K		
UniRef90_H0QY39	E H G R H D L S G K I K P Q Q A K E W A Q E L		
UniRef90_W4YLP3	E L G L G D D D Q N I E E D F V T W K D R F W P A V		
UniRef90_H0QK38	E F G R H D A S T E P V G E A A V T W F A E V L S S M		
UniRef90_F7P160	P A L E I D A G E T L Q A E D A L P W I E Q		
UniRef90_W9DQS9	E S M Q I K F R P Y E E D K K A		
UniRef90_F2KR81	E G L E V K F K P T E E E		
UniRef90_UPI0003513FD7	P C L A D D Q H E L G L P S T F I		
UniRef90_R5J506	P T V E T K G T M K E D D E A L R Q L A K E M A A S I		
UniRef90_U1LP71	P R L D V D A C E H F E P E A V A P W L Q K W L Q H L		
UniRef90_U0EZC9	D C L T I D V N H D V P E D A A E A W L T D		
UniRef90_R5PGJ5	D G Y T F E S S T A V V D G C F V G L A I D		
UniRef90_UPI0003B6C500	E G V I A N S A P D A D A A Q C E D L G R M L A Q A		
UniRef90_R6NQ80	E S V I A N D S P D E D A V T A C N G L G K I V A A L		
UniRef90_K9YVJ2	D P I R V K F K P T D S E E A A T D F A Q K L K		
UniRef90_F0GZ59	D G L M A Y D T P D D E A E E C R K A A L D L S K A V		
UniRef90_A0A031JY18	D T I E V D G E D I D A E R Q W Q Q Q L		
UniRef90_Q7MS46	E G Y S Y D S S E A V V N G K F V G L A L D		
UniRef90_K9RJK7	D G Y E F S E S K A L R D G K F C G L A L D		
UniRef90_R6R1E2	E G V I C M G A P D A D A T A Q C E A L G A R L		
UniRef90_C7XW25	E N V H I N L A P D E D D K T L D A F V D K L I D		
UniRef90_C9VQM9	P F E T V D R Q S T Q D F A R W G R D L G A A I		
UniRef90_UPI00047AB43C	E G L T V Q E S P E G E D E E C I D F G K L I A K		
UniRef90_Q03GI7	E N L K I N L A P E S Q E D		
UniRef90_UPI000225B3BA	S G L K I E Q S P R G S Q E Q L I D W L R G V M E R V		
UniRef90_V4PV46	P C L E V D D L D A A L K Q W D E L L H S L G A		
UniRef90_M2Y9E4	A R G E V D Q E D W P V I E D W I D N V I G C L		
UniRef90_X0P9A2	D P L F V D L Q P D I K D Q A A I T F V D Q I I Q		
UniRef90_A4XKY2	P G L K V N F K P N E E E		
UniRef90_B0S0G0	T V V E A K G R M K E E D D Q L R Q M A K E I A A K I		
UniRef90_R5YIL2	A G Y S V T D S K I S K D G K F V G L A V D		
UniRef90_R9AYK4	D T I E V D N A N P E D I Q R W N H A L A K S		
UniRef90_D1YYG2	P V M R V Q Y K P N D K D E A C E R L G K D I A L K L		
UniRef90_A0A024U8M1	P R G V G D D N H D Q T A Q F D T W S D H L I A S L		
UniRef90_E6L0L0	D A L R I D V L T E T D Q E Q C E D W L P N F T N K I		
UniRef90_Q6LTC9	E G F E F E A S K A L V D D N F V G L C V D		
UniRef90_C5BTG7	E G Y E F E H S E A V V D D M F V G L V L D		
UniRef90_K0T749	P L V C A D E A T G L D S A V E P F L D S V L D G L		
UniRef90_Q8KUI0	E R G A T D A R A D F F G D W E R W Y E P L W P L L		
UniRef90_L8MJ90	P M A S V D Q D P A Q L Q W A Q R L G Q R L G L A L		
UniRef90_F9EMH2	E P I E I K G H I T P E E D R L I E L A N L M A D K L		
UniRef90_I3EGE8	E R C D C D E D P M G I Y S A Y I P W I E S L K A A I		
UniRef90_F9DRP6	E P L K I E Q S P R G T Q E K L V N W T K G V L D		
UniRef90_A0A019B2S2			
UniRef90_I8R8I3	K D V F V N L A P E A D D K A L D A F T E Q L V A K V		
UniRef90_R6YYV1	D A I C C G A P D A S A E E A L K E L G R Q L A E S		
UniRef90_R7MJG2	D Y V I C N E A P D D D A S K Q C E E L G A A L		
UniRef90_E7RCI5			
UniRef90_M7DBC6	D T L R I D A M E L D P E A E A V P W A R D W V T T L		
UniRef90_U6RJG2	N G Y S F D S S A S E K D G Y F C G L A I D		
UniRef90_G4QNK2	E P L H I D V L N H P I P E D A V D W F T A Q L E K L		
UniRef90_UPI00036C938C	D G Y E Y E A S D D L T D E R I D R W V E A V K S A L		
UniRef90_H2X2E4	E L A D D Q H E L G I D G A F V P W K N R I W E K I		
UniRef90_UPI000478B678	A T L K I E V S L Q S Y D I D		
UniRef90_M7NWS7	P P L K I E Q S P G G Q E E A V R E W T H H V V E R L		
UniRef90_V4QIM1	P V L E V D D L D A A A L K T W E N Y L A E W		
UniRef90_A6WUK2	D K I Q I D V Q L D P V P E D A L A W L A Q W Q Q E I		
UniRef90_E6L7S2	E G Y N F E A S D A V V D G K F V G L A L D		
UniRef90_UPI000289E706	D R T A A D A S G D L T G T V R E F T R T L R T A L		
UniRef90_S7TQN7	P G L K H Q Y V P D N D A E R C V A F G R Q I A A A V		
UniRef90_E8Q6X5	S G Y Y F D M S K S I I N D Q F V G L A I D		
UniRef90_B6AHS8	P G L G D E S H D F G L L G E F D P W L E N L A K F L		
UniRef90_G5H5P1	A G Y S F D S S E A V R D G K F V G L A L D		
UniRef90_Q28UM2	E R C V H D A S S P E M P E D L I P W A H D V L A		
UniRef90_R6EY26	T P A E I K Q S S A E T E A A C E A L G K A M A E R L		
UniRef90_B0NBH8	E S V I C N E M P D D E		
UniRef90_J6HQW9	E V V D V K C S P S Y E D Q K C I A L A D E M T K R I		
UniRef90_W7YB49	E S V E E K H A K S N K Y D A C L K L G T A M A D R L		
UniRef90_R0G1I3	D V I D V D N G D D G A L R H W Q H Q L		
UniRef90_K6YEI9	P A L N I D V L N Q P I P E S A I Q W L E I W L D S		
UniRef90_G7YRK5	L G L A D E Q A E L G V N S V M N W W V P R L W T V L		
UniRef90_C2CKC7	D G L I A Y D D P D D E A D Q V R A L A K S L L E K I		
UniRef90_R9N3E9	D S I I C R E A P D G S L S D C K A L G A A L A		
UniRef90_G9RSX7	E G L T V N E A P D D I A A E C T A L G K A L		
UniRef90_B2JA61	D T I R V K F K P D D A E E A G T D F A Q A L K K A		
UniRef90_UPI000344A729	D G Y D F N E S R A V R D G K F V G L A V D		
UniRef90_R7AS96	E S A I C Q E M P E D A D K V C R E L G S S L A K		
UniRef90_R7X2F8	D P G T V D R Q S E P E F R Q W C T G L A E R L		
UniRef90_B9M4E5	P F V R A P F T P R A E A E Q C E A L G R A I A E E V		
UniRef90_I3Y900	S G F E L K R S R A V V D G R F V G L A L D		
UniRef90_C8RZQ1	E T A R I D R Q S V V D F A A W G R D L G K A L		
UniRef90_D8JNZ5	S T I E V D N A N L S D I Q N W N Q A L A K A		
UniRef90_A7IQ69	P M K R I D R R S A Q E F A Q W G R D L G G A L		
UniRef90_H6Q5X5	K G Y K F E A S K A L T N K K F V G L A L D		



		1		10		20		30		40																																		
UniRef90_G4Q5V0	K	K	T	A	V	T	Y	W	S	G	T	G	N	T	E	A	M	A	N	A	V	A	E	G	M	K	E	A	G	A	D	V	S	V	M	T	A	T	E	A				
UniRef90_R1G0V7			V	V	V	F	Y	G	T	L	K	G	G	S	T	R	N	I	A	E	R	L	A	A	K	L	R	E	A	G	V	D	A	A	E	T	V	S	L	I	G	Y		
UniRef90_C6AL12			V	G	L	F	Y	G	S	D	T	G	N	T	G	R	N	I	A	K	M	R	L	A	K	Q	R	L	G	S	D	L	V	D	I	R	D	I	A	K	S	S		
UniRef90_H6SRQ6			V	H	V	T	Y	G	S	D	G	G	T	T	R	E	N	I	A	Q	R	L	A	S	Q	R	L	G	G	R	A	I	D	I	T	K	A	S	V	A	D	L		
UniRef90_B1WVS6	K		I	G	I	F	Y	G	S	T	S	G	I	T	E	E	I	A	M	T	L	R	Q	K	L	G	E	E	Q	C	D	I	Y	S	M	E	E	D	F					
UniRef90_M1FAT5			I	R	I	L	V	L	G	S	V	Y	G	G	A	L	M	S	A	R	A	V	E	K	T	L	T	P	L	G	Y	R	V	T	V	I	H	D	A	S	E	P		
UniRef90_UPI0003725497	K	G	V	V	I	V	F	S	S	M	Y	G	N	T	E	K	M	A	D	V	I	A	R	F	L	A	E	R	G	I	K	I	R	I	H	D	A	S	E	E	K			
UniRef90_F5SWF6			I	A	V	I	Y	G	S	T	T	G	N	T	S	D	A	A	V	K	I	A	K	L	L	G	E	D	Q	V	E	L	F	D	V	K	D	V						
UniRef90_G7VNN4	K		A	Q	V	V	A	Y	A	T	L	T	G	N	N	E	D	V	A	D	L	I	E	A	L	E	N	A	D	V	T	V	K	K	S	E	I	S	Q	T				
UniRef90_C8X7K1	R		L	V	V	A	A	S	S	D	G	T	A	R	H	L	G	Y	D	L	A	H	E	A	V	D	A	G	D	A	A	D	G	V	E	L	N	A	L					
UniRef90_C4LC07			I	G	L	F	F	G	S	D	T	G	N	T	E	A	V	A	G	M	I	Q	K	E	L	G	S	D	L	V	D	V												
UniRef90_H8Z606	K	T	L	L	I	F	Y	L	S	S	Y	G	N	T	A	R	M	A	E	A	L	R	D	G	L	E	E	A	G	V	R	V	S	L	Y	D	L	A	G	G				
UniRef90_A4J8P2			V	T	I	L	Y	D	T	M	W	G	A	T	K	K	M	A	L	A	M	A	R	G	L	E	N	K	G	V	P	A	K	V	I	N	T	A	K	F				
UniRef90_R6SQB4			I	S	V	V	Y	W	S	G	T	G	N	T	Q	A	M	A	E	A	I	G	E	G	L	E	S	A	G	A	Q	V	N	V	I	S	V	D	Q	A				
UniRef90_D1XW31	K		K	T	I	L	V	V	Y	G	S	T	G	V	C	E	E	S	I	A	N	T	I	G	S	K	L	G	A	E	V	I	D	V	A	D	F	T	A	D				
UniRef90_UPI00047639B1			K	I	G	L	F	Y	G	S	D	E	G	T	E	E	S	I	A	L	R	I	R	A	R	L	G	E	D			R	V	D	L	F	D	I	A	D	V			
UniRef90_Q01CI8	K		K	N	L	V	V	Y	M	T	T	G	G	T	S	E	R	F	A	R	A	L	A	R	A	A	K	A	T	G	E	R	W	T	T	M	D	G	G	D	V			
UniRef90_R6ZNVW6	K		V	V	I	V	Y	E	S	V	W	K	H	T	Q	E	Q	I	A	E	S	L	A	E	G	F	A	A	A	G	M	D	V	K	V	Y	K	L	S	I	T			
UniRef90_R5J604			I	M	V	Y	E	S	Q	T	G	N	T	E	A	M	A	Q	A	V	A	A	G	V	A	E	E	A	G	K	K	A	E	L	A	E	V	S	A	T				
UniRef90_R5XEC3	K		V	S	I	F	Y	L	S	A	Y	G	N	T	K	K	M	A	E	K	V	A	E	G	A	R	S	E	G	V	E	V	G	L	Y	D	L	E	S	Q	L			
UniRef90_A4VJA3	R		I	L	G	L	F	F	G	S	N	T	G	K	T	R	K	V	A	K	M	I	K	K	R	F	D	A	D	P	L	N	V	N	R	T	S	A	A	D	F			
UniRef90_J7SKW2			A	G	I	F	F	G	S	D	T	G	N	T	E	N	I	A	K	M	I	Q	K	L	L	G	D	D	V	A	E	V	R											
UniRef90_C8N839			I	G	F	F	Y	G	S	T	T	G	M	T	E	D	V	A	Y	R	I	E	A	C	I	K	E	K	G	L	E	I	V	P	I	N	I	I	D	L				
UniRef90_E5YAC8	R		A	V	I	V	Y	D	S	M	W	G	S	T	G	L	M	A	S	A	I	A	S	G	L	E	D	E	D	V	P	V	R	L	I	D	I	H	S					
UniRef90_C1MMZ9			V	A	V	I	Y	A	S	A	Y	G	N	T	S	A	M	A	Q	A	I	A	R	G	I	T	K	A	D	V	A	V	E	M	L	N	C	E	L	S				
UniRef90_G0UIA5			A	K	V	Y	F	A	T	I	T	G	N	N	E	D	V	A	D	V	I	V	E	T	F	Q	N	E	S	V	E	V	T	K	E	D	I	C	E	L	V			
UniRef90_C5VQ26			V	Q	I	L	Y	A	S	A	Y	H	T	E	N	M	A	K	Y	M	C	E	K	L	N	A	K	G	V	N	T	Q	C	H	E	I	N	T	E	V				
UniRef90_D4TPR1			V	A	L	I	Y	A	S	A	Y	G	N	T	A	T	I	S	Q	A	I	A	R	G	I	T	K	A	G	V	S	V	E	S	I	N	C	I	T	E	F	A		
UniRef90_B6VMV8			I	G	I	F	F	G	S	D	T	G	N	T	E	N	I	A	K	K	I	Q	K	L	L	G	S	D	V	A	E	V	H	D	I	A	K	S	S					
UniRef90_N9FL29	K	P	W	L	I	T	Y	A	S	Q	T	G	I	A	E	Q	L	A	W	R	T	A	T	S	L	Q	E	A	K	Q	P	T	T	V	K	P	I	Q	K	S	L			
UniRef90_M1VWV39			K	A	V	I	V	Y	D	T	M	W	G	S	T	H	S	T	E	R	M	A	N	A	V	A	S	G	L	A	D	E	G	V	S	V	R	V	M	S	M	K	S	N
UniRef90_M7P2D6			L	A	I	I	Y	G	S	T	T	G	N	T	E	D	A	A	K	K	I	Q	D	F	F	G	A	D	N	A	E													
UniRef90_E7GHE1			A	L	I	V	F	D	S	M	W	G	S	T	H	S	T	E	T	M	A	Q	T	I	A	E	A	F	T	E	K	G	E	P	V	K	L	F	D	L	K	Q	T	
UniRef90_G9ZER7			L	L	L	L	Y	A	S	Q	W	G	Q	A	E	T	L	A	Q	T	L	A	P	Q	L																			
UniRef90_UPI0003B3B20A			V	L	L	V	G	S	E	S	N	T	T	W	A	F	A	K	T	L	H	D	A	L	V	Q	A	G	H	R	V	H	T	A	P	M	D	Q	L					
UniRef90_K8WEL4	K		I	G	L	F	Y	G	S	T	C	Y	T	E	L	V	A	E	K	I	R	D	L	L	G	D																		
UniRef90_B7GK19			L	A	V	I	Y	T	S	K	T	G	N	T	K	E	V	A	L	L	I	E	E	A	F	C	S	Y	G	H	A	V	K	T	I	D	I	E	H	I				
UniRef90_D2MN51	K		L	A	V	V	Y	S	A	T	G	N	T	Q	M	M	A	E	A	V	V	A	G	G	Q	S	A	G	G	E	V	E	L	I	E	A	G	D	F					
UniRef90_F0T7G1	K	V	T	I	V	Y	D	T	M	H	G	S	T	Q	K	M	A	H	A	V	A	E	G	A	G	A	S	Q	G	A	D	V	K	I	Y	L	H	S	E	D				
UniRef90_H0E116			K	F	T	I	F	F	G	N	A	D	T	C	E	G	M	A	Q	D	L	Q	S	R	A	Q	A	H	G	L	E	G	E	I	Q	A	L	D	S	E				
UniRef90_O30070	K		V	L	V	V	Y	A	T	M	W	G	S	T	E	R	M	V	N	L	L	T	E	L	L	M	K	E	G	L	K	V	A	V	H	N	L	A	S	A				
UniRef90_E3DMD8	K		V	G	I	F	Y	G	S	T	T	G	N	T	E	T	I	A	M	S	L	A	S	Q	L	K		N	Y	D	V	D	V	Y	N	V	N	S	A					
UniRef90_UPI00037B98E3			V	V	I	A	Y	G	S	M	Y	S	N	T	E	K	M	V	E	A	T	A	R	Q	L	A	K	E	G	I	K	I	R	V	Y	N	V	S	K	T				
UniRef90_R4YPJ6			V	I	L	V	G	S	E	S	N	S	T	W	G	F	A	K	A	F	H	D	A	L	N	T	A	G	Y	L	V	H	T	T	S	M	N	S	F					
UniRef90_H1S1N1			V	L	C	Y	G	S	L	G	T	A	R	E	L	A	E	Q	I	H	A	G	A	L	A	A	G	F	A	T	L	R	D	L	D	E	A							
UniRef90_D4H0W6			V	T	L	V	F	A	T	A	Y	G	N	T	K	K	L	A	D	A	I	T	K	G	I	E	E	V	G	V	K	V	E	E	F	D	C	A	T					
UniRef90_X8J0R0			I	T	I	V	T	Y	G	T	E	T	G	S	S	L	N	F	A	N	R	L	Q	E	H	L	R	S	R	S	L	E	V	A	E	S	L	V	E	L				
UniRef90_L0K8G0	K		A	V	V	I	Y	E	T	M	W	D	S	T	E	L	V	A	Q	K	I	V	E	G	L	I	D	A	G	I	E	V	N	F	Y	R	K	S	I	S				
UniRef90_E4PRL3			I	R	I	L	V	G	S	V	Y	G	G	A	L	L	T	A	R	T	L	K	K	E	L	E	G	E	G	H	H	V	T	V	L	E	L	D	D	I				
UniRef90_S7TPF8	K		V	L	V	A	Y	A	S	R	T	G	K	T	Q	K	M	A	E	F	I	A	E	G	V	R	M	L	G	H	T	A	D	V	K	K	I	S	E	F				
UniRef90_E3H7Z7			V	V	I	V	Y	G	T	M	Y	G	N	T	A	K	Q	A	N	A	L	A	R	E	L	S	A	Q	G	E	V	A	K	V	Y	D	A	S	K	T				
UniRef90_V4Q193			L	V	L	Y	A	S	Q	T	G	N	T	Q	A	E	E	I	A	R	N	T	A	K	A	L	J	A	G	R	D	A	Q	A	L	S	I	A	Q	V				
UniRef90_UPI00047A0514	K	T	L	L	I	F	Y	I	S	A	Y	G	A	T	R	R	M	A	E	A	I	A	Q	G	A	E	E	E	G	V	R	V	S	L	Y	D	L	D	V	S				
UniRef90_Q111R5			K	I	G	I	F	Y	G	S	T	S	G	V	T	E	E	I	A	T	A	L	H	E	K	I	G	E	E	L	C	D	I	Y	S	M	E	E	D	Y				
UniRef90_UPI0003B48F45	K	K	V	A	V	V	F	W	S	G	T	G	N	T	E	Q	M	A	N	V	L	A	D	A	I	V	E	A	G	A	E	V	K	V	F	T	A	S	E	F				
UniRef90_T0ITN7			L	V	I</																																							

	50	60	70	80
UniRef90_G4Q5V0	A S L D P S T Y D G L A F G C P A M G S E V L E E S E F Q P M W D V V K G K L S			
UniRef90_R1G0V7	D T D G L T S Y E C A F V I A T Y E G G V P P E G Q C A A V D S L A S A A D			
UniRef90_C6AL12	K E D I E A Y D F L F I A T Y E G G V Y Y G E P G Q C A A V D S L A S A A D			
UniRef90_H6SRQ6	E S P A L L I L G C S T Y G F G D L Q S D W E D R L L S L K E A Q L			
UniRef90_B1WVS6	D E Y D Q L L D Y D Y L L L G C S T W G A G D V Q N D W R D P L F E M E L E K P			
UniRef90_M1FAT5	Q L S D I T D N N D A L L V C S T T W G A G Q E L P S N I L Q F Y V D L R D Q K L P			
UniRef90_UPI0003725497	H P S Y I I N D I F R Y I F G S C A Y N G N A F P T M E T L L T E L E H M G V K			
UniRef90_F5SWF6	G L A A L E F F D N I F A I P T W D Y G E V Q A D W Q D W D E I L D E V			
UniRef90_G7VNN4	E V D E L E D V D I A V V V P Y T Y D Q G S L P D E G L D F Y D D L A D A			
UniRef90_C8X7K1	V D R L P V D R P L V V I T A S Y N G Q P A A G A R D F V S W L S A A P D G			
UniRef90_C4LC07	A Q S T H S D F D K Y D L L G I P T W Y Y G E S Q A D W D D F Y P L E K V			
UniRef90_H8Z606	A L Q P F V D L I E S A D A L A L G S T I N G D A V K P I W D L L S S L A V I			
UniRef90_A4J8P2	D K N D I V T E V F R S K G I I V G S S T I N N G I L S S M A A T L E I K G L			
UniRef90_R6SQB4	S V D A L A E E D V F A L G C S A M G A E L E S E M E P F V A E L E G K V S			
UniRef90_D1XW31	I I G A Y D N L I L G T S T W G A G E L Q D N W Y D G V E V L K K A			
UniRef90_UPI00047639B1	T Q L D I A N Y E Q I L F G I P T W D F G Q I L Q D W E E F W E D V Q E I			
UniRef90_Q01C18	D D P E N T R A G I T T V F V V S T D T G G A A K R G A W L A R W A R E T A Y			
UniRef90_R6ZNW6	R S S I V M K E L M M V C V G T G T Y N N A M A P S V A S F L E R V K S C K I N			
UniRef90_R5J604	S A A D L K D A K A F A L G C P A M G A E V I E D E M E P F V A E V E G F A S			
UniRef90_R5XEC3	T H E E M H D K F L E S K V V V L G S T I N R T M V K P M W D L S N V D P M			
UniRef90_A4VJA3	A G Y S H L I L G T P T L G E G L L P G L S A D C E N E S W E E F L P Q I E G L			
UniRef90_J7SKW2	A K C S K E D I E G F D F L L L G I P T W Y Y G E A Q C D W D D F F P L E E I			
UniRef90_C8N839	D D P N D M F I Y K R I L I G M P T W N Y G E Y Q D W D L V V D K I A S A			
UniRef90_E5YAC8	D V M T E L A D C G A V I V G S A T H N N N V L P G I A D V L T Y M K G L R P L			
UniRef90_C1MMZ9	T S Q E V A E V M A R T E G F C L G A P T L G G H M P T P V V S N A L G T I V K E			
UniRef90_G0UIA5	D P Q D I S S T D T D I V V V V P P T F D K G S L P D E A L D F Y E D T I V D T			
UniRef90_C5VQ26	G I D K A V I E L I N N S S G F I I G S P T M N Q D A V I E P V W R V L T S T C V I			
UniRef90_D4TPR1	E P E E I K S A I E K C A G F V I G S P T L G G H A P T V Q T A L G I V L S T			
UniRef90_B6VMV8	K E D I E Q F D I L L L G I P T W Y Y G E A Q C D W D D F F P T L E E I N F			
UniRef90_N9FL29	T P Q D L Q Q A E Q V L F V V S T Y G T G D A P D L A S S F T K K V M R Q T F D			
UniRef90_M1WW39	D H S D V M T E V F D V V G S P T H N N G I L P L M A D M L T Y M K G L R P Q			
UniRef90_M7P2D6	K D T G L A A V E Y F D T L V F A I P T N W D Y G E V Q S D W E D V W D E I D S T			
UniRef90_E7GHE1	H I S D I V V S L L D C K Y V A V G S P T L N N N M L P T V A A F L C Y M K G L			
UniRef90_G9ZER7	R H P L K A L N H K T L I L A S T T G E G A P D N A V R F T R T L C K Q T V			
UniRef90_UPI0003B3B20A	A S H Y R A A Q R L F I L L T A T Y G D G D A P A S A K H F L K R L E K I T			
UniRef90_K8WEL4	P P E M M E Q Y N I L I L G I P T W D F G E I Q E D W L T I W D A L P N L			
UniRef90_B7GK19	F A I E S L I H E A H L L L F G S Y T W G N G Q L P D E M R K L F L I K E R			
UniRef90_D2MNN5	T A G D V A N Y D T I A F G C S A Y G A E N L E G T F E P M F Q E V E G Q L S			
UniRef90_F0T7G1	E R S E I V K D I L D S K A V A F G I P T I Y D E P F P S V G D I V Y Y L R G L			
UniRef90_H0E116	T E N L P T D R P I V I I S S Y E G K P D N A K K F V S W L E T K S D V			
UniRef90_Q30070	D L G E I A K D S R A I V L G T P T V L G M H P L A L F A A N L V K A L R P P			
UniRef90_E3DMD8	A K E D V E A Y D N L I L A S S T W G L G E L Q S D W I D F I E E L K E V			
UniRef90_UPI00037B98E3	H M S Y I I N D V W R Y I L A S C T Y N T G V F P L M D N L R F L N K K I K			
UniRef90_R4YPJ6	T S N L T N S C A N T Q R L F I L L T A T Y G D G D A P A S A S Q F L T Q E A M T			
UniRef90_H1S1N1	V G A L P T D G L A V I V A A T Y N G R A P D S A R R F E A M L D S G D A G			
UniRef90_D4H0W6	D V M T M I D S I E I S H G V L I G T P T L N A K A P H P I L D L F S F F V L			
UniRef90_X8J0R0	N D L D L T K V S G T L V V V T S S F G D G E A P S D A S L F S E H I D E R I			
UniRef90_L0K8G0	D K N D I V T E I K A V I V G S P T I N N V M I P A V T P I L E E L E G L R F K			
UniRef90_E4PRL3	T S N N D A L L V C S T T G Q G E L P A N L L P F Y L D L R D Q L P Q Q P G R			
UniRef90_S7TPF8	K K P E E L N Q Y D A Y V F G C P T Y H R D M T A G M K T F L F L			
UniRef90_E3H7Z7	D H S F I L S D I W K Y I I G S C S H N N A L Y P K V Q P L L H K L Q N Y G L K			
UniRef90_V4Q193	T V A H L E A A K T I L C V I S T T G E G D A P D E G L R F A Q S L M Q D R P			
UniRef90_UPI00047A0514	P F I L D I E A T A D G I A I G S P T I N G D A T K P V W D L L S S H T I			
UniRef90_Q111R5	D E Y S Q L L D Y D Y L L L G C S T W G A G E V Q N D W R E P L F D M D I E K P			
UniRef90_UPI0				

	90	100	110	120
UniRef90_G4Q5V0	G K S	V L F	G S Y	G W G T
UniRef90_R1G0V7	D L R	S L R	F S V	F G C
UniRef90_C6AL12	D F T	D K L	V A L	F G C
UniRef90_H6SRQ6	S G K	R V A	L F G	T D Q M T Y
UniRef90_B1WVS6	D F T	G K T	I A L	F G A G D Q
UniRef90_M1FAT5	Q Q P	G R F	F G S	I V L G D S
UniRef90_UPI0003725497	N H V	T A F	F G S	A K A W A G G A M
UniRef90_F5SWF6	D F S	S K T	V A F	L G M G D Q
UniRef90_G7VNN4	N L A	G V V	Y G V	A G S G D T
UniRef90_C8X7K1	A A H	G V R	F A V	F G C G D H
UniRef90_C4LC07	D F S	S K L	V A L	F G C G D Q
UniRef90_H8Z606	D		L K G	K L G A A F
UniRef90_A4J8P2	K F K	E K V	A A F	G S Y G W T
UniRef90_R6SQB4	G K K	I L L	F G S	Y G W G D
UniRef90_D1XW31	D L S	G K T	V A L	F G C G D Q
UniRef90_UPI00047639B1	D F S	G K T	V A L	Y G L G D Q
UniRef90_Q01CI8	D E R	A G W	M Y V	F G C G N R E
UniRef90_R6ZNV6	D		K K G	L A F G A Y
UniRef90_R5J604	G K T	I G L	F G S	Y G W G D
UniRef90_R5XEC3	A N R	G T I	A G V	F G S Y G W S
UniRef90_A4VJA3	D F T	G K T	V A L	F G C G D Q
UniRef90_J7SKW2	D F N	G K I	V A L	F G C G D Q
UniRef90_C8N839	N L Q	G T V	I A M	F G L G D Q
UniRef90_E5YAC8	N		R V I	G A A F G S
UniRef90_C1MMZ9	A S R	E Y P	A G V	F G S F G W S
UniRef90_G0UIA5	D L S	G I V	Y G V	S G S G D D
UniRef90_C5VQ26	P N K	G K V	S A A	F G S Y G W S
UniRef90_D4TPR1	A T N	N K L	V A G	V F G S F G W S
UniRef90_B6VMV8	D G K	L V A	L F G	C G D Q E D
UniRef90_N9FL29	L S Q	M Q Y A	V L A	L G S K E Y
UniRef90_M1VW39	N		K I G	S A I G S F G W S
UniRef90_M7P2D6	D F T	D K T	V A M	V G M G D Q
UniRef90_E7GHE1	S P K	N R Q	A F S	F G S Y G W G
UniRef90_G9ZER7	P L T	N T R	Y H L	L A L G D K R
UniRef90_UPI0003B3B20A	Q Q P	T F A	T A L	L G F G E R Q
UniRef90_K8WEL4	Q L Q	D K I	A M Y	G M G D Q
UniRef90_B7KG19	N L P	L P V	A L F	G T G D Q M W
UniRef90_D2MN51	G K T	I G L	F G S	Y D W G D G S
UniRef90_F0T7G1	K F D	R T G	L K R	K A A T F G S
UniRef90_H0E116	S L K	D V K	Y A V	F G V G N S
UniRef90_O30070	A R Y	A A V	L S S	F G W G S D W
UniRef90_E3DMD8	D L K	N K K	I A L	V G T G D Q
UniRef90_UPI00037B98E3	N K V	L G L	I	G S Y M D T
UniRef90_R4YPJ6	E I P	T F P	V A V	L G F G D Q
UniRef90_H1S1N1	G Y R	A A N	L R F	A G C G N S
UniRef90_D4H0W6	N V V	N R L	G G C	F G S S F G W S
UniRef90_X8J0R0	G A N	P V R	F A V	F G L G N S
UniRef90_L0K8G0	N		K L G	A A F G S
UniRef90_E4PRL3	P F G	I V L	G D S	S Y G D T F
UniRef90_S7TPF8	A E N	L N L	T G K	M G G A F G
UniRef90_E3H7Z7	N R Y	L G I	F	G N Y M M W S
UniRef90_V4Q193	D L S	G Q S	V A V	L A L G D R N
UniRef90_UPI00047A0514		H V R	G K L	G A A F G S
UniRef90_Q111R5	D F T	G K T	I A L	F G A A D S
UniRef90_UPI0003B48F45	C K P	E L K	G K P	I A L F G S
UniRef90_T0ITN7	D L S	H L E	F G L	L A L G D R E
UniRef90_R7CD77	D		M P T	A L F G S Y D
UniRef90_Q50497	R T L	T R K	A L V	F G S M G G N
UniRef90_D2Z669	G		R F V	G I C G S Y T
UniRef90_C4M5R3	M H N	N R L	I Q C	F G S S F G W S
UniRef90_G0H111	R F D	R T G	F K K	L A L T F G S
UniRef90_F5J344	D F T	G K K	V A L	L F S L G D S
UniRef90_Q485E7	D F T	D K L	V A L	F G L G D Q E
UniRef90_H2YWM5	D F R	N M R	F A I	F G L G N S
UniRef90_A0A0241RF4	E P T	I P I	A V L	G F G D R S
UniRef90_D6Z5K3	N		K L G	A A F G S
UniRef90_W7DH15	K P P	H V A	I F G	T G E T Q W S
UniRef90_N8QEF9	D L S	H Q S	Y A I	L A L G D K R
UniRef90_UPI00038EC5D7	A S C	Q N F	W R F	G L G D S S Y
UniRef90_B5I158	G D R	S K P	V G V	F G S S F G W S
UniRef90_UPI00047EA167	Q P H	Q I Q	Y A V	V I G F G S
UniRef90_F4GM78	K R K	V M R	F	G S F G W S
UniRef90_K2KKK8	D F S	D K L	V A I	F G C G D Q
UniRef90_K9TR58	S		K L A	G V F G S
UniRef90_K6TIJ9	E N K	N K N	C I L	F A T Y G W I
UniRef90_A0A059LIJ5	N L A	S T P	V S V	C G L G D S
UniRef90_F6BB11	K		P T N	K I G V A F G
UniRef90_X8IN85	G K K	L V L	F G S	Y D W G D
UniRef90_L1LAA8	N R M	S L K	F A M	F G F G S
UniRef90_B2J061	S		K L A	G V F G S
UniRef90_UPI0003798B20	L K P	G L P	F A V	L G L G D R Q
UniRef90_A1DK57	A L Q	G V S	Y A V	F G C G D Q W
UniRef90_B7XIQ9	A V F	K F Q	Y S I	L G L G D S
UniRef90_M1X5J7	A N N	N Q L	A G V	F G S S F G W S
UniRef90_Q7NNV1	T G K	K I A	Y F G	T G D Q V G
UniRef90_D0N6W4	T Q P	D D M	Y T V	L G L G D T
UniRef90_H0UJD1	N L S	G K K	I A L	F A C G D Q
UniRef90_C3JCG6	N L A	G K C	V G L	F G C G D S
UniRef90_M4Y2U1	D F N	G K V	A I F	G C G D Q E
UniRef90_M3WSR6	N L P	Q T S	L C Q	M G L G D S
UniRef90_UPI0002D45B42	K L Q	G K T	V A L	F G L G D Q
UniRef90_R5K407	G K K	I A I	F G S	Y G W G S

		130	140
UniRef90_G4Q5V0	D	P	L L L L N G S P D D A
UniRef90_R1G0V7	R	S	C W G D D D D N R L S E Q F G E W S A R A V P S L
UniRef90_C6AL12	E	G	Y T F E S S S Q A L I D D T F V G L C I D
UniRef90_H6SRQ6	K	G	Y D H T G S A A Q R D G R F V G L A L D
UniRef90_B1WVS6	E	G	Y T F Q Y S S A L L N D K F V G L
UniRef90_M1FAT5	D	T	L R I D A M E T M E P E E A A E W A Q E W V K Q L
UniRef90_UPI0003725497	P	S	C E A C G C P K D D D E T C R N I A Y A M A D K L
UniRef90_F5SWF6	E	G	Y E F D A S K A L T A D K F V G L A L D
UniRef90_G7VNN4	A	G	V K I N L N P Q A N D P T L Q K F A Q D L I T A
UniRef90_C8X7K1	D	R	G E G D S S G D L D G A F T R W S R S L W Q A L
UniRef90_C4LC07	E	G	Y Q F E A S K A L V D D K F V G L G I D
UniRef90_H8Z606	V	G	L R I K L I P T D A E E D C R A F G R A L G A A M
UniRef90_A4J8P2	E	G	K K V N W D P T G D E N E C I A F G E V F A E Q I
UniRef90_R6SQB4	P	G	V I A N E T P G S D D L D A
UniRef90_D1XW31	D	D	Y T Y D D S E A V V D G N F V G L A L D
UniRef90_UPI00047639B1	E	G	Y E F E A S K A E V E G E
UniRef90_Q01CI8	R	R	R D G D E A T G R M E A Q F E D W A E K V V K R L
UniRef90_R6ZNVW6	D	A	I A Q N F T P S E D E D N Y Y K L A L E I G K S L
UniRef90_R5J604	G	E	G I I T Q E T P D D D A L V K C K E L G K T L
UniRef90_R5XEC3	E	T	V K K K F F P D E A
UniRef90_A4VJA3	E	G	Y E F T H S E A V V D G K F V G L A L D L
UniRef90_J7SKW2	E	G	Y H F E E S K G L A D D S F I G L A I D
UniRef90_C8N839	E	G	L A L D E D P E K T Q E R L E A W V A Q V I P L L
UniRef90_E5YAC8	D	P	V K C L F V P K H E L S Q C V A L G K T V A E A L
UniRef90_C1MMZ9	E	P	I R C K F K P T Q E
UniRef90_G0UIA5	E	G	V K V N L S P D A T A T K A L A F T K Q L I
UniRef90_C5VQ26	D	G	F R F K F V P S N K D K N A D E F I E K F I S L I
UniRef90_D4TPR1	E	P	I R V K F K P N E T L Q N C E E A G T D F A Q A L
UniRef90_B6VMV8	A	G	Y H F E E S K G L A D D N F I G L A I D
UniRef90_N9FL29	D	L	I E V D N A N I N D I Q R W N Q A L
UniRef90_M1WW39	D	P	V K V K H V P H D T L A E C Y N Q G K A L A A A I
UniRef90_M7P2D6	D	G	Y D F E A S K A L T E D K F V G L A L D
UniRef90_E7GHE1	E	T	L K I Q Y I P S E E Q L K E L S E K I K
UniRef90_G9ZER7	P	I	A T V D N L D P Q T I A Y W Q Q Q L A A A
UniRef90_UPI0003B3B20A	P	L	D T I N R Q S P Q E F N R W G H S L G T A L
UniRef90_K8WEL4	D	G	Y E F D S P K P L T E D Q F V G L A L D
UniRef90_B7GK19	G	T	L K I E Q S P R G H Q Q
UniRef90_D2MN51	E	G	V I A N L T P D E E G L E A C R Q L G A A L
UniRef90_F0T7G1	D	E	F E I Y Y L P T E D E E R C F E I G K E L A K
UniRef90_H0E116	D	T	G F S N V K E D L I E E F L D P L I E S L R K A V
UniRef90_O30070	V	V	E V R A K P S D S D E K V R K L A E K I A G V V
UniRef90_E3DMD8	D	T	Y D F S D S R A L V D E K L I G L A I D
UniRef90_UPI00037B98E3	P	I	E V K C A P T E N E D C V I L A K K V A E Q I
UniRef90_R4YPJ6	P	L	E T I N R Q S S Q E F S R W G N A V G K A L
UniRef90_H1S1N1	A	R	G E A D G N G D F D H A A E S W L A A L W Q S L
UniRef90_D4H0W6	P	A	F K V K M T P S E Q E D A Y Q W G R D F
UniRef90_X8J0R0	P	L	G E A D E T A G T T E A T F A E F T R A L S I A I
UniRef90_L0K8G0	E	P	F E F K Y V P N E E K D E A Y Q L G E K I A E K I
UniRef90_E4PRL3	D	T	L R I D A E T M E P E A E A L P W V R G W L E Q V
UniRef90_S7TPF8	E	A	V E V R G N P T L E D E K L E N I A R A M A E K I
UniRef90_E3H7Z7	P	L	I E V D D L D A A A L K R W D E L I H A L G G K
UniRef90_V4Q193	D	G	L R L K L V P T E E E A Q C Q E L G R K L A R H L
UniRef90_UPI00047A0514	E	G	Y S F E H C S A V R N G K F V G L
UniRef90_Q111R5	S	P	V I C F E A P D D E G E N L K K L A A E L A K
UniRef90_UPI0003B48F45	D	A	I L I D R N D P L A D R E W Q A L L A S L G A
UniRef90_T0ITN7	N	A	I A K D Y P F D E D A A K C E K L G E L L A S A
UniRef90_R7CD77	E	E	E V Y Y V P T G D E D A C F E A G R K L A A E I
UniRef90_Q50497	P	E	V E V L S R P D R K D E E A H K L G A N M A E A V
UniRef90_D2Z669	K	P	L S I R F R P T K E Q E E C F N W G K D F G S K V
UniRef90_C4M5R3	D	S	Y E V L Y V P E E D E
UniRef90_G0H111	D	G	Y T F D E S D A V I D G R F I G L A L D
UniRef90_F5J344	D	G	Y E F E A S K A L V D E
UniRef90_Q485E7	P	F	T A G D E N H G S I L K L D F N A W K S E I I S V L
UniRef90_H2YWM5	P	Y	E T V D R Q S P Q D F A R W G R S L G E A I
UniRef90_A0A0241RF4	E	G	V R I K N V P H E A L A D C V E L G R A I A R A M
UniRef90_D6Z5K3	P	T	L K I E Q M P H T E R D A I Q D W V A Q I L
UniRef90_W7DH15	E	M	V C V D H L K Q T D L D C W L K H L
UniRef90_N8QEF9	P	C	L G D D Q H E L G P D A A I D P W L G A L W E K V
UniRef90_UPI00038EC5D7	E	P	I K V K F S P D A I E E T G T A L G R E L L G A
UniRef90_B5I158	P	L	C K I N N A D V N V F K D W S Q T L G Q M L
UniRef90_UPI00047EA167	T	V	E F Q G A P T E E D Q K A A E L A R Q V K A E V
UniRef90_F4GM78	H	G	L G I D E D P E L T A E R V E K W V K Q V
UniRef90_K2KKK8	D	P	I R V K F K P T D V I E A A I D F A Q N L K
UniRef90_K9TR58	D	L	A V K D S P T K N Q S N L I K Q L G K E L
UniRef90_K6TIJ9	A	R	Q E V N R E D W R A V D G W M A R V R A A L
UniRef90_A0A059LIJ5	E	C	L K V K F V P K E E D K K C Y E F G L K L
UniRef90_F6BB11	E	P	V I C N N E P D D A L A Q C K A L G E A L A N A
UniRef90_X8IN85	N	L	G L G D E L A G F R F E F E K W V
UniRef90_L1LAA8	D	T	L K V K F K P D D V I T L K F E E L G T D F A Q A L
UniRef90_B2J061	E	L	E T V N R Q S A Q E F A R W G R A L G K V L
UniRef90_UPI0003798B20	A	R	G A A N A A V S D L F S D L E K C E E S L L P A L
UniRef90_A1DK57	K	P	I R V K F T P N D I
UniRef90_B7XIQ9	D	G	Y D F N A S L A V K N G K F V G L A L D
UniRef90_M1X5J7	E	F	A A A D E A M G L E E S V E P W L N G L W E A
UniRef90_Q7NNV1	L	M	L D D D N Q S D Q T A D R I S G W V D Q I K G E M
UniRef90_D0N6W4	E	V	I A A E D Y G Y D E T
UniRef90_H0UJD1	A	G	Y T F E V S Q A L V D D D F V G L C I D
UniRef90_C3JCG6	P	C	L G D D Q H E L G P D A A I D P W L H D L W E K V
UniRef90_M4Y2U1	E	G	Y T F D A S K A L T E D H F V G L A L D
UniRef90_M3WSR6	A	P	L I C H E T P D E A L A D C T A L G E A L V
UniRef90_UPI0002D45B42			
UniRef90_R5K407			



	1	10	20	30	40																																					
UniRef90_UPI000376AB29	K	I	S	V	L	W	A	S	Q	T	G	T	A	E	A	F	A	E	R	A	A	R	L	R	E	A	G	W	A	P	V	L	R	A	M	D	A					
UniRef90_A1K1C7	K	I	G	M	F	G	T	E	T	G	T	T	R	L	I	G	Q	D	A	L	A	R	K	I	L	G	D	A	N	V	A	V	E	L	N	R	I	E	S	A		
UniRef90_K9SV50	P	K	I	V	L	I	Y	A	S	A	Y	G	N	T	A	S	I	L	G	D	A	L	A	K	G	I	T	T	S	T	S	V	E	V	E	S	I	N	C	E	F	T
UniRef90_UPI0002DD3E05	K	K	V	G	I	F	F	G	T	D	T	G	R	T	M	I	A	K	T	I	A	K	K	I	L	G	A	K	S	P	V	N	I	R	T	A	I	V	E	D	L	
UniRef90_G7LY28	K	K	T	V	I	I	Y	V	S	A	G	T	K	E	L	A	Y	E	I	T	K	G	I	L	Q	E	A	S	G	A	E	V	E	V	I	S	V	D	M	V	E	A
UniRef90_U2SRE3	K	L	N	I	I	Y	F	S	A	G	T	G	N	T	E	K	M	G	E	Y	L	A	Q	K	L	N	E	K	G	K	A	E	G	H	E	I	T	S	M			
UniRef90_M1ZTX9	K	K	V	S	I	I	Y	W	S	C	G	G	I	E	F	L	A	N	I	M	A	D	G	A	R	E	Q	G	A	E	V	N	V	K	H	I	V	A	D	A	T	
UniRef90_U5MZ80	K	I	V	V	I	Y	G	S	L	Y	G	H	T	E	S	A	A	Q	K	A	S	M	L	I	G	A	E	L	V	T	L	H	N	V	K	D						
UniRef90_UPI00040EAF7	K	I	G	L	F	Y	G	S	T	C	Y	T	E	S	A	A	E	K	I	R	D	I	L	G	A	E	L	V	T	L	H	N	V	K	D							
UniRef90_UPI00036CF722	K	I	V	L	I	Y	D	T	N	T	G	N	T	E	K	A	A	Q	E	L	L	G	G	V	K	E	S	G	A	S	V	E	M	K	V	D	S	A				
UniRef90_D1Z2A2	K	I	G	L	F	F	G	S	D	E	G	N	T	E	R	V	A	Y	L	I	Q	Q	C	L	G	E	D	V	V	A	V	H	D	I	A	D	V					
UniRef90_UPI0002DB7017	K	L	A	A	V	L	Y	V	S	A	Y	G	Y	T	K	K	L	A	Q	E	I	A	R	G	L	Q	S	E	G	I	K	V	A	D	I	V	D	V	I	E	K	
UniRef90_UPI000464A3D0	K	L	A	A	V	L	Y	V	S	A	Y	G	Y	T	K	K	L	A	Q	E	I	A	R	G	L	Q	S	E	G	I	K	V	A	D	I	V	D	V	I	E	K	
UniRef90_W0JHM7	K	L	A	A	V	L	Y	V	S	A	Y	G	Y	T	K	K	L	A	Q	E	I	A	R	G	L	Q	S	E	G	I	K	V	A	D	I	V	D	V	I	E	K	
UniRef90_U2S9C2	K	L	A	A	V	L	Y	V	S	A	Y	G	Y	T	K	K	L	A	Q	E	I	A	R	G	L	Q	S	E	G	I	K	V	A	D	I	V	D	V	I	E	K	
UniRef90_E0NJU4	K	L	A	A	V	L	Y	V	S	A	Y	G	Y	T	K	K	L	A	Q	E	I	A	R	G	L	Q	S	E	G	I	K	V	A	D	I	V	D	V	I	E	K	
UniRef90_U9VJ74	K	L	A	A	V	L	Y	V	S	A	Y	G	Y	T	K	K	L	A	Q	E	I	A	R	G	L	Q	S	E	G	I	K	V	A	D	I	V	D	V	I	E	K	
UniRef90_UPI0003B41AAF	K	L	A	A	V	L	Y	V	S	A	Y	G	Y	T	K	K	L	A	Q	E	I	A	R	G	L	Q	S	E	G	I	K	V	A	D	I	V	D	V	I	E	K	
UniRef90_A2BTZ7	P	K	I	S	L	I	Y	A	S	A	Y	G	N	T	A	S	I	G	D	A	L	A	K	G	I	N	R	T	A	V	E	V	D	S	I	N	C	E	F	T		
UniRef90_UPI00036DFCF1	K	I	S	L	I	Y	A	S	A	Y	G	N	T	A	S	I	G	D	A	L	A	K	G	I	N	R	T	A	V	E	V	D	S	I	N	C	E	F	T			
UniRef90_V6M177	K	I	S	L	I	Y	A	S	A	Y	G	N	T	A	S	I	G	D	A	L	A	K	G	I	N	R	T	A	V	E	V	D	S	I	N	C	E	F	T			
UniRef90_UPI00037FE65C	R	L	L	I	A	Y	A	S	L	S	G	N	T	R	D	L	A	R	Q	V	R	G	H	C	E	A	H	G	H	A	V	T	W	L	E	A	G	L				
UniRef90_R7FSE1	K	I	A	V	I	Y	W	S	G	T	G	N	T	E	A	M	A	N	E	V	A	E	G	A	K	A	A	G	A	E	V	D	V	K	L	T	A	S	E	F		
UniRef90_K9D4F4	K	I	G	V	I	Y	W	S	G	T	G	N	T	E	A	M	A	N	E	V	A	E	G	A	K	A	A	G	A	E	V	D	V	K	L	T	A	S	E	F		
UniRef90_V5WJ26	K	I	G	V	I	Y	W	S	G	T	G	N	T	E	A	M	A	N	E	V	A	E	G	A	K	A	A	G	A	E	V	D	V	K	L	T	A	S	E	F		
UniRef90_X1L5N6	K	I	L	V	G	Y	Y	S	R	T	G	N	T	K	K	M	A	E	A	I	A	K	G	I	K	K	E	E	A	D	L	L	V	M	N	K	I					
UniRef90_G6CYS1																																										
UniRef90_R6H5D7																																										
UniRef90_UPI00036B265C	K	K	I	T	V	L	W	S	M	S	G	N	T	E	A	M	A	D	F	V	A	E	G	I	V	E	S	N	G	G	N	A	A	I	Q	A	D	F				
UniRef90_Q39WM8	K	K	I	T	V	L	W	S	M	S	G	N	T	E	A	M	A	D	F	V	A	E	G	I	V	E	S	N	G	G	N	A	A	I	Q	A	D	F				
UniRef90_K9PA31	P	G	L	V	I	C	Y	G	T	M	Y	G	N	T	E	A	M	A	D	F	V	A	E	G	I	V	E	S	N	G	G	N	A	A	I	Q	A	D	F			
UniRef90_R6PRF3	K	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T			
UniRef90_U7VD22	K	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T			
UniRef90_UPI00036ED4F1	K	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T			
UniRef90_UPI000479BECE	K	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T			
UniRef90_A5F5L0	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T				
UniRef90_W6L004	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T				
UniRef90_R6ELE7	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T				
UniRef90_E8LVN9	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T				
UniRef90_R7CUC4	K	I	G	I	F	Y	G	T	S	G	I	T	A	G	I	V	D	E	I	A	R	A	A	S	Q	A	G	V	K	I	V	M	Y	N	I	S	K	T				
UniRef90_UPI00042A60EA	P	E	V	S	I	L	Y	I	S	M	Y	G	H	T	V	D	A	V	K	R	L	S	D	I	V	K	S	H	G	L	R	V	R	L	I	D	A	E	E			
UniRef90_D9Q0V0	P	E	V	S	I	L	Y	I	S	M	Y	G	H	T	V	D	A	V	K	R	L	S	D	I	V	K	S	H	G	L	R	V	R	L	I	D	A	E	E			
UniRef90_G5H4U2	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N				
UniRef90_F7XQD3	P	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_UPI00037A0A91	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_R6FNI4	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_C8W8R1	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_F9V183	P	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_X1HRR4	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_T1CPW1	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_F3Z3G8	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_V4JBN3	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_C7HSM2	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_K6DAC4	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_Q39QL8	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_H2T0C6	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M	A	K	V	V	V	V	E	G	I	T	S	K	G	E	A	Q	L	L	H	L	R	K	N			
UniRef90_UPI00036570C4	K	I	V	L	I	Y	D	S	M	W	G	S	T	E	K	M																										

UniRef90\_UPI000376AB29  
UniRef90\_A1K1C7  
UniRef90\_K9SV50  
UniRef90\_UPI0002DD3E05  
UniRef90\_UPI000476566F  
UniRef90\_G7LY28  
UniRef90\_U2SRE3  
UniRef90\_M1ZTX9  
UniRef90\_U5MZ80  
UniRef90\_UPI00040EAFc7  
UniRef90\_UPI00036CF722  
UniRef90\_D1Z2A2  
UniRef90\_UPI0002DB7017  
UniRef90\_UPI000464A3D0  
UniRef90\_W0JHM7  
UniRef90\_R5Y9C2  
UniRef90\_E0NJU4  
UniRef90\_U9VJ74  
UniRef90\_UPI0003B41AAf  
UniRef90\_A2BTZ7  
UniRef90\_UPI00036DFCF1  
UniRef90\_V6M177  
UniRef90\_UPI00037FE65C  
UniRef90\_R7FSE1  
UniRef90\_K9D4F4  
UniRef90\_V5WJ26  
UniRef90\_X1L5N6  
UniRef90\_G6CYS1  
UniRef90\_R6H5D7  
UniRef90\_UPI00036B265C  
UniRef90\_Q39WM8  
UniRef90\_K9PA31  
UniRef90\_R6PRF3  
UniRef90\_U7VD22  
UniRef90\_UPI00036ED4F1  
UniRef90\_UPI000479BECE  
UniRef90\_A5F5L0  
UniRef90\_W6L004  
UniRef90\_R6ELE7  
UniRef90\_E8LVN9  
UniRef90\_R7CUC4  
UniRef90\_UPI00042A60EA  
UniRef90\_D9Q0V0  
UniRef90\_G5H4U2  
UniRef90\_F7XQD3  
UniRef90\_UPI00037A0A91  
UniRef90\_R6FN14  
UniRef90\_C8W8R1  
UniRef90\_F9V183  
UniRef90\_X1HRR4  
UniRef90\_T1CPW1  
UniRef90\_F3Z3G8  
UniRef90\_V4JBN3  
UniRef90\_C7HSM2  
UniRef90\_K6DAC4  
UniRef90\_Q39QL8  
UniRef90\_H2T0C6  
UniRef90\_UPI00036570C4  
UniRef90\_G7LQQ0  
UniRef90\_F2P5S0  
UniRef90\_E6UER7  
UniRef90\_R5PP96  
UniRef90\_G8QYV5  
UniRef90\_F3XWV0  
UniRef90\_X1D5E5  
UniRef90\_C0FN16  
UniRef90\_S6GQT3  
UniRef90\_R1EWM9  
UniRef90\_R5LIU6  
UniRef90\_N1J909  
UniRef90\_U2CGX0  
UniRef90\_D7EA11  
UniRef90\_H2YK27  
UniRef90\_H2Z1M7  
UniRef90\_X7E435  
UniRef90\_N9VPA0  
UniRef90\_C3WC84  
UniRef90\_A8PBZ2  
UniRef90\_UPI00047BD5B8  
UniRef90\_N2B604  
UniRef90\_B3PL21  
UniRef90\_B1QCX4  
UniRef90\_UPI0003442DBB  
UniRef90\_U7D808  
UniRef90\_UPI00038161EF  
UniRef90\_F0IHY0  
UniRef90\_W9A1L1  
UniRef90\_E4TY43  
UniRef90\_I9MH62  
UniRef90\_A3WQC1  
UniRef90\_D4CSL3  
UniRef90\_H2B185

UniRef90\_UPI000376AB29 G Q V E L D Y A V C A F G D P G Y A D F C G H G R R L D E R L A A L G G V R I V 90 100 110 120  
UniRef90\_A1K1C7 D F S G K R I A L F G L G A Q E R E R F C S S L M R I Y E I F K G Y G A E I V G  
UniRef90\_K9SV50 A P K G S L A G V F F G S F G W S G E A V D I A D K L K D A G F S L G F  
UniRef90\_UPI0002DD3E05 G D R E K P I G V F F G S F G W S G E A I D L L E S K L K D G G F T F S F  
UniRef90\_UPI000476566F D F N G K K V A L Y G L G N S Y G K N F G S A V R Y L Y D A F A S R G A E I I G  
UniRef90\_G7LY28 N K F A S A F G S Y G W S G E A V P H I E R L K Q L R M R V V D  
UniRef90\_U2SRE3 R V G L F G S N D W G E G D F M S M W I Q E L D N A D V S V V G  
UniRef90\_M1ZTX9 T N R G K A A G A F G S Y G W S G E G P T L M T D R L R G L K L K V V E  
UniRef90\_U5MZ80 L S D K N K N K D C I L F A T Y G W I E N T F M E I W K N E M T S Y G F N V I G  
UniRef90\_UPI00040EAF7 T V I Q N R T F A L A Q N G T W A P A S G K L M R E K L E A L N I T I V E  
UniRef90\_UPI00036CF722 D L N G K I V A L Y G M G D Q Y G E W F L D A M G M L Y D V L K P M G V Q F V G  
UniRef90\_D1Z2A2 D K V G A A F G T Y K W N D D N L K N L Q N D L R W K G V R I V S  
UniRef90\_UPI0002DB7017 N K V P V S V L G F G D R Q Y P A F C A F A E A L D Q T L R G Q G W L T L L  
UniRef90\_UPI000464A3D0 D F S G K T I A L F G L G D Q Y G D Y F L D A M G M L H D V V V A G G A T I V G  
UniRef90\_W0JHM7 K I R G K M G F A F G S Y G W S G E A S K L I A Q R M K D I K F A M P L  
UniRef90\_R5Y9C2 S R I F G C F G S Y S W A C R S V K E L T A F G E Q M H W D M P G  
UniRef90\_E0NJU4 N N I W G I A G S Y S W N G G A L K G L K E F V E K L N V L P L M  
UniRef90\_U9VJ74 T L L A N V P K T K L A G F G S Y G W S G E A I D L L Q H K L R D A G Y R F G F  
UniRef90\_UPI0003B41AAF C R T S A Y F G S F G W G S M A K K Q F E A Y A G E L K W S V V  
UniRef90\_A2BTZ7 D K P V G I F G S F G W S G E A I D L L E T K L K D G G F K F S F  
UniRef90\_UPI00036DFCF1 S G K I V A I F V Y G D Q V G Y A E Y F V D G L G T G N V V M E N G G E L V G  
UniRef90\_V6M177 A V K G Q K F A V Y G L G S G K F T Y N A A A E K A E Q V F S A A G G I K I  
UniRef90\_UPI00037FE65C V G K P A N V A V F G T G E T Q W E Y Y C G A V R R I A R F F D S P F  
UniRef90\_R7FSE1 G K K I A L F G S Y G W G D G E W M R T W E E T C K A D G A V L A C  
UniRef90\_K9D4F4 G K K V L F G S Y G W G T W L E E W A D H V R A A G G E I V A  
UniRef90\_V5WJ26 K V K N R K A F R F G S Y G W S G G A Q K E L D E L M A K T G W D F L  
UniRef90\_X1L5N6 Y H G K L S G K I G G A F T S A G G I G G A E T T I L S I L E A H G M I V I G  
UniRef90\_G6CYS1 S L V K L K F G V I G L G D S S Y A K F N F V A K K L H K R L I Q L G A T P I L  
UniRef90\_R6H5D7 V E P L M A G E K V I G F F G S Y D W N N G E W M D Y W V I Q R A E E A G V I Q P V E  
UniRef90\_UPI00036B265C K A L N R K A F R F G S Y G W S G G A Q K E L D E L M A K M N W D F L E  
UniRef90\_Q39WM8 D  
UniRef90\_K9PA31 G D R A K P V G V F G S F G W S G E A I D L L E A K L R D G G F Q F A F  
UniRef90\_R6PRF3 D I K K H L L G W Y G S Y C W A S K A V A K I Q E W N T R L H F E A V G  
UniRef90\_U7VD22 D F T N K V I V G I V G V G N Q F G S Y V G A M R K L Y D A V I A K G A K V V G  
UniRef90\_UPI00036ED4F1 N V F V F G T G D T Q F G G F C H A A E K L A A F Y Y S A Y  
UniRef90\_UPI000479BECE D L S G K F A V A F G S Y G W S G E A I E V I N D Y L K D T N L T V I D  
UniRef90\_A5F5L0 S L K N K Y V A L F G L G D Q Y G E W Y L D A M G L L H D Q I K K S G A N L L G  
UniRef90\_W6L004 K L R S L R Y A V F G L G D S I Y A K F N Y T A K M L H N R L Q R L N C E P L L  
UniRef90\_R6ELE7 G I K N R T V A V L G N G T W A P T S A K L M E A R L A E M G M T L L T  
UniRef90\_E8LVN9 P L T G K T V A L F G L G D Q Y G E W Y L D A M G F L H D E V K K A G A N V V G  
UniRef90\_R7CUC4 F L K G K I M G I F G S C G W S R G A W L N S W Y N E L H F A G A V F P A  
UniRef90\_UPI00042A60EA L D G S V P V T V L G F G D R S F P H F C R F A Q H V S E A V A A K G W P V M M  
UniRef90\_D9Q0V0 Q V K M F G R G R A A G V V T S Y G W G P V A K L A A D T L T K A G F R V M E  
UniRef90\_G5H4U2 G R K A F A F G S Y G W G Q S I Q Q I E D E L R A G G C E I V M  
UniRef90\_F7XQD3 R P K N K K A A V F G S Y G W G G G V K F A E S E L E N T G V I V E  
UniRef90\_UPI00037A0A91 T G K T I D V A A F G T G E T Q W E Y Y C G A V K R I A R F F D S V Y  
UniRef90\_R6FN14 N I K N K P V V L F G S C G W R D D K F I H K W S S V M K E A G F D V I G  
UniRef90\_C8W8R1 S P K N D H R I G F A F G S Y G W A P L G P K M V Q A E L E V A E F T M P L  
UniRef90\_F9VI83 L N P I H G G K V A A A F G S Y G W S G E G V P N T E S R L K E L K M K L L T  
UniRef90\_X1HRR4 R F K N K K A A S F G C Y G W S G E S I K V I K E H L E K S G F S V I N  
UniRef90\_T1CPW1 D R Y L S V F G S F T W G S Q A V K K M L P L A E T M G W E L V G  
UniRef90\_F3Z3G8 K F K Q K K A A F F G S Y G W S G E S V K L I T Q R L R E G G F E I V N  
UniRef90\_V4JBN3 V E Q A N C I G K I G G A F G S H T H S G E A A P M I Y D T M Q  
UniRef90\_C7HSM2 N R H I S F I H N Y S W G K S L E Q A K E L L E K G K H E Y V G  
UniRef90\_K6DAC4 N V E H I A T G V V I G T G D S F Y P H F C G A V D A F R D M L  
UniRef90\_Q39QL8 N R I V G A F G S F G W G G G A V K E S Y E V F K Q M G L Q T V E  
UniRef90\_H2T0C6 S L S Q L D C A V L G L G D S S Y  
UniRef90\_UPI00036570C4 S K T K I A G V F G S Y G W S G E A I D L L E S K L Q D A G F A F G F  
UniRef90\_G7LQQ0 N L S G K I V A L Y G M G D Q Y G E W F L D A L G M L H A Q L Q P L G V K F I G  
UniRef90\_F2P5S0 L L P E Q G F G V I A M G D S S Y D R F C G A G R Q F D A L L A E L G A K S L Q  
UniRef90\_E6UER7 G K K L A L F U G S Y D W G D G E W M R W A D R V K A A G A E I V G  
UniRef90\_R5PP96 N H Y L A F F A N K T W S G G A L P R F T Q F A D K M K W E I V A  
UniRef90\_G8QYV0 G R K T I R F G S F G W S G G A Q K Q F S E F V E S M K L D V I G  
UniRef90\_F3XWV5 I V I Q S F G Y T V V I G F G S L S Y P E F C R F A K E V D V L L K E P Q A K A M T  
UniRef90\_X1D5E5 N L Q N R T F A I V E N G S W A C K S G D L M Q K F L D E E M K N M T V L N  
UniRef90\_C0FN16 D F S D K T V A F I G L G D Q Y G E W F V D A M G M L H D K V V A K G A T I V G  
UniRef90\_S6GQT3 P L K D V E Y A V F G C G H R D W Q T F H R I P K L I D D L L E K A G A K R V A  
UniRef90\_R1EWM9 G K K V A L F G S Y G W G D G E W M R E W A E R V R N D G A V L V D  
UniRef90\_R5LIU6 D L S S V K Y S V F A L G D S Q Y W Y Y N K A G K D L M L M G F A K P L  
UniRef90\_N1J909 N K K A F A F G S Y G W G Q S A G L V N D G L E A C K F Q I V M  
UniRef90\_U2CGX0 K P K G K A V V F G S Y G W G G G V Q R A E D E L D K G G I E L L E  
UniRef90\_D7EA11 S L V L M C M A T Y G E G D P T D N A Q D F H D W L K  
UniRef90\_H2YK27 N L P V T C F G V L G L G D S S Y A K Y N F I A K K L F R R L Q N L G G E I L V  
UniRef90\_H2Z1M7 E N T T V A L Y G L G D Q F G Y G D Y F V D A V G W L Y E K L L P T H A T F I G  
UniRef90\_X7E435 P L D G Q I I A L F G L G D Q Y G E W F Q D A L G M L H D A L I V K P V I T L V G  
UniRef90\_N9VPA0 N R Y F G S M M W S G G V R G I Q C F A D A L K R L E A I A E E M A A K L I A  
UniRef90\_C3WC84 D C R Q M H F A V L G I G D S R H K Q Y Y R V A R A L T R R L N S I G A V A L C  
UniRef90\_A8PBZ2 K D K I G A V F S T G G M S  
UniRef90\_UPI00047BD5B8 N M Q N R T F A I I E N G S W A C K S G D L M Q K F I D V E L K N M T V L N  
UniRef90\_N2B604 Q L A H V Q L A I L A L G D A S Y T H F C G F A H S V Y R E L H Q R G A Q C L T  
UniRef90\_B3PL21 N K E C I L F A T Y G W I E N T F M D I W K K E M K S Y G F N I G  
UniRef90\_B1QXC4 P G D F L A H L H Y G L L G M D R I C  
UniRef90\_UPI0003442DBB D L S G K K V A I F G T G D S Y P D S F V D A M A D I Y K V V D T Q G A R L I G  
UniRef90\_U7D808 K Y K G K K A A F G S Y G W N G D A K M I T A H L Q E A G F E I V N  
UniRef90\_UPI00038161EF S Q K E L F F S V V I G F G S D I Y P D F C Q F A K E V Q Q I L Q E Q S A K E I L  
UniRef90\_F0IH30 Q L Q Q K T V A L F G L G D Q Y T E W F L D A M G M L H D Q L C P T G V I Q F I G  
UniRef90\_W9A1L1 D L E G K K V A F F G A G D Q Y H G E H F I S A L G K M H D L F T S I G A S A Y G  
UniRef90\_E4TY43 K P V N K I G A F S A H G W A G G A L K A M E E S L K R A G I A I E N  
UniRef90\_I9MH62 N L Q G K I V A L Y G M G D Q Y T D W F Q D A L G M L H D A I A D K D C K R I G  
UniRef90\_A3WQC1 N K K I Y L F G T F G W G T G M Y M S W I K A E I E L G A K I V E  
UniRef90\_D4CSL3 L R K L V G Y T V L G L G D S W P D K F C Y Q S N K V D Y W L A R L G R R I F  
UniRef90\_H2B185

UniRef90\_UPI000376AB29 Q R A D C P 130 P G D P A R P E R W L D A V L A A L 140  
UniRef90\_A1K1C7 D G Y T F Q Q S A A V K D G R F V G L V I D  
UniRef90\_K9SV50 E P I R V K F A P T E T E E T G T D F A Q A L K A A  
UniRef90\_UPI0002DD3E05 D I R I K F S P N E I E E I G T H F G R K I L K K  
UniRef90\_UPI000476566F G A Y Q F T Y S K A V I D D K F V G L I L D  
UniRef90\_G7LY28 D G L R I K F K P S E D D  
UniRef90\_U2SRE3 E G C I I N L A P D D D E E K C K E Y G K A I V  
UniRef90\_M1ZTX9 E P F K F K F V P S K D D K R A D E F I E E Y I K L L  
UniRef90\_U5MZ80 D L A V K E S P T K N Q V E F V E L G K Q L A K  
UniRef90\_UPI00040EAF7 P V L T I K S A L S E T D E E L K A F V D A I A E A  
UniRef90\_UPI00036CF722 E G Y E F T S P K P L S E D Q F V G L A L D  
UniRef90\_D1Z2A2 E G V N V  
UniRef90\_UPI0002DB7017 P L E C I H Q Q S A Q Q F A R W G L A L A Q A L  
UniRef90\_UPI000464A3D0 E G Y D F E A S K A E I P G E F V G L A L D  
UniRef90\_W0JHM7 E P F R V R F R P T D E D Q K A F E I G K Q L A Q K V  
UniRef90\_R5Y9C2 C P V E M K Q G G N D E S Q Q C R E L A K A I A A K L  
UniRef90\_E0NJU4 P E V M G A G S E K D F E D L I N L G K M M A K A V  
UniRef90\_U9VJ74 P P I R V R F S P D A P  
UniRef90\_UPI0003B41AAF D N Y Q F Y G K P K T T D D R L P A F A E K F A A E I  
UniRef90\_A2BTZ7 D P I R I K F S P N  
UniRef90\_UPI00036DFCF1 E G Y D F E E S K A V F E  
UniRef90\_V6M177 D T M K I D G S G E D P E E L V H E F I D K F I N S M  
UniRef90\_UPI00037FE65C P R L E I E Q M P H G Q R D A I A R W T D Q V L  
UniRef90\_R7FSE1 D S V L A N E A P D D D A V A A C Q A L G K A L  
UniRef90\_K9D4F4 D N L P V F G A P D D A A D C E G C G K T L A G A  
UniRef90\_V5WJ26 E T V E F K G A P G K E D I E L I R  
UniRef90\_X1L5N6 E S G I F H Y G P  
UniRef90\_G6CYS1 D L A L C Q D H D L G H D A V L S P W L K N F L A T L  
UniRef90\_R6H5D7 T V I A K D Y P D D E A A E A C R H L G E L L A  
UniRef90\_UPI00036B265C P R E F L G A P R D E D L E V I A  
UniRef90\_Q39WM8  
UniRef90\_K9PA31 K P I R V K F S P D  
UniRef90\_R6PRF3 E P V D M K Q A I T E V K A Q C E A L G K A M G E R L  
UniRef90\_U7VD22 E G Y S Y E E T E S V V D D K F I G L A L D  
UniRef90\_UPI00036ED4F1 D P L K I E Q S P R G S Q E K V K K W T E G V L N  
UniRef90\_UPI000479BECE R S Y I V K  
UniRef90\_A5F5L0 Q G Y H F E A S K A L T E D H F V G L A L D  
UniRef90\_W6L004 L R G L G D E S D A  
UniRef90\_R6ELE7 E N F A V K S A L Q D D Q E D L D E L C A K I T E T L  
UniRef90\_E8LVN9 E N Y Q F E A S K A L T E D K F V G L A L D  
UniRef90\_R7CUC4 Q P L L A Y G Y P D E S L K K C E D L G K K V A G  
UniRef90\_UPI00042A60EA G L K R I D R Q S A Q E F A A W G R D L G E L L  
UniRef90\_D9Q0V0 P L V T L R T R P R K E E E A L D K L G E R I A E  
UniRef90\_G5H4U2 D K V R M L Y V P S K E Q L A G L R D Q I L A  
UniRef90\_F7XQD3 K G I Q I K F G P D K E D K A C R E L G I R L A D  
UniRef90\_UPI00037A0A91 P L L E I E Q M P H G D R D A I D A W C A Q V  
UniRef90\_R6FNI4 K L A I K E S L T K E E I K F A E D L G S T L  
UniRef90\_C8W8R1 P A H A I G W I P S D E D D A V R A Q V K D L V E A  
UniRef90\_F9VI83 P S L K I N F K P C E E D K D A Y N F G R A F K E K L  
UniRef90\_X1HRR4 D G I R A L W N P D D E S E K C V E F G R E I A N  
UniRef90\_T1CPW1 E P V E M K M S P T L E  
UniRef90\_F3Z3G8 D G F K L L W Q P G E E R E Q C R K W G R E F V N S L  
UniRef90\_V4JBN3  
UniRef90\_C7HSM2 E D F I I N S S K D D Q E K T L E N L A K A I K E D L  
UniRef90\_K6DAC4  
UniRef90\_Q39QL8 P G I Q L A Y R P S L A D E E A  
UniRef90\_H2T0C6  
UniRef90\_UPI00036570C4 D T I R V K F K P T E E D  
UniRef90\_G7LQQ0  
UniRef90\_F2P5S0 P R L D I D A G I H F E P E V A Q D W F D Q F V T Q L  
UniRef90\_E6UER7 E G L I C N N T P D E D A L A K C R E L G K K L  
UniRef90\_R5PP96 P H A D A S G H P K N Q D E D C K A I A Y A M A E K L  
UniRef90\_G8QYV0 C V E Y Q G A P S E E D Q K A Y E M A K S L A Q A V  
UniRef90\_F3XWV5 P L H T I S D Q S V D A F R Q W A E K W S A  
UniRef90\_X1D5E5 E  
UniRef90\_C0FN16 E R V S L S S A L S S E K E A E L D F M A D A I A  
UniRef90\_S6GQT3 N G Y E F D E S K A L T A D K F I G L A I D  
UniRef90\_R1EWM9 T I G T A D S A V S D L L S D L D A W Q E E L W P A L  
UniRef90\_R5LIU6 E G L I A N E T P D D A A A D C K A L G A K L A E  
UniRef90\_N1J909  
UniRef90\_U2CGX0 E P V K V Q Y I P S E A F L K E L S E K V A A  
UniRef90\_D7EA11 K G L K V K F R P D S E D L K F R E L G T R L A E A  
UniRef90\_H2YK27 Q G D T I I E E D F V T W K E G L W P A V  
UniRef90\_H2Z1M7 P G L A D D Q H E W G C D A V V D E W S R G L W Q K L  
UniRef90\_X7E435 E G Y D F E A S R A C V I D D K F I G L A I D  
UniRef90\_N9VPA0 Q G Y E F D A S K A L I D D H F V G L A I D  
UniRef90\_C3WC84 E R I  
UniRef90\_A8PBZ2 P C Y I C S H S N T G L E K Q A A I W A S R I A K A L  
UniRef90\_UPI00047BD5B8  
UniRef90\_N2B604 E R L S I A S S M G A D K T I E L D S L A N A I  
UniRef90\_B3PL21 D I I E V D R L D E S A L R H W  
UniRef90\_B1QXC4 D L A V K E S P T K A Q E H A K E L G K M L A Q  
UniRef90\_UPI0003442DBB P V L G Y S C L E L V V I E P W V D G L W A A L  
UniRef90\_U7D808 K T L D Y D N S S D E V D E K I D A W T A S L K E S L  
UniRef90\_UPI00038161EF D G I K K Q W V P D V K D D D C T E Y G K E F A K A  
UniRef90\_F0IH0 P L H T V N N Q S V E E F L K W V T D W  
UniRef90\_W9A1L1 D S Y Q F Q A S K A L T A D E F V G L A L D  
UniRef90\_E4TY43 S G Y D Y E F S L A E R D G K F C G L G I D  
UniRef90\_I9MH62 P G L A V K W A S K E E Q D A C F Q F G L E F A K K M  
UniRef90\_A3WQC1 Q G Y E F A A S K A L T E D Q  
UniRef90\_D4CSL3 L P M A C K G S P S E T R E K L Q E L A K K I A  
UniRef90\_H2B185 P L G Q V C M K Y D G N D K I I E W S K L F G E M L



UniRef90\_K6XZ81  
UniRef90\_J5PTL8  
UniRef90\_H5XSS8  
UniRef90\_W9NQ40  
UniRef90\_A1SRM3  
UniRef90\_UPI00016C0063  
UniRef90\_H2T0C7  
UniRef90\_UPI000368A6D9  
UniRef90\_I0YK18  
UniRef90\_X1UWJ5  
UniRef90\_UPI000237BE66  
UniRef90\_S6EHL6  
UniRef90\_M7CQE3  
UniRef90\_C6BV19  
UniRef90\_D8IC40  
UniRef90\_I2GZ16  
UniRef90\_W8UFB1  
UniRef90\_K4KVQ5  
UniRef90\_UPI0003B52271  
UniRef90\_UPI000376E15F  
UniRef90\_R6GRZ9  
UniRef90\_R8VWX9  
UniRef90\_G7LK11  
UniRef90\_UPI00036D52B4  
UniRef90\_F9MWX7  
UniRef90\_UPI0002E2E3D2  
UniRef90\_F6VF63  
UniRef90\_K0T8C8  
UniRef90\_C5L1J0  
UniRef90\_A6M1W0  
UniRef90\_K1LYU9  
UniRef90\_K1WQX3  
UniRef90\_U2EGH8  
UniRef90\_A3W0B6  
UniRef90\_E7GJ11  
UniRef90\_UPI00040A4E1B  
UniRef90\_D7N8U6  
UniRef90\_Q6D8S0  
UniRef90\_J0MWM1  
UniRef90\_UPI00039AF3F7  
UniRef90\_I5AYD7  
UniRef90\_UPI00031F8D11  
UniRef90\_F0Y427  
UniRef90\_R7CU13  
UniRef90\_S2VN21  
UniRef90\_W0EQ96  
UniRef90\_X0TST6  
UniRef90\_V2Y4A4  
UniRef90\_U4ZS31  
UniRef90\_Q5P8G0  
UniRef90\_C3IWJ0  
UniRef90\_UPI000292B0D6  
UniRef90\_E1F223  
UniRef90\_R9J691  
UniRef90\_J9C8I9  
UniRef90\_D1CI80  
UniRef90\_V2UN06  
UniRef90\_N1JAG1  
UniRef90\_B2TJP8  
UniRef90\_U3I292  
UniRef90\_X0SQJ8  
UniRef90\_T0L1U9  
UniRef90\_C5DU29  
UniRef90\_R5W2D5  
UniRef90\_A2QT16  
UniRef90\_X2JR25  
UniRef90\_X0TJ02  
UniRef90\_UPI0003F73650  
UniRef90\_K2IEP6  
UniRef90\_R5LI88  
UniRef90\_R5DAP7  
UniRef90\_B3PKD6  
UniRef90\_U7UT94  
UniRef90\_K2JEP9  
UniRef90\_B5JMS4  
UniRef90\_C0C055  
UniRef90\_R5LFT2  
UniRef90\_E3GLY4  
UniRef90\_H1D269  
UniRef90\_U2U2F1  
UniRef90\_R5GW44  
UniRef90\_UPI0004641A26  
UniRef90\_F2J3H4  
UniRef90\_G7W1H6  
UniRef90\_J9JN78  
UniRef90\_G0MG63  
UniRef90\_A8YEJ4  
UniRef90\_R5P1T1  
UniRef90\_UPI0003B4497F  
UniRef90\_D1YVL7  
UniRef90\_Q866Y5  
UniRef90\_S3NNH1

	50	60	70	80
UniRef90_K6XZ81	K D V A L Q K A Q T F D	V L L F G I S T W D F	G E L Q E D W E S S W D D	I K H M
UniRef90_J5PTL8	E N C S L L	I L G S P T Y G A	G D L Q A D W E D H L	D K L T G A
UniRef90_H5XSS8	S T H T D K N D I I S E V	F K S K A I L V G S	P T I N K G I L F S V A	G I L J E M
UniRef90_W9NQ40	D A K T I S E I P M A I F	M L S T F G E G D P	S D N T A G L W T W I R	D I L S S D
UniRef90_A1SRM3	A S T Y P K A K Q M F I L	T S T Y	G D G D A P A S A K L F	M N K I K R F A
UniRef90_UPI00016C0063	D I A K F M A K V S S S S	A L L L G S P T I V A E	A L P Q I W Q V L S	S L N A I
UniRef90_H2T0C7		L V V F V C A T T G Q G D	P P D N M K N F W R F I	N F K K
UniRef90_UPI000368A6D9	K T E P L S K I N N Y D I	L I L G I S T W D Y G E	L Q E D W G A I W N E	L E S V
UniRef90_I0YK18	P L D E V S L S I S K S	G G F V I G S P T L G G	H M P T Q V I Q T A L G	A V L R D
UniRef90_X1UWJ5	R F D T Q F P Q Y D C A A	F G S P D Y Y S Y I A	G G V K T F M D D H Y I	H D V R
UniRef90_UPI000237BE66	H S S F I I S D I F K Y V	L A S P T Y N G K L H	P K M E A L V N E L L H	I G V K
UniRef90_S6EHL6	E M G D I I G S I G E S D	G L L C G S P T I V G E	L L E P I R D I L S K L	N P V
UniRef90_M7CQE3	A R S Y P R A R R M I V L	T A T Y G E G D A P A	S A S G F L D R L E	R M S
UniRef90_C6BV19	H H S D I M S E V F D I V	I G S P T H N N G I L P	G M A D A L T Y V K G	L R P Q
UniRef90_D8IC40	H V S Y L I S E T F K Y S	H V V L A S V I T Y N L	N I Y P M H S Y L D	D M R A L
UniRef90_I2GZ16	D D L D D F Q I N S L Y I	L V I P S Y D D Y F L	Q T L Q E N F Y D W R	I N K F P
UniRef90_W8UFB1	D S P A L M S Q Y D V L I	L G I P T W D F G E I	Q E D W E A V W D Q L	D T L
UniRef90_K4KVQ5	H I S D I M T E V I Y I C	V I G S P T L N N N L M	P S V A S F L T Y L K	G L A P K
UniRef90_UPI0003B52271	E D C D L L	I L G T L T C	G Y G D L Q S D W E	S R L G L A T V
UniRef90_UPI000376E15F	D V I S Y A I S D I F R Y	S G V I I G S P T Y N N	N L Y P K I E E L L S	K L E M R
UniRef90_R6GRZ9	D I N E V I A E I N K C S	G L L I G S P T L L A D	T L P P I W T I L G S	L N P V
UniRef90_R8VWX9	H Y S A V M G D I V E A K	T I C I G A S T L N N T	M M P T V A A F L T Y	L K G L
UniRef90_G7LK11	L A Y D I L I L G T P T L	G D G Q L P G L D A E C	V I S S W A E F A D E	L A N A
UniRef90_UPI00036D52B4	D A P E S F P D I D L V V	V G A P T H V H G L S	R P A T R T E A G A W A	D P A
UniRef90_F9MWX7	D V S Q L I S E T F H L	V L A S V T Y N L G I	Y P K M K N F L V D	L E A L
UniRef90_UPI0002E2E3D2	K D F P L S D C L Q Y D Y I	I F G I S T W D F G E	L Q E D W E S I W S E	V A E L
UniRef90_F6VF63	D V V S L E H E T L V L V	T S T F G N G D P P E	N G E R M E G K C Q E	T S L P
UniRef90_K0T8C8	D D V A A E L G K Y P A L	V C G T P T W N T G A D	T T G W D E I Y Y T S	M Q D L
UniRef90_C5L1J0	D P E V F R G H R I V V L	I L A T T G E G D P T	D N A V K F D K Y I N	H K T T P
UniRef90_A6M1W0	D K E K V I E E L G F A D	G I L F T G T P T I V G E	A L E P I W D L T I K	M F A R
UniRef90_K1LYU9	T A F P N A E K I L L L T	S T Y G N G E A P S	N A D S F L Q K L E	Q Q P P N
UniRef90_K1WQX3	D Y D E Y F I N P P K N D	S G A Q Y F Y D N F L E	H L Q E T H N D F R I	D T A P
UniRef90_U2EGH8	H V S Y L I S E T F K Y S	H L V L A S V I T Y N L	N I Y P M H D Y L I D	M K A L
UniRef90_A3W0B6	A P G S Y A H A A R L I	V L A A T Y G N G D A	P A S A K G F L D R L	K A L D
UniRef90_E7GJJ1	D A A K V L I E F A D G I	L F G T P T I V G E A L	K P I W D L T T S I F	
UniRef90_UPI00040A4E1B	T I F P K A E H L I V I T	A T Y G L G D A P T	N A T K F L D Q K I	K E N P
UniRef90_D7N8U6	H V S E L I S D Y S H I	V L A S V T Y N L G I	Y P V M K N F I H D	M E A L N V Q
UniRef90_Q6D8S0	D K N E I L T Q V F R V L	V G S S T M N V M M P	K V A A M L E E T I	G L R F Q
UniRef90_J0MWM1	P F E E S V T A A N E A D	A L M G S C T I N R D A	P K I V W D V L S S I	D A I
UniRef90_UPI00039AF3F7	K D V S L S R S A E Y D I	L I Y G I S T W D F G E	L Q E D W E S H W D D V	I G L
UniRef90_I5AYD7	D I G Y I L A G A W K S I	F G M P T Y E Y K V F	P M S H V I D E L L V	K K V T
UniRef90_UPI00031F8D11	D I A L A L P A D P P A L	C L L G S W T D N A G R N	P A E M K D C A A A L	R D R
UniRef90_F0Y427	N D A A A L G L V H Y D A I	V V A T S S F R Q G D A	P A N Y D F L E A L Y	K G
UniRef90_R7CU13	D S F T E L L R R S H I	V L A A S T M N M T V N	P L M S A F L A I C	T E M
UniRef90_S2VN21	Q T Y P K G S H L L I	F T S T Y G V G N P P	S N A D Q F L S L R R T	P Q G
UniRef90_W0E9Q6	D K T E I I A E V F R S K	G I L V G S P T V N N G Y L	S S V A G I L E E I K	G M
UniRef90_X0TST6	D S L D L S Q Y D L I G L	G S P I W M G G F P P	N V R I F V E S I P E	Q K G K
UniRef90_V2Y4A4	H Y S Y H I S D I F K Y S T	I V F A A P S Y N M S V	H P K M N E L I Q E M	K E I
UniRef90_U4ZS31	D K N D I L A N I F R V L	V G S S T M N V M M P	Q I A A L L E E V H	G L R
UniRef90_Q5P8G0	D V L T Q V F K S K G I L	V G S P T V N N G M L P	H V A A L L E E M R G	L R F R
UniRef90_C3IWJ0	K K L E V L K S I Q E A D A	V F I G S S T R Y A D M I	G N L E D I L K E M E	T E M
UniRef90_UPI000292B0D6	D D D D H L T S K N V C	V F L V V T Y D G L P	T E S A E W F C K W L	E A S I
UniRef90_E1F223	K T P E D L P T G D L L T	S T H G L G Q H P Q S A	Q A L M K S L K Q Q L	K T
UniRef90_R9J691	H I S N I V P E I L T S K Y I	A V G S P T L N N Q M M	P S V A A F L S Y L K	G L
UniRef90_J9C819	P A S E I V A A C F R Y V	F A S T Y N A G I F V C	M E A F L S D L V A H	N I Q
UniRef90_D1C180	R R V A P Y D A V L V G S	G V R H M H W L P E A	T E F V R V Y Q D E L	S R
UniRef90_V2UN06	D W D K L D Q A G H I V L	G C P T Y M G S V T G	Q F K M F M D S T S	K R W I N
UniRef90_N1JAG1	D F D E Y F D C Q Y F Y L	L I L P T Y N D S F I E	H L R E T H D F R I N T	S P
UniRef90_B2TJP8	H V S K L I S E T F R V S	H V V L A S V I T Y N L	G I Y P P M H N Y L	M D M K A L
UniRef90_U3IZ92	D I V H L E H E T M V L V	V T S T F G N G D P P	E N G E K F G C A L M	E M K N P
UniRef90_X0SQJ8	S S S E L E T F D L L I	V G S P T H G G R P T Q A I	Q D F L K K A P V I T A	L K
UniRef90_T0L1U9	D V I S E V F K S K A I L	V G S P T V N K G V L T	S L A S I F E L I K S L	G
UniRef90_C5DU29	S F V N V P C D N A L Y L	M V L P S Y D D F F L Q	T L E E N F H D F R V	D R F P
UniRef90_R5W2D5	D M A E A I E D A F R Y I	L A A A T Y D A A L F	P M E D F L Y H L K	I
UniRef90_A2TQ16	T A F A K A Q H I I I F	T S T Y G E G E A P T	N A R K F I E K F K T I	S Q P
UniRef90_X2JR25	D V I G T F D S Y D R F A F	G C S A A G S E E L E	S S E F F F T S I E	G R
UniRef90_X0TJ02	T K E D L E A A E A I V L	G C P T Y Y A N V P G	G M K T V M D D W S	W K M V
UniRef90_UPI0003F73650	N Q Y R V F P K A E H L I	V M T A T Y G L G D A	P T N A Q K F A S L L A	K Y P
UniRef90_K2IEP6	K D V P V A L M A D Y D I L	L G I P T W D F G Q L	Q E D W E D Q W D A L	D S A
UniRef90_R5LI88	D W A E C V E D A F R Y G	K L V L A A P T Y N A D	V F P A M K E F I N H	L T E R
UniRef90_R5DAP7	P T S Y I L S A A F R Y S	H L V F A A T T Y N A G	V F I T M E E L L H D I	A A H
UniRef90_B3PKD6	P L V Q A E F Y D Y L I	F G I P T W D Y G E L	Q E H W E I W D D L E	T V I S F
UniRef90_U7UNT4	D K N D I C E T V F K S K A	V L V G S P T I N Y G F L	S I G I E I E M M K G	L
UniRef90_K2JEP9	D P S R Y G N A K R I L I A	A T Y G D G D A P S T A	K G F L D Q L A K S E	V
UniRef90_B5JMS4	T A E D V L W C D G I A L	G S P T H M G S I P W E	M K Q F W D V K M Q P	H W G K
UniRef90_C0C055	H V I S E L I S E M F H I	V L A C A T Y N G G I Y	P I E N L L S D M K A L	S V Q
UniRef90_R5LFT2	H V S Y L I S D T F K L S	H V V L A S V I T Y N L	N I Y P P I Y E Y L H	D M K A L
UniRef90_E3GLY4	H V S Q L I S E S F K Y S	H L V L A S T T Y N L	G I Y P A M H N F L	M D M K A L
UniRef90_H1D269	E A F P E V L R R S H M	V L A A V T M N M G L N	P V M N A V L D L C H	E M D V Q
UniRef90_U2U2F1	A D Y D A F A F G C P A	M G A E E L D T D E F E	P V W D E C C P E F	G D K P
UniRef90_R5GWD4	D V S V L T A R C S H L V	F A A P T Y N N G V Y	P A M Y N F L H D M	G A L S L Q
UniRef90_UPI0004641A26	D C S Y L I A E A F R Y S	R I L V A A P T Y N A G	L F A P V E H F L N D	M K A L
UniRef90_F2J3H4	A P D R Y V R A Q R I I	V L A A T Y G A G D A	P A S A R G F L E R L A	T L D R
UniRef90_G7W1H6	D V N E L V N A D A I I	W G C P G H F G T I	S G L K S W I D K L G Y	L W
UniRef90_J9JN78	D M T S I E H E A L L I	V V V T S T F G N G D	P P E N G E F A Q Q L	H S M K M E
UniRef90_G0M6G3	D L I N I E H E T L V L V	V T S T F G N G D P P	E N G E E F I R K L V Y	K Y K P
UniRef90_A8YEJ4	T P A E I L E N C D R G F I	I G S P T L A G H A P T	Q I Q T A L G I V L S T	A
UniRef90_R5P1T1	D M A E V I E R Y D R M V L	C A A S Y D G G V F P C	M Q D F L N H L Q S K A	Y Q
UniRef90_UPI0003B4497F	D K S F L A W R C G K I	V L M A P T Y N G G L Y L	P M E S F I E D L V A L	G L K
UniRef90_D1YVL7	K R S D I E S A S A V A	F G S P T Y Y S Y M S G	E K A L F D I A L P	F K N S F
UniRef90_Q86Y5	D V V S L E H E T L V L V	V T S T F G N G D P P	E N G E S F A A A L	M E M
UniRef90_S3NNH1	Q A W Q Q L E D A D A I	V F G A P T Y M G S M	P W Q F K K F A D Q S	S K M W F S

UniRef90\_K6XZ81  
UniRef90\_J5PTL8  
UniRef90\_H5XSS8  
UniRef90\_W9NQ40  
UniRef90\_A1SRM3  
UniRef90\_UPI00016C0063  
UniRef90\_H2T0C7  
UniRef90\_UPI000368A6D9  
UniRef90\_I0YK18  
UniRef90\_X1UWJ5  
UniRef90\_UPI000237BE66  
UniRef90\_S6EHL6  
UniRef90\_M7CQE3  
UniRef90\_C6BV19  
UniRef90\_D8IC40  
UniRef90\_I2GZ16  
UniRef90\_W8UFB1  
UniRef90\_K4KVQ5  
UniRef90\_UPI0003B52271  
UniRef90\_UPI000376E15F  
UniRef90\_R6GRZ9  
UniRef90\_R8VWX9  
UniRef90\_G7LK11  
UniRef90\_UPI00036D52B4  
UniRef90\_F9MWX7  
UniRef90\_UPI0002E2E3D2  
UniRef90\_F6VF63  
UniRef90\_K0T8C8  
UniRef90\_C5L1J0  
UniRef90\_A6M1W0  
UniRef90\_K1LYU9  
UniRef90\_K1WQX3  
UniRef90\_U2EGH8  
UniRef90\_A3W0B6  
UniRef90\_E7GJ1  
UniRef90\_UPI00040A4E1B  
UniRef90\_D7N8U6  
UniRef90\_Q6D8A0  
UniRef90\_J0MWM1  
UniRef90\_UPI00039AF3F7  
UniRef90\_I5AYD7  
UniRef90\_UPI00031F8D11  
UniRef90\_F0Y427  
UniRef90\_R7CU13  
UniRef90\_S2VN21  
UniRef90\_W0E9Q6  
UniRef90\_X0TST6  
UniRef90\_V2Y4A4  
UniRef90\_U4ZS31  
UniRef90\_Q5P8G0  
UniRef90\_C3IWJ0  
UniRef90\_UPI000292B0D6  
UniRef90\_E1F223  
UniRef90\_R9J691  
UniRef90\_J9C819  
UniRef90\_D1C180  
UniRef90\_V2UN06  
UniRef90\_N1JAG1  
UniRef90\_B2TJP8  
UniRef90\_U3IZ92  
UniRef90\_X0SQJ8  
UniRef90\_T0L1U9  
UniRef90\_C5DU29  
UniRef90\_R5W2D5  
UniRef90\_A2TQ16  
UniRef90\_X2JR25  
UniRef90\_X0TJ02  
UniRef90\_UPI0003F73650  
UniRef90\_K2IEP6  
UniRef90\_R5L188  
UniRef90\_R5DAP7  
UniRef90\_B3PKD6  
UniRef90\_U7UNT4  
UniRef90\_K2JEP9  
UniRef90\_B5JMS4  
UniRef90\_C0C055  
UniRef90\_R5LFT2  
UniRef90\_E3GLY4  
UniRef90\_H1D269  
UniRef90\_U2U2F1  
UniRef90\_R5GWD4  
UniRef90\_UPI0004641A26  
UniRef90\_F2J3H4  
UniRef90\_G7W1H6  
UniRef90\_J9JN78  
UniRef90\_G0M6G3  
UniRef90\_A8YEJ4  
UniRef90\_R5P1T1  
UniRef90\_UPI0003B4497F  
UniRef90\_D1YVL7  
UniRef90\_Q866Y5  
UniRef90\_S3NNH1

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

130

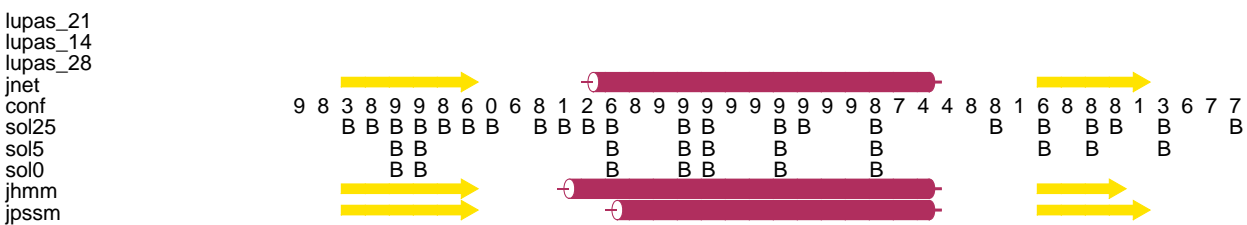
140

UniRef90\_K6XZ81  
UniRef90\_J5PTL8  
UniRef90\_H5XSS8  
UniRef90\_W9NQ40  
UniRef90\_A1SRM3  
UniRef90\_UPI00016C0063  
UniRef90\_H2T0C7  
UniRef90\_UPI000368A6D9  
UniRef90\_I0YK18  
UniRef90\_X1UWJ5  
UniRef90\_UPI000237BE66  
UniRef90\_S6EHL6  
UniRef90\_M7CQE3  
UniRef90\_C6BV19  
UniRef90\_D8IC40  
UniRef90\_I2GZ16  
UniRef90\_W8UFB1  
UniRef90\_K4KVQ5  
UniRef90\_UPI0003B52271  
UniRef90\_UPI000376E15F  
UniRef90\_R6GRZ9  
UniRef90\_R8VWX9  
UniRef90\_G7LK11  
UniRef90\_UPI00036D52B4  
UniRef90\_F9MWX7  
UniRef90\_UPI0002E2E3D2  
UniRef90\_F6VF63  
UniRef90\_K0T8C8  
UniRef90\_C5L1J0  
UniRef90\_A6M1W0  
UniRef90\_K1LYU9  
UniRef90\_K1WQX3  
UniRef90\_U2EGH8  
UniRef90\_A3W0B6  
UniRef90\_E7GJJ1  
UniRef90\_UPI00040A4E1B  
UniRef90\_D7N8U6  
UniRef90\_Q6D8S0  
UniRef90\_J0MWM1  
UniRef90\_UPI00039AF3F7  
UniRef90\_I5AYD7  
UniRef90\_UPI00031F8D11  
UniRef90\_F0Y427  
UniRef90\_R7CU13  
UniRef90\_S2VN21  
UniRef90\_W0E9Q6  
UniRef90\_X0TST6  
UniRef90\_V2Y4A4  
UniRef90\_U4ZS31  
UniRef90\_Q5P8G0  
UniRef90\_C3IWJ0  
UniRef90\_UPI000292B0D6  
UniRef90\_E1F223  
UniRef90\_R9J691  
UniRef90\_J9C8I9  
UniRef90\_D1CI80  
UniRef90\_V2UN06  
UniRef90\_N1JAG1  
UniRef90\_B2TJP8  
UniRef90\_U3IZ92  
UniRef90\_X0SQJ8  
UniRef90\_T0L1U9  
UniRef90\_C5DU29  
UniRef90\_R5W2D5  
UniRef90\_A2TQ16  
UniRef90\_X2JR25  
UniRef90\_X0TJ02  
UniRef90\_UPI0003F73650  
UniRef90\_K2IEP6  
UniRef90\_R5LI88  
UniRef90\_R5DAP7  
UniRef90\_B3PKD6  
UniRef90\_U7UNT4  
UniRef90\_K2JEP9  
UniRef90\_B5JMS4  
UniRef90\_C0C055  
UniRef90\_R5LFT2  
UniRef90\_E3GLY4  
UniRef90\_H1D269  
UniRef90\_U2U2F1  
UniRef90\_R5GWD4  
UniRef90\_UPI0004641A26  
UniRef90\_F2J3H4  
UniRef90\_G7W1H6  
UniRef90\_J9JN78  
UniRef90\_G0M6G3  
UniRef90\_A8YEJ4  
UniRef90\_R5P1T1  
UniRef90\_UPI0003B4497F  
UniRef90\_D1YVL7  
UniRef90\_Q866Y5  
UniRef90\_S3NNH1

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



	1	10	20	30	40																																				
UniRef90_UPI0003A64BA9	P	A	I	T	L	I	S	A	S	Q	T	G	N	A	R	R	V	A	E	A	L	R	D	D	L	L	A	A	R	L	N	V	N	L	V	N	A	G	D	Y	
UniRef90_D4CYM1	K	T	I	G	I	F	Y	A	T	L	T	K	T	T	V	G	V	V	D	E	L	E	F	F	L	K	H	D	D	F	K	T	F	N	I	K	S	A			
UniRef90_I2GH35		R	F	I	I	L	V	G	S	E	N	G	S	T	F	R	F	A	Q	L	I	H	Q	Q	L	L	N	Q	G			E	K	S	F	L	T	E	F		
UniRef90_N2B0I5	K	T	I	G	I	F	Y	G	S	S	T	G	T	T	E	D	I	A	K	R	I	A	A	K	L	G			V	D	A	S	N	L	Y	D	V				
UniRef90_D4W7B3	K	K	V	V	V	P	Y	V	S	A	Y	G	Y	T	G	E	L	A	E	A	I	V	K	G	I	Q	E	V	D	P	S	I	D	V	V		M	Y	N	L	
UniRef90_W8A033		I	A	V	V	Y	A	S	G	R	G	S	T	A	E	I	A	E	F	I	G	A	E	L	T	S	R	G	F	D	V	E	V			S	S	V			
UniRef90_F0QTF2	K	K	L	V	I	T	Y	S	S	M	Y	G	F	V	D	S	I	M	N	H	I	T	H	V	L	N	E	W	G	F	N	V	S	V	Y	R	F	T	D	K	
UniRef90_K2QIH0			I	L	V	G	T	E	G	G	T	T	L	Q	Y	A	K	Q	L	C	E	L	L	G	H	A	F	N	A	Q	I	Y	C	M	S	D	Y				
UniRef90_Q27571-7	K	A	T	V	L	Y	A	T	E	T	G	K	S	E	Q	Y	A	K	Q	L	C	E	L	L	G	H	A	F	N	A	Q	I	Y	C	M	S	D	Y			
UniRef90_B1C5X5	K	G	V	L	I	V	Y	A	S	M	Y	G	N	T	E	N	A	A	N	V	L	A	S	K	L	V	I	E	R	G	M	N	I	S	M	F	D	V	S	K	T
UniRef90_Z5XR91		I	G	L	F	Y	G	S	T	T	C	Y	T	E	I	A	A	E	K	I	R	D	I	I	G	Q						D	V	V	S	L	H	N	I		
UniRef90_F0M337	K	V	L	V	A	Y	A	S	R	H	G	S	T	A	G	I	A	E	R	I	A	A	R	I	S	E	N	G	H	Q	A	E	A	R	S	V	A	D	V		
UniRef90_UPI00029A1915			I	L	L	V	G	S	E	N	G	T	T	F	R	F	A	K	A	I	Q	D	Q	L	L	K	N	G	K	T	A			F	M	A	E	L			
UniRef90_Q6BVA3		I	Y	I	F	Y	T	T	L	T	G	S	S	Q	R	V	A	K	A	L	Y	E	K	L	K	L	L	S	L	D	D	V	D	D	L	E	E	Y			
UniRef90_D9R6P8		V	M	I	A	Y	G	S	I	Y	G	N	T	E	N	A	A	N	I	L	A	C	R	L	A	E	R	G	I	N	I	V	M	Y	D	V	S	S	T		
UniRef90_UPI0002F1DB1E		V	L	V	V	Y	A	T	D	Y	G	N	T	K	K	M	A	E	A	I	A	S	G	A	M	S	V	I	G	T	Q	V	S	I	K	L	A	E	E	V	
UniRef90_T0CDL7		I	A	I	L	F	L	S	A	Y	T	N	T	K	V	M	A	E	K	I	Y	E	G	I	V	S	T	G	E	A	A	A	L	Y	D	I	E	E	M		
UniRef90_D5V5G7		I	G	L	F	F	G	S	D	T	G	A	T	E	I	V	N	E	V	K	N	T	F	S	K					E	I	T	L	H	D	I	A	K	A		
UniRef90_B8FLT2		A	L	V	I	Y	H	S	N	T	G	N	T	A	T	L	A	K	E	A	A	A	T	L	E	D	M	G	W	A	V	N	Q	T	P	L	E	K	A		
UniRef90_G0VRE0	K	G	V	V	I	A	F	S	S	I	Y	G	N	T	E	R	A	A	C	V	L	A	H	K	L	S	Q	R	G	I	D	I	R	L	Y	D	V	A	K	I	
UniRef90_R6A703	K	G	L	V	V	C	Y	G	S	M	Y	G	N	T	A	R	M	A	E	A	V	C	E	G	A	E	A	G	M	K	I	V	V	H	N	L	S	V	S		
UniRef90_UPI00041FB7DF		V	A	V	F	Y	F	S	D	Y	G	Y	S	D	R	L	S	Q	A	I	A	H	G	I	T	K	T	G	V	A	V	E	M	M	D	L	E	A	T		
UniRef90_U7V435	K	I	G	V	F	Y	S	S	A	R	G	K	S	E	F	T	A	T	L	I	K	D	L	L	K	E			N	C	D	I	Y	K	I	A	D	T			
UniRef90_R5TMC8	K	A	V	M	I	A	Y	G	S	I	Y	G	N	T	E	N	A	A	N	I	L	A	C	R	L	A	D	R	G	V	K	I	V	M	Y	D	V	S	S	T	



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

[illegible]

	130	140
UniRef90_UPI0003A64BA9	D G Y H Y E E T T I I E D G K F I G L A L D	
UniRef90_D4CYM1	D I H T V N D S P E E F G L W A E A W S Q Q	
UniRef90_I2GH35		
UniRef90_N2B0I5	D G F K I K F R A S D R E K D A I D Y G K L F A K C L	
UniRef90_D4W7B3		
UniRef90_W8A033	D A I S V N G I P T K E D	
UniRef90_F0QTF2	E V F T V N D K S F E A F S N W A	
UniRef90_K2QIH0		
UniRef90_Q27571-7		
UniRef90_B1C5X5		
UniRef90_Z5XR91	E S Y E F E A S K A L T N E H F V G L A L D	
UniRef90_F0M337	G A W D P D A P V G L G E R L I R L A P A S K D A L	
UniRef90_UPI00029A1915	E I H T V N D R S P E E F T R W A T L W A	
UniRef90_Q6BVA3	P V G E V C M K Y D G E P K T N T W I Q N F A S L L	
UniRef90_D9R6P8	Q T I T I K S S K E D Q L A E I A A M A N A I A D	
UniRef90_UPI0002F1DB1E		
UniRef90_T0CDL7	E T L K K K F F P D E T L Q E C F D F G V K F A E A I	
UniRef90_D5V5G7	D G Y E F E E S I A V V D N Q F V G L V L D	
UniRef90_B8FLT2		
UniRef90_G0VRE0	P T M D M K S S L R D D Q E E L D E L A D K L V E S I	
UniRef90_R6A703	S P V E W K Q G V T G N D	
UniRef90_UPI00041FB7DF	P S I R I T E T P H D T	
UniRef90_U7V435	E E Y D F V K S S A I V D G K F V G L P L D	
UniRef90_R5TMC8	E T I T I K S S L K E D Q	

