

	1	10	20	30	40	
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UniRef90_A0A024PC58		R K I	KA K	T G T E L N C K S W L T E A P L R M M N N L D P Q V	A	
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UniRef90_UPI0003B5DF08		R D T S R T I	RS P	R G P S E L N C K S W L T E A P Y R M I Q N N L D D A E V A		
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QUERY	50	60	70	80
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UniRef90_B2SD94	ERPH	LVVYGGG	IGGKAAARN	NWEECCYD
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UniRef90_R7RR70	EKPEE	LVVYGGG	IGGKAAARN	NWEECCYD
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UniRef90_S6GJ25	HPD	LVVYGGG	IGGKAAARN	NWEECCYD
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UniRef90_U4TKV5	ENP	LVVYGGG	IGGKAAARN	NWEECCYD
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UniRef90_U1MTD7	HPD	LVVYGGG	IGGKAAARN	NWEECCYD
UniRef90_W7ZH26	EDP	LVVYGGG	IGGKAAARN	NWEECCYD
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QUERY Q S G K P V G V F K T H S N A P R V L I 100 A N S N L V P H W A N W E H F N E E L D A  
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 UniRef90\_UPI000368AEFE Q S S G K P V G I F R T H K D A P R V L I A N S N L V P H W A N W E H F N E E L L D D K  
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UniRef90_L0A578	AGLMMYGQQMTAGS	WIIYY	GTQQGG	VQQGGTYETFFVVEEMGR
UniRef90_E6PJ15	QGLTMYGQQMTAGS	WIIYY	GTQQGG	VQQGGTYETFFVVEEMGR
UniRef90_U1MTD7	EGLTMYGQQMTAGS	WIIYY	GTQQGG	VQQGGTYETFFVVEEMGR
UniRef90_W7ZH26	KGLMMYGQQMTAGS	WIIYY	GAQQGG	VQQGGTYETFFVVEEMGR
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UniRef90_E9UTM2	LGLTMYGQQMTAGS	WIIYY	GTQQGG	VQQGGTYETFFVVEEMGR
UniRef90_Q01W03	LGLTMYGQQMTAGS	WIIYY	GSQQGG	VQQGGTYETFFVVEEMGR
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250 260 270 280

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UniRef90\_M2U5V7 W E R L R J A D P P K Q V E A A A R K S I V Q H H V Q A M L E W W R E D V P V V D Y  
UniRef90\_E9UTM2 W A A R A Q Q D P D D F T E K A Q A S M A K H H V E A M V G F L D R G A E V F D Y  
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UniRef90\_UPI0003734C51 W A S E A E K D P P E G F T E R A R E S M A R H H V E G M V G F Q D A G A E V F D Y







QUERY Q G L P A R I C W V G L L G G R A K L G L A F N E M V R S G G E L S A P V V I G R R D  
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 UniRef90\_UPI00036E790C Q Q G L P A R I C W L G Y G G E R D R A G L L F N Q M V R D G G Q L S A P V V I G R R D  
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 UniRef90\_L0A578 Q Q G L P A R I C W L G Y G G E R D R A G R L F N E M V R D G G R L S A P V V I G R R D  
 UniRef90\_E6PJ15 Q Q G L P A R I C W L G Y G G E R A R A G L A F N D L V R R G E L S A P V V I G R R D  
 UniRef90\_U1MTD7 Q Q G L P A R I C W L G A G G E R H R A G L R F N E M V A D G G T L S A P V V I G R R D  
 UniRef90\_W7Z2H26 Q Q G L P A R I C W L G Y G G D R D R F A L R A N E M V A S G G E L E A P V V I G R R D  
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 UniRef90\_UPI0003734C51 Q G L P A R I C W L G H G E R D V A G L R F N E L V A S G E I S A P L A I G R R D

QUERY	450	460	470	480					
UniRef90_D6TMT6	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	C	ASSGA
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UniRef90_UPI0003A04F01	HLDSSGSSV	SSPNNRETT	TEAMKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_W5Y742	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_Q1LJE9	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI0004690D2B	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_B2SD94	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_K2AC30	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_R7RR70	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_A0A024PC58	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_U2D363	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_S6GJ25	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_I8UFV5	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_T1BDV3	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI0003B5DF08	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_U4TKV5	HLDAGSSV	SSPNNRETT	TEAMQDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_G8UV08	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_K7AB34	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI00036E73B1	HLDSSGSSV	SSPNNRETT	TEAMQDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_C5DA19	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_K2MFV4	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_I0AHN8	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_B4W5Z7	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_E8N346	HLDAGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_D2UAX8	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_A4BTA6	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_H5STI7	HLDAGSSV	SSPNNRETT	TEAMYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	N	T	ASSGA
UniRef90_Q67JH5	HLDAGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_F9DTJ3	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_S9T4A2	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_D3TB49	HLDSSGSSV	SSPYRETT	TEAMKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_B0KCB9	HLDSSGSSV	SSPYRETT	TEAMKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_B9E7J6	HLDAGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI000479C203	HLDAGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_E9UZH4	HLDSSGSSV	SSPYRETT	TEAMKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
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UniRef90_UPI00047BAD3A	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI00047DF214	HLDAGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_D5VWV37	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI0002F75927	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI00047EFC35	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_DOMJ21	HLDAGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI00025581CE	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_I0GJE7	HLDSSGSSV	SSPYRETT	TEAMKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_A9AW39	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_Q6MJM2	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_Q5WCP7	HLDAGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_W4L7P3	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_Q2Z0D1	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI0001850A89	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_W0RKW3	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_T0D7B0	HLDAGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI00047A2856	HLDSSGSSV	SSPYRETT	TEAMKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_D7B114	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI00047EE63F	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_E4RQN4	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_I0I6R2	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_I4AID6	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_K0NJC3	HLDSSGSSV	SSPYRETT	TEAMKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_Q1AYH3	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_S2ZJ11	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_C7M030	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_I6X064	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_A1WP05	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_Q5NZX9	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI0004095B74	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_A4FN1	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_D1C2S6	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_B2A3D8	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_B5Y9A8	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_T0MP50	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_K6NZ70	HLDAGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_D3PLJ3	HLDAGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI00039EA572	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI0004777C53	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI0003F5CDE8	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_A0QRN3	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI00036E790C	HLDAGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_D3F195	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_A6G0F9	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
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UniRef90_E6PJ15	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_U1MTD7	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_W7ZH26	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_M2U5V7	HLDSSGSSV	SSPNNRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_E9UTM2	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_Q01W03	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_M7T4F4	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA
UniRef90_UPI0003734C51	HLDSSGSSV	SSPYRETT	TEAMRKDD	GSDDAVVSD	WDWPLLN	NALLLN	N	T	ASSGA





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UniRef90_F4C5N4		K A P V G N Q L H A K S W Q T E A A L R M L L N N L D D A E V A			
UniRef90_D6YWA6	K H P S Y K S P V G N Q L H A K S W Q T E A A L R M L L N N L D D A E V A				
UniRef90_A0A017TAH4	H R E H R G A V R A A R G A K L S C R G W Q T E A A L R M L H N N L D D P E V A				
UniRef90_T0MZZ3		K E I R A P R G A K L S C R G W Q T E A A L R M L M N N L D D P E V A			
UniRef90_A0LKV5		R P V R A P R G V E L H C K G W R Q E A A L R M L C N N L D D P E V A			
UniRef90_U5QS68	P V S L R A P H G T A L R C R G W Q T E A A L R M L L N N L D D P E V A				
UniRef90_UPI000381CDDD		K D I H A P H G N K L N T K G W S Q E G A M R L L M N N L D D P M V A			
UniRef90_S0AQJ0		E V R A A R G S E R T A K T W P A E A A S R M L L M N N L D D P M V A			
UniRef90_UPI00035F616C					
UniRef90_T1A4Z5					
UniRef90_F8KYD2		R A P R G D Q L H A L S W Q T E A P L R M L L N N L D D A E V A			
UniRef90_X5DYA0	R F R P Y K M Y A R P T D E Y P A K S K Q A A S I M L M L Q N N L D D Y A V A				
UniRef90_UPI00035F4D49		K A P T G A K L N T R S W Q T E A P L R M L L N N L D D A E V A			
UniRef90_UPI000479C67B	Y E T H K Y K T P T G T Q L S C K S W I Q E A A L R M L L N N L D D P A V A				
UniRef90_T0RNM2	R Y R P Y K I F A R S I N D Y P H K S Q Q A A A I M L M L S N N L D D Y A V A				
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UniRef90_F8FL87					
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UniRef90_D1VUK1	R F R P Q R I W G K A I D E Y K G N C L E G K A F Q V M I D N N L D D F E V A				
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UniRef90\_H3GAK8 R F R P G R I Y G H A L T N D Y A G N C T D G K A F Q V M I D N N N L D F E V A  
UniRef90\_Q11F96 R Y R P G R I W G R P I V N D Y K G I L L P A R A L Q V N I D N N N L D F E V A  
UniRef90\_I3IGZ4 R F R P H G I K A K P I E A Y R G R C L A G K A I Q L M I D N N N L D F D V A  
UniRef90\_UPI0003B5F73E R F R P S V K A Q R G P V L R C K G W R Q E T I L R M L E N N M E N A  
UniRef90\_E4XLP6 R F R P G R I Q G K P I V E Y E Y K G R C L E G K A I Q V M I D N N N L D F E T A  
UniRef90\_G3MNE3 R L R P Q H M K A R P L A A Y P A K S R Q A A A I M L M I Q N N N L D P A V A  
UniRef90\_H4F9V3 R S P K G I E K T C K T W E I E A L K R L L E N C L D P Q I A  
UniRef90\_UPI00036097BD Y S V R A M G G N N L R C K G W K Q E G I L R M L E N N M E N A  
UniRef90\_UPI0002D42167 R L Q A P S L S E I P A K S Q Q A A A I L M I L N N N L D P E V A  
UniRef90\_G3N6Z5 R F P E I E M R A Y P I E E Y P C K T K S A A A I M H M I M N N N L D P S V A  
UniRef90\_W0PAL9 R F R P H A I Y G K P I D E Y K G K C L A G K A I Q V M I D N N N L D F D V A  
UniRef90\_K4DWU9 M T R T F E V T S G T T L R C K G W R Q E A L L R L L E N N V L A V G  
UniRef90\_X0PCD7 R Y R Q G H I Y G K P I D E Y K G I T P A R A I Q V M I D N N N L D F D V A  
UniRef90\_UPI0003B5F73E R F R P D P I K A H P I S L Y P A T C V E A A A I M L M I C N N N L D R Q V A  
UniRef90\_E9ST36 Y E V K A Q G G N T L R C K G W R Q E T I L R M L E F N M E N A  
UniRef90\_UPI0004785E7B Y S V K A Q R G G E L R C K G W K Q E T I L R M L E N N M E N A  
UniRef90\_V7I0J0 P E R K I T A P R G T A L H T K G W V Q E A A L R M L M N N N L D P E V A  
UniRef90\_A0A011LV18 P K H S L E A A P F D L I P G R T V E A R A M Q H M I L N N N L D P R V A  
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UniRef90\_W7Z970 R F P Q I E M R A Y P I Q E Y P C K T K Q A A A I M H M I M N N N L D P A V A  
UniRef90\_W0ADS8 R F R P Y E L K A Y P F A K F R C R C D E A A C I L L M V M N N N L D R R V A  
UniRef90\_A0A011T565 R F P D I E M R A Y P I E L Y P C Q T K A A A A I M H M I M N N N L D P A V A  
UniRef90\_W2T9N6 R F P S I E M R A Y P I E Q Y P C R T R A A A A I M H M I M N N N L D P A V A  
UniRef90\_G2FUUV3 R F P A I Q M R A Y P L Q Q Y P S R T R A A A A I M H M I M N N N L D P A V A  
UniRef90\_V3DJU1 R F R P E I E M R A Y P I E E Y P C K T K S A A A I M H M I M N N N L D P S V A  
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UniRef90\_Q390J0 R Y R Q G H I Y G K P I D E Y K G I T P A R A I Q V M I D N N N L D F D V A  
UniRef90\_U2MI80 R F R P D P I K A H P I S L Y P A T C V E A A A I M L M I C N N N L D R Q V A  
UniRef90\_B0VHZ1 Y E V K A Q G G N T L R C K G W R Q E T I L R M L E F N M E N A  
UniRef90\_Z0THB5 Y S V K A Q R G G E L R C K G W K Q E T I L R M L E N N M E N A  
UniRef90\_H2KQI2 P E R K I T A P R G T A L H T K G W V Q E A A L R M L M N N N L D P E V A  
UniRef90\_G9XB05 P K H S L E A A P F D L I P G R T V E A R A M Q H M I L N N N L D P R V A  
UniRef90\_K7FWM3 K E V K A Q R G Q E Y P C K G W K Q E A I L R M L E N N N L D E N A  
UniRef90\_E7GSP4 R F P Q I E M R A Y P I Q E Y P C K T K Q A A A I M H M I M N N N L D P A V A  
UniRef90\_A3ENW0 R F R P Y E L K A Y P F A K F R C R C D E A A C I L L M V M N N N L D R R V A  
UniRef90\_UPI00046E8572 R F P D I E M R A Y P I E L Y P C Q T K A A A A I M H M I M N N N L D P A V A  
UniRef90\_L9XD06 R F P S I E M R A Y P I E Q Y P C R T R A A A A I M H M I M N N N L D P A V A  
UniRef90\_J9IAW7 R F P A I Q M R A Y P L Q Q Y P S R T R A A A A I M H M I M N N N L D P A V A  
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UniRef90\_UPI0004419E0A R F R P H A I Y G K P I D E Y K G K C L A G K A I Q V M I D N N N L D F D V A  
UniRef90\_F0Y2S5 R F R P Y E L K A Y P F A K F R C R C D E A A C I L L M V M N N N L D R R V A  
UniRef90\_UPI00020ADF6E R F P D I E M R A Y P I E L Y P C Q T K A A A A I M H M I M N N N L D P A V A  
UniRef90\_UPI0003D07EF0 R F P S I E M R A Y P I E Q Y P C R T R A A A A I M H M I M N N N L D P A V A  
UniRef90\_I3N3Y7 R F P A I Q M R A Y P L Q Q Y P S R T R A A A A I M H M I M N N N L D P A V A

UniRef90\_UPI00037B5B2C L Y P Y E L V T Y G G S G Q V F Q N W M Q Y R L I K K Y L E V M T D H Q T L V V M

UniRef90\_Q96N76-2 Q F P Q E L V T Y G G N G Q V F S N W A Q F W L T M F Y L S K M T E E Q T L V V M

UniRef90\_R4LHR6 E R P D D L V T Y G G T G R A A R D N W P S F H A I V K R E L D E L T R G D E Q T L V V M

UniRef90\_R5S146 L Y P Y E L V T Y G E T G Q V F Q N W M Q Y R L I K K Y L E E L T R G D E Q T L V V M

UniRef90\_A7RNH9 Q F P H E L V T Y G G N G S V F S N W A Q F W L V M Q Y L S E M T E E Q T L V V M

UniRef90\_D8M964 Q F P Q E L V T Y G G N G V F S N W A Q Y H Q I M K Y L S S H M T E E Q T L S M

UniRef90\_L8G132 Q F P H E L I T Y G G N G A V F Q H W A Q Y H L V M K Y L S E M T E E Q T L V V M

UniRef90\_U2L213 L Y P Y E L V T Y G E T G Q V F Q N W M Q Y R L I Q Q Y L R E M T D T Q T L V V M

UniRef90\_A2TU21 Q H P L E L I T Y G G N G A V F S N W A Q Y R L T M Q Y L A Q M T D E Q T L V V M

UniRef90\_UPI00035F870B E D P D S L I V Y A A L G K A A R N W A A H D A I V Q A L K T L D E D Q T L V V M

UniRef90\_R7F399 L Y P Y E L V T Y G E T G Q V F Q N W L Q Y R L I K K Y L E E L H D D Q T L V V M

UniRef90\_UPI000478D9A6 E N N Q E L I V Y G G T G K A A R N S K E M L E V I T K E L K Q L E P D W T L M I

UniRef90\_UPI00047CA5B5 L Y P Y E L V T Y G E T G Q V F Q N W M Q Y R L I K K Y L E R L T E N Q T L V V M

UniRef90\_UPI000475EA27 E N P E Q L V V Y A A L G K A A R N W E S Y H A I V D C L K K L E D D Q T L V V M

UniRef90\_A1B7U3 E D P D N L V V Y A A L G K A A R D K A A H D A I V R A L T V M D E D Q T L V V M

UniRef90\_F7PW21 L Y P Y E L V T Y G E T G R V M Q N W M Q Y R L I K I Y L E V M T E N Q T L V V M

UniRef90\_I5B793 L Y P Y E L V T Y G E T G A V F Q N W M Q Y Q L I K R Y L A A L T D H Q T M V M

UniRef90\_T0PSD3 Q F P A H L I T Y G G N G S V F S N W A Q Y L L V M K Y L S E M T E E Q T L V V M

UniRef90\_D3IH73 Q H P H E L I T Y G G N G A V F Q N W A Q Y R L T M Q Y L S E M T E A Q T L H M

UniRef90\_V6IWG8 E D Q E N L V V Y G A L G K A A R N W P S Y H A I V A T L K D L E D E T L I I

UniRef90\_UPI0004206E23 E D P A N L V V Y A A L G K A A R D W P S H D A I V H A L T T M H D D E T L I V

UniRef90\_A4CGJ3 Q H P D E L I T Y G G N G A V F Q N W A Q Y L L T M Q Y L S E M T E A Q T L H M

UniRef90\_M1ZC29 L D W K Q L I V Y G G T G R A A R N W K E Y H R L V A E L K R L K K D E T L C V

UniRef90\_D2V0K5 Q Y P H E L V T Y G G N G S V F S N W A Q F L L T M K Y L S E M N E N Q T L T M

UniRef90\_UPI00034AE5CE E D P E N L V I Y M S J A R A A R D W N S F D R I V A T L T T M R E D Q T F V M

UniRef90\_F8I3P7 E D P A H L I V Y G G R G R A A R S W D A Y D K I V Q S L L T L E N D E T L I I

UniRef90\_S7TCA2 L Y P Y E L V T Y G E T G S V F Q N W M Q Y R L I K R Y L E E L T E A Q T L V V M

UniRef90\_UPI0003779F01 L Y P Y E L V T Y G E M G V F Q N W M Q Y R I V M Y Y L R N L T K R Q T L V V M

UniRef90\_Q8RFC1 L Y P Y E L V T Y G E T G Q V F Q N W M Q Y R L I K K Y L E N M T Q D Q T L V V M

UniRef90\_UPI0002490C9A E D Q D N L V V Y G A L G K A A R N W P S Y Y G I V N A I E K N L E E D E T L V V M

UniRef90\_H1XP79 L Y P Y E L V T Y G E T G Q V F Q N W M Q Y L L I K K Y L E I M R E D Q T L V I

UniRef90\_H2WM07 Q F P Q E L V T Y G G N G Q V F S N W I Q F R L V L R Y L R E M S D K Q T L V L

UniRef90\_UPI0004286627 L Y P Y E L V T Y G E T G S V F H D W M Q Y V M I K R Y L Q I L T E H Q T L A M

UniRef90\_E4SQ08 E D P D N L I V Y G A L G K A A R D W S S Y E A I V E S L K T I E E D E S L I I

UniRef90\_F9Z1A8 L Y P Y E L V T Y G E T G S V F Q N W L Q Y R L I K K Y L S Q L T E E D T T L V V M

UniRef90\_H0ZD39 Q F P Q E L V T Y G G N G Q V F S N W A Q F W L A M Q Y L S E M T E E Q T L V V M

UniRef90\_B3T6B5 Q Y P H E L V T Y G G N G T V F Q N W I Q Y R L T M A Y L A K M N Q E Q T L V V M

UniRef90\_U7JQ55 L Y P Y E L V T Y G E T G S V F H D W L Q Y R L I K K Y L E Q L T E D T T L V V M

UniRef90\_C5KD95 Q F P H E L V T Y G G N G V F S N W A Q Y H L T M H Y L Q I M E A D Q T L A M

UniRef90\_T1J844 Q F P Q E L V T Y G G N G Q V F S N W A Q F W L V M K Y L C N M S A D Q T L V L

UniRef90\_H2Z6J0 Q F P H E L V T Y G G N G Q I F S N W A Q F W L T M R Y L S K L S E E Q T L V M

UniRef90\_UPI00034A506D E D P D N L V V Y A A L G S K A A R D W P S H D K I V E S L H K L E E E T L V V M

UniRef90\_E9BYR1 Q F P H E L I T Y G G N G S V F S N W A Q Y L L A M H Y L S Q M T E E E Q T L A M

UniRef90\_UPI0002657A4A Q F P E E L V T Y G G N G S V F S N W A Q F R L V M H Y L S K M T D S Q T L V M

UniRef90\_C0QEW2 L Y P Y E L V T Y G E T G Q V F Q N W M Q Y Q M I K K Y L E N V T Q D Q T L V V M

UniRef90\_J1QMF6 Q H P Q E L I T Y G G N G A V F Q N W A Q Y R L T M Q Y L S E M Q S D D Q T L H M

UniRef90\_S6UR35 E S G K D L I V Y G G R G K A A R N H E A A N A I I H E L R Q Q L N P D E T L L I

UniRef90\_F9DTJ7 Q F P N H L V T Y G G N G S V F Q N W A Q Y L L A M R Y L L S E L T E E Q T L V V M

UniRef90\_H3GAK8 E N P A E L V T Y M S W A K A A R D W K S F D Q A V A A L K E L E I D Q T L V V M

UniRef90\_Q11F96 T Q P E E L I V Y G G S G R A A R N W K E Y Q R I L S L K T L K K D E T C I

UniRef90\_I3IGZ4 Q Y P N E L V T Y G G N G Q V F S N W M Q F R L T M H Y L S I M N E E Q T L V V M

UniRef90\_E4XLP6 Q F P E E L V T Y G G N G Q V F S N W A Q F R L V M Y Y L S R M T E E Q T L V V M

UniRef90\_G3MNE3 E D P D N L V V Y A A L G K A A R N W S A H A A I V E T L K T M D E D Q T L I I

UniRef90\_H4F9V3 I D W K Q L I V Y G G S G R A A R N W K E Y H R I V K E L K K L Q P D Q T C I

UniRef90\_UPI00036097BD E K P E E L V V Y G G I G K A A R N W E S Y H A I V K S L K E L E D D E T L V V M

UniRef90\_UPI0002D42167 Q F P Q E L V T Y G G N G Q V F G N W A Q F C L V M H Y L S E M T E E Q T L V V M

UniRef90\_G3N6Z5 E D P E N L V V Y A A L G K A A R D W P S H D A I V H A L R T M T E E Y T L V V M

UniRef90\_W0PAL9 M F P H E L I T Y G G N G V F N N W A Q F C L T M K Y L C E M T D H Q T L A L

UniRef90\_K4DWU9 L Y P Y E L V T Y G E T G S V F Q N W M Q Y R L I K K Y L E A L T D S Q T L V V M

UniRef90\_X0PCD7 L Y P Y E L V T Y G E T G Q V F Q N W M Q Y R L I K K Y L E I M T E N Q T L V I

UniRef90\_UPI0003B5F73E L Y P Y E L V T Y G E T G Q V F Q N W M Q Y R L I K K Y L E E M E D Q T L I V

UniRef90\_E9ST36 E H P P E L V T Y G G N G K A A R N W E S Y H A I V K S L K E L E D D E T L V V M

UniRef90\_UPI0004785E7B L Y P Y E L V T Y G E T G Q V F Q N W M Q Y L L K K Y L K E L E E D M T L V I

UniRef90\_V7I0J0 E A P E K L I V Y A A L G K A A R N Q A S Y E S I V T S L K T M T E D Y T L I V

UniRef90\_A0A011LV18 Q Y P H E L I T Y G G N G T V F G N W A Q Y R L T M K Y L E S M S D E Q T L V L

UniRef90\_D0LH96 Q D R D Q L I V Y G G T G K A V R H Q A A F N T I V T E L E T L A E D E T L L I

UniRef90\_W7Z970 E A P E R L V V Y A A L G K A A R D W P S H D A I V A L K T M E E D E T L V V M

UniRef90\_W0ADS8 E H P Q E L V T Y G G I G K A A R N W E S Y H A I V K S L Q E L E N D E T L V V M

UniRef90\_A0A011T565 Q F P Q E L V T Y G G N G Q V F S N W A Q F R L V L R Y L A Q M S V E Q T L V L

UniRef90\_W2T9N6 E K W Q D L L V Y G G T G K A A R N V E S L D T I I H A L K N L K D E T L L I

UniRef90\_G2FUV3 E K W Q D L L V Y G G T G K A A R N V E S L D T I I H A L K N L K D E T L L I

UniRef90\_V3DJU1 Q F P Q E L V T Y G G N G Q V F S S W A Q F W L V M H Y L S E M T E E Q T L V V M

UniRef90\_UPI00042B25E L Y P Y E L V T Y G E T G Q V F Q N W M Q Y R L I K K Y L E Q M T E K Q T L V V M

UniRef90\_UPI000382AA49 E D P D Q L I V Y A A L G R A A R D W P S H D A I V R T L K T M D E N Q T L V V M

UniRef90\_Q390J0 E N P D Q L V I Y M A W A K A A R D W V S D Q T V D A L K R L E S N Q T L V V M

UniRef90\_U2MI80 L Y P Y E L V T Y G E S G Q V F Q N W M Q Y R L I K K Y L E I M T E N Q T L V V M

UniRef90\_B0VHZ1 Q F P D E L V T Y G G N G Q V F S N W G Q F W L V M K A L S K L N R K Q T L V L

UniRef90\_Z0THB5 E I P E L L V I Y G G N G K A A R N W E S Y W A I V D A L K N L E N D E T L V V M

UniRef90\_H2KQI2 E I P E Q L V I Y G G N G K A A R N W E S Y H A I V Q S L K D L E D N E T L V I

UniRef90\_G9XB05 E I P E Q L V I Y G G N G K A A R N W E S Y H A I V Q S L K D L E D N E T L V I

UniRef90\_K7FWM3 E I P E Q L V I Y G G N G K A A R N W E S Y H A I V Q S L K D L E D N E T L V I

UniRef90\_E7GSP4 E I P E Q L V I Y G G N G K A A R N W E S Y H A I V Q S L K D L E D N E T L V I

UniRef90\_A3ENW0 E A P S Q L V V Y G G I G R A A R N W D S F D A I V R S L N S L E E N E T L L I

UniRef90\_UPI00046E8572 E A P S Q L V V Y G G I G R A A R N W D S F D A I V R S L N S L E E N E T L L I

UniRef90\_L9XD06 Q F P Q E L I T Y G S N G S V F S N W G Q F H I T L K F L Q Q M N E N Q C L H M

UniRef90\_J9IAW7 E R T E N L V V Y G G I G K A A R N W E S F Y A I V D A L K S L E N D E T L A V

UniRef90\_UPI00041A83D4 Q F P Q E L V T Y G G N G Q V F S N W A Q F W L V M H Y L S E M T E E Q T L V V M

UniRef90\_UPI0004419E0A Q Y P Q E L I T Y G G N G S V L S N W A Q F L V L A K Y L C E M T T D Q T L S M

UniRef90\_F0Y2S5 Q Y P Q E L V T Y G G N G Q V F S N W A Q F L V L A K Y L C E M T T D Q T L S M

UniRef90\_UPI00020ADF6E Q F P Q E L V T Y G G N G Q V F S N W A Q F W L T M S Y L S K M T E E Q T L V V M

UniRef90\_UPI0003D07EF0 Q F P Q E L V T Y G G N G Q V F S N W A Q F W L T M S Y L S K M T E E Q T L V V M

UniRef90\_I3N3Y7 Q Y P Q E L V T Y G G N G Q V F S N W A Q F W L T M S Y L S K M T E E Q T L V V M

UniRef90\_UPI00037B5B2C A S G H P L G L F P S R H E S P R V I S T N G L M V G M F D N S D D F K A A A A  
UniRef90\_Q96N76-2 Y S G H P L G L F P S S R S A P R V L V I T N G M V I G N Y S S R T E Y E K L F A  
UniRef90\_R4LHR6 Q S G R P V L G L F R T H E W A P R V L I A N S N L V G D W A T W P E F R R R L E K A  
UniRef90\_R5SI46 M S G H P L G L F P S H K M A P R V I I S N G L M V G I T F D D Q E N F N R A A A  
UniRef90\_A7RNH9 Y S G H P A G L F P S S S M A P R V V I T N G M M I P N Y S T Q R E M Y D K L F A  
UniRef90\_D8M964 Y S G H P M G L F P S H P D A P R M V I T N G M V I P N Y S S Q A D Y E R M Y A  
UniRef90\_L8GI32 Y S G H P L G L F P S T K D S P R V V I T N G M V I P N Y S S S K D L Y E K M H A  
UniRef90\_U2L213 M S G H P L G L F P S K K E S P R V V I T N S L M V G C Y D D Q E N W K R A A A  
UniRef90\_A2TU21 Y S G H P M G L F P S H K E A P R V V V T N G M M I P N Y S A P D D W E K Y N A  
UniRef90\_UPI00035F870B Q S G K P I G L F R T Q V Q A P L V I M A N C N I V G Q W A K A E D Y F Y E L E Q  
UniRef90\_R7F399 E S G H P L G L F P S S K E A P R V I T T N A M M V G M F D T Q H D W H E A M Q  
UniRef90\_UPI000478D9A6 Q S G K P V L A S F R T F P F F P R V I S S S S M V V P K W A T W K E F S R L E E  
UniRef90\_UPI00047CA5B5 A S G H P L G L F E S R P E A P R V I T T N A L M V G M F D N Q K E W Q K A Q A  
UniRef90\_UPI000475EA27 Q S G K P I G I L Q T H A S A P L V I M A N C N I V G K W A T S E N F Y A L Q E R  
UniRef90\_A1B7U3 Q S G K P V L G L F R T S A E A P K V I M A N C N I V G Q W A N A E T F Y D L E R  
UniRef90\_F7PW21 Q S G H P L G L F F K S S K E A P R V I V T N G L M I G G L F D D L E N W N R A A A  
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UniRef90_A4CGJ3	L G V T Q Y G Q M T A G S Y M Y	G P Q Q G G I V H H G T T I T V L N A F R R V L P E		
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UniRef90_D2V0K5	L G N T I Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T T L V V L N A G R K Y L N N		
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UniRef90_S7TCA2	M G V S S Y G Q M T A G G W M Y	G P Q Q G G I V H H G T Y N T L L N A G R K M C G Q G		
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UniRef90_J1QMF6	L G V T Q Y G Q M T A G S Y M Y	G P Q Q G G I V H H G T T I T V M N A F R K V L G E		
UniRef90_S6UR35	K G L A M Y G Q M T A G S W I Y	G S Q Q G G I V Q Q G T Y E T F V E A G R Q H Y D G		
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UniRef90_H3GAK8	M G N T Q Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T T I T V L N A C G R K Y L Q E		
UniRef90_Q11F96	K G L T I K P G M T A A A W Q Y	G S Q Q G G L Q Q G T Y E T F S S V G R K H F G G		
UniRef90_I3IGZ4	Q G L A M Y S Q M A G S W I Y	G T Q Q G G S I H H G T Y E T F A A L A R K I F A E		
UniRef90_E4XLP6	L G V T Q Y G Q M T A G S W C Y	G P Q Q G G I V H H G T T L T V L N A F R R K F G S		
UniRef90_G3MNE3	M G V T M Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T T I T V M N A G R K Y L N Q		
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UniRef90_Q390J0	R N L I C W G G L T A G D W Q Y	G S Q Q G G V I Q Q G T Y E I F S R I A E R H F D N		
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UniRef90_B0VHZ1	L G V A N Y G Q M T A G G W M Y	G P Q Q G G I V N G T Y I T L L N A G R K Y L G Q		
UniRef90_Z0THB5		G S Q Q G G I V H H G T Y E T F A E L G N K L F N G		
UniRef90_H2KQI2	L G V T Q Y G Q M T A G S F C Y	G P Q Q G G I V H H G T T I T I M N A F R K C Y T E		
UniRef90_G9XB05	K N L T I F A Q Y T A A P W E Y	G T Q Q G G V I E G T F E T L S A I A I K R Y N D		
UniRef90_K7FWM3	M G V T M Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T V L T V L N A G R R Y L G E		
UniRef90_E7GSP4	K N L T I F A Q Y T A A P W E Y	G T Q Q G G V I E G T F E T L S A I A K K E W D N		
UniRef90_A3ENW0		G S Q Q G G I V Q Q G T Y E T F V A V A K K H F N G		
UniRef90_UPI00046E8572	K G L I M Y G Q M T A G S W I Y	G S Q Q G G I V Q Q G T Y E T F A E C G R Q H F G G		
UniRef90_L9XD06	E G K I M Y G Q M T A G S W A Y	G T Q Q G G I V Q Q G T F E T L A E L A R Q H Y D G		
UniRef90_J9IAW7	L G V S M Y G Q M T A G S W M Y	G P Q Q G G I V H H G T A I T V A Q A A K L Q D N P		
UniRef90_UPI00041A83D4	K N L T T F S Y T A G P W Q Y	G S Q Q G G V I H H G T F E T L G L V A D E H F G G		
UniRef90_UPI0004419E0A	K G I T M Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T V L T V L N A G R R Y L G E		
UniRef90_F0Y2S5	Q G V S I Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T T I T V L N A G R K Y L G D		
UniRef90_UPI00020ADF6E	L G V T M Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T V L T V L N A S A R Y L G E		
UniRef90_UPI0003D07EF0	L G V T M Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T S K P L G A A A R C H V L P		
UniRef90_I3N3Y7	L G V T M Y G Q M T A G S Y C Y	G P Q Q G G I V H H G T V L T V L N A G R R Y L G Q		



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UniRef90\_Z0THB5 D L A G T V L T A G L G G M S G A Q Q P L A A I T M N H G V A I C V D E D E T R V L  
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UniRef90\_K7FWM3 N L A G R V F V T S G L G G M S G A Q Q A K A A V I A G C V G I I A E V D E A A L  
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UniRef90\_UPI0004419E0A N L S G R V F V T S G L G G M S G A Q Q A K A A V I A G C A G V I A E V D E A A L  
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UniRef90_UPI00037B5B2C	K	T	R	H	E	Q	Q	W	L	210	S	K	Y	S	D	S	L	E	V	I	N	W	M	Q	E	S	K	A	K	G	E	A	V	S	I	L	G	Y	Y	G	N				
UniRef90_Q96N76-2	E	K	R	H	R	Q	Q	W	L	220	M	E	V	T	D	S	L	L	Q	E	A	L	G	W	A	R	E	A	K	K	K	E	A	V	L	S	L	G	Y	H	G	N			
UniRef90_R4LHR6	R	D	R	V	D	T	R	Y	L	230	D	V	I	A	A	D	S	L	L	D	E	A	V	R	L	A	E	E	A	K	K	R	K	E	A	V	L	S	L	G	V	Y	G	N	
UniRef90_R5SI46	D	T	R	Y	I	Q	Q	W	V	240	S	H	R	T	S	D	L	L	L	D	E	A	T	K	L	A	L	E	H	A	K	K	A	P	C	A	V	A	Y	C	G	N			
UniRef90_A7RNH9	M	K	R	F	E	Q	Q	W	L		S	M	E	Y	T	S	D	L	L	P	T	C	I	E	R	I	K	Q	A	R	K	E	K	P	L	S	I	L	G	Y	L	G	N		
UniRef90_D8M964	E	K	R	F	K	Q	Q	W	I		S	E	K	V	T	S	D	L	L	D	D	T	C	I	A	R	L	K	R	A	K	E	K	P	L	S	I	L	G	F	L	G	N		
UniRef90_L8GI32	K	K	R	H	E	Q	Q	W	V		S	M	E	V	T	S	D	L	L	D	D	C	V	I	A	R	I	K	K	A	K	E	K	E	T	L	S	I	M	A	Y	Q	G	N	
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UniRef90_A2TU21	H	T	R	H	S	Q	Q	W	V		D	E	I	N	N	T	T	D	T	A	L	V	T	R	V	Q	Q	A	Q	L	H	D	K	E	T	V	S	I	A	Y	H	G	N		
UniRef90_UPI00035F870B	E	K	R	K	A	G	Y	V	D		D	E	I	A	P	D	T	D	T	A	L	L	Q	R	L	A	H	A	M	E	R	K	E	P	V	S	I	A	Y	H	G	N			
UniRef90_R7F399	E	T	R	R	S	Q	Q	W	V		Q	K	V	T	E	S	I	V	P	E	A	F	K	W	A	H	E	A	M	E	R	K	E	P	V	S	I	A	Y	H	G	N			
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UniRef90_UPI00047CA5B5	Q	T	R	L	D	Q	Q	W	V		I	T	R	A	S	N	N	L	V	K	E	A	L	F	D	L	A	L	E	Y	K	N	N	K	K	S	I	S	V	A	L	Y	H	G	N
UniRef90_UPI000475EA27	D	K	R	L	Q	V	G	Y	L		I	K	K	T	S	S	L	L	D	E	A	L	A	W	I	E	E	A	K	A	K	K	Q	S	I	S	V	L	G	L	V	G	N		
UniRef90_A1B7U3	R	K	R	R	E	S	Q	Q	W		D	E	I	A	P	D	T	D	D	G	A	L	L	A	R	I	E	E	A	R	A	K	Q	Q	A	L	S	I	G	L	V	G	N		
UniRef90_UPI000475EA27	D	T	R	Y	S	Q	Q	W	V		S	Y	V	A	K	T	P	E	D	D	A	F	V	K	A	K	E	Y	L	D	K	K	E	P	L	S	I	A	Y	Q	G	N			
UniRef90_i5B793	L	T	R	H	E	Q	Q	W	V		D	V	V	S	D	D	L	E	T	V	Y	R	R	A	K	S	A	V	K	A	K	E	N	T	S	I	L	A	F	H	G	N			
UniRef90_T0PSD3	E	K	R	H	A	Q	Q	W	V		N	E	I	A	T	T	L	P	Q	C	I	L	D	M	I	R	S	A	R	K	D	Q	R	V	V	S	I	L	A	Y	H	G	N		
UniRef90_D3IH73	E	K	R	H	A	Q	Q	W	V		D	E	I	A	T	T	L	D	Q	E	L	I	S	A	V	K	K	A	V	E	E	R	R	V	V	S	I	M	A	Y	V	G	N		
UniRef90_V6IWG8	D	K	R	I	K	S	G	Y	L		Q	R	K	T	A	E	L	D	V	A	L	R	W	I	Q	E	A	T	E	N	K	Q	S	V	S	V	G	L	I	G	N				
UniRef90_UPI0004206E23	K	R	R	L	E	S	Q	Q	W		L	Q	D	Q	A	T	D	L	D	D	A	L	R	L	A	E	A	R	A	A	A	G	E	A	R	S	I	A	L	L	C	G	N		
UniRef90_A4CGJ3	R	K	R	H	Q	Q	Q	W	V		D	Q	D	L	E	D	L	D	D	A	L	A	A	R	T	R	Q	A	I	A	G	R	E	V	S	I	A	Y	L	G	N				
UniRef90_M1ZC29	E	R	R	L	K	E	Q	Q	W		L	D	R	T	A	K	N	L	K	E	A	L	D	L	T	E	R	S	I	K	E	G	E	P	I	S	V	G	L	V	A	N			
UniRef90_D2V0K5	K	K	R	Y	E	Q	Q	W	L		L	E	V	G	N	S	D	L	K	C	I	E	R	L	Q	A	R	L	L	K	Q	E	V	T	S	I	L	G	Y	L	G	N			
UniRef90_UPI00034AE5CE	D	R	R	L	E	S	Q	Q	W		C	D	A	S	T	S	D	L	D	E	A	L	A	R	W	Q	A	R	D	A	R	E	P	L	A	L	A	L	C	A	N				
UniRef90_F8I3P7	E	R	R	H	R	S	G	Y	L		D	V	I	K	S	D	L	A	D	A	V	A	E	A	W	A	K	A	A	R	R	P	L	S	I	L	G	V	T	C	H				
UniRef90_S7TCA2	R	T	R	M	D	Q	Q	W	V		D	E	M	S	P	D	P	K	E	E	I	F	L	K	A	A	A	A	S	G	T	P	L	S	I	A	Y	H	G	N					
UniRef90_UPI0003779F01	G	Q	R	L	E	Q	Q	W	V		Q	M	V	A	E	T	P	K	E	E	A	F	E	M	A	E	A	G	M	K	S	K	P	T	S	I	A	Y	H	G	N				
UniRef90_Q8RFC1	N	T	R	L	E	Q	Q	W	V		N	V	I	A	E	T	P	K	E	E	A	F	K	I	A	E	E	K	M	A	S	K	T	P	Y	A	Y	H	G	N					
UniRef90_UPI0002490C9A	D	K	R	L	E	Q	Q	W	V		S	K	Y	K	A	K	T	L	D	E	A	L	G	L	I	N	T	A	R	A	E	K	K	A	S	I	S	V	G	L	V	G	N		
UniRef90_H1XP79	Q	T	R	L	D	Q	Q	W	V		S	Y	K	S	K	D	L	L	D	E	A	L	I	A	L	W	I	D	E	Y	R	R	K	K	E	S	I	V	A	Y	H	G	N		
UniRef90_H2W0M7	L	K	R	H	E	Q	Q	W	V		D	I	Y	S	R	E	L	E	H	I	V	E	W	I	K	E	Y	R	A	K	K	A	I	S	I	A	Y	L	G	N					
UniRef90_UPI0004286627	Q	T	R	L	S	Q	Q	W	V		D	E	V	D	S	L	L	P	K	A	F	D	A	D	E	A	R	R	K	N	G	E	A	V	S	I	A	Y	T	G	N				
UniRef90_E4SQ08	D	K	R	L	S	Q	Q	W	V		D	K	K	T	D	S	L	D	Q	A	L	S	W	L	D	D	A	K	R	N	G	E	N	V	S	I	A	V	I	G	N				
UniRef90_F9Z1A8	Q	T	R	L	D	Q	Q	W	V		H	H	V	S	D	D	L	D	D	E	V	F	A	L	A	K	K	H	I	D	E	H	T	P	I	S	I	A	Y	H	G	N			
UniRef90_H0ZD39	L	K	R	L	R	Y	D	F	L		L	V	T	T	N	A	S	D	H	G	L	I	D	R	A	L	D	A	K	N	K	I	A	L	S	L	G	Y	H	G	N				
UniRef90_B3T6B5	K	K	C	F	E	Q	Q	W	V		S	E	L	H	Y	S	D	L	D	E	V	F	A	L	A	Q	K	H	V	A	E	R	T	P	I	S	I	A	Y	H	G	N			
UniRef90_U7JQ55	Q	T	R	L	D	Q	Q	W	V		H	H	V	S	E	D	L	D	D	E	V	F	A	L	A	Q	K	H	V	A	E	R	T	P	I	S	I	A	Y	H	G	N			
UniRef90_C5KD95	M	K	R	V	N	Q	Q	W	L		D	E	Y	R	K	N	T	D	S	E	I	T	Q	L	A	R	E	A	L	V	A	K	C	I	S	I	L	G	Y	L	G	N			
UniRef90_T1J844	K	K	R	L	D	Q	Q	W	L		D	E	V	T	S	D	L	L	D	K	V	I	S	K	I	R	E	A	K	R	T	K	K	P	G	S	I	G	Y	L	G	N			
UniRef90_H2Z6J0	N	K	R	Y	K	Q	Q	W	L		M	Q	K	T	S	D	L	D	D	E	L	I	E	M	I	R	E	A	R	K	M	R	K	A	V	S	I	G	Y	H	G	N			
UniRef90_UPI00034A506D	Q	K	R	K	D	Q	Q	W	L		D	V	I	A	K	D	L	L	D	D	A	L	A	Q	V	K	T	A	M	A	R	K	R	A	V	S	I	G	V	H	G	N			
UniRef90_E9BYR1	R	K	R	H	R	K	Q	Q	W		N	E	Y	H	S	D	L	L	T	A	L	V	A	R	I	K	Q	A	R	A	A	R	E	V	S	I	G	Y	L	G	N				
UniRef90_UPI0002657A4A	L	K	R	Y	Q	Q	Q	W	L		H	E	I	C	F	E	L	P	D	L	V	Q	R	I	K	R	A	K	R	D	E	Q	A	T	S	I	G	F	H	G	N				
UniRef90_C0QEW2	Q	T	R	Y	D	Q	Q	W	V		S	M	V	T	A	E	P	G	A	F	D	A	A	K	Q	A	M	A	E	K	K	A	L	A	I	A	F	H	G	N					
UniRef90_J1QMF6	T	K	R	H	Q	Q	Q	W	V		D	E	L	A	N	M	D	A	L	I	A	R	V	K	Q	A	Q	A	N	E	E	V	V	S	I	A	Y	I	G	N					
UniRef90_S6UR35	D	F	R	I	K	T	R	Y	V		D	E	Q	A	A	D	L	D	D	A	L	A	R	I	A	Q	Y	T	A	E	G	K	A	I	S	I	A	L	C	G	N				
UniRef90_F9DTJ7	N	Q	R	L	K	N	N	Y	C		D	I	K	A	D	T	L	E	E	A	L	R	L	A	Q	E	A	V	E	A	K	K	P	L	S	I	A	L	M	G	N				
UniRef90_H3GAK8	K	K	R	H	E	Q	Q	W	V		D	E	V															A	K	A	K	G	E	V	V	S	I	A	Y	H	G	N			
UniRef90_Q11F96	R	R	R	I	D	T	G	Y	C		E	R	M	T	A	D	L	D	D	E	A	L	A	W	L	N	E	A	R	D	A	R	L	G	C	S	V	G	L	V	G	N			
UniRef90_I3IGZ4	E	K	K	L	K	E	Q	Q	W		H	K	I	T	D	N	D	L	D	D	E	A	L	S	L	I	R	H	A	K	S	K	H	P	L	S	I	G	L	V	G	N			
UniRef90_E4XLP6	I	K	R	Q	K	Q	Q	W	L		D																																		

UniRef90\_UPI00037B5B2C V V D L L Q Y L V D N N I E I E L L S 260 T S C H A V Y G G Y T P Q Q L L S F F E E  
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UniRef90\_I3IGZ4 A A V I Y P E L I N R N I I P D V V T D D Q T P A H D L M S Y Y P I E L T A E D E  
UniRef90\_E4XLP6 I V R L W E K L V E G E L L V D I V G S D D Q T S C H H D L R G G Y L P I E L T A E D E  
UniRef90\_G3MNE3 V V T L W E R L V T E E L L V E L G S D D Q T S C H H N P F N G G Y Y P V Q Q L L S Y D E Q  
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UniRef90\_A0A011LVL8 A A E I Y P Q T Y S R G L I P D I V T D D Q T S A H D L V Y G Y Y P P E F D L E T E  
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UniRef90\_W7Z970 A G E V Y T T C V E R D W I P D I V T D D Q T A A H H D L N G Y Y P T G M S L K Q  
UniRef90\_W0ADS8 A A E V Y P A I L A R G V V P D I V T D D Q T S A H H D L V Y G Y Y P I G E T P E T E  
UniRef90\_A0A011T565 A A E V L R K A R D T G F A P D I I T D M T P A H H D P L S Y L P E G L T V E E  
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UniRef90\_UPI000382AA49 I V D L L E Y A V E T E Q K I D L L T D D Q T S C H H V A F G G Y Y P Q Q L L T F F E E  
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UniRef90\_H2KQI2 I V D V W E R L L T E E L V D I V A S D D Q T S C H H N P F G G Y Y P Q G Y T Y E E  
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UniRef90_UPI00037B5B2C	V G S Q A R I L Y A D A Q G R V K I A L V K F N E M V R N R R	410	420	430	440
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UniRef90_I5B793	V G S L A R I L Y Q D A E G R V S I A L K F N K M V R T G E V C A P P V M L G R D				
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UniRef90\_UPI0003EDF43F A Q S L M A S D P A A F K G L V Q E S L R R Q Q V S A I N R L A K E N F F F W D Y  
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UniRef90\_U0LE72 A K T Y I A T N E A K Y L E L V R G T L C R H I N A I N K L S K A G L Y F F D Y  
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UniRef90\_H2L6X1 A N Q L M S S D P A R F R S S V K E S L R R Q I R A I N K L A D A G M F F W D Y  
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UniRef90\_UPI00036CCB89 H V E A E A D P E G F T K K A Q A S M A R Q V Q A M V E F Q D A  
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UniRef90\_B7Q456 A N E K M R T D P R T F K M L V Q E S L R R R Q V S A I N K L T R R G L C F W D Y  
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UniRef90\_C0QJ14 G N A F L K S V F D A G V K D G F V Y P S Y F E D I M G P L F D Y G Y G P F R W

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UniRef90\_I6X250 G N N L R V Q A S E A E R Q R V F E I P G F M E G Y L R P L F S R G I G P F R W

UniRef90\_I4WGG1 G N N I R Q M A F D V G C K N A F D F P G F V P A Y I R P L F C R G I G P F R W

UniRef90\_B7DU31 G N H I R A Q A A D S G L A E A W S I P G F V S L F A R E R L V K G S S P L R W

UniRef90\_N9TZ39 G N N I R Q M A Q E E G V E N A F D F P G F V P A Y I R P L F C R G I G P F R W

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UniRef90\_C0Y2S0 G N N I R Q M A L E E M G V E N A F D F P G F V P A Y I R P L F C E G K G P F R W

UniRef90\_UPI0003F0BCCF G N A F L L E A G R A G A E E K F R Y P S Y V Q D I M G D I F S L G F G P F R W

UniRef90\_V7ENH4 G N N I R Q V A Q D E G L E N A F A F P G F V P A Y I R P L F C K G I G P F R W

UniRef90\_S5EG87 G N A F M K S V Y D S G I K D G F I W P S Y V E D I M G P L F D Y G Y G P F R W

UniRef90\_T0Z335 G N N L R G R A V E G G L K D G F K I P G Y V P A Y I R D L F S V G S G P F R W

UniRef90\_UPI0003EDF43F G N A F L L E A R R A G A D T E F R Y P S Y V Q H I M G D I F S L G F G P F R W

UniRef90\_B5SHM6 G N N I R Q V A F D R G V K N A F D F P G F V P A Y I R P L F C E G R G P F R W

UniRef90\_UPI000366B09C G N N L R V Q A L E E A S A E V N R I P G F M E A Y I R P L F A R G I G P F R W

UniRef90\_UPI00035D9799 G N S I R D E A R E G G F T R A F D F P G F V P A Y I R P L F C E G K G P F R W

UniRef90\_W4QUE6 G N N I R Q V A K E D E G F E E A F N F P G F V P A Y I R P L F C C E G K G P F R W

UniRef90\_W8XQJ2 G N N I R Q M A Q E E G V S N A F D F P G F V P A Y I R P L F C C R G I G P F R W

UniRef90\_C2CBQ5 G N N I R Q M A L E E G V T N A F D F P G F V P A Y I R P L F C E G I G P F R W

UniRef90\_I71X13 G N N L R A Q A L E E G E T E R V N R I P G F M A G Y L R P F F A R G I G P F R W

UniRef90\_C9TJ24 G N N I R Q M A L E E E G L E N A F A F P G F V P A Y I R P L F C A R G I G P

UniRef90\_A0A033LYS9 G N N I R Q V A F N N G V K N A F D F P G F V P A Y I R P L F C E G K G

UniRef90\_UPI0004700EA0 G N L I R T Q A K E G G V A N A F D I L G Y F P A Y I R P L F A R A I G P F R W

UniRef90\_W4RTR0 G N N I R Q V A K E H G E E H A F D F P G F V P A F I R P L F

UniRef90\_UPI0003AF3AC6 G N A F L L E A Q R A G A D V G F R Y P S Y V Q H I M G F R M L V Q L Q T

UniRef90\_T0N0G4 G N D I R T R A K E G M G L E N A F D I L G Y F P A Y I R D L F A I G S G P F R W

UniRef90\_F4N5C5 G N N I R Q M A Q D M G I T H A F D F Q V L F L L I

UniRef90\_UPI00036F18CC G N N L R Q M A L E A G V D N A F D F P G F V P A Y I R P L F C R G I G P F R W

UniRef90\_UPI0003AD92BD G N A F L L E A Q R A G A D T G F R Y P S Y V Q H I M G D I F S L G F G P F R W

UniRef90\_W4UQ51 G N S F M K A I Y D A G K D G F I W P S Y V E D I M G P L F D Y G Y G P F R W

UniRef90\_UPI0001C39723 G N S I R D E A R K A G Y S R A F E F P G F V P A Y I R P L F C E G L G P F R W

UniRef90\_B7R936 G N N I R R M A Y D E G V K D A F N I P S Y V Q E Y I R D L F C E G K G P F R W

UniRef90\_R6XFT8 G N A F L L E S S R A G A D G T F R Y P S Y V Q D I M G P L F D Y G Y G P F R W

UniRef90\_UPI0004793ABC G T S I R K E C I D A G M D E A K R L P G F V A E Y I R P L F C E G R G P F R W

UniRef90\_UPI0004722305 G N N I R Q A A Y D E G I K E A F T Y P G F V P A Y I R P Q F C C E G K G P F R W

UniRef90\_UPI0004629C1A G N S I R D E A R K G G Y N R A F E F P G F V P A Y I R P L F C E G L G P F R W

UniRef90\_W4TNC5 G N A F M A T A K D G D A R N G F I W P S Y V E D I M G P L F D Y G Y G P F R W

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UniRef90\_UPI000470DE63 G N N L R Q A A F D E G V K D A F A Y P G F V P A Y I R P Q F C E G K G P F R W

UniRef90\_H3G5E2 G N S F L L E A Q R A G A D T A F K Y P S Y V Q D I M G D I F S L G F R P F R W

UniRef90\_K7EHC0 G N A F L L E A Q R A G A D T E F R Y P S Y V Q H I M G E I F S L G F G P F R W

UniRef90\_R5S890 G N S F L K A V Y D A G V K N G F I F P S Y V E D I M G P L F D Y G Y G P F R W

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UniRef90\_F3BZ10

UniRef90\_UPI0003729572 G N S F M R A V F D A G A K D G F V F P S Y V E D I L G P L F D Y G Y G P F R W

UniRef90\_A6A519 G N N I R Q M A L E E G V A N A F D F P G F V P A Y I R P L F C E G I G P F R W

UniRef90\_W6U3B6 G N N L R G R A L E E V G V K N A F D F P G F V P A Y I R P L F C C E G K G P F R W

UniRef90\_A0A032LSU2 G N N I R Q V A F N N G V K N A F D F P G F V P A Y I R P L F C E G K G P F R F

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UniRef90\_E4Z0V5 G N A F L L E A G R A G A D T K F K Y P S Y V Q H I M G D I F S L G F G P F R W

UniRef90\_X6MEL6 G N C F L L E S S R A G A D V M F R Y P S Y V Q D I M G D I F S L G F G P F R W

UniRef90\_R5RP14 G N A F L L E

UniRef90\_K1YKN6 G N A F L K A V F D A G V K D G F I F P S Y F E D I M G P I F D Y G Y G P F R W

UniRef90\_G3VRA5 G N A F L L E A Q R A G A D V M F R Y P S Y V Q H I M G D I F S L G F G P F R W

UniRef90\_U3J0A6 G N A F L L E A Q R A G A D T E F R Y P S Y V Q H I M G D I F S L G F G P F R W

UniRef90\_K2BGT8

UniRef90\_H2L6X1 G N A F L L E A K R A G A E T E F R Y P S Y V Q H I M G D I F S L G F G P F R W

UniRef90\_T1ABY9

UniRef90\_W7XU30

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UniRef90\_X2LYA9 G N N I R Q M A K E M G V E N A F D F P G F V P A Y I R P L F C R G I G P F R W

UniRef90\_T0LE72

UniRef90\_V9G971

UniRef90\_T0DXF3 G N S F M K A V Y D A G C

UniRef90\_UPI00029D82BC G N A F L L E A Q R A G A D V G F R Y P S Y V Q H I M G D I F S Q G F G P F R W

UniRef90\_G1QK18 G N A F L L E A Q R A G A G R E F R Y P S Y V Q H I M G D I F S Q G F G P F R W

UniRef90\_T1CET4

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UniRef90\_R7T502 G N A F L L E A S R A G A D N Q F R Y P S Y V Q H I M G D I F S L G F G P F R G

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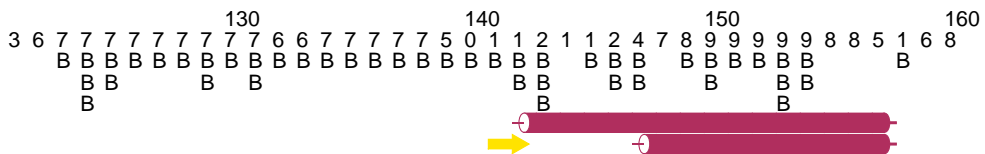
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jhmm  
jpssm

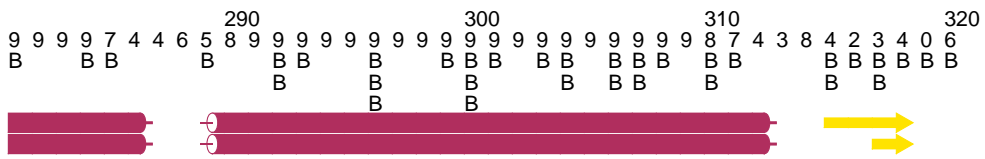








conf  
sol25  
sol5  
sol0  
jhmm  
jpssm









conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

7 1 5 7 4 1 1 2 2 1 1 3 1 2 0 7 9 9 9 9 9 9 9 9 8 7 5 0 7 2 0 1 4 6 7 4 1 6 7  
B B





conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

