

QUERY  
 UniRef90\_W1JCL9  
 UniRef90\_I0QPY5  
 UniRef90\_C5B9W3  
 UniRef90\_V3V113  
 UniRef90\_UPI00041167CE  
 UniRef90\_A4CD35  
 UniRef90\_V4HSS2  
 UniRef90\_UPI00036D5647  
 UniRef90\_K6YA86  
 UniRef90\_D4ZL83  
 UniRef90\_G3ZJ04  
 UniRef90\_C9QI12  
 UniRef90\_A5F6Z2  
 UniRef90\_F9Q7F9  
 UniRef90\_UPI0002FCB8FE  
 UniRef90\_Q65VH2  
 UniRef90\_V5F075  
 UniRef90\_A4SN79  
 UniRef90\_B8F398  
 UniRef90\_M4RHB5  
 UniRef90\_F2P9U1  
 UniRef90\_W8ZWD6  
 UniRef90\_C2WG34  
 UniRef90\_K2DR57  
 UniRef90\_G7WCZ8  
 UniRef90\_UPI000471711C  
 UniRef90\_UPI0002E5E644  
 UniRef90\_UPI00035F457A  
 UniRef90\_F8GV04  
 UniRef90\_W9H8L3  
 UniRef90\_S6HBM7  
 UniRef90\_B9JK72  
 UniRef90\_L0KR42  
 UniRef90\_A0A038GTVO  
 UniRef90\_L5MTP4  
 UniRef90\_L0KS89  
 UniRef90\_U7GJ77  
 UniRef90\_D8IP66  
 UniRef90\_UPI00017HNP0  
 UniRef90\_D7BB89  
 UniRef90\_X5LGE1  
 UniRef90\_UPI0003FAC095  
 UniRef90\_UPI000465BA23  
 UniRef90\_A0A010ZVG6  
 UniRef90\_Q1AYK0  
 UniRef90\_V4PM04  
 UniRef90\_UPI00036E41C0  
 UniRef90\_UPI00046A6772  
 UniRef90\_UPI00037C44F2  
 UniRef90\_UPI0002625A27  
 UniRef90\_E8LLS9  
 UniRef90\_D3FBK4  
 UniRef90\_J3ANY7  
 UniRef90\_UPI00029B4F0C  
 UniRef90\_UPI0003006247  
 UniRef90\_UPI00047B4ABD  
 UniRef90\_UPI000374C597  
 UniRef90\_V6M8K1  
 UniRef90\_D2PSA5  
 UniRef90\_F4GS83  
 UniRef90\_D9XC94  
 UniRef90\_M2X8Q1  
 UniRef90\_A6UG69  
 UniRef90\_C9Z4R1  
 UniRef90\_S5EWR8  
 UniRef90\_UPI0003779A4F  
 UniRef90\_UPI0003FAC24C  
 UniRef90\_Q0G451  
 UniRef90\_UPI000368EB5A  
 UniRef90\_L8DE21  
 UniRef90\_X6DEG6  
 UniRef90\_UPI0004772661  
 UniRef90\_V6L465  
 UniRef90\_F0M8H3  
 UniRef90\_G4KYA5  
 UniRef90\_G9ZUW4  
 UniRef90\_UPI000237C685  
 UniRef90\_D7A0M1  
 UniRef90\_H0QQW2  
 UniRef90\_Q13QL5  
 UniRef90\_A0A052JJB9  
 UniRef90\_UPI0004782316  
 UniRef90\_UPI00036C1F56  
 UniRef90\_F8D2L9  
 UniRef90\_G7WJP6  
 UniRef90\_D5UTP6  
 UniRef90\_UPI0003B3273C  
 UniRef90\_C6C516  
 UniRef90\_UPI00036423F4  
 UniRef90\_A0A023XGC3  
 UniRef90\_R9LN10

QUERY  
UniRef90\_W1JCL9  
UniRef90\_I0QPY5  
UniRef90\_C5B9W3  
UniRef90\_V3V113  
UniRef90\_UPI00041167CE  
UniRef90\_A4CD35  
UniRef90\_V4HSS2  
UniRef90\_UPI00036D5647  
UniRef90\_K6YA86  
UniRef90\_D4ZL83  
UniRef90\_G3ZJ04  
UniRef90\_C9QI12  
UniRef90\_A5F6Z2  
UniRef90\_F9Q7F9  
UniRef90\_UPI0002FCB8FE  
UniRef90\_Q65VH2  
UniRef90\_V5F075  
UniRef90\_A4SN79  
UniRef90\_B8F398  
UniRef90\_M4RHB5  
UniRef90\_F2P9U1  
UniRef90\_W8ZWD6  
UniRef90\_C2WG34  
UniRef90\_K2DR57  
UniRef90\_G7WCZ8  
UniRef90\_UPI000471711C  
UniRef90\_UPI0002E5E644  
UniRef90\_UPI00035F457A  
UniRef90\_F8GV04  
UniRef90\_W9H8L3  
UniRef90\_S6HBM7  
UniRef90\_B9JK72  
UniRef90\_L0KR42  
UniRef90\_A0A038GTVO  
UniRef90\_L5MTP4  
UniRef90\_L0KS89  
UniRef90\_U7GJ77  
UniRef90\_D8IP66  
UniRef90\_UPI00017HNP0  
UniRef90\_D7BB89  
UniRef90\_X5LGE1  
UniRef90\_UPI0003FAC095  
UniRef90\_UPI000465BA23  
UniRef90\_A0A010ZVG6  
UniRef90\_Q1AYK0  
UniRef90\_V4PM04  
UniRef90\_UPI00036E41C0  
UniRef90\_UPI00046A6772  
UniRef90\_UPI00037C44F2  
UniRef90\_UPI0002625A27  
UniRef90\_E8LLS9  
UniRef90\_D3FBK4  
UniRef90\_J3ANY7  
UniRef90\_UPI00029B4F0C  
UniRef90\_UPI0003006247  
UniRef90\_UPI00047B4ABD  
UniRef90\_UPI000374C597  
UniRef90\_V6M8K1  
UniRef90\_D2PSA5  
UniRef90\_F4GS83  
UniRef90\_D9XC94  
UniRef90\_M2X8Q1  
UniRef90\_A6UG69  
UniRef90\_C9Z4R1  
UniRef90\_S5EWR8  
UniRef90\_UPI0003779A4F  
UniRef90\_UPI0003FAC24C  
UniRef90\_Q0G451  
UniRef90\_UPI000368EB5A  
UniRef90\_L8DE21  
UniRef90\_X6DEG6  
UniRef90\_UPI0004772661  
UniRef90\_V6L465  
UniRef90\_F0M8H3  
UniRef90\_G4KYA5  
UniRef90\_G9ZUW4  
UniRef90\_UPI000237C685  
UniRef90\_D7A0M1  
UniRef90\_H0QQW2  
UniRef90\_Q13QL5  
UniRef90\_A0A052JJB9  
UniRef90\_UPI0004782316  
UniRef90\_UPI00036C1F56  
UniRef90\_F8D2L9  
UniRef90\_G7WJP6  
UniRef90\_D5UTP6  
UniRef90\_UPI0003B3273C  
UniRef90\_C6C516  
UniRef90\_UPI00036423F4  
UniRef90\_A0A023XGC3  
UniRef90\_R9LN10

50 60 70 80  
Q H P D K A Q E V L A T A N E V A D H D A F A S E L D Y N I F R R G L A F A S S G N  
UniRef90\_W1JCL9 H N P D E E K S T Q E V L A L A E K S N N A E D D T A E A S F A S S E L D Y N I F R R G L A F A S S G N  
UniRef90\_I0QPY5 S N Q P E E E Q Q A I V L A K A D A S P T T E D D S A D A F A S F A S S E L D Y N I F R R G L A F A S S G N  
UniRef90\_C5B9W3 S H P D R E T V Q A I V L A V A D A S P T T E D D S A D A F A S F A S S E L D Y N I F R R G L A F A S S G N  
UniRef90\_V3V113 I N P A R Q A Q E E I V L K P V E S V V N D S A D A V A E E L D D Y N I F R R G L A F A S S G N  
UniRef90\_UPI00041167CE N N P E K V K E I L L A Q R S E T I E D D K A E V E S E F F D D Y R M N H H H E L L A S A F A S S G N  
UniRef90\_A4CD35 N N P E K V K E I L L A Q R S E T I E D D K A E V E S E F F D D Y R M N H H H E L L A S A F A S S G N  
UniRef90\_V4HSS2 L S P E K V I E I L L A Q Y A E L L P D D T A E A F A A D Y D Y Q V H H H Q L A T A G S G N  
UniRef90\_UPI00036D5647 T H Q Q E R V I A A F T G A E V L P D D S G A A A F A E F D D Y N I L N H H D M A F H S S G N  
UniRef90\_K6YA86 N D A Q R V K E I L L K G Y Q D I L D E D D A G A A F A L Y D Y R I L N H H D M A F H S S G N  
UniRef90\_D4ZL83 H N P D K V L E I V L E Q I S T L D E D D P Q Q A Y V D F D Y Q L H H L L A F A N S S G N  
UniRef90\_G3ZJ04 R A P E N S E L H I L H P M Q N L K E D D A E E D Y T F F D D Y M L F F Q R L L A F A S S D N  
UniRef90\_C9QI12 A N K E S A E R I M I N V T J E S E D S A K E T F N F Y D Y M L F F Q R L L A F H S S G N  
UniRef90\_A5F6Z2 L N K E S A E R I M I N V T J E S E D S A K E T F N F Y D Y M L F F Q R L L A F H S S G N  
UniRef90\_F9Q7F9 L S P Q E E S E K T I L F A G L D D L S D D A E T S Y N F Y D Y M L F F Q R L L A F M I A N K  
UniRef90\_UPI0002FCB8FE A N K E E S E K T I L F A G L D D L S D D A E T S Y N F Y D Y M L F F Q R L L A F H S S G N  
UniRef90\_Q65VH2 V S Y E K A L A S F D S G L E N L P E T A K E S Y T A F D Y E I L H K L L A F I S S G N  
UniRef90\_V5F075 V N K E Q A A T L R R G V T J E S E D N A K A Y A F Y D Y M L F F Q H L L A F H S S G N  
UniRef90\_A4SN79 N N P D Q A A E I L L R G A N A V D S D T P E A E Y A E F D Y R C I I T S S P L P A I  
UniRef90\_B8F398 A D H L A S S S L L K D L E S L Q D T A Q A Y A E F D Y K L Y R E F T F I A N K  
UniRef90\_M4RHB5 R R A A E C V T L F D Q L E Q L Q D T A L A Y A A F D Y R L Y R R G M F T F M A D K  
UniRef90\_F2P9U1 G N A E E S S E L I Q H V T J E S Q R A R A F N Y Y D Y R L F Q Q G M A G K S S G N  
UniRef90\_W8ZWD6 G N P E N S S E L I Q H V T J E S Q R A R A F N Y Y D Y R L F Q Q G M A G K S S G N  
UniRef90\_C2WG34 F N Q P K V V A L L L A N L E Q L E D S A E S Y A A F D W D L H Q K S C A G L A I  
UniRef90\_K2DR57 N S L N E V V I H L L E S L E D T A E E F T R R D L H K Q L C I I T S S I K N  
UniRef90\_G7WCZ8 S C P A K V V A A L T E I D E L K D A E V F A L F D W Q L Q K L V Y L A K N  
UniRef90\_UPI000471711C L N H P Q D V V G L L S E I R L A A H Q D D T P E A F A S Y D W K V H R L A R L A S E N  
UniRef90\_UPI0002E5E644 A T P Q D V Q R L R E R L A A H Q D D T P E A F A S Y D W K V H R L A R L A S E N  
UniRef90\_UPI00035F457A R A T E E D I A A V A R H R A A S L N D L I E K F I E L D M E F H H R E L A R I V S S G N  
UniRef90\_F8GV04 N A T D D L Q R L Q A R L E E A K D D S A L E L T R D M A F H H H R E L A R I S S G N  
UniRef90\_W9H8L3 K A T E E D I R L A R R L E E H R E S L S D L A N F D M A F H H R E L A R I S S G N  
UniRef90\_S6HBM7 A D I S R L E A I V A N M H K L K D S P D F I T I D M E F H H G E I A R I S S G N  
UniRef90\_B9JK72 R A T E K E D I A I E R Q R Q S L G R A S E E F I S A D M K F H T T R I A I S S G N  
UniRef90\_L0KR42 K A K E D D V L V A E Q R A R G D S E A F I S A D M K F H T T R I A I S S G N  
UniRef90\_A0A038GTVO A S E D D I A R L V E R V E A Q R D D R D A F L A C D M A F H H R E I A R I T T G N  
UniRef90\_L5MTP4 R H F E E M E R L L A L A H E R A E R G E V P T E E D Y Q F H H A V I C R S S R N  
UniRef90\_L0KS89 R A T A K S L E R L A G L R E A K G D Q A R F V T A D M E F H H A V I A E M S S G N  
UniRef90\_U7GJ77 A T P E D I T S E L I S H Q E D M L D S P S D F I K A D I A F H S K I A S I S S G N  
UniRef90\_D8IP66 R A P E A E E R L R Q T V R A S M V D L G E E F I E R D M A F H H R E I A D I S G N  
UniRef90\_UPI00017HNP0 R R D A E E T I R A T A Q A M R D A A L L L E R D L D F H H L E L A R A C A N  
UniRef90\_D7BB89 H K P E K V A Q V L A T L A D L D P E A E L S Q A T D F H H L E L A R L S S G N  
UniRef90\_X5LGE1 R R T E Q L A E L T S I V D R M E G D P A R W V R L D T E F H L G I A K A Y S G N  
UniRef90\_UPI0003FAC095 A T P A N V A Q L A G L V D E M D P T P T G F A D L D I R T O T H H R A I A Q Y T H N  
UniRef90\_UPI000465BA23 H A T D E Q V K Q L E K A L E I N D D N A L F I R S D V D F H H R V L A G I P G N  
UniRef90\_A0A010ZVG6 V I T A E Q Q A L R A D Q L E V L A D P E D R Y A A E D V V F H E L I A M A A S S G N  
UniRef90\_Q1AYK0 R A P E E V R A M L E Q L E R M R D A P E G Y V A D A D V E F H A Q L A R A T G N  
UniRef90\_V4PM04 R T A D D A A E L T A Q L E K L D G T P A G Y V H E D V K F F H D I M R I S G D  
UniRef90\_UPI00036E41C0 K A T E R D I E E L R E I L E S R Q G K A E E F I S A D M K F H T T R I A R I S S G N  
UniRef90\_UPI00046A6772 A S K E Q I A R L K A A L E D S I D D S L A F Y E T D R A F H H R L L A R D V V D N  
UniRef90\_UPI00037C44F2 R N Q E D I E D L Q A Q Q D E L E Q N D M I G D D I D F K F H H A I V K A S H N  
UniRef90\_UPI0002625A27 A T P E E R G R L R A L G A R L E V T A H A F L G H D I A F H H V L A A S S G N  
UniRef90\_E8LLS9 K P K E D L D R L J E V M E K S V G K A A D F I A A D M N F H H R E I A F A S S G N  
UniRef90\_D3FBK4 I T D E Q L A Q V R A Y E A L A G S P D R F L A D V E F H H V A L A A A T D N  
UniRef90\_J3ANY7 R A T A E L K A Q T I E K L E A L I E T P A A Y V H E D V N F H H D V I M R M S G D  
UniRef90\_UPI00029B4F0C N R T D E D I K I J E I J E S C D P N T Q Q E V D N R F H M S L A K R S T G N  
UniRef90\_UPI0003006247 R S Q T D L E S I Y E A L S Q T R Y S Q T V D N E E D L F H K R I V E A S H N  
UniRef90\_UPI00047B4ABD R A E E E K A E I M A Q A E E V E E A G E S Y V A A D A R F H H R L I A E A S S G N  
UniRef90\_UPI000374C597 R T P E D L D R L T H L L E R M E R E T D A V W A M D T L F H H L A V I A E A A R N  
UniRef90\_V6M8K1 R T P E H L L E R M R E A L E E M A D D S K I G M E A D M E F H H R S M I Q A T L N  
UniRef90\_D2PSA5 H A S K D A V A Q L K E L C K V G T A F Q E A N G E L H A M I T A M S G N  
UniRef90\_F4GS83 R R T D A D L A A M Q S I V D C F D K A A E L A V L D Y E F H H A M I F R A T H N  
UniRef90\_D9XC94 L A N A E V I D L V E R M D E L V D D P A A Y H E E D R A F H D T V M Q A S S G N  
UniRef90\_M2X8Q1 R A T D E Q R R V L A D A E N L R D L D V F V E T N T V F H H D V I A M A S S G N  
UniRef90\_A6UG69 A T A E Q I A I V L A R N E A I L G K A R A F A A T D V A F H H R T L T Q M V S N  
UniRef90\_C9Z4R1 R T P A D L D A L R R A L D A M A D A E A M V E A D L A F H H R A L L E A A H N  
UniRef90\_S5EWR8 N N E E D F R Q L Q D E M K Q I E D D T D K F I Q H D L N F H H L R I A R A S S G N  
UniRef90\_UPI0003779A4F L A T D D L E A L L V R N E A S G D I P A F S A S D D A F H H H L R I A S I S G O D  
UniRef90\_UPI0003FAC24C R R T T A I R E A L E R M I T E V G D D P R A S A E A D S A F H H L A I A H A T Q N  
UniRef90\_Q0G451 L A D E K S I R A L Q D V L E A R G D V A E E F G R T D I E F H H R V I A D I T G N  
UniRef90\_UPI000368EB5A A P P R L I R R L E E L L D E H K R C A E S V A A T D R C F H H A E I V R H A G N  
UniRef90\_L8DE21 A T P E Q C G A L T A A V T G M A D S E A Y L E H D C D F H H R T L L A A S S G N  
UniRef90\_X6DEG6 A A T D A L A A L A E N E R A I P R A R A F A V T D V A F H H R V L T A I P G N  
UniRef90\_UPI0004772661 H R T E Q D L A L L N I L E E M A D D E V F G E A D V Q F H H E T I A R A T H N  
UniRef90\_V6L465 I T A E Q I D R L L A E T A R V I T D N P R V L G E L D V E F H H K L I A A A S S G N  
UniRef90\_F0M8H3 R R T E E E L D T L R H I V A A E T D P E S W V A L D S S F H A A I A E I S S G N  
UniRef90\_G4KYA5 R G T D E F D T L W S I N T V M S N V E E R I K Y E L N F H H K K L A E I S S G N  
UniRef90\_G9ZUW4 R R D E A G L E A L A R I E A S V E S P E Q S A A H D Q A F H H Q L Q I A D L S G N  
UniRef90\_UPI000237C685 N R T D E D L K L F E N I S D L E D N T Q Q E V D T I N R F H H M N L A K A T G N  
UniRef90\_D7A0M1 R G T D A D F E A I J A M E Q A G D S A E A F M E A D L A F H T A C L F A A K N  
UniRef90\_H0QQW2 L N P H R L A E L E Q T V T D L K S A P R S F A E Y D Y Q F H H Q L T A Q Q T D N  
UniRef90\_Q13QL5 R R T E G D L D S L A S V T D L S N K G N I S V Q D T A F H H M L A R R C H N  
UniRef90\_A0A052JJB9 R M P A E V Q Q V R S V T L H A H E K D A F Q E G D Y D F H Y R I V K G S S G N  
UniRef90\_UPI0004782316 R S E S E A E A L I A L C E A M E E D P H R W V R L D S D F H H M A L A E A S S G N  
UniRef90\_UPI00036C1F56 R R T E E Q L E I A E K M R S A S E D F E A Y V E A D I A F H R Q L A E M S S G N  
UniRef90\_F8D2L9 R A D Q R D L K E M K A E Y Q L E I G E T G V D A D F A H H R A I A I A T K N  
UniRef90\_G7WJP6 R A N E A D L K Q I S Q A L D D D L D A Y A Q A D V R F H Y L I A Q A S S G N  
UniRef90\_D5UTP6 R I T D E K L A V L E E T L A L D A S V E T L V Q Q D S E F H H Q T I A D A S S G N  
UniRef90\_UPI0003B3273C R D Q S R L D R A V L E R M R D S L G N L R V F A K A D S E L F H H D T A L A S I S S G N  
UniRef90\_C6C516 R A T D E D V S L R Q A Q Q Q V P Q D W E K I A E A D E H F H M E I A R I S S G N  
UniRef90\_UPI00036423F4 N A P E D I A R L A G Q L D A M R A D A G R L A E A N T R F H H E M I R A M A S S G N  
UniRef90\_A0A023XGC3 R A N E R L Q R A L A K I G E T I D E A D A G G M A D F E F H R A I V V I A S H S  
UniRef90\_R9LN10 N R S E D D L E I L C D K M H T S L N D I E Q Y A N S S T E F H I S I A R A T H N

QUERY  
UniRef90\_W1JCL9  
UniRef90\_I0QPY5  
UniRef90\_C5B9W3  
UniRef90\_V3V113  
UniRef90\_UPI00041167CE  
UniRef90\_A4CD35  
UniRef90\_V4HSS2  
UniRef90\_UPI00036D5647  
UniRef90\_K6YA86  
UniRef90\_D4ZL83  
UniRef90\_G3ZJ04  
UniRef90\_C9QI12  
UniRef90\_A5F6Z2  
UniRef90\_F9Q7F9  
UniRef90\_UPI0002FCB8FE  
UniRef90\_Q65VH2  
UniRef90\_V5F075  
UniRef90\_A4SN79  
UniRef90\_B8F398  
UniRef90\_M4RHB5  
UniRef90\_F2P9U1  
UniRef90\_W8ZWD6  
UniRef90\_C2WG34  
UniRef90\_K2DR57  
UniRef90\_G7WCZ8  
UniRef90\_UPI000471711C  
UniRef90\_UPI0002E5E644  
UniRef90\_UPI00035F457A  
UniRef90\_F8GV04  
UniRef90\_W9H8L3  
UniRef90\_S6HBM7  
UniRef90\_B9JK72  
UniRef90\_L0KR42  
UniRef90\_A0A038GTVO  
UniRef90\_L5MTP4  
UniRef90\_L0KS89  
UniRef90\_U7GJ77  
UniRef90\_D8IP66  
UniRef90\_A0A017HNP0  
UniRef90\_D7BB89  
UniRef90\_X5LGE1  
UniRef90\_UPI0003FAC095  
UniRef90\_UPI000465BA23  
UniRef90\_A0A010ZVG6  
UniRef90\_Q1AYK0  
UniRef90\_V4PM04  
UniRef90\_UPI00036E41C0  
UniRef90\_UPI00046A6772  
UniRef90\_UPI00037C44F2  
UniRef90\_UPI0002625A27  
UniRef90\_E8LLS9  
UniRef90\_D3FBK4  
UniRef90\_J3ANY7  
UniRef90\_UPI00029B4F0C  
UniRef90\_UPI0003006247  
UniRef90\_UPI00047B4ABD  
UniRef90\_UPI000374C597  
UniRef90\_V6M8K1  
UniRef90\_D2PSA5  
UniRef90\_F4GS83  
UniRef90\_D9XC94  
UniRef90\_M2X8Q1  
UniRef90\_A6UG69  
UniRef90\_C9Z4R1  
UniRef90\_S5EWR8  
UniRef90\_UPI0003779A4F  
UniRef90\_UPI0003FAC24C  
UniRef90\_QQG451  
UniRef90\_UPI000368EB5A  
UniRef90\_L8DE21  
UniRef90\_X6DEG6  
UniRef90\_UPI0004772661  
UniRef90\_V6L465  
UniRef90\_F0M8H3  
UniRef90\_G4KYA5  
UniRef90\_G9ZUW4  
UniRef90\_UPI000237C685  
UniRef90\_D7A0M1  
UniRef90\_H0QQW2  
UniRef90\_Q13QL5  
UniRef90\_A0A052JJB9  
UniRef90\_UPI0004782316  
UniRef90\_UPI00036C1F56  
UniRef90\_F8D2L9  
UniRef90\_G7WJP6  
UniRef90\_D5UTP6  
UniRef90\_UPI0003B3273C  
UniRef90\_C6C516  
UniRef90\_UPI00036423F4  
UniRef90\_A0A023XGC3  
UniRef90\_R9LN10

90 100 110 120  
P I Y G L I L N G M K G L Y T R V I G R H Y F A N P E A R R S L A L L G F F Y H K S A  
P I Y G L I L N G L K R G L Y T R V V G R Y Y F F S N N P P D A R R K L A L L N D F F Y Q Q Q S S V  
P I Y G L I L N G L K R G L Y T R V V G R Y Y F F S N N P P D A R R K L A L L N D F F Y Q Q Q S S G T  
P I Y G L I L N G L K G M Y L R V V G R Y Y F F S N N P P D A R R K L A L L A F Y Y R R D L S L D S A  
P I Y V L T L N G F F R G L Y S R I A G T F Y F F S Q D S P K I R E K I T A R R Q F Y Y R D L L M V  
K I Y V L T L N G F F R G L Y S K I A G H Y F F S E P K I R E K I T A R R Q F Y Y R D L L M V  
R I Y V L T L N G F F R G L Y S N K I A R G Y Y F F S H C A K A S R D L L A R N K Y Y A Q K L K E  
K I Y V L T L N G F F R G L Y S R I A G F Y Y F F S P K A K A S R D L L A R N K Y Y A Q K L K E  
P L Y V L T L N G F F K G L Y S R I V G K D Y F T T P K A K A R E L L A F F E F Y Y E G N L R Q  
P V Y G L I L N S F F K G L Y T R I V G L F Y F F S S A E A R E L L A R R Q F Y Y F N D L R R D E  
Q L Y G L I F N G L K K L Y D R V G S Y Y F F S N P Q A R E L L A M E F F Y R Q L L A  
P F Y C L V I F N S L K K L Y V Y H K I G L L F F A S N P P K H R E L L T H Q M F F Y V L E Q L R E  
K I Y G M V L N S L K K L Y T R V V G S Y Y F A S P P E A R R A L L A K K F F Y V L E Q L R E  
Q L Y G L I F N G L K K L Y D R V G A F Y F F S D K V I A R R N L L A D N F Y Y K T L L L S  
P S M P S S S M V S K K G L Y S R V G R A Y Y F F S S D K Q A R E T A D A F A F Y Y Q Q L R S T  
V Y G L T L N S F F K D L Y L K T A S L F F F S N S P S S R R Q L S F A F Y Y Q Q L R S T  
V Y G L T L N S F F K L Y T Q K V A T L V F N S A D F R R E T F A F Y Y C Q Q L R T K A  
T L Y V L T T F N G L R K I Y T R V V G G Y Y F M N P E A C Q L A L L N F Y Y S D L L Q A  
T L Y V L T T F N G L R K I Y T R V V G G Y Y F M N P E A C Q L A L L N F Y Y S D L L Q A  
P I F L T L L N G F F D S I V D M A K R Y F F S V K A S H R R A L L S F Y Y H K L L S  
P I F T L L L N G F F G D P Y N K M G N L Y F S S A E S R R A H S R R Q F Y Y K K L L S  
P I Y R L M L N S F F G A I Y V Q A A M R Y F F M R R R R E S A S L L A E H H Q R I V D D  
P I F A L V L N S F F E T A Y V K M A M K Y F F S P F R R E S L L A E H H Q R I V D D  
P I F P S I V E A L F R W A G E Y Y Q A M V R A P G V E D L T L L A E H H Q R I V D D  
P I F P A I V S Q A L F E W A R E Y Y R G I V R A P G A E A I T I L A E H H Q R I V D D  
P I Y V A I V S Q S M F A W L A V Y H V K L L R A P G A E A I T I L A E H H Q R I V D D  
P I Y S A I S R A L E W M A D Y R Q E M L R A K A R E L T I A E H H E E I L K E  
P I F A A V S E A M L A W L K T Y H T D L L I W T G K E K Y T L T E H H E E I L D E  
P I Y V A V S E A T L G W L K E Y H T E M L I W T G K E K Y T L T E H H E E I L D E  
P I Y P S I V E S I F N W A A E Y Y R P M V R A P G A E S L T L A E H H E R I V E  
S L H R I W T P L V E Y S N S V R T E S L S R E G R A R M A L E E H H E R I M E Y  
S M L A A R V A K G M L E W L S R F K R D L V A V K G A E R L T V A E E H H E R I Y K  
P I F A A V S D A M L N W L F N Y H T D L L I W S G R E N V T L A E H H S K I V D  
P I F P S I V E S L F R W A S E F Y T P M V R A P G A E S L T L A E H H T R E I V D  
P V F L L I V G A F Q G V T R Q V G W R S R T T D P G S R E T M L A T H E E I A E  
R F L V E A L G T V L S R I Y R V R F L E V M T P E G R S Q A R R R D H Q K L L E  
E V E A T V V A A I R G L S M Q S R M L N A S H E R R A A S S E H H R R E L L D R  
P L L V R L D R V I R G L E I T E A S R D E A L V S A A R R R R S E H H R R E I L D R  
P I F L T I H G A L L D W L I A A R P K V A D R E A E H N N L S Y Q Q H I A I V D  
R L G H A L I H S I H G K A R L S S R Y N G T P E G L D R S M G E H H R Q I E A  
G V L L T M L E P V V E L L R E S R K V S A S L P G A A L R A L E H H E R I L G  
R L S E A T I N S I Q G K A L K N I N Y S G K N V D H V R D T H A A H K Q V I D  
P I F V A I V S E A M L A W L K E Y H T D M L I W T G K E K F T L V A H H E K S I V D  
P I F P A I H T A F S D W L D V R W R Q M P R D P E R R N T N F E H H E K S I L D  
P L L K T M E N I S D L Y N E A A S L N L N R E H H K Q Q I Y K E H G E I L E  
P M F T Q L S A V V A E V L T G R T E H G L M P P E P Q P E A V A L H L E I V A R K  
E I I G F V A N T F A H Q Q I I N D Y F G F T D G I W F H S E I L E  
R I L T H I M E S M R D L M R V S V R Q R A G L D T R S G G R D V H K E I L E  
R L S K A L I D G I Q S R A L N T H G Y S G T N V E H H E R R N T H A A H L K V I Y Q  
P I I I S L E P I Y S L P R M R N F L Y A N V E G E E F T I E A Q K K I L E  
P V I I Q T M E S I S G L Y D K A V K Y S L S W K E K R Q Q V L Q E H N E I L E  
K V F G Y I L N T S I A Q N I A I T K D A Q R R S N T L R Y H R K I A Q  
P V F R R V I E E T R D A L A R Q S A F L T D V G R R R E Q A N R H R A I V E  
P L M I Q A M E S L S S L Y E R A L L Q I T L G L K Q K R K A V Y Q E H H Q N I L H  
R F L V D F A G V V D R R V R W Y F T P V A P V R A A S W R E H A R L V K E  
V V L M Q V V N P V F Y V M S A H R R R H Y F S D K A E R S Q A S N Q Q H R K I L E  
R I G R A V V R S L E R Q V I D S A R Y V G R T G R A C V A S N H G H R R I Y E  
V L F G Y L I D A V D G I F E G V A V G V E Y P S A R R A V H A A H V A I V A  
P I F V A I H D A F V D W L I G Q R P L P T K E Y S N R R A F D A H V A I V A  
E L L S R M E V V I E A G L R V R D R I V H G A S L H F S D S I P V H Q D L T  
P L S A I L L Q S L H E Q L R R S I H A G L E A Q S G R K I V S L H Q H I C D  
P L L D T L Y H V V L L E L L E E Q R R F S L S H P D G L G K A M A H H R H D I F E  
E Y Y V R F V E F L G L R L V P S R T L Y L G D P D E V H Q S L A E H E A I V D  
P I L V S F Y Q A A A E W L E E V R S T S L K V P G Q T Q R A F E A H E K I E A  
E L L S R L Y Q Q L R D R Q L R M G A V M H S H P D R V A K N I A H A E I L D  
P M L R S M S D I V E V L A G R T R H A L M S R Q A D P E A I R L H G V V A S  
P I F L A A H E A L V E W L I N Q R I H M A N T E V I E R R S F A G H R K A V I F E  
P M L A D L M S S Q Q I T R L W F Y A E R S A N E R L L R E H R D I Y E  
P L I V E L F E S I S S L N E Q T R R I G F Q S P L R K D V S W G G H A R I L D  
K V E A S V V A D L R D A L A H Q S E T L N M V A D R Q H A S D V E H Q Q I L A  
P L L S A F V Q S M S D L L A P L I R K A L V P P S G H I S G V T Y H Y R I V D  
S Y F R T L L T G L S P L L P R V R I D L F K G D G A A K V A Y A E H A H I L D  
P I V I S M E P I Y S L L P M R M R N F I Y A N V E G E E Y T M D A Q K K I L L A  
D L L A P V A H A I R S E M M A S R L R I T N R D V E A R T I A L P H K A I L D  
Q F L V G A Y A A L G G Q V Q R F R L F G G V G I T D A E N A I A E H Q S V L D  
E V L V R L L N S F Y R I S E S R R F A L F A D P E R G E Q S A V Q H A K L Y E  
E M L F R M L D E L Y Q L A R M Y R I Q Y S N T P N R P R Q S Y A E H H R I L D  
A V F A K I V A E V R D A L M Q Q S G L V N M M A S R R L A S N R E H H R D I A V  
T T L A S V L S S V R S L L R A W A S R V I R T A G E T E T S L A M H E P I L Q A  
P V L V Q V I D N S L S P V M K Q S L D Y T L G N A A G E R K S L Q E H H Q E I F A  
S M I N R L L Q T F V E L I K K A G P L R F S H D I G G L S T L Q E H H S I Y E  
P V L R A L I S G L S A P T L R A R W R G Y D D T D A R A R T V A E H H R Q I F S A  
E L L S D L L N V V R S L L Q V A D R A V Q S A D A A E T A F A H H E A I S A  
A R L Y E M L D S L N S L S R F F R R I D L E T P V R R N N A Y D E H V D I I A  
A M L E T T L R S L R G Y D Q V G R R S L A A P S G E F T R A L V A E H T E L L D  
E T L T V L H G S L A G L L T H S H R R E R E L V Q A F H H R R I F D  
S I L A E I F E A M R Y V M Y D Y Q K N N M R T L G E V L R S Y H E H L E L K

QUERY 130 140 150  
UniRef90\_W1JCL9 L C S E G A H D Q V Y E T V R R Y G H E S G E I W H R M Q K N L  
UniRef90\_I0QPY5 L C C E E Q T Y D K I M E C V R N Y G K E S G I I W H E M Q G I M  
UniRef90\_C5B9W3 L A A S R K Y F D Q I V D C V R S Y G K E S G A I W H S M Q G L A M  
UniRef90\_V3V113 M C H D G L Y E Q V L E T V R H Y G K E S S V I W H S M Q S S A I  
UniRef90\_UPI00041167CE V A D K E K A D K A V L V R D Y G Y A S G R I W H G L R G D I  
UniRef90\_A4CD35 L A A Q T N K F D E A V Y L M R K Y G L N S G Q I W H E L R D N S I  
UniRef90\_V4HSS2 L A A Q Q G D H D R A I S L T R K Y G H Q S G E L W Q H I R A D M  
UniRef90\_UPI00036D5647 Y A E A N G K F D E V V M A V R K Y G I E S G K I W Q E L R P D I  
UniRef90\_K6YA86 L A A D N G D F A G V A S V I R E Y G I E S G K I W H E L R A E M  
UniRef90\_D4ZL83 L A E E K N H N A I P A L M R S Y G I N S G K V W Q R F K N S  
UniRef90\_G3ZJ04 I C C E Q R Q S I E E V A P C I L Q Y G K E S S A Q W T K M Q E F L  
UniRef90\_C9QI2 V C C E T G D R E Q I L I V V R H Y G L Q S A Q I W N Q M K T T L  
UniRef90\_A5F6Z2 V C C Q S G E R E H L P Q V I R Q Y G I A S G H I W N Q M K M T L  
UniRef90\_F9Q7F9 I C C R Q G N A D V V D C I R K H N Q Q S A L Y W R S L E T L  
UniRef90\_UPI0002FCB8FE V C C Q E G D R E K L P L I I R N Y G M E S A Q I W N Q M K M T L  
UniRef90\_Q65VH2 L G K A H R L D E I P S L F R Q Y G R E S S L I F E A A Q D G L  
UniRef90\_V5F075 V C E D G N R D R I A A I V R Q Y G I E S G Q H W N E M K V S L  
UniRef90\_A4SN79 L A E T K N H E A V F M T V R Q Y G I E S G K Q W T R C  
UniRef90\_B8F398 A C E T N D Y E K A V E C L A M S R Q R S A E T W T E M L K I L  
UniRef90\_M4RHB5 A C C Q V D E E K V S E Y L H A H R L R S S E I W T E V L R N L  
UniRef90\_F2P9U1 M C Q D H K P D L V A D R I R L Y G R E S G A I W Y S H R V E I  
UniRef90\_W8ZWD6 Y C D G H Q A E L V A D R I K K Y G R E S G A I W Y T H R  
UniRef90\_C2WG34 T A L K G D A T E A E S L S K T T L A K S L A L W K D R K K  
UniRef90\_K2DR57 A V L S N D F Y Q V I E V T R Q V M Q D S I E L M Q K  
UniRef90\_G7WCZ8 A A M A S D Y Q K S E R V T K E V M E  
UniRef90\_UPI000471711C V A L K G D D Q L A E E L A H A M M E K S Y T L W  
UniRef90\_UPI0002E5E644 A I D Q G D A E G A A Q A M S A H L T R A S D L Y R Q  
UniRef90\_UPI00035F457A A I A Q H Q P E A A A E A M R A H L T R A N K L Y L K P Q G Q  
UniRef90\_F8GV04 A V A S H D G D A A S R A M R E H L T R A N A L Y R T L  
UniRef90\_W9H8L3 A I A T R D P D E A D A A M S D H L K R A S Q L Y R Q  
UniRef90\_S6HBM7 F I K Q G D A S G A E Q A M H D H L  
UniRef90\_B9JK72 Q L S V H D A D G A E A A V M K H L E R S R A L Y S K  
UniRef90\_L0KR42 R I E H G D A D G A E K A M I K H L E R S R A L Y  
UniRef90\_A0A038GTV0  
UniRef90\_L5MTP4 A I R A G D V N V A V E M R H H L E N S  
UniRef90\_L0KS89 A I A S G D A E G A S A M A D H I G R A N E L Y S K L A G N  
UniRef90\_U7GJ77 C I E G G V A E E A E S A M R S H L N R S Q D L Y R H  
UniRef90\_D8IP66 A I A A G D P G D A A A E A M R V H L V R A N E L Y R R L  
UniRef90\_A0A017HNP0 A V A A G D P S R A A E A M G R H F D E S  
UniRef90\_D7BB89 L V R Q G Q G E E A R L I E E H L E R S R Q R M Q E S  
UniRef90\_X5LGE1 A I A S G D F A D A S D A M R Q H L D R  
UniRef90\_UPI0003FAC095 A I E R H D P E G A S A T A A H  
UniRef90\_UPI000465BA23 A I R R R D P D E A D R A L Q T H L T S V F A T W H A L R A S  
UniRef90\_A0A010ZVG6 L I R A G E A E R A G A L M R T H I V G S W N R R R  
UniRef90\_Q1AYK0 C V E R G D A R G A R E E M R A H L E  
UniRef90\_V4PM04 A I M K R D G E G A A R A M R E H I Q G S W K K R R P T  
UniRef90\_UPI00036E41C0 R L A A A D A D G A E V A M L V H L E R S S A L Y  
UniRef90\_UPI00046A6772 A I L D R D P D R A E D A L R A H L E S A W D Q V K R S  
UniRef90\_UPI00037C44F2 A I R K Q Q P D Q A A N A L R L H L N N S R E  
UniRef90\_UPI0002625A27 A I D E A D A D R A E R A M R D I M V Q A  
UniRef90\_E8LLS9 A L E S G N A K K A K N L M E R H M  
UniRef90\_D3FBK4 A L E A R D P D A A R D A M R A H M  
UniRef90\_J3ANY7 A I V D G N A D G A A R A M R E H I E S S W A R R R A S  
UniRef90\_UPI00029B4F0C A V K E R D E D D A F A E T E K L V I R N H E V Y E R Y L K  
UniRef90\_UPI0003006247 A I E Q K D S T R A R Q V M I E H L E N A  
UniRef90\_UPI00047B4ABD A I M D K Q P D D A A S Y M N M H L Q  
UniRef90\_UPI000374C597 A L V E R S E Q D A A E A M R H H L A R  
UniRef90\_V6M8K1 A I E M E E P E L A  
UniRef90\_D2PSA5 A I G D G D E D K A A Q I M R E H T E H T R T A Y H E L Q  
UniRef90\_F4GS83 C V F A Q D Q A G A Q Q L M A D H  
UniRef90\_D9XC94 R I A A Q D P K G A A E A M F T H I T E A  
UniRef90\_M2X8Q1 A I D A G D A T A A E Q A M R D H  
UniRef90\_A6UG69 A I R A R D P E H A G R V M R E H L E S A A R K Y R Q  
UniRef90\_C9Z4R1 A V E A G D P D A A V A A V E  
UniRef90\_S5EWR8 C V C A K D A E G A M K A M T N H  
UniRef90\_UPI0003779A4F A I R D R D A D R A E A A M R A H L E T V I Q T Y W D M R A Q  
UniRef90\_UPI0003FAC24C A I V R M D S A R A R E A A R Q H M H E S  
UniRef90\_Q0G451 A I K A R D P A A A G Q E M S E H L L Q L A S I Y  
UniRef90\_UPI000368EB5A A I R A G D A E R A A A C V I R R H L  
UniRef90\_L8DE21 S I Q S G D A D A A Q W A M  
UniRef90\_X6DEG6 A I E R H D P E A A G R A M R E H L E N A  
UniRef90\_UPI0004772661 A I A D C D G I R A Q Q L M E Q H  
UniRef90\_V6L465 A L T R Q D G A A Q E A M S R H L  
UniRef90\_F0M8H3 A I E A G S A E E A R A M A H H L H A V G  
UniRef90\_G4KYA5 V L R S R D A D A E A Q I M R S H L Q D S  
UniRef90\_G9ZUW4 A I L R G D G E G A R G A M R L H L T N S R E R L R S A L A Q L  
UniRef90\_UPI000237C685 A V E V N D E E T A Y L E T E K L V I R N H E V Y E R Y L K  
UniRef90\_D7A0M1 A I L A H D P E A A A A M K R H L D D  
UniRef90\_H0QQW2 A L S S G D P E K A E A A M A H I Q K V R E  
UniRef90\_Q13QL5 A V K K R D V K K A I A L M E T H F S R A V E A W N E I L  
UniRef90\_A0A052JJB9 A I A D G D G E L A E L L M R H I R A S  
UniRef90\_UPI0004782316 A V R D G A R A E S R A M A R H L  
UniRef90\_UPI00036C1F56 A V E R G D A E A R A M T A H M D R A T R R L Q A S M  
UniRef90\_F8D2L9 R I E K R D A Q G A V A S M R R H L E N  
UniRef90\_G7WJP6 A I A G R D A D L A R A L M R K H L E E S  
UniRef90\_D5UTP6 A L V A G Q A D V A C A C  
UniRef90\_UPI0003B3273C A V R  
UniRef90\_C6C516 A L R Q R D V D T G V K L I E Q H I S L S A E  
UniRef90\_UPI00036423F4 A L R L G D Q D R A E L L M R A H G L R S  
UniRef90\_A0A023XGC3 A I I A R D P E R A D A T L R K  
UniRef90\_R9LN10 A L E R G D A A E C E Q L M R V H L

1 10 20 30 40

UniRef90\_F3NZL0  
UniRef90\_UPI00047537AE  
UniRef90\_B0UGR6  
UniRef90\_A1RB64  
UniRef90\_K0K824  
UniRef90\_UPI00034D610C  
UniRef90\_UPI0004139E07  
UniRef90\_A6X5V6  
UniRef90\_R9C1E8  
UniRef90\_UPI000377261D  
UniRef90\_E8WCZ7  
UniRef90\_S3ZRT2  
UniRef90\_Q2RIW6  
UniRef90\_UPI00046B069A  
UniRef90\_T2LC15  
UniRef90\_Q1YMZ9  
UniRef90\_S9R053  
UniRef90\_J0CG19  
UniRef90\_D6U5T7  
UniRef90\_F6CMJ9  
UniRef90\_D5WQY9  
UniRef90\_E8NBV3  
UniRef90\_UPI00046573EF  
UniRef90\_L8BP12  
UniRef90\_A1VP06  
UniRef90\_V4NMP6  
UniRef90\_C5EFK5  
UniRef90\_B2JX76  
UniRef90\_W5WERO  
UniRef90\_A8TNF4  
UniRef90\_B9QU69  
UniRef90\_G9EE58  
UniRef90\_I3ZDV5  
UniRef90\_E6VCX6  
UniRef90\_Q1ARR4  
UniRef90\_H8W4M1  
UniRef90\_J6UHP8  
UniRef90\_UPI000400751C  
UniRef90\_U1MQG8  
UniRef90\_M4ZD31  
UniRef90\_UPI0003A9C8A6  
UniRef90\_Q3A1L8  
UniRef90\_UPI0003FC32F5  
UniRef90\_E1THL9  
UniRef90\_B6A356  
UniRef90\_U3QFZ6  
UniRef90\_I7G1Z3  
UniRef90\_U7JQZ0  
UniRef90\_J9SS92  
UniRef90\_G4HS20  
UniRef90\_Q0A4V8  
UniRef90\_J1EKT5  
UniRef90\_UPI000374548B  
UniRef90\_UPI000478B0E5  
UniRef90\_UPI0003B3499C  
UniRef90\_H0E661  
UniRef90\_B2TC07  
UniRef90\_Q88GH9  
UniRef90\_A8FHJ9  
UniRef90\_UPI0003F86897  
UniRef90\_UPI00047C9124  
UniRef90\_UPI000369AD85  
UniRef90\_S2F7L4  
UniRef90\_UPI00047DFC4D  
UniRef90\_S9S327  
UniRef90\_A0A022H2W2  
UniRef90\_UPI0004715CC8  
UniRef90\_H1SFS8  
UniRef90\_UPI0004741257  
UniRef90\_E1V6Q8  
UniRef90\_C5C5D8  
UniRef90\_V4NAF2  
UniRef90\_UPI00047B7F2C  
UniRef90\_B9L3V7  
UniRef90\_E6WH97  
UniRef90\_D5EDD2  
UniRef90\_UPI000364473F  
UniRef90\_UPI000368B1AA  
UniRef90\_UPI0003737E07  
UniRef90\_D9V8C4  
UniRef90\_M3KDS0  
UniRef90\_UPI00036EC452  
UniRef90\_UPI0002628321  
UniRef90\_UPI00047E4E49  
UniRef90\_C2GF57  
UniRef90\_L8P0K0  
UniRef90\_A4SZD6  
UniRef90\_X0RUB2  
UniRef90\_V8CZL4  
UniRef90\_C1DHB3  
UniRef90\_UPI000479B29E

VVDLHQDRS  
HLSPEPVSKLVDDVLDAREALVETKLAELAAAL  
LQISPKQKISDVIENALELRTAVVEESAAALAAASR  
QEIISDVVEITRLLVEEFAARKAVP  
IAEELMELRGLVVEERYAAQVVA  
ETVLDLFEVREVLVEPQAARWVAE  
LLELRGLVEFAARLATE  
EDYDFRLSVVEPGAARAAAE  
FIESLYEMRLINEPQAARLACR  
IAEELGE LRQLVESEAMRLACL  
DLMEARPCIEPAAAGWALLR  
EFLRALSEVRLMLVEPMAARLAAAD  
DTEELMELRKLVEESAGLAAAR  
EELLEEFTIRLALVEPIJARTAVR  
GVLDEVSVVRAAALEGVMAAGEAT  
EARMALEPQIAELAAAE  
LLQARLLIPEETAALLAAR  
LMQARSAAVGAVALSAAACR  
ITRLDGEMLIGQIIEENVLEMRSSLVEIGMVALAAR  
IAPLDLLITMDLINDLVLELRREMLVESMIATAVE  
VLSVLELRISLEETEAGLAAQ  
GPNVHRTVLPNPNLTRPTLVLDLVQARSVLEPGIAAHAAAR  
GRNLVERVANLGA SLRNDDELIDLVTRRESLEGMACRRAAAR  
FTPDLVDNLCHEHRAALLETGSVRRRAIA  
LAQMFEVRVLLVEVEAIRLAAVP  
VIEDLVE LRLLMEPGLARLAAQ  
GLDA LVLQA DGLTFDPQVTRD LLEVRRLVEPATALLAAR  
VADLLQESSP VW LLEVRRLVEGQAAELAAQ  
PDSVGEVIA LLDARLVVELVRRVA  
RLSP EQMADLID ARAALIE LAAVRAAHR  
HLDAGIDKRF LSLLEVRMMIETPGAELAAE  
QLHDLRLFFETSVAARQLAAR  
VKDLS EIRKITEPYLJARLAAE

LMQARMAVVEGSVIVLAA  
VLELRMGVIEEAGLAAAR  
IVELRRAIEAEVAQAAMR  
LLEMRLLALEATAVRRRLCR  
SDVDVRLMLEPMVRAAAQ  
LADLME TREALPFCAE LAA  
LEQLFPVMVLEGLTAGEAVK  
LDNIYAVRQFLPELAAACAVP  
DVLJA HLSA PPRQEF LAQLMEIRLSIEPKTARWAAE  
LVELRSGLEVQAAQLAAE  
SSSPDGWRQLHD LRLFFETAVVRRMALE  
AAALR

SSSQPRTVLSLLELRRLSLETECAGLAAQ  
VRLLEVRALLLEAESARLAIIR  
VRQLLEVRRTIIEAGAVKKAL  
IRDIME LRALVPIAGITATR  
EARSTLVEVRLASLAAE  
VDDVVEITRLLIESWAVEAAAR  
VLRVTELRRLGIEGEEAALLAAQ  
LLETRITLLETKAAALAAK  
VFEARIAFPIAARAAEG  
VLDMLVEVRATNEVLCATLAAE  
IRQLYDARRRTIEGRTATLAAE  
AQLFELRMVVECACAE MAAR  
LTLARLAIIEPLTJAQFAAK  
D S VLEIFAVRRLLEPSAAEAMAR  
LDNLVIEIRVALLEASMARKASD  
K

LDPVEVRHLLVE LHDVRLMTIEPVAAARAAAV  
LAHLHDL PQQS NALLEVMEARLQLLEPGLARLAAAL  
RFDTQNMDEALILELVEARMLLEPAIVSEAVK  
DSSLQLLELR EAVETGVARLAAGR  
LGSALRLRHVATQHLPVADIVETRVLLIESWAAAGKARP  
VMEARELIEEDWAVRRVA  
QLD GADRPTAALRTLTELRSVVEPAAARAAIR  
DLTEARPFIEPAAAGWAAIR  
LDAVITRAVSEGQDDAAAQLLELRRLLETGACELAAAR  
LLKYTAENLKEILLDDLEQMRQFIEVGAALRTVIE  
LLNLLVEVRKVLVEVGAVALRAAAT  
YLTQLRMLVEVGSAGLAAE  
N L G I V E V I R N R G F R V P V L T D H D L D L R T M L E A P A M S E V T E  
LQNIIEVRRGVIEEIAALAAAIR  
LLELREARLFEVKIVKIAAQ  
ISDVLDVRLMMEPIVARQAAA  
LYEIRESLGMAACRLAAE  
ARVVVKLSMRELLLELFDLREALSMAARLAAAR  
LSVMFMLNKNKDNPSDILLELRALIEVEASLAAAR

UniRef90\_F3NZL0 R A D A D L K E L Q D A V S G M T D D S T G F A H H D H A F H R S L L A A T R N 80  
UniRef90\_UPI00047537AE R A T Q A D I L D A M R R E A N E V L A R E A T D V A R A D L D F F H D A I L A A A S G N N  
UniRef90\_B0UGR6 R A T Q Q A D I L A V T R E E T M D G A I D E D E S R A A W H S D F F H S V L I A A R L A T N G N  
UniRef90\_A1RB64 I T P D E M S A L R A T E I M D J A I D E D V E E L V A H D L E F H S L I I T E A R A A G N  
UniRef90\_K0K824 A D P D E D L D G L V A D Q E A A I D E D P L G F I E R D R V F F H R T I V I R R A A A N  
UniRef90\_UPI00034D610C R R T D D D D L A A F D S A L D K L V M E A D I A S G E R L D H R F F H A A I T H A A A R N  
UniRef90\_UPI0004139E07 L D D A D Q R S A L R T A K L K E L G E D P V A Y S R A D V E F H E L I H A A S Q D N  
UniRef90\_A6X5V6 M T P E R L A E L R A T I L D A M K D A G R K A T E L D R Q F F H L L I A E Q S G N  
UniRef90\_R9C1E8 A T Q E N I A D T L K S I Y E E M E Q N V D Q Y V Q E L D A K F F H M E S I A A K S V P N  
UniRef90\_UPI000377261D C S P A Q E A E I C C A L E E A A L Q R G D L S E A E D F H L S I A R A T N N  
UniRef90\_E8WCZ7 A S A Q L T A R L E Q L L E E Q R E L A E A V S V K D R C F F H A E I V K N A G N  
UniRef90\_S3ZRT2 A D R T P V R E L R E L L D Q Q Q A K E F L A V D H L F H K T L V S A V G N  
UniRef90\_Q2RIW6 R G T Q D I Q E L A S M V I T T K E Q L G R L A G H D S N F H Y R L V A Q A A G N  
UniRef90\_UPI00046B069A R A S A D L E E L E R E V D A M E A D L H A F V R A D R S Y H R R M L A A A A G N  
UniRef90\_T2LC15 R H N E E D A L Q L Q A S A M T K L R D A R E H H E D A D F Q F H L A I S Q A A S G N  
UniRef90\_Q1YMZ9 I S P E Q A A R L K A S A M T G M R E N P R E L I A A D L Q A F H R V I L E A T G N  
UniRef90\_S9R053 R N P Q A L V A I V A R M E Q S R D Q S E A Y K L L D Q E F H R A I F E H C G N  
UniRef90\_J0CG19 R S T H E Q I L T L T S L C D R M D A E A D K W V R M D A A F H G E I A E A S G N  
UniRef90\_D6U517 R A T E E I A H C C Q E M A A V T D D A E K Y I A I D L H F H L L I A E D A A H N  
UniRef90\_F6CMJ9 H T P E E L A Q M E E A L A Q M E A D G D L G E K A D W K F H Y A I A E A T H N  
UniRef90\_D5WQY9 G V T E E D V E R L Q R V D E M D Q C L E Q Y S R L N Y E F H R S L Y E L S P W  
UniRef90\_E8NBV3 G S H E S R V Q L Q G H L H D L Q D D N P A F L E A D M Q F H L L S V I M A A S K N  
UniRef90\_UPI00046573EF R A T E D H L E K I A S A L J A L L E A S E N D R D E D F A F H R A I A E A T G N  
UniRef90\_L8BP12 H A P E E L A A I R E A F E Q N C R D N R A G S T T D R R L F H I A I A Q M S G N  
UniRef90\_A1VP06 N T P E G L A R V Q A V E A M R E D G R D V L E H D R Q F H T V C I A A E A S G N  
UniRef90\_V4NMP6 R S A D D I I K L Q T I V K A M A D S G P Q Y S A L D L Q F H L A L A E A A G N  
UniRef90\_C5EFK5 R A T D D E D I K L M R M Q N P D L Q P D E S T R E L D I R Q F H L C A F A E A T G N  
UniRef90\_B2JX76 R A S D D I A K I R A A L D A V E A T S R T S T A A D L R F H I S I A S A T G N  
UniRef90\_W5WERO H R T E S D V A H L R E V D A T R N H G E G A A P L R W N F H R E I A S A A N N  
UniRef90\_A8TNF4 I K P A E L K R L Q K M L E Q H A Q D D A V V S G R D L D F H Y R I V K A S G N  
UniRef90\_B9QU69 R N K D K L V A L Q S C V D E M E A L R V N S S T D Y R F H E T V R A S C N  
UniRef90\_G9EE58 N T F D N A E R I C D E F N N E D N V G R W A A L N W E L H A C L Y E P A Q R  
UniRef90\_I3ZDV5 R A P E D I A M L H Q S I L D L E L E K L K L V S D L L F H R A I F L A A S K N  
UniRef90\_E6VCX6 R R T D G D L A T L Q T Y A M I E A A G G D L A E A D V G F H L A I V A A S Q N  
UniRef90\_Q1ARR4 M S P E E L S G L R E C L E R L E P D V E E L I A A D D E F F H A R I A D A A G N  
UniRef90\_H8W4M1 R A T R G D L R I T K A Y R A L T E D D P L S N A K P D H G F H Q A I E A S H N  
UniRef90\_J6UHP8 H A T R D D V A E L G A L D R A K I N G S I D A F V E S D R A F H V Q K V I A A M S K N  
UniRef90\_UPI000400751C N H R E A A A E V T A G D S A V P S A R A M R E Y D W A F H L V L V E A S G N  
UniRef90\_U1MQG8 R R S E E H L A A M E R Q H H E E R D V D A F V I E F H D V V M R A A D N  
UniRef90\_M4ZD31 L H I R S E E M G K A M A Q M E R E P S T S I A F A E A D L A L I A I A N A S G N  
UniRef90\_UPI0003A9C8A6 Q V T D D Q L R S L R E I R N F L D R S E S F A E A D I A F H R A L V E F M G N  
UniRef90\_Q3A1L8 R F S A K C R K I F E K K K N V V G A K E E T D T D I T F H A L L A Q A S R N  
UniRef90\_UPI0003FC32F5 E A V A K T E T A S N Q E D A T D T D I T F H A L L A Q A S H N  
UniRef90\_E1THL9 A T L D K L R R T V I E R M K R L A A A G K S P V D A D R Q F H M L I A E T A G N  
UniRef90\_B6A356 R T P E D L D R M Q D R L D A L D E E G G Y G A Q E D Y A F H R A I L V A T Q N  
UniRef90\_U3QFZ6 R R T D A S M A A D A A E E V E G G D V A A D V A F H R A I A G A T G N  
UniRef90\_I7G1Z3 T P D V V D S L F T E L N D L V D D A H A F A V A D D T F H R R I V E V A G N  
UniRef90\_U7JQZ0 R R P E P L V R A Q M Q S L D R M S D D Q D T F F N E L D T D F F H R A I A E A G G N  
UniRef90\_J9SS92 N V T D E Q V E S K Q S A D H L E D H A S F Q E S N A D F Q R G V I A Y E A A G N  
UniRef90\_G4HS20 K R T E A D L A T L D R A N D A I A D P G A F L I Q A N L D W H V G V A I A S H N  
UniRef90\_Q0A4V8 R T D K E M A N L E R H Q A N L E D A A D R Y E H N Y E F H T R L Q E L C G N  
UniRef90\_J1EKT5 H L T E A D F E A L E H S I A C C D P A S S E D M D V N F H D L L A A A C P N  
UniRef90\_UPI000374548B R A T P D D I A A C D M E A E Q A S T E G F I A D A H F H K A V L K A A R N  
UniRef90\_UPI000478B0E5 R A L E R M R E H L Q A M A D S L G D L A A F V D A D A A F H R E I A E G S G N  
UniRef90\_UPI0003B3499C I T D E Q L T R L D E Q L Q N L D A S E A F A E A D D F H R Y I A V E C M G N  
UniRef90\_H0E661 R S D D D L A V L R R I V R A Q R D C G G D F L R L D D E F H V A I A E A S D N  
UniRef90\_B2TC07 R A P D D L A R M R A A L D A T E A T G L D D S V D A D L Q F H L S I A R A T G N  
UniRef90\_Q88GH9 R R Y E E M L A A H E A A Q A L D A R E H H A R R D H A F H R A I A S E A S G N  
UniRef90\_A8FHJ9 L R T D Q L R D A L J A Q M K Q A E A R E E I G E E A D L T F H L A I A K A S K N  
UniRef90\_UPI0003F86897 A T P R D L A Q L R E L V E E V I D V T K D R Y A E L D R A F H Q A I A Q A A H N  
UniRef90\_UPI00047C9124 R R T E Q D L T A J E T M Q A E I D D G G D R G A R G D E A K F Q S V A T A A H S  
UniRef90\_UPI000369AD85 H A S E R L R A I V A A M D A P D V S A E Q F N E Q D T E F H T A I A E L S G N  
UniRef90\_S2F7L4 R H S P A Q L E A I H Q A L K A I D A A E Q A V I E D L A F H R S I S R A T G N  
UniRef90\_UPI00047DFC4D R H D Q D D L N K I Y Q A Q E M L N D P D K I N E A D F L H R S I L Y S T K N  
UniRef90\_S9S327 L T A D Q L A E L V A A Q T A H P E D A E L F H D T D I E L H K T L L D A A G N  
UniRef90\_A0A022H2W2 R A H E S D L K A M R E I V E A R R D J A G L A A L D L K F H T A M S A A S R N  
UniRef90\_UPI0004715CC8 K E A D E I L G F A R A M Q N R L D Q P A V V M E N D L A L H L A I A R A S K N  
UniRef90\_H1SFS8 R T D E D L Q A I R G A L A T M R E H A G D F A A A D V A F H H A I A Q A A H N  
UniRef90\_UPI0004741257 R D A E R L L D L M E Q V S D L S Q R R Q W N Q Y D H Q F H Q R I A H M S G N  
UniRef90\_E1V6Q8 H D A E D R A R L E A R H A E V Q A S Q S Q A R R E D F A F H H A I V K A T G N  
UniRef90\_C5C5D8 R A P D D V A A L R E L L G A I G D D A E S L V A H D L A F H G T L V A A A G N  
UniRef90\_V4NAF2 A D L A E L K V Q M A K L G G L V S E P V T Y V V E D V V L H M I M R I A S G D  
UniRef90\_UPI00047B7F2C E N L E R L G T L J A A M S A S E D N P D A Y L K L D L D F H M E C R A A Q N  
UniRef90\_B9L3V7 I G P D Q L H R L E A T L E A L I E S E P D R Y L E R D L E F H A Q I C A V I G N  
UniRef90\_E6WH97 R A S K E Q I A L M K R L T I E A P E S D G D Q H E L W D S A F H R A I A E A A G N  
UniRef90\_D5EDD2 H A T P T D L T R I R K I L T L V E S L G H R A Q C D Y D F H L L A E A T H N  
UniRef90\_UPI000364473F V P D A D L A E L D A L V G E M E K E A G S P A A T D R A F H A T L Y R G L I G N  
UniRef90\_UPI000368B1AA D A P E E A A A L L A G M D Q A E G S V I G D F L A L D V R F H F A L A N A A G N  
UniRef90\_UPI0003737E07 L A A D L D R L D G E Q E A L V G D P V G F I D R D R A F H R A I V G R A G N  
UniRef90\_D9V8C4 A T P E E R G R L R A L A V H L Q R T A R A F L G H D V A F H D L L T A S R N  
UniRef90\_M3KDS0 H T D S D Q M A K L T D L C D R M E K D P H A K W V L D T E F H S M I A S A S G N  
UniRef90\_UPI00036EC452 L S A E L A G L A R D A D A M E D V H A F V R A D L R F H E R I L Q A S G N  
UniRef90\_UPI0002628321 S S S E R I H K A L I E C H H A I G D Q K T F A K A D V A F H R A I V K V V D N  
UniRef90\_UPI00047E4E49 K R T E D N L K N M K E M E K S L I G N E R A G E K A D F H F H M E I A K S S D N  
UniRef90\_C2GF57 R E L E G I K Q T V D Y R E A T D P A E V I T A D V E F H T R I L E A T G N  
UniRef90\_L8P0K0 R A I P E F R Q L A E Q I T D A E G D L T S F L D L D R Q F H M G L L E L L I G N  
UniRef90\_A4SZD6 R T P S D I E E A L R K I K K V T D A G Q N G V E E D V R F H M L I A Q A T G N  
UniRef90\_X0RUB2 R A T I E D T E A L E Q V L N K M S E E E L T E S D T E F H L A I A K A S H N  
UniRef90\_V8CZL4 N V T D D Q L E T M Q A L D R M R E D P G D Y A N F Q E N F Q R S V I Y E A A G N  
UniRef90\_C1DHB3 R M T Q A G V D E L R V L D T H R E D E A F Q E G D F D F H Y R I Q G S G N  
UniRef90\_UPI000424PZ04 H A P E D I A V H E R Q E D L Q R D E A Y F Q E G D L D F H Y C I V Q G S H N  
UniRef90\_UPI000479B29E R N D E D I Q E L E E L M D K L I D D E K Y S A K Y D T E I H Y K I A S V T K N

UniRef90\_F3NZL0 P L Y V A I P M L L S Y L A E Q Y G N R S L T T E D G A H L V Q H H R D I L D  
UniRef90\_UPI00047537AE P V L R I M L S S I G G M M F E M M L R S N S D P S I G E P G V P H H P E I I Y E  
UniRef90\_B0UGR6 G F Y L R A V E A L M L R S R A R W L E V W T V E G R D R S W D E H H A I L H  
UniRef90\_A1RB64 D Y L G S L R E A L M L R S R A R W R G L T Q E K A V A H T L A E H H A I A D  
UniRef90\_K0K824 P V L A E F Y E T L R S E R Q V R M G L R A V A N A D R A R H V L D E H H A I V A  
UniRef90\_UPI00034D610C E L L T A F M S E I S D Q K A E T R R R E S L H Q P E D R P S Q S L R Q H T A I V A  
UniRef90\_UPI0004139E07 A F G R A I V A N I S Q G K A L H T P Q Q Y S G H T P E D I E V T H E G H T A I L A  
UniRef90\_A6X5V6 S V L V R I V R D L S P L T S H I R T R F E D N D T W A L A L A E H E A L Y A  
UniRef90\_R9C1E8 E L F Y I L T K S F S D L S D Q V V Y L T K I N F P A S E E L A Q K Q H H E M I E  
UniRef90\_UPI000377261D P R F V E F L G Y L G N R T I P R S R L R E E A G E E Q L N Q E H H R A I L E  
UniRef90\_E8WCZ7 E T L S R L Y D Q L R D R Q L R M G V A V M E A H P G R I A A N T E H H G E L L D  
UniRef90\_S3ZRT2 A L L D R H Y D G L R S R Q V R A G V V A L F N A E G R Q S A V D E H H R A I L D  
UniRef90\_Q2RIW6 I V L V R L M H S L L G L L A D S R S R L A P G R G E R S V D E H H Y E I V Q  
UniRef90\_UPI00046B069A S V L T G Q I N T I H S L L R W M E R A V E D S E Q A R V A A L E H H R T I L E  
UniRef90\_T2LC15 R Y Y A T A M E A L E D H I A V G M Q F H A T P Q D G L Q H V F E H H R A I A E  
UniRef90\_Q1YMZ9 P M L V S L G A M L R S L S I S F S L S W R Q N P Q E E T L R Q H H R A I V M D  
UniRef90\_S9R053 S Y V R A N F R M L S F R V R N R L S M D P E L N A R S L K E H H Q G I R D  
UniRef90\_J0CG19 A I E R K V A D V G G A L S T Q S E L V E H V I R G R R K A S N A E H H R R I L Q  
UniRef90\_D6U5T7 E L L R S I M Q T L A S Q A M R A S R L V T A Q I P G G N R E A M P E H H T N I V Q  
UniRef90\_F6CMJ9 S L L V E L M N T I A G T M Q R V R M Q L Y M T P G T P Q R L L N E H H K A L F L  
UniRef90\_D5WQY9 K E L F R I V T V W E R S A R S W L F V Q T P D S M P T S Q E E H H R A M V Q  
UniRef90\_E8NBV3 Q I A A T I A R S F F V R P R Q S A R W D G N N P D A V P R T L A E H H E R Q I F D  
UniRef90\_UPI00046573EF D I F P A L L E S M R E L M V A V S L T R V G S Q A R R E R V L A E H H R Q I F D  
UniRef90\_L8BP12 P A Y A F I G H L L G H R Y G S M F R M L Q R H P H R S E Q E H H R A I L E  
UniRef90\_A1VP06 S V L A S L V G T S P L A S H M R N R L E G Q Q T W H A A L S E H H E Q I L R  
UniRef90\_V4NMP6 P L Y V L L I E A F R Q V F S  
UniRef90\_C5EFK5 T L I K E L I K A V Q L V T V K N L D Y M S N V T L K R D N A V L S S H S N I I E  
UniRef90\_B2JX76 R Y F V D I L T K Q L G T A L I P R D H R V D S P G L K R D N A V L S S H S N I I E  
UniRef90\_W5WERO P V L Y E V V D T L S R E Q S K V R K I Y T N R L Q R D I N R Q E H H R A I L V D  
UniRef90\_A8TNF4 R L F Q M L D E E L Y S L L R L Y R Q R L S T R P G R P K Q A L E D E H H R R V L D  
UniRef90\_B9QU69 R S I A S A Y K R T I S P L I A L R T H L F T I M N A N E R S L D E H H V E I L D  
UniRef90\_G9EE58 P F M M G L I R S I H D K V E R Y L R L Q L S L S K G K A R A D K E H H R A I I A  
UniRef90\_I3ZDV5 R T A A N L F H N I H R A M A K M M L Y T S Q L V D L E H T L A F H K P I M Q A  
UniRef90\_E6VCX6 R I L V R T L T P I L M S R A R W R E R Y F E S D A I L R R S L D D H R A F V A  
UniRef90\_Q1ARR4 P V L S S L L R S L A G R T L R A R W R G V S D A D A L E R T R L G H H R A I F R Q  
UniRef90\_H8WA4M1 P V L V H V L N G L K N M M L T V H A S V A N A E M R Q L I M K H H K S I Y Q  
UniRef90\_J6UHP8 A I L A D F V R L K M H E R S T R F W Y L H L W Q T I D L F A A T R E H H R S I L E  
UniRef90\_UPI000400751C Q F L H G M L E G L G A H L H R M V Q S A G R G V F D A D I A L T E H H G Q V L A  
UniRef90\_U1MQG8 R L F V A A L R P L T S M L A E T R G E T S A V D E I R A H A I D Q H H R A V L D  
UniRef90\_M4ZD31 P F M R S I G A V I E A A L R A S F V L S A P V E R D T V L V W H H R Q R I D  
UniRef90\_UPI0003A9C8A6 P F L S L L A E G F G G W L I T P L Y A S M Q V R R Q S E R S Y H V A V L E  
UniRef90\_Q3A1L8 P V M V M I L D F V N S M L T D L K T H I K P G Q E F S Q H V L D S H H E K I F N  
UniRef90\_UPI0003FC32F5 P I M A A I V T M T A E W T R E E R V L T H S N D E W Q R L S V E H H N A I A E  
UniRef90\_E1THL9 S V L S R F V E M F D S R H D P I A A A I R D H S E S P Q A A V R E H E E I L K  
UniRef90\_B6A356 S Y Y G R L E D T F G D L M Y P R Q W A R L E R K R H A A R M R R E H H A I F A  
UniRef90\_U3QFZ6 P Y F L K T L E F L S Q Y L E A A T R V T R T N E A R R A V R E H H Q A I V A  
UniRef90\_I7G1Z3 P I G Q R F Y G S L S D R Q R R M M A D A A R S D S A R L A A L G E H H A R L A E  
UniRef90\_U7JQZ0 G L M V A I T R E A V H S P T K S A E L A V S D W P G T R R R Q L V D D H V A M L Q  
UniRef90\_J9SS92 P A L R V V M E T L W L L V R D A E P V E H P L A T R R A A Y E L Q Q D V L D  
UniRef90\_G4HS20 E L L I G F M T A L S A I Y T G T A N A S F V D T S V R A V I T A R A H K S I T K  
UniRef90\_Q0A4V8 P Y L Q R V A A D L R R I L L I L A H R Q L K A P G R L Q D S L Q D E H H R D I L M A  
UniRef90\_J1EKT5 P F L R F N C E L I N E M L R Q L I V Y G N R T P K A E E V N A D F H H R E I V Q  
UniRef90\_UPI000374548B E F L S G L E G V I Y S A L L T S V R I T N K N P V I E N G A S I P F H R D V Y Q  
UniRef90\_UPI000478B0E5 Q V L Q E L L Q S L F A S L L R L W V D R A L T D E G H A E A A L K H H R A I F A  
UniRef90\_UPI0003B3499C N F L G L L A E G F A S G W L I T P L Y A S L Q V R K Q S E R S Y R H V G V Y E  
UniRef90\_H0E661 P P L V L A R A S L G Q V I V P T V A Q F V T D E R T A T A A T D F H Q R I L D  
UniRef90\_B2TC07 R Y F V D L L T Q M S A L I P R N R L D S A G L A R A E S L V N Q E H H S I L E  
UniRef90\_Q88GH9 P V L V H T L L Q S L S D L F A S V N N L Y C R P A Q R Q I D R Q H E S A R L Y R  
UniRef90\_A8FHJ9 D I L K V L M N Q V S T L L V E T M R V L F S T K A S I R K L Y E E H E Q I Y K  
UniRef90\_UPI0003F86897 P L L E L I N E Q I A Q Q I A P S R A S R Y Q T K E R E A S S V A H H R R I F E  
UniRef90\_UPI00047C9124 P V M A Q L M A F I G E M V L E T R L E S L A Q P G R P E Q S L E S H R V I A L  
UniRef90\_UPI000369AD85 A L V A T F M R A L R D V R R H Q Q R A V V E L G S N T E A L R A D H H R A I L A  
UniRef90\_S2F7L4 P L Y P S L H E F I A Q Y T K E A L R T T R S N E E R R H L A R T E H S A V Y E  
UniRef90\_UPI00047DFC4D E V L I K T L E N F S E I Y K E A L R K A T L T K G K K Q V Y E H H Q S I L K  
UniRef90\_S9S327 P Y L T R F G R L L Q V L G D Q G R K A Y Q K R R H L R L R S I A D H Q T L I A  
UniRef90\_A0A022H2W2 R V L A D L L R S L H E K V A R F W L S L S D P Q H L E N V Y Q E H R V I D  
UniRef90\_UPI0004715CC8 P V F A L M I G A F Q G V I V E I G W K V R A T D D E R E A M N R H L D L A E  
UniRef90\_H1SFS8 P C F T G L T D F V G Q H M L A A R Q T A W E N A A R Q G A D S E H A A L V E  
UniRef90\_UPI0004741257 P L L L E V A A L T E S L W R Q L R D E G L H D P A R A R L Y V Y E H H R I Y E  
UniRef90\_E1V6Q8 V F F D R F Y E P L I E S M L P R S K L L S S A R Y L E L V Q Q E H H A R I L E  
UniRef90\_C5C5D8 S Y L A S L V D T L S S D T M R A R W R G L T Q Q G A V P R T L A E H H R A I L D  
UniRef90\_V4NAF2 R L S E A L I N G L Q G R L S N F A Y A G K L T L D H I R D T H E A H K V I D  
UniRef90\_UPI00047B7F2C R I L D R F M Y S R W W Q M A S R R I S N Q M P H A L P S A T E M H R A I Y E  
UniRef90\_B9L3V7 R V L D R I L H A C R W L L M A S R R V T N R L W D S L A S V T D E H H R A I Y R  
UniRef90\_E6WH97 R L M L G L E D A L D A V R R D P G W Q H L R V Q A R T P A R N H H Q R L N  
UniRef90\_D5EDD2 F V I F N I V K M T F A V L I M E T H E R I Y S L L D D K E I F L K E H K E I Y Q  
UniRef90\_UPI000364473F P L L G E V L D A F W E A F H R V R T D L V D V P R D P Q V T C R Q H R E I L D  
UniRef90\_UPI000368B1AA A V V S A M M G S L R E A Q G Y A A E L T S N D A T A S R L R A D E H H A I L A  
UniRef90\_UPI0003737E07 A V L A D I Y E T L R E A R Q V R M G L R A V S N A G R R T V L D E H H S A I V A  
UniRef90\_D9V8C4 P M F A Q L S S V V A E V L A G R T G H G L M P E E P Q P E A V A L H V I E V A E  
UniRef90\_M3KDS0 A M F A K I V A D A R V A L S R Q S E L V N L M A G R E R A S N I E H H R Q I A E  
UniRef90\_UPI00036EC452 V F I A V L F A P L H R V L E E R R A Q T S R V P E I Q A H A I A E H H R I V A  
UniRef90\_UPI0002628321 P I M L N L H D M F I R K L L S S R P V S N Q K K H D T M V Y Q E H H K N I Y E  
UniRef90\_UPI00047E4E49 N I L L E L M N V S E M I A E T I G E L Y G E Q T A E R L L E H H Q V I Y D  
UniRef90\_C2GF57 P F I K A V I L P L Q D A L S S I R G L I T N S Y R D I R V R A L H H H E T I L A  
UniRef90\_L8P0K0 R R L V T M V S Q L R D Q A R M R G L Q K L A D Q G E L T R S G E H H I E I V D  
UniRef90\_A4SZD6 P Y W L K F V D T F S Y S L R A A T S V T R A N E D R R Q Q V Q E H H E A I V A  
UniRef90\_X0RUB2 F V I F T N I R L H L D L L K G T R E S K T Q P G R R E R Q W E H H Q A I L Q  
UniRef90\_V8CZL4 P V L K I V M E T L W L L V R D A E T R L A A I E M Q Q D V L D  
UniRef90\_C1DHB3 Q T L V R M L C G E M Y Q L V R M Y R L Q F S S N R P R Q A F N E H H R I V D  
UniRef90\_A0A024PZ04 R M L I T M L C D D L Y Y L V R M Y R T Q F S S S G A R Q R A F V E H H R I V D  
UniRef90\_UPI000479B29E Y L I I N L L N G I S S I L F I K N A R E I L R E N E E K D L I K Q H R K I C D

UniRef90\_F3NZL0 A I T M N D A D A A E Q S A R A 130 140 150  
UniRef90\_UPI00047537AE A I V A R D A E L A R S R M R E H L  
UniRef90\_B0UGR6 F I R E G R V E Q A V A A I T N H G V R S R N I  
UniRef90\_A1RB64 A L R E R G D A E L V R A L V  
UniRef90\_K0K824 A L R S G D P E A A G R A V A A H L  
UniRef90\_UPI00034D610C A I R A Q D P E A A V A A M R E H L Q  
UniRef90\_UPI0004139E07 A L L G D A D R A A H E M R E H I T S S W A R R R P S  
UniRef90\_A6X5V6 A L E A R D P L Q A Q A A M R T H L D R S K Q R W  
UniRef90\_R9C1E8 A I Q T R D E K R A V K V M K Q H L  
UniRef90\_UPI000377261D A I L R H D P D A A R A A M R Q H L  
UniRef90\_E8WCZ7 A I R A G D A E G A A Q V V R R H  
UniRef90\_S3ZRT2 A L S A G D A E A A C E A L D H H L E S T L K V  
UniRef90\_Q2RIW6 A L L H R D A E G A A A M L R H L K D V R E  
UniRef90\_UPI00046B069A A L R Q Q D P D A A A S A M A V H M  
UniRef90\_T2LC15 A I E Q R H P E L A R D L M R Q H L T G S  
UniRef90\_Q1YMZ9 A I L A G D R E A A E L F M R R L I E S A  
UniRef90\_S9R053 L V L S G R H D E A L A L L Q S H  
UniRef90\_J0CG19 A V A A G R E E D A R A A M A E H L L E  
UniRef90\_D6U5T7 A I Q Q R D G S A A E L A A R  
UniRef90\_F6CMJ9 A I K E G R D Q D A R R A M F D H L  
UniRef90\_D5WQY9 A L R K R D A E E L E R L M R R  
UniRef90\_E8NBV3 A I E A G D S A A A R V A M E E H I L G S W R R R R  
UniRef90\_UPI00046573EF A I A S R D R S G A G V L M H Y H L M Q A  
UniRef90\_L8BP12 A I E A H D V R A A K K A M K N H I D Q V I T I F T R S Q  
UniRef90\_A1VP06 C L A Q R D P L A A E S A M R S H I R A A A D R W  
UniRef90\_V4NMP6  
UniRef90\_C5EFK5 A F K N R D K E K A I E T M R V H L  
UniRef90\_B2JX76 A I A R K D P D G A R A A M R M H L S S S R E  
UniRef90\_W5WERO A V A D R D P T A A H D L M R D H L A E  
UniRef90\_A8TNF4 A L E A R D P D A A E A A M R A H L Q S S R A  
UniRef90\_B9QU69 A C K R G D A D L A A A L L E D H  
UniRef90\_G9EE58 A C R K G D A D E A A A L V E R H  
UniRef90\_I3ZDV5 A I E K G K G D L A A R L M K E H L E D A R E L  
UniRef90\_E6VCX6 A I E A R D E A A A A Q V R R H  
UniRef90\_Q1ARR4 A I E E R D P E  
UniRef90\_H8W4M1 A I M A G K A  
UniRef90\_J6UHP8 A I E A H D A E R A A R A M R K H  
UniRef90\_UPI000400751C A I E A G D R D R A V G A M R T H L  
UniRef90\_U1MQG8 A I R S G V P V A A R D A M A S H M R Q  
UniRef90\_M4ZD31 A I A A G D P E A A S E A M  
UniRef90\_UPI0003A9C8A6 A L K E R N P D L A E Q A M R L H L E E M R G I Y  
UniRef90\_Q3A1L8 A I K A G D A D A A E K A M  
UniRef90\_UPI0003FC32F5 A I G L H D P D L A E E T M R K H M V E  
UniRef90\_E1THL9 A L Q A G D P I A A Q T A M R S H L K A S G E R W  
UniRef90\_B6A356 A I R D G E E A A A R R A I R T H L S K S A A R F E E L R D  
UniRef90\_U3QFZ6 A I R A G D P L A A R N A A Q N H M F N A A R  
UniRef90\_I7G1Z3 A I E E R D V E E  
UniRef90\_U7JQZ0 A V K A G D A E R A A R L T E K H L R  
UniRef90\_J9SS92 A M R A R D V E A T A A A M D F F N Q E S A R Y Y R R R L R D I  
UniRef90\_G4HS20 A I R D K D A E A A G R R M R R H  
UniRef90\_Q0A4V8 A F R K G D A E A A D A Q M K H H L L E Q G R  
UniRef90\_J1EKT5 A A R A R D V E K V R A L M V R H M Q D A A S S V K R M K G R L  
UniRef90\_UPI000374548B A I A D G D G D K A E A L T E K  
UniRef90\_UPI000478B0E5 A L E A R D P S A V I T A T M Q S H M E A S G R L  
UniRef90\_UPI0003B3499C A L K A R D P D L A E K A M R A H L D E M R G I Y Q  
UniRef90\_H0E661 A V A E G D P D L A A L M A R R H V E D F R Q A W D R  
UniRef90\_B2TC07 A I T R H D A E G A R A A M R M H L S N S R E  
UniRef90\_Q88GH9 A V M E Q L P E Q A Q R A R E H  
UniRef90\_A8FHJ9 A V M A R Q P E E A E K A M L T H L K N  
UniRef90\_UPI0003F86897 A I A A G D P T T A E A E A R A  
UniRef90\_UPI00047C9124 A I R D Q D A S A A E A M Q K H  
UniRef90\_UPI000369AD85 A I E A R D P H A A A E A V A A H L R R A  
UniRef90\_S2F7L4 A I A A R D P E G A R H A A L N H  
UniRef90\_UPI00047DFC4D A I S L R D H E S A E K L M H T H L S N S M E  
UniRef90\_S9S327 A L G A R D A E A A Q R A M R Q H M  
UniRef90\_A0A022H2W2 A L E R R D V P A V R E A I T R E H I D E  
UniRef90\_UPI0004715CC8 A I A A S D P Q V A S T I I D Q H F D Q S  
UniRef90\_H1SFS8 A I A A G N P N A A R Q A A R R H L  
UniRef90\_UPI0004741257 A I A A G N P E A A G F Y V R Q H I E R  
UniRef90\_E1V6Q8 A I L E R D G P A A R T A M H D L N R S K E M Y A R Y L E  
UniRef90\_C5C5D8 A V E R G D A D L A H A L A V A H  
UniRef90\_V4NAF2 A I V A R D P D G A A R A M R D H I E S S W R K R R P Q  
UniRef90\_UPI00047B7F2C A L V A R D E K R A E E A M R R H L K K  
UniRef90\_B9L3V7 A L A V H D P Q A A E A M R A H L A G N A R A W  
UniRef90\_E6WH97 H I A N R Q P H E A A A M R E H L  
UniRef90\_D5EDD2 C I L A R D I K K A Q R F M T N H  
UniRef90\_UPI000364473F S L R S G D A I R A E R A I T R D H  
UniRef90\_UPI000368B1AA A V R K G D G G R A A E L V A A H  
UniRef90\_UPI0003737E07 A L R T G D P D Q A S R A L A A H L  
UniRef90\_D9V8C4 A I D L A E P E R A E R A M R D  
UniRef90\_M3KDS0 A I K S G S E E Q A R L A M Q S H L  
UniRef90\_UPI00036EC452 A L G S A D P V R A R Q A M D E H M Q Q T L A  
UniRef90\_UPI0002628321 A I L R K D A E I A M A I M N Q H L Q R S Y K I  
UniRef90\_UPI00047E4E49 A V L K Q D V E S A Q Q A M L D H L T N  
UniRef90\_C2GF57 A L A A H D P Q A A K D A M R A H M K Q T A E  
UniRef90\_L8P0K0 A I E S G D T E L A A E L M R K H L A H S R G I W  
UniRef90\_A4SZD6 A I A S G D A D Q A R L A A S I H M I N A A E  
UniRef90\_X0RUB2 A L K E H N T K K A G E A M L K H L R N V R E  
UniRef90\_V8CZL4 A M R D R D S E A T A T A M N A F N E E S A K Y Y R R R L S D I  
UniRef90\_C1DHB3 A I A D R D G E L A E L L M R R H I A A S  
UniRef90\_A0A024PZ04 A I E A G D E E L A E L L M R R H V S A S R E  
UniRef90\_UPI000479B29E A L I E R D P D K A A S A M R E H L I



UniRef90\_UPI00034B6861  
UniRef90\_S5ZH75  
UniRef90\_UPI00037C85CB  
UniRef90\_I5D373  
UniRef90\_D5WQS7  
UniRef90\_G2G235  
UniRef90\_UPI000479665C  
UniRef90\_UPI000367F5D5  
UniRef90\_UPI00037A4473  
UniRef90\_UPI000376FD22  
UniRef90\_D0CVD6  
UniRef90\_R5NJ48  
UniRef90\_D9XRZ2  
UniRef90\_Q2T310  
UniRef90\_W816G9  
UniRef90\_UPI0003F9709C  
UniRef90\_D4XC21  
UniRef90\_A0A059KHW5  
UniRef90\_UPI0004791835  
UniRef90\_UPI0003658322  
UniRef90\_UPI0004005DD2  
UniRef90\_J0YDW0  
UniRef90\_A9I3W5  
UniRef90\_UPI00047E52CA  
UniRef90\_UPI000315103E  
UniRef90\_C4SEE2  
UniRef90\_C6BCU5  
UniRef90\_UPI00046953AD  
UniRef90\_UPI0003484E6C  
UniRef90\_Q1AX84  
UniRef90\_S0FUN0  
UniRef90\_I4Z4C4  
UniRef90\_A0A010SQK3  
UniRef90\_UPI00037545AE  
UniRef90\_UPI0003B6B32A  
UniRef90\_UPI0003B5C29B  
UniRef90\_A3SP59  
UniRef90\_UPI000376DCB0  
UniRef90\_UPI00047B866D  
UniRef90\_E8N7Z3  
UniRef90\_R5TJP2  
UniRef90\_UPI000470EC43  
UniRef90\_A0A024YXB8  
UniRef90\_UPI00047DAE2D  
UniRef90\_H0S9V9  
UniRef90\_A7HU13  
UniRef90\_UPI000368D34E  
UniRef90\_D2BE11  
UniRef90\_V6K3A8  
UniRef90\_C3K770  
UniRef90\_UPI00041FBFF6  
UniRef90\_UPI00046A9F32  
UniRef90\_W0IIN27  
UniRef90\_D8I4T4  
UniRef90\_UPI00036677D8  
UniRef90\_R5RGY3  
UniRef90\_X0MXY7  
UniRef90\_W0SH62  
UniRef90\_UPI00047DAF0B  
UniRef90\_G2IVF2  
UniRef90\_U1ESE6  
UniRef90\_B2URC0  
UniRef90\_I0GCU6  
UniRef90\_UPI00036D208E  
UniRef90\_I4JKP2  
UniRef90\_E6W5E4  
UniRef90\_H2C0P3  
UniRef90\_UPI00036DD757  
UniRef90\_UPI00047C9DA6  
UniRef90\_I2BSA2  
UniRef90\_UPI00026291BA  
UniRef90\_UPI0004760279  
UniRef90\_D9VUU6  
UniRef90\_UPI00036EA793  
UniRef90\_UPI0003640DB3  
UniRef90\_UPI00046F8565  
UniRef90\_S3NWH6  
UniRef90\_A0A051TXF4  
UniRef90\_UPI0004780EC0  
UniRef90\_I4KQ16  
UniRef90\_R4XZ75  
UniRef90\_U2XB11  
UniRef90\_E2CHX9  
UniRef90\_K2KLJ7  
UniRef90\_Q15Q04  
UniRef90\_U4V131  
UniRef90\_R5EM19  
UniRef90\_UPI00046F4494  
UniRef90\_L7ZFC8  
UniRef90\_V5A038  
UniRef90\_Q2CJ15  
UniRef90\_UPI0004669152

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

UniRef90\_UPI00034B6861  
UniRef90\_S5ZH75  
UniRef90\_UPI00037C85CB  
UniRef90\_I5D373  
UniRef90\_D5WQS7  
UniRef90\_G2G235  
UniRef90\_UPI000479665C  
UniRef90\_UPI000367F5D5  
UniRef90\_UPI00037A4473  
UniRef90\_UPI000376FD22  
UniRef90\_D0CVD6  
UniRef90\_R5NJ48  
UniRef90\_D9XRZ2  
UniRef90\_Q2T310  
UniRef90\_W816G9  
UniRef90\_UPI0003F9709C  
UniRef90\_D4XC21  
UniRef90\_A0A059KHW5  
UniRef90\_UPI0004791835  
UniRef90\_UPI0003658322  
UniRef90\_UPI0004005DD2  
UniRef90\_JOYDWO  
UniRef90\_A9I3W5  
UniRef90\_UPI00047E52CA  
UniRef90\_UPI000315103E  
UniRef90\_C4SEE2  
UniRef90\_C6BCU5  
UniRef90\_UPI00046953AD  
UniRef90\_UPI0003484E6C  
UniRef90\_Q1AX84  
UniRef90\_SOFUN0  
UniRef90\_I4Z4C4  
UniRef90\_A0A010SQK3  
UniRef90\_UPI00037545AE  
UniRef90\_UPI0003B6B32A  
UniRef90\_UPI0003B5C29B  
UniRef90\_A3SP59  
UniRef90\_UPI000376DCB0  
UniRef90\_UPI00047B866D  
UniRef90\_E8N7Z3  
UniRef90\_R5TJP2  
UniRef90\_UPI000470EC43  
UniRef90\_A0A024YXB8  
UniRef90\_UPI00047DAE2D  
UniRef90\_H0S9V9  
UniRef90\_A7HU13  
UniRef90\_UPI000368D34E  
UniRef90\_D2BE11  
UniRef90\_V6K3A8  
UniRef90\_C3K770  
UniRef90\_UPI00041FBFF6  
UniRef90\_UPI00046A9F32  
UniRef90\_W0IN27  
UniRef90\_D8I4T4  
UniRef90\_UPI00036677D8  
UniRef90\_R5RGY3  
UniRef90\_X0MXY7  
UniRef90\_W0SH62  
UniRef90\_UPI00047DAF0B  
UniRef90\_G2IVF2  
UniRef90\_U1ESE6  
UniRef90\_B2URC0  
UniRef90\_I0GCU6  
UniRef90\_UPI00036D208E  
UniRef90\_I4JKP2  
UniRef90\_E6W5E4  
UniRef90\_H2C0P3  
UniRef90\_UPI00036DD757  
UniRef90\_UPI00047C9DA6  
UniRef90\_I2BSA2  
UniRef90\_UPI00026291BA  
UniRef90\_UPI0004760279  
UniRef90\_D9VUU6  
UniRef90\_UPI00036EA793  
UniRef90\_UPI0003640DB3  
UniRef90\_UPI00046F8565  
UniRef90\_S3NWH6  
UniRef90\_A0A051TXF4  
UniRef90\_UPI0004780EC0  
UniRef90\_I4KQ16  
UniRef90\_R4XZ75  
UniRef90\_U2XB11  
UniRef90\_E2CHX9  
UniRef90\_K2KLJ7  
UniRef90\_Q15Q04  
UniRef90\_U4V131  
UniRef90\_R5SEM19  
UniRef90\_UPI00046F4494  
UniRef90\_L7ZFC8  
UniRef90\_V5A038  
UniRef90\_Q2CJ15  
UniRef90\_UPI0004669152

50 60 70 80  
N A R E E G L A D L R R L C A A R G D T E E M V A L N A D L H R R I I T E L S G 80  
R A T E E E I V E E L Q R S L I K K M E T R E E G F P E T D E A Q L H H S T G I T A K A S H N  
U n i R e f 9 0 \_ U P I 0 0 0 3 4 B 6 8 6 1  
G R A T P A Q V M K A V R R E Y A Q Q M E T D N D A F T R A D E A F H H T G I A I T A K A S A A G H N  
U n i R e f 9 0 \_ S 5 Z H 7 5  
R A T P A D Y M M L T R R Y A E M E T D P A T H A R L D H A F H H T G I A I T A K A S A A G H N  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 C 8 5 C B  
R A G E E I E K A M Q G Y L N E L R A D G R V G D A K G D L Q F H H Q A V I A K A T S G N  
U n i R e f 9 0 \_ I 5 D 3 7 3  
R A T E D S L L R I S Q A L R D M Q S D L D D A Y A K E D M R F H H F L S V I A Q A T S Q N  
U n i R e f 9 0 \_ D 5 W Q S 7  
R R Q A S H L H R A M G E A L L Q A T G T G V S H D L O A Q F H H L S I I Q A T S G N  
U n i R e f 9 0 \_ G 2 G 2 3 5  
N E I E S L R Q L L K R H E Q H I D H V D G A T Y F D F D F H H Y L I I Q A T S R N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 9 6 6 5 C  
M T P E A Q L A Q L R Q V L A A M A K A D E A P L J E Q D R L F H H L S I I A A Q T S G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 A 4 4 7 3  
A T P A Q V A E L R E L C R N M R K A A E D Y A R L D W O F H H N K L I A E A T T G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 6 F D 2 2  
L G S D S D L K V I Q E A H A R N A A D E E A H L D A Q F H H M A I I E A S H N  
U n i R e f 9 0 \_ D 0 C V D 6  
K S T R E D I E E M C R C N E L S D D L T V M A E A D V T F H H D V I Y K T T G N  
U n i R e f 9 0 \_ R 5 N J 4 8  
A T P E T V G T L F S L I A S M E D P T E A S E L D H R F H H A E I A R A A T G N  
U n i R e f 9 0 \_ D 9 X R Z 2  
R A P G D L V K I K A A Y D A L A G H P G R L A E V D A N F H H L A I A D A T H N  
U n i R e f 9 0 \_ Q 2 T 3 1 0  
R A T A D L E A A W A M R D Q M R D G S D A G F T D A D V A F H H T C L L R A R S H N  
U n i R e f 9 0 \_ W 8 1 6 G 9  
L T D E D G L D A A A S V D Q M R N D H Q I F L H T N R E F H H D M L A A R A S Q N  
U n i R e f 9 0 \_ U P I 0 0 0 3 F 9 7 0 9 C  
R A T D A D K A K I Q R C H Q Q R G N A E L S A H A D A Q F H H L A I A E A S H N  
U n i R e f 9 0 \_ D 4 X C 2 1  
R R T E A D L A A L A E L V T A A I L E A G T R D A V E A D F H H L A I A A R A T G N  
U n i R e f 9 0 \_ A 0 A 0 5 9 K H W 5  
H S T P E L Y E L E Q T I E A L R P T G T S Y A E F D Y F H H R L I A E A H A D N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 9 1 8 3 5  
R A P D D L Y A R I R A A L D A L T A S G P E S V I Q P D L Q F H H I S I A R A T G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 5 8 3 2 2  
S S P A Q E A E I L Q A Q A V E R F A D E G K P T D D A D F Q F H H M A I A T A T S G N  
U n i R e f 9 0 \_ U P I 0 0 0 4 0 0 5 D D 2  
H A T D E E L A G I R E A R N V Q E D D N R D G S H T H D R L F H H R I A A Q A T S G N  
U n i R e f 9 0 \_ J O Y D W O  
S S P A Q E A E I L Q A E L D Q L M S E G R S T D E S D F R F H H M A I A A A T S G N  
U n i R e f 9 0 \_ A 9 I 3 W 5  
R R T P E A L A D L A R A D N V E D D D A E V E A R A D F M E F H H L A I A R A T S G N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 E 5 2 C A  
F A S E Q R I L E S E T F Q K M C G D E Q E A W T E I D M K F H H N L I I F A R S T G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 1 5 1 0 3 E  
N A N D E L A S L T J A E M R A L H H E N R E R W I Q V D A Q F H H Q L I Y E A S G N  
U n i R e f 9 0 \_ C 4 S E E 2  
A H P A D F E A M R A I V E A S P A D L A A L A L D L K F H H L A I S A A S R N  
U n i R e f 9 0 \_ C 6 B C U 5  
R A T E E L A E L R A F V E R S R D E P D R L L A L D E A F H H L T L A R L S R N  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 9 5 3 A D  
R R T D E D L A A I D D A L E L M R T G E R G V R G D E R F H H T A I T R A A R S  
U n i R e f 9 0 \_ U P I 0 0 0 3 4 8 4 E 6 C  
R R S G R D L E A M R A A L I E R E E N R A S S G L E A H R D F H H L A L A R A T G N  
U n i R e f 9 0 \_ Q 1 A X 8 4  
D E V A K L E E A Y K L M E Q V K N E L E F S K A D L N F H H L L A A N M T K N  
U n i R e f 9 0 \_ S O F U N 0  
R H N E M D L T K I F D C L I Q V K S N P E A F N Q L D F D F H R A I A V A S G N  
U n i R e f 9 0 \_ I 4 Z 4 C 4  
N R S E A D L E A L A R I D E E V D E G L D G V R A D V A F H H R T I A Q A T G N  
U n i R e f 9 0 \_ A 0 A 0 1 0 S Q K 3  
R N L Q N M Q R W L D E M Q K G A G D E Q A G G E K A D F H H F H H M A I A E A S H N  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 5 4 5 A E  
R S A A E I D E L R A V L D T H E R D A A F Q E G D Y D F H H Y K I I Q G S G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 6 B 3 2 A  
R R L Q E A P E A Q A L L K R V I E E D L E A E L A L A T E F H H L A L A R L A E N  
U n i R e f 9 0 \_ U P I 0 0 0 3 B 5 C 2 9 B  
T D F E E M A R Q C E R M R A E H D P V A F S E A D T A D F H H A L A K S S R N  
U n i R e f 9 0 \_ A 3 S P 5 9  
R T E E E T A A M R A A A D R L R S W G E E A T A A H R A F H H R A I Y A A S H N  
U n i R e f 9 0 \_ U P I 0 0 0 3 7 6 D C B 0  
R A T A D V L A D L E A A Y E G M R D E P G G D Y V K H D L A F H H Q G L L A R A S H N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 B 8 6 6 D  
D P A A D L A E V H E L E D M D A T P E E F L A L D A R L F H H Q A L A E A S G N  
U n i R e f 9 0 \_ E 8 N 7 Z 3  
I T P A A L Q E L K V A M E N F E E K T R S M A K A D V K F H H E I L Y K A S N N  
U n i R e f 9 0 \_ R 5 T J P 2  
R T P R D L I K R L H E S R L E H V I E Q D L K A G S L A A A A D F H H V L A E C H N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 0 E C 4 3  
A P P G L D K R L E A R R H A A A G D L A A V M A A D R G F H H A E L V R N A G N  
U n i R e f 9 0 \_ A 0 A 0 2 4 Y X B 8  
S D P S S W Q E L T E R F G K P A E E A L E R G E L D Y H L F R E T A L A A A N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 D A E 2 D  
L A T A D D V A G I G A A L L A A V A T G E A L M A H D R A F H H L A V A E C L I G N  
U n i R e f 9 0 \_ H 0 S 9 V 9  
R A S D E D I D S L A T L K T L S V S C D S Y A E N R R F H H D V L A W A S A G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 8 D 3 4 E  
R A T D K D Y R I T Q A F E A M E A D P L T N A H L D H A F H H R A I A S A A H N  
U n i R e f 9 0 \_ D 2 B E 1 1  
G S D L S A L S D A L E R M D Q A A T A E D F V E H D T A F H H V A I A E A S G N  
U n i R e f 9 0 \_ V 6 K 3 A 8  
A T P E R L E L L A H Q H D Q A G A G R D V A V S D R C F H H A E I V R A T S G N  
U n i R e f 9 0 \_ C 3 K 7 7 0  
R R S D A Q L A D M R A A L D E L N E G A A H A S A D Y R F H H Q C I A Q A S G N  
U n i R e f 9 0 \_ U P I 0 0 0 4 1 F B F F 6  
N A T E E D C K A L A E I L E M E N D L L E Y S E G N A R L H G T L I R M A R H  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 A 9 F 3 2  
R S K R D L N A L A A I S Q A V E N G G D G V K E D V A F H H R S I A R A T G N  
U n i R e f 9 0 \_ W 0 I N 2 7  
R N A A Q E A Q I Q E E F D R L L E R G E A T G K S D F A F H H R E I A A A T S G N  
U n i R e f 9 0 \_ D 8 I 4 T 4  
R H D P E L E D A A E A L K E A S T A A A L S L L N R R F H H R A I Y R G C G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 6 7 7 D 8  
I T P E Q L A V V E G H L A A M T D P E E I L A H D R L E F H H R A I Y A A A G N  
U n i R e f 9 0 \_ R 5 R G Y 3  
R T D E E I E K L G E A V Q E F Q D D L S A L A E A D V K F H H E I I Y Q A T H N  
U n i R e f 9 0 \_ X 0 M X Y 7  
R L P T E D L A L Q A A L D A L E P A L E D L T A G D L E F H H R L V A A A G N  
U n i R e f 9 0 \_ W 0 S H 6 2  
R R D A T D L R I M A E H L Q A M D D A L A N T E A D D N F H H I A M A R A T R N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 D A F 0 B  
H A T P A D L Q Q M E E A A H A A Q D L D A V T V A D L A F H H D A V F R A S A N  
U n i R e f 9 0 \_ G 2 I V F 2  
R K A E H Y L A L M K N V K N I D I Q A Q Q W S E S D R L F H H R Q L A V M T G D  
U n i R e f 9 0 \_ U 1 E S E 6  
R S A T D L E N M K K A L T D M V S D G T S G E A A D L Q F H H L S I A Q A A N N  
U n i R e f 9 0 \_ B 2 U R C 0  
R T D E D L K E L E N A L K D C H G R V R Q G I E D D M L F H H A A V A R A T H N  
U n i R e f 9 0 \_ I 0 G C U 6  
A D L D D A R A I L R T A Y E E P D P E K W G A F N W R F H H K S L Y A C G N R  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 D 2 0 8 E  
R T P A Q U I E L I R K T A E R I D P V E R Y E G D N G F H H A A I L A A C G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 6 7 7 D 8  
R A T E V D Q R R L G E A F A V L Q D A E E G A A D A Q F H H L A I A E A S H N  
U n i R e f 9 0 \_ I 4 J K P 2  
R A T D E E I A Q M E E Y L E A C E G D T Q V G H E P D A S F H H S T I S H A T H N  
U n i R e f 9 0 \_ E 6 W 5 E 4  
R A T E Q D I Q E M E R V R D V I E Q D P A K L A E L N G Y F H H D I L A R A S G N  
U n i R e f 9 0 \_ H 2 C 0 P 3  
H A P D C T I E E L K K I Y R Q M E K N K H S Y I E Y D A D F H H L K L A K S T Q N  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 D D 7 5 7  
R A T Q R L A A L R A A M G E R A D H G E D F A D Q D R E F H H R L L F A D L G N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 C 9 D A 6  
A T P E D R E R L T A F E A L Q D C A D E V S A A D A R F H H L A I A E A S H N  
U n i R e f 9 0 \_ I 2 B S A 2  
Q R D E E L L E Q L T E R V R R M S D P A T A T A A D G E F H H E L I C T A A G N  
U n i R e f 9 0 \_ U P I 0 0 0 2 6 2 9 1 B A  
N A P E Q C A E L L T E R A A L G M V A T S E G Y L A H D I A F H H R V V L N A S G N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 6 0 2 7 9  
A T P E Q C A R L T E A A L G M V A T S E D Y L H H D V A F H H R T V L D N A S G N  
U n i R e f 9 0 \_ D 9 V U U 6  
H L P A A V E A A T E T M A E M A A R G D A Y A A A D T A F H H R A L C M L A G G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 E A 7 9 3  
V T P T Q L A A L R P V I A E E I V A A A E G Y V I E A D R R F H H L S L L A L A G N  
U n i R e f 9 0 \_ U P I 0 0 0 3 6 4 0 D B 3  
R A T E K L R E I L R K M E E V P E D S V A L S Q Y D R F E F H A Y I A M K M T H N  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 F 8 5 6 5  
H R T E Q Q L A E I K Q A M N V S D N L E H S H D H D R L F H H I R I A E A S Q N  
U n i R e f 9 0 \_ S 3 N W H 6  
R N P Q E S L A L T K A A V I E S G D Y Q K Y L D E A S N F H H S I I S G L S G N  
U n i R e f 9 0 \_ A 0 A 0 5 1 T X F 4  
R T D E H I J A Q L R E T I F D P D A P E T F T K N Q E F H H L V L R A A Q N  
U n i R e f 9 0 \_ U P I 0 0 0 4 7 8 0 E C 0  
N M T E A T F A R A E S I E D D V G R W A E L N W Q L H A C L Y E P A Q R  
U n i R e f 9 0 \_ I 4 K Q 1 6  
Q V P D P L R A L Q P L A E T L V D D G E W L A D L D E R F H H T D L V A A A G N  
U n i R e f 9 0 \_ R 4 X Z 7 5  
L I D D A A L G E C A A V D E M A G D G D R F V D A D L R F H H A G I L G A S G N  
U n i R e f 9 0 \_ U 2 X B 1 1  
H A T K E D I A A L K A A K A A L D D S D Q F F E S D M A F H H E V L F N T S R N  
U n i R e f 9 0 \_ E 2 C H X 9  
M D P A R L A E L E A L Q D E A Q D L P R I F R L N V I A F H H R V L Y A G C G N  
U n i R e f 9 0 \_ K 2 K L J 7  
N N R Q T L N A A I E R M E A A A R G E D D H L D A D V I A F H H V G I L E A S G N  
U n i R e f 9 0 \_ Q 1 5 Q 0 4  
R S P Q Q E E A I I N C H R Q V L E S G Q S T S E A D F A L H L A I A D A A N N  
U n i R e f 9 0 \_ U 4 V 1 3 1  
N M T P E G L A Q L T H I A D L Q D D A E L L R Q Q V D E Q F H H D T I C Y L S K R  
U n i R e f 9 0 \_ R 5 S E M 1 9  
H A P A D V A E L A A R M R A T Q G D V I E A F L D A D V A F H H R T V L G A S G N  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 F 4 4 9 4  
H A T E E L A G I R A A Y E Q N C R D N R A G S A T D R L F H H I R I A Q A S G N  
U n i R e f 9 0 \_ L 7 Z F C 8  
M H A A G L R L Q L Q L A H A L E N D L R S A A E A D L Q F H H L L A E L S G N  
U n i R e f 9 0 \_ V 5 A 0 3 8  
H A T E R E L S R L A E L Q D V I G E D Q E R L R A L D A H F H H D I T Y A L G H N  
U n i R e f 9 0 \_ Q 2 C J 1 5  
R N P S Q E A R I Q E E F E R L L Q A G Q P T G K A D F A F H R E I A A A T S G N  
U n i R e f 9 0 \_ U P I 0 0 0 4 6 6 9 1 5 2

	90	100	110	120
UniRef90_UPI00034B6861	E V L A D L I A G	Q V A R R V R W Y H G L V A	A Q R G D S W E E H A R I T I D	
UniRef90_S5ZH75	E L F S A L I N A M K	Q Q K M W I R D R T V T R P	D Y R E V N F S E H K A L I E	
UniRef90_UPI00037C85CB	M F F A A T V D A M R S	R L Q R V T T I G L A A G G	S H R K H R V A A T Q H Q A R I	
UniRef90_I5D373	P V L V H A T L R S L R	S V F A S V N N L Y H R R Q P	H R K R I D R Q H Q A R L A E	
UniRef90_D5WQ57	P L L V E L M A R V S D	L I R E M R Y C T L G P N Q	G N F K R M R D E H H D R I Y	
UniRef90_G2G235	S M M N R L L Q T F V	L I K K A G P I R F S H D	I G G L C T I Q R E H H S I Y	
UniRef90_UPI000479665C	R Y F Q E I L Q H F G	S L L I P R N R I T S I H A P	A R H R V N R N R H E E H E E	
UniRef90_UPI000367F5D5	K L I G L L C D E L Y	H L V R M Y R T Q S T R T A	S R P E N A L N E H H L Q I L D	
UniRef90_UPI00037A4473	A V L V R I V R E L F	D F D D R H S V R F E T P E	K S W R V A L A E H E H E I L	
UniRef90_UPI000376FD22	V L L L I E F Q R L	L N G V R R Y V V W G P K	S D Y H S F E H E H A I V E	
UniRef90_D0CVD6	V V M L H M M R S M F	D L L R Q N R Q I M F H Q R	T T R D A I L N Q H H R A I N E	
UniRef90_R5NJ48	K R L L Q I L N N L R	E Q M Y R Y Q L E Y I K D E	N K R K L V A E H H D T L V K	
UniRef90_D9XRZ2	P T L A S L L A V F R	A R S R K Y Q V F T L P E P	E L R R K S D A D H R R V L A	
UniRef90_Q2T310	V A L T H V M H G I H	G L L Q E S S H R L V N H A	D A M E R A L E Q H H T E I Y E	
UniRef90_W816G9	Q V F L Q L V G I L Q	A A L K F S L H A S N E A A	R R D E A I D V H H E H L V E	
UniRef90_UPI0003F9709C	P V Y G F L L D A M M	G I L T S M G V D Y P L P	R R R R E A A L A S H H T Q I L	
UniRef90_D4XC21	L V L L Q I M R G L F	D L M L R R N M L I L D R P	A S Q D K L T H Q S Q A L M Q	
UniRef90_A0A059KHW5	H F F A E L I G T L	R T I L P R R L D G Q S T P	E Q E Q R V N A E H H D T L C	
UniRef90_UPI0004791835	P F I L S A Y N T L	R G Q V Q R S R R F F A G L	G V T D A E S A I J A E H H K I	
UniRef90_UPI0003658322	R Y F V D L T Q L G	T A L V D S A S I A H E D P	E Y L S T V N R E H H E A I L D	
UniRef90_UPI0004005DD2	A R F K A F L H V G	R M L P R V K F K T V M L P	N R D P I L J A E H H R I A E	
UniRef90_JOYDWO	P A Y A L M I A H L	L G M F Q R V L K A H Y T S	D M P H R S E D E H H R K I L	
UniRef90_A9I3W5	S R F K T F L E H I	R R M I P R V L Q A F R T V	M L P N R D H T I L J A E H H A	
UniRef90_UPI00047E52CA	H F P Q F L Q A V	F S E I L S F D L V M K H	R R Q S A R K E H H A A I F A	
UniRef90_UPI000315103E	D F Y L P F G N I	L M T M Y K N F L V H S S	K G K G D L C I Q E H H R N I	
UniRef90_C4SEE2	P F I L T S F A N I	L F S S V Y H N Y F R A I	T G D E V I K L Q Y H Q D I V	
UniRef90_C6BCU5	R V L A E L L R G L	H E K Q A R F W F L S L S E	P Q H L Q N V Y D E H H L A V	
UniRef90_UPI00046953AD	E F F V R A L E S	V N A R I H F V R W I D M S	Q Q G R R S H T Q G E H H M R	
UniRef90_UPI0003484E6C	R L L S R M M G E	L A P M I R E T R L E S L S Q	P D R P K A S L S G H E S I A	
UniRef90_Q1AX84	E E L V R V L E S L	R R L L S R Y A V S S D W Q	A E D V A E H H R E I L A	
UniRef90_S0FUN0	S L I L I Q T F H I	F N D V L N R A F S N E R	G N S A G I Y Y H H K L L E	
UniRef90_I4Z4C4	S Y M P R F M D F	V G P I I P R S Q L I H A T I	P K T R E K M T E E H H D R I	
UniRef90_A0A010SQK3	P Y F L K T L E F	V S Q Y L E A A T R I T R T	N E A G R R Q V H E E H L A I	
UniRef90_UPI00037545AE	N I L L E L M N H	V S E M I A E A R I L L Y G E	Q T T A E R L L E H H R K I	
UniRef90_UPI0003B6B32A	Q M L V K L L T E	E E L Y Q L V R M Y Y S T T	P N R P Q Q A F K E H H G I L	
UniRef90_UPI0003B5C29B	R F L V E A L S R	L R P Q M D Y R A R F V J E	A L S P E G R A Q A Y R E H H	
UniRef90_A3SP59	N L L I W I N A R V	L P R S M D D W T R M R H V	T L E P S I I R K Y N E H H R	
UniRef90_UPI000376DCB0	N V M I R L L D D	L A D R Y R R I G L E L P A	G A D E P R T I D L N Q H H	
UniRef90_UPI00047B866D	R M V Y Q M S K A	I A P L L R L S F E L S T R	R N D G P R N S L P L H R A	
UniRef90_E8N7Z3	A V V A A M M A	G L R E S Y T Q L G A A R M	S D P S T A A R L R D E H H	
UniRef90_R5TJP2	P K I L Q Q L L N	N L R E Q M Y R Y R V E Y L	K D D S I Y P R L T E E H H	
UniRef90_UPI000470EC43	S L L V L M M E T	I M G I T S Q F A S D F G I	N A S E F A L N E R R E I V	
UniRef90_A0A024YXB8	Q I L S R L Y D Q L	R D R Q L R M G A L L H A H	P D R L E R T L A N E H A E I	
UniRef90_UPI00047DAE2D	P V L A S Q M A S I	F D R T K V L I R R L A L V	P G R A Q L G L K Q H Q E I	
UniRef90_H0S9V9	A V L T R V V G E L	H F P Y F A K L A T Y F E	N S D S W R Y T A H A H Q E	
UniRef90_A7HU13	P L I G F L I G S L	H N I A S E V G I I Y T E	G E R D Y Q K A Y G R L L K	
UniRef90_UPI000368D34E	P V L V H I L N S	L K N L M L Y S V Q A S V L	N L S H R Q Q I D K H H R Q	
UniRef90_D2BE11	R L I A A M M R S	L R D S V R Y A I E A V E R	L G D T D K L M T D H H I R	
UniRef90_V6K3A8	G L L V R L Y D Q L	R D R Q L R M G A V M H A	H P D R D I A K N I J A E H	
UniRef90_C3K770	R Y F T D I N H L	R T W L D S A R L G H H D	Q A S Y M L R L K H E H E A	
UniRef90_UPI00041FBFF6	T T A A K V L D T	L N T S Q S V R F Y R T L S	S Q G R P E L S L A E H H K A	
UniRef90_UPI00046A9F32	P Y F L T T L A F	V N S Q S L E A A T R V T R	G N E A R R A V L Q E H H Q A	
UniRef90_W0IN27	S Y Y V E V L D A	L G M V A S P W G T D S T L	S R D Y Q E G L Q R E H H L A	
UniRef90_D8I4T4	P L T V S I L D D K	A L L S V V G W E A N P	S W K K E W T E H H R A V	
UniRef90_UPI00036677D8	E T M A A I L E G L	S R T F R A R W R G Y Q E E	G A F A R T R R E H H A I	
UniRef90_R5RGY3	Q R L V Q I I N N I	R E S Q M Y R Y R I E Y L K	D V E S R K G L L K E H Y A	
UniRef90_X0MXY7	S V L C S L L D G L	S G P T R A R W R G L T Q	K D A V A R T L A E H H R A	
UniRef90_W0SH62	S Y V S R L V E F	L G R H F R K M S W R G T	D S A Q A Q E A Q R E H H	
UniRef90_UPI00047DAF0B	P F V P V L L G Q L	A Q L L Y V M R E T S A F	P E V Q R H A T K H H G L I	
UniRef90_G2IVF2	A L M V R I A D E I	Q P L W Q R L R D D G I Y	D E E R T S L Y V J A E H	
UniRef90_U1ESE6	S L L V E L M N N I	S G L M Q D S M K F I Y S	K Q E T M E K L Y E H E A	
UniRef90_B2URC0	P V L S E L Y N V V	I R H V I Q E N L E K L L Q	E K Q Y D S G A M K L H D D	
UniRef90_I0GCU6	P R L L A M I Q A N	I G H V G R F T R A L V S	R A T G K D R P Q R E H Y	
UniRef90_UPI00036D208E	P L L N L V F S V L	R T R F Q S G N A F W E N	S A R Q R H H E I Y A	
UniRef90_I4JKP2	A V L L H T I R G L	F D L L K R I G G M Y A L	R D E T R H M L M N Q H R E	
UniRef90_E6W5E4	V L L V H L M N T I	H H W V E Q V R S R M F Q	D P N R H H N L L Y R H H	
UniRef90_H2C0P3	P F L Q S Y L R E V	R L K L R I V R V T L F T	S F D R R L D E L H R H K E	
UniRef90_UPI00036DD757	K L Y V L I N S F	D L T E R E L F N I T Y T P	D S V H D A Q K Q H A L V	
UniRef90_UPI00047C9DA6	E M L L Q L F D L F	W Q A Y N R A A P V H G	R D P R R I H Q L H A D I	
UniRef90_I2BSA2	A V L L H T I R G L	F D L L K R I G G M Y Q Q	R T E T R D M L I N Q H R	
UniRef90_UPI00026291BA	E L J A A E L I	R L F W S V Y R Q T E A L I	G A P R T P S D A L A K H	
UniRef90_UPI0004760279	E M F A R L G D V	V A E V L A G R T H H Q V M	F E D P D P A A V T L H	
UniRef90_D9VUU6	E M F A R L G D V	V A E V L A G R T H H Q V M	F E D P D P A A V T L H	
UniRef90_UPI00036EA793	G V I V D L W E T	L A Q Q L T I F G L A T S	G K T M P S V V D E H H	
UniRef90_UPI0003640DB3	E H L V R V G D L	R K R S R L Y G L S R L A	Q N G R L A A S A A E H H	
UniRef90_UPI00046F8565	E L L I V M F N S	I R N A Y K N L T E S I F	A M G C L P T T I N E H H	
UniRef90_S3NWH6	N A Y T F F L K Y	L L G L F S R L L S L Y T T	T D M P L R S Q Y E H H	
UniRef90_A0A051TXF4	R V L D F F G G A L	S Q L Y E R V A E T L M S	A D S G R L D F L D H H	
UniRef90_UPI0004780EC0	P L L E L I T A P V	F R V L S R F G R D H A	P D A G F W T C V D H H	
UniRef90_I4KQ16	P F M V S L I R S	V H D K L E R Y L R M Q M	S L S A G K E R A D H H H	
UniRef90_R4XZ75	P E M A R V H R A	T E R I R I V R R L D F T	Q P E R I Q A H T Y A E H	
UniRef90_U2XB11	L F L G V L L A P	L T E V L A E R R A Q T S R	V P E I Q E H A I J A E H	
UniRef90_E2CHX9	P I F P A V H K G	F S A W L A P H W A K M	D R S R E R N L A N Y R A	
UniRef90_K2KLJ7	P Y L A G V I D E	F A Q K T H A I R F Y S	V V Q P E T I J A Y A R D	
UniRef90_Q15V04	R F F W N M R H T	I E V A L R F S I R I T N	R H K G V D R A S V E D H	
UniRef90_U4V131	P R F R E F L A M I	G S G V I P P R A L Q S	G A D T S A H L H R E H A	
UniRef90_R5EM19	T V I V D A T L P L	H R K T R Y R R L S M E	D W S R T I N T R K H H	
UniRef90_UPI00046F4494	E L F A A F D T V	G E L I J A G R T G A G L	M P K F P H P D A L Q W	
UniRef90_L7ZFC8	P A Y A F I I G H	L G M F R V L Q R H Y T	P D D M P H R S E L E H	
UniRef90_V5A038	P G L V A M A G Q	L E H A I G H S L R L P	F A K N G A D D Q Q P A	
UniRef90_U2CJ15	T E A L A I F Q R	Q S R V V Q A L G I R P	F A S P A R R Q Q A N H	
UniRef90_UPI0004669152	P F Y V E I L D A	L G D R T R N S P W Y S	V I E V L S Y E Y L T Q	

UniRef90\_UPI00034B6861 A I A A G D G E E A A R L M R E H T D A T R R M Y H E 130 140 150  
UniRef90\_S5ZH75 A I E K H D E Q Q A V K L M T D H M Q N Y D R Y W K E  
UniRef90\_UPI00037C85CB A I A T G E T N R A Q T L M A E H I D L T A E I W R R  
UniRef90\_I5D373 A V T G K L P E E Q A Y R A A A D H  
UniRef90\_D5WQS7 A I R E R R P E E A R A A M A F H L  
UniRef90\_G2G235 A I V S H N A E Q A R L M K N H L E G S  
UniRef90\_UPI000479665C A I E R Q D A D S A R A A M R I H L T N S R E  
UniRef90\_UPI000367F5D5 A L E E R D A E L A E M L M R R H I R R S G Q L  
UniRef90\_UPI00037A4473 A L A S G D P L L A Q S A M R M H L E A S R E R W T R  
UniRef90\_UPI000376FD22 A I E A R N P R T A I L J A M R K H L  
UniRef90\_D0CVD6 A I Q A R D P E A A R Q A V E Q H L  
UniRef90\_R5NJ48 A I S E R N P D K A K N A I K L H  
UniRef90\_D9XRZ2 A I A D R D P  
UniRef90\_Q2T310 A I A A K D P E R A R A A A E R H L R  
UniRef90\_W816G9 A L R M R D K S A A A R D C  
UniRef90\_UPI0003F9709C A I M R R D A D A S W E A M N E H I G Q G M T Y F Q K  
UniRef90\_D4XC21 S I L D G D P E Q A R A V I G Q H L  
UniRef90\_A0A059KHW5 A I A A S D P E A A R A A M R T H L A N S R E R R R M  
UniRef90\_UPI0004791835 A F A A G D P A A A R E A M V A H L  
UniRef90\_UPI0003658322 A T A R H D A E S A R A A M R M H L S N S R E  
UniRef90\_UPI0004005DD2 A I L A R D P E K A R D A M R R H L V T G I K R Y R S L  
UniRef90\_J0YDW0 A L E L R D V E G A R Q A M R K H L E E V V R I F M R  
UniRef90\_A9I3W5 A I F A S D V D R A R D A M R R H L  
UniRef90\_UPI00047E52CA A I T Q G D V K S A K S A L A A H L E E S L N R Y R A M L D  
UniRef90\_UPI000315103E A I M A G N A D K A R T C S A N H L Q E S  
UniRef90\_C4SEE2 A I L T G D S Q G A  
UniRef90\_C6BCU5 A L E R R D V P A A R E A L R E H I D E  
UniRef90\_UPI00046953AD A L E R R D V D A L P D M M R S H  
UniRef90\_UPI0003484E6C A I R L G D A D M A A E A M R R H L R  
UniRef90\_Q1AX84 A V D E G R A P D A E R L M A E H V R R A V Q H W  
UniRef90\_S0FUN0 A V K N R S G D A K K I M Q E H M E D  
UniRef90\_I4Z4C4 A I G R G D V L G A R D A M R F H L A G S L E R Y R Q L  
UniRef90\_A0A010SQK3 A I R L G D P L A A G H A A R A H  
UniRef90\_UPI00037545AE A V L E N D V A A A Q Q A M Q D H L T N  
UniRef90\_UPI0003B6B32A A I A S G D G E L A E L L M R R H I A A S  
UniRef90\_UPI0003B5C29B L V L Q G E G E E A A R L V T A H L E R A Y L R L R E S L  
UniRef90\_A3SP59 A I R S R E P E E A A N A M K I H L E  
UniRef90\_UPI000376DCB0 L V I V I G D G A A A A D L V R S H L R N S  
UniRef90\_UPI00047B866D A I V A R R A E K A A L V L I D G A R D D I E E V L A T R K R L  
UniRef90\_E8N7Z3 A V T R G E G G A R D A V R G H  
UniRef90\_R5TJP2 A L K S K D S K L A E S Y V E R H L H N Q A E A V K K I  
UniRef90\_UPI000470EC43 A I E A R Q I S K A T A A M K A H L  
UniRef90\_A0A024YXB8 A L R A G D A A A A A A V R G H  
UniRef90\_UPI00047DAE2D A M S Q G D A E K A E R L K R A N I R S S L D T F R Q Y Q K  
UniRef90\_H0S9V9 A T A A R D P E R A Q A A M R D H L A R S  
UniRef90\_A7HU13 A I E D R N P D L A F T E M S R F I S R S D K Y L E A R Y P D I  
UniRef90\_UPI000368D34E A I I S R Q A  
UniRef90\_D2BE11 A I A S G N P S E A T A A V E T H L R R A  
UniRef90\_V6K3A8 A L R A G D S D A A A E A V H R H  
UniRef90\_C3K770 A V A R R D S E G A R M A M R M H L S R S  
UniRef90\_UPI00041FBFF6 A V V R R D P D A A E Q A M R K H L Q N  
UniRef90\_UPI00046A9F32 A I R R Q D V E G A R E A R V M V N A A K  
UniRef90\_W0IN27 A L S A G D A E A A R A T M R A H L A A S Q E R Y R T L L  
UniRef90\_D8I4T4 A A K K G D A E G A A A L L R D H  
UniRef90\_UPI00036677D8  
UniRef90\_R5RGY3 A L K N R D K D H A V K Y I  
UniRef90\_X0MXY7 A L R D G D A E A A  
UniRef90\_W0SH62 A I S R G N A E S A R R C A L D H L R  
UniRef90\_UPI00047DAF0B A I A S R S Q E A A R L A M D A H  
UniRef90\_G2IVF2 A I V S G D E Q A A F Y V E Q H L R R V G R  
UniRef90\_U1ESE6 A I E Q Q E E Q A I A A M E A H L S E  
UniRef90\_B2URC0 A L R K Q E A D E A E N I T  
UniRef90\_I0GCU6 F C R D G E V E K A V R L L R E H  
UniRef90\_UPI00036D208E A I E H G D A E Q A G V L M R A H I A E  
UniRef90\_I4JKP2 A I M A R R A D E A R E V I H R H  
UniRef90\_E6W5E4 A I R D R D P E R A T L A M L D H M K  
UniRef90\_H2C0P3 A V K A R D S S R A R E V M S E H E R N V L E Y  
UniRef90\_UPI00036DD757 A I E M K D K D L A V S V M K E H M  
UniRef90\_UPI00047C9DA6 A V V S G D A E R A R D A V R Q H  
UniRef90\_I2BSA2 A I I E G R A E Q A R E V S T R H L  
UniRef90\_UPI00026291BA A I A C G D P E A I D D A V R H H F D E  
UniRef90\_UPI0004760279 A V R G G D A A E A E R L T K E  
UniRef90\_D9VUU6 A V R E G D A A A E A L T R R  
UniRef90\_UPI00036EA793 A L R T G R K R R I A E A L H T H  
UniRef90\_UPI0003640DB3 A L A T G D P A R A E D V M A R H  
UniRef90\_UPI00046F8565 A I A D H D S A L A A H M M Q L H L  
UniRef90\_S3NWH6 A I Q N Q E P E R A R K A M Q N H I Q Q V I Q I F S R  
UniRef90\_A0A051TXF4 A V L A G D A N A A R D L M E A H M  
UniRef90\_UPI0004780EC0 V V A D G S M G A M D L M R K H L D H L G D S Y R Q M  
UniRef90\_I4KQ16 A C R A G D V E R A V M L L D E H  
UniRef90\_R4XZ75 A I L A R D A E R A A A L L Q A H I G D S Q A A V R K I  
UniRef90\_U2XB11 A L R T R D P D A R A A M D H L Q Q  
UniRef90\_E2CHX9 A I L E R D P L R A E E A L V E H L R  
UniRef90\_K2KLJ7 A I R E G D R Q R L M E I C R R H L M P S K E A Y  
UniRef90\_Q15Q04 Y I L A G D H Q S A E N Q M R S L L L E A K T L L N K A L D D  
UniRef90\_U4V131 A L F N G D E N G A R D A M R R H L K G S Q T R Y R A I L Q R  
UniRef90\_R5EM19 A M A S G N A D L A E S L M A K H  
UniRef90\_UPI00046F4494 A I G G Q D P A R A K D A M A K  
UniRef90\_L7ZFC8 A I E A R D V R G A R K A M K A H L D E V I A I F A R A Q  
UniRef90\_V5A038 A L G A G D A T A S A E A M R A H L M S A A R  
UniRef90\_Q2CJ15 A A R G L E D E A A E I V R Q H  
UniRef90\_UPI0004669152 A T S A G D S E A R A A M R A H L

UniRef90\_K0DJ32  
UniRef90\_K2J2Y0  
UniRef90\_K2IKM9  
UniRef90\_UPI00037A700B  
UniRef90\_C5T830  
UniRef90\_E6V7U5  
UniRef90\_W6VYE9  
UniRef90\_C8NF71  
UniRef90\_L8TNG9  
UniRef90\_UPI00036834DB  
UniRef90\_W0SJH3  
UniRef90\_Q841L6  
UniRef90\_D8IUH2  
UniRef90\_S6HJC1  
UniRef90\_G9QH56  
UniRef90\_J2TTV6  
UniRef90\_H1QJ90  
UniRef90\_T1XL11  
UniRef90\_N6Z7U6  
UniRef90\_UPI000373D308  
UniRef90\_U4Q2P1  
UniRef90\_U1YMF9  
UniRef90\_E3G999  
UniRef90\_I3TUT7  
UniRef90\_UPI000329750E  
UniRef90\_UPI00036A36AB  
UniRef90\_UPI00035C60D2  
UniRef90\_A0A011U4C6  
UniRef90\_Q2RG78  
UniRef90\_UPI0002DD0314  
UniRef90\_V4RKJ1  
UniRef90\_E6MHP8  
UniRef90\_F9RQ77  
UniRef90\_UPI00035D5BED  
UniRef90\_D9WFE4  
UniRef90\_A0A014LAP2  
UniRef90\_UPI0004686FC2  
UniRef90\_F9DRR0  
UniRef90\_UPI0003628813  
UniRef90\_V9XEU4  
UniRef90\_UPI00046A8B1D  
UniRef90\_UPI00036B4170  
UniRef90\_UPI000360883F  
UniRef90\_UPI00036D7236  
UniRef90\_S1TC05  
UniRef90\_W2EN86  
UniRef90\_H0THN8  
UniRef90\_K9F0Y1  
UniRef90\_F811Z7  
UniRef90\_R5G9T4  
UniRef90\_UPI00047D7B3F  
UniRef90\_D1BAC6  
UniRef90\_B1Y609  
UniRef90\_F0M5H9  
UniRef90\_UPI0002EC63CD  
UniRef90\_D4KMI2  
UniRef90\_D3PNA2  
UniRef90\_D3EZ18  
UniRef90\_A4YFM3  
UniRef90\_R6PS43  
UniRef90\_UPI0004778DBD  
UniRef90\_UPI00047954CF  
UniRef90\_G2JH97  
UniRef90\_UPI0002E3C964  
UniRef90\_J4YBB9  
UniRef90\_E2CL24  
UniRef90\_UPI00035D50AC  
UniRef90\_D9XHX5  
UniRef90\_R5YQW4  
UniRef90\_T2L6V4  
UniRef90\_UPI0003606F47  
UniRef90\_UPI000375ADD6  
UniRef90\_V9VZM5  
UniRef90\_W1N4P4  
UniRef90\_U1YKE2  
UniRef90\_U1LD01  
UniRef90\_A0A021X9F7  
UniRef90\_UPI000360D563  
UniRef90\_E3HJ17  
UniRef90\_C7PWX2  
UniRef90\_D8IU92  
UniRef90\_S6AVP9  
UniRef90\_X2GWB5  
UniRef90\_UPI0004663871  
UniRef90\_UPI00037E351D  
UniRef90\_A0A023XFG0  
UniRef90\_UPI0003B711A3  
UniRef90\_D3FBL0  
UniRef90\_UPI0003676DC9  
UniRef90\_UPI0003F728D0  
UniRef90\_UPI0003764C54  
UniRef90\_R9NEW9

1 10 20 30 40

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

UniRef90\_K0DJ32  
UniRef90\_K2J2Y0  
UniRef90\_K2IKM9  
UniRef90\_UPI00037A700B  
UniRef90\_C5T830  
UniRef90\_E6V7U5  
UniRef90\_W6VYE9  
UniRef90\_C8NF71  
UniRef90\_L8TNG9  
UniRef90\_UPI00036834DB  
UniRef90\_W0S3JH3  
UniRef90\_Q841L6  
UniRef90\_D8IUH2  
UniRef90\_S6HJC1  
UniRef90\_G9QH56  
UniRef90\_J2TTV6  
UniRef90\_H1QJ90  
UniRef90\_T1XL11  
UniRef90\_N6Z7U6  
UniRef90\_UPI000373D308  
UniRef90\_U4Q2P1  
UniRef90\_U1YMF9  
UniRef90\_E3G999  
UniRef90\_I3TUT7  
UniRef90\_UPI000329750E  
UniRef90\_UPI00036A36AB  
UniRef90\_UPI00035C60D2  
UniRef90\_A0A011U4C6  
UniRef90\_Q2RG78  
UniRef90\_UPI0002DD0314  
UniRef90\_V4RKJ1  
UniRef90\_E6MHP8  
UniRef90\_F9RQ77  
UniRef90\_UPI00035D5BED  
UniRef90\_D9WFE4  
UniRef90\_A0A014LAP2  
UniRef90\_UPI0004686FC2  
UniRef90\_F9DRR0  
UniRef90\_UPI0003628813  
UniRef90\_V9XEU4  
UniRef90\_UPI00046A8B1D  
UniRef90\_UPI00036B4170  
UniRef90\_UPI000360883F  
UniRef90\_UPI00036D7236  
UniRef90\_S1TC05  
UniRef90\_W2EN86  
UniRef90\_H0THN8  
UniRef90\_K9F0Y1  
UniRef90\_F81Z7  
UniRef90\_R5G9T4  
UniRef90\_UPI00047D7B3F  
UniRef90\_D1BAC6  
UniRef90\_B1Y609  
UniRef90\_F0M5H9  
UniRef90\_UPI0002EC63CD  
UniRef90\_D4KM12  
UniRef90\_D3PNA2  
UniRef90\_D3EZ18  
UniRef90\_A4YFM3  
UniRef90\_R6PS43  
UniRef90\_UPI0004778DBD  
UniRef90\_UPI00047954CF  
UniRef90\_G2JH97  
UniRef90\_UPI0002E3C964  
UniRef90\_J4YBB9  
UniRef90\_E2CL24  
UniRef90\_UPI00035D50AC  
UniRef90\_D9XHX5  
UniRef90\_R5YQW4  
UniRef90\_T2L6V4  
UniRef90\_UPI0003606F47  
UniRef90\_UPI000375ADD6  
UniRef90\_V9VZM5  
UniRef90\_W1N4P4  
UniRef90\_U1YKE2  
UniRef90\_U1LD01  
UniRef90\_A0A021X9F7  
UniRef90\_UPI000360D563  
UniRef90\_E3HJ17  
UniRef90\_C7PWX2  
UniRef90\_D8IU92  
UniRef90\_S6AVP9  
UniRef90\_X2GWB5  
UniRef90\_UPI0004663871  
UniRef90\_UPI00037E351D  
UniRef90\_A0A023XFG0  
UniRef90\_UPI0003B711A3  
UniRef90\_D3FBL0  
UniRef90\_UPI0003676DC9  
UniRef90\_UPI0003F728D0  
UniRef90\_UPI0003764C54  
UniRef90\_R9NEW9

50 60 70 80  
H A T A A D V A A M T Q C L A D M A E T E P F M A L D E H L H R V I A Q A T H K N  
R A T E K A L E F F N Y L G S T G D D N E E G A E A D F S F H H M A I I A T A T K N  
Y A G S P A G D L S L L R E Q L V S L D D N T P D T L K T H N K Q F H L Q L V R A S H N  
N A T S A Q D K A H I Q R Q C F E V M G H A S E L J A A R A D A Q F F H L A I A E A S H N  
R T E E Q L V A M R Q A L R D D F F E H N A G D T V J A P D F F R F H L Q I A E A S T G N  
R S E P A Q E E V I L R Q R H Y A V R A C L E A T S E A D F A L H L A I A E A T S G N  
H I T D E E V A V L L E R L E E I H S C D G D I H F K L D Q F H S A I A E A S R N  
R V G E D L E Q A A Q L L H A M D H P E A F F H M L D A R F F H V T L M A R A I G K  
A N P E D L R A Q V A R Q R E V A P D D A D V F M A L D E T F H V T L M A R A I G K  
C T P A Q L K A L D A L H E K L E R H A A A Y Y E T N Y V F H D Q L Q E A G N  
G T A R Q R A E L R T L L A A A V A D D T D A V Q L A D T E V H R A L A R A T G N  
R S A E D L Q A L E A A L A Q I G V D V A A G V A A D V A F H R R A L A Q A T R N  
R M T G E A I D E L R R V L D T H E R D A A F D F D F H Y R I I Q G S G N  
R T D S D L R E L L A E M K K A V G N Q N E E L G E K A D L D F H H M A I A K A T Q N  
A T P E A L L A L R Q I L R O N M M A M P L A F D R Q F H H Q T I A A M T G N  
R R T E A H L R V L R G L V R L Q Q G T G E D L R P L D G W F F H E T I A R A A G S  
V T P Q T H L E R V R T T L E S M R G H A E L S A R A D A Q F F H L A I A E A S H N  
R A T Q T D K R D R I Q R C Y D V M G H A E L S A R A D A Q F F H L A I A E A S H N  
R H P Q D V E K L Q Q A H A N F Q T A A R R G D Q A D Y Q F H R A I I E A A H N  
A K P D E V E R M R A L V E K T Q G S T D A D A K E L W D L H R Q I A Q S A G N  
A A L D D A A E L L E Q M E N A P D V D T F L A L D S R F H V A L A E A A G N  
R A T E E K I R L C F E A T Q S E D P D L A S Q A D V R F H L A I A E A S H N  
R R D P G M V H R A R D I L E A R G D F A M A L A G L N D F H R A L A E A S G R N  
G S V E Q K T R L N T L M E E M D F D R Q R W I E V D M A W H E H I Y I M S G N  
N A S E K D L E L E E A V R S K A T D P A E L A A L D T E F H L A L G K A T K N  
N G T G K Q R R L R L R L E A Q S V N D S A F L E E D R R F H L L L S E M T G N  
R A D D T A R E L A T R L N E L L G D S E E Y L E A D T A Y H S L L R A G N  
R A T E E K E K L V I G L I H M A D E A R G F L Q T D V R F H L T I A G M T H N  
A D V G D L E R L R A L T R A M A E D Y E R F H E L D S E F H L L T R A S D N  
K D R Q Q L I R L R A N L E E L R D N P A E Y L A E D I A L G M I M E I S G D  
H A T A D D I A T L Q R L A D A E P D S V K S A A D R R F H D T I A I S G N  
H I Q Q E E I L A L S N H I D E V E G A S Y F H Q S H D F D F H Y R I I A K A S R N  
H N D E Q L H Q L E R L V Q Q D D P E F C A S D V R F H R L I A E T S G N  
R A T Q D V G G L R A Q I D E M A N D V I E R G D N A D Y E F H R L L Y R I A D N  
R I P E L P A L R E L A Q A T V D A A E R Y L A E D R A V F H L L T I L G H A G N  
R R Y E E M L A A H A Q A D T V E P R E H A R L D H A F H L A I C E A S H N  
V S Q E E C I K L M K E T D H A E G N T E P F F L S D R N L H R T I I R H S N N  
A T P E G L A R V R E S I L E G M R A D D G R D V L A H D R E F H V R I A E M A G N  
R T P P A P E L I Q A E E L L D A M D D P E E F L V L D A D Q F F H V A M A D A G N  
R M T Q V E I D E L R R V L D L H E Q D E A F Q E G D F D F H Y R I I Q G S G N  
H G P E D I Q R L E A S I E Q A I D D S P V R F L I C D N R E F H L T I Y A S A N  
S A P D S I L K S L D E F R R F S G H E D F I T Y N R G F H S A L A H A S G N  
N A S Q N D F A K M A Q C C D R A E A A E E F E I W D G Q L H A T I A L A A H N  
A T A E Q L E A L R P L A Q Q V T A A R K Y L E A D H R F H L L E L A L A G N  
R A T P E Q R E A L R A E A D D P D G W A H A A F T T H D A R F H D L I A E A S G N  
W N G Q A L D E I A A A L D L R D A T T A H L D A D F A F H L A I A K A T N N  
C R P E L R E A L K Q L E A S E G Q L R S Y F E A D W T F H E V I L R H S N N  
H D L L E L C R A V D M E A V D P F S P S F D R A H L R F H D L I A E M S H N  
R T Q D G V L K L R Q A H E D F I H A V I E K I A N K D E A F H D T I F Q A T N N  
V A S D D A L E L E A Q M R A V E D D S D G F A V L D D Q F H R L L C D L S G R  
R T P D D A E A L L D Q M R A V G T S V I E F L E L D T A F H V A L A A A S G N  
R A T E A D L A A I Q A A H E R E L D P D A Y F Y A N E G F H R A I Y D S A H N  
A D I E A L H A I L A R N A H V E F A D D A M Q Q G M A L H A T I A G I A G N  
H A A D L L A D L R A A H A R L Q V D M Q E Y F A D A D F H E V I L R A A G N  
Q T K E Q L D T L T E T M H E F E E D L K K I A A D V I Q F H D I I Y Q A T G N  
A T P E Q V E R L E D L R Q M E A R Y E A M S E L N S E L H Q R L L E I A G H  
R A D D E G V A L L E M R A A G D V E A Y V R A D V A F H L Q I A A L S G N  
R I S E E S L R L E S T L M E M K T A L I E R Y S Q L N E R F H S I I Y E A S G N  
N G K Q D F A E L K A L A E S M Q N D Q Q R S Y E L D R E F H Q K L I L G S G N  
N T P E Q E L P L K A A V E R M R N T A E T V N A D L D F H R A V A A A S G N  
R A S D E E I E Q T A A A P E T I S D W T K V A E D D E A F H L A I A R I T R N  
N M T E E T Y K K A D E I C A N A I D N M D S W T T L N W Q L H A C L Y E P A Q R  
H T P E E L R E V L A L H E R Q S D R G E A Y R E G D L D F H Y R I V Q G S H N  
R D M T D I D R A L A A I S Q A V A D G G D G V K E D V A F H R S I A R A T G N  
N R D A D L E A L L E Q L E T T E R S G G G Y I K A N Y E F H L R L Y Q Q S R S  
R R K D E L V Q M R N A V N E F E G G K S V E A D F Q F H L Q I A E A T H N  
L V T E D L E R I R D P L L R M D D A S E Q F N D C D T D F H V A I A E A G R N  
K L S D E Q L K Q L E D M K E L T G N V K K I A E A D V T F H D V I Y E A T G N  
H A S E V E I A F L R E I S D R D A R L K E T Q D L N K L F H S T L Y R C A H N  
E A G T E R E I V A L M A D L R N D P A G Y L A R N W E L H E E I A R I S P N  
S G T E G L D H L M E R V R A E S D P L A F A T A V A T F D Q A V A T D L S G N  
R Q I E E L D Q T L S R V E A V R T D P G E F I E A E D L Y R K I A E G T G N  
N H N A Q E L K R L E E L C D L I K S T D V N E A D Y D F H E Q L A I M A R N  
R A T A E D L R Q L E G L L D Q A E K F L A A N S E F H D A T I R I A N N  
R V T D A D V E I L E R M D R L R D D Y T Q V V R F G A E F H D E L T Q R I S G N  
M S K E T V T A I R N A I L D M R D P S G V V P A L H W S I H L S I A E A S G N  
R S Q A D V A G L R S S V E S M R P N G V S F N E L D T E F H V S V A R A S G N  
H R T D A D L K K M R Q A L V G M E Y A E E D Y Q F H H A I V Q A T H N  
R H P E Q L A A A L E R M R A A V E D P G P F H E A A T A F T R T L A E A A G N  
Q D L D R M E R L L E G F E A A N R V G G I A H H Y D F G F H E A I A T A T G N  
G T Q A D F V L I T R Y E E M L A D S Q E H A H L D H A F H L A I C E A S H N  
H R T D E D I Q T M L R I L D A Q G D G E L G E K A D F Q F H A A I S A A S Q N  
V R A K L A A F E D A P E D A V E A D F R F H R A V A E A S G N  
Q K N A R A L D A L K K V K A R L T D G P T V R E H D E A F H C Q L V E A S G N  
N R D R Q S L R R I Q Q V L T R L D T M V A Q V I E D L L F H H R T I A E A S G N  
K A T E D D I L Y L E D A M E Q E P D G E S F S D L D S A F H K K L V D I T G N  
N A P E H V R A L R A A V D E M E D D V R A V L R A N D E F Y E V L L A G A G N  
A K P K D V K A L R A I Y Q T M E Q A G E L P I A A D R A F H V R I A Q M S N N  
T A E Q I A E I G R L D I M E A H H T K Y G D A D W E F H H A S I E R A T E N  
A S P T L I A R L E E L L A K E Q A A A G D L T D R C F H A E I V R S G G N  
H T K E Q L E E I E E N I H A S K G H M E Q M A E L D N R F H H I L Y E A C D S

	90	100	110	120
UniRef90_K0DJ32	A	L	L	L
UniRef90_K2J2Y0	A	L	L	L
UniRef90_K2IKM9	A	L	L	L
UniRef90_UPI00037A700B	A	L	L	L
UniRef90_C5T830	L	V	L	V
UniRef90_E6V7U5	P	Y	F	A
UniRef90_W6VYE9	P	R	F	R
UniRef90_C8NF71	Q	L	I	P
UniRef90_L8TNG9	A	V	V	A
UniRef90_UPI00036834DB	T	Y	A	W
UniRef90_W0S3JH3	R	W	L	Q
UniRef90_Q841L6	R	V	Y	V
UniRef90_D8IUH2	P	Y	F	I
UniRef90_S6HJC1	R	T	L	T
UniRef90_G9QH56	H	L	V	R
UniRef90_J2TTV6	S	V	L	R
UniRef90_H1QJ90	P	S	L	A
UniRef90_T1XL11	S	V	L	V
UniRef90_N6Z7U6	V	V	L	L
UniRef90_UPI000373D308	P	F	F	L
UniRef90_U4Q2P1	K	L	F	L
UniRef90_U1YMF9	A	V	S	A
UniRef90_E3G999	V	V	L	L
UniRef90_I3TUT7	S	V	L	S
UniRef90_UPI000329750E	P	F	L	S
UniRef90_UPI00036A36AB	A	L	L	E
UniRef90_UPI00035C60D2	P	L	L	T
UniRef90_A0A011U4C6	P	L	F	K
UniRef90_Q2RG78	P	I	V	S
UniRef90_UPI0002DD0314	A	L	A	T
UniRef90_V4RKJ1	K	L	S	A
UniRef90_E6MHP8	G	L	I	H
UniRef90_F9RQ77	K	L	I	G
UniRef90_UPI00035D5BED	P	L	L	S
UniRef90_D9WFE4	P	V	L	D
UniRef90_A0A014LAP2	R	R	L	V
UniRef90_UPI0004686FC2	P	V	L	L
UniRef90_F9DRR0	S	R	L	I
UniRef90_UPI0003628813	S	V	L	T
UniRef90_V9XEU4	L	V	V	A
UniRef90_UPI00046A8B1D	K	T	L	S
UniRef90_UPI00036B4170	R	L	L	A
UniRef90_UPI000360883F	R	R	M	A
UniRef90_UPI00036D7236	S	I	F	Q
UniRef90_S1TC05	H	L	V	H
UniRef90_W2EN86	P	L	L	H
UniRef90_H0THN8	H	Y	Y	V
UniRef90_K9F0Y1	P	Y	L	R
UniRef90_F81Z7	Q	P	L	I
UniRef90_R5G9T4	D	R	L	L
UniRef90_UPI00047D7B3F	E	V	A	W
UniRef90_D1BAC6	V	L	V	E
UniRef90_B1Y609	A	F	L	A
UniRef90_F0M5H9	S	W	A	R
UniRef90_UPI0002EC63CD	R	Y	I	M
UniRef90_D4KM12	P	K	L	V
UniRef90_D3PNA2	R	T	A	R
UniRef90_D3EZ18	E	V	F	A
UniRef90_A4YFM3	T	T	A	Q
UniRef90_R6PS43	R	F	M	I
UniRef90_UPI0004778DBD	S	Y	L	A
UniRef90_UPI00047954CF	S	R	L	Y
UniRef90_G2JH97	P	Y		
UniRef90_UPI0002E3C964	R	M	L	M
UniRef90_J4YBB9	P	Y	F	L
UniRef90_E2CL24	P	V	L	I
UniRef90_UPI00035D50AC	K	Y	F	
UniRef90_D9XHX5	R	L	M	A
UniRef90_R5YQW4	P	K	L	V
UniRef90_T2L6V4	R	Y	L	L
UniRef90_UPI0003606F47	Q	L	L	S
UniRef90_UPI000375ADD6	R	S	L	G
UniRef90_V9VZM5	P	L	F	E
UniRef90_W1N4P4	P	I	F	Q
UniRef90_U1YKE2	D	F	L	R
UniRef90_U1LD01	V	L	A	E
UniRef90_A0A021X9F7	K	L	L	A
UniRef90_UPI000360D563	E	L	V	V
UniRef90_E3HJ17	P	H	L	V
UniRef90_C7PWX2	E	V		
UniRef90_D8IU92	L	R	F	V
UniRef90_S6AVP9	P	V	L	V
UniRef90_X2GWB5	P	L	L	A
UniRef90_UPI0004663871	R	F	F	L
UniRef90_UPI00037E351D	D	E	M	A
UniRef90_A0A023XFG0	R	F	F	V
UniRef90_UPI0003B711A3	K	I	S	L
UniRef90_D3FBL0	R	T	F	H
UniRef90_UPI0003676DC9	E	V	L	A
UniRef90_UPI0003F728D0	P	I	E	G
UniRef90_UPI0003764C54	E	L	S	R
UniRef90_R9NEW9	K	M	L	Q

	130	140	150
UniRef90_K0DJ32	A I R T H N P T R A E E L M R E H L R		
UniRef90_K2J2Y0	A I E K R N P G A A R N A M R S H L D N S		
UniRef90_K2IKM9	A V A A H D G D A A A H A A R V H L I K S G		
UniRef90_UPI00037A700B	R V R E N D P A A A A A A M R K H L R		
UniRef90_C5T830	A I L D G D P Q R A R A C G E H L E H V R T T I Q R M D E D		
UniRef90_E6V7U5	A I A R R D P E S A R A A M R L H L T N S R E		
UniRef90_W6VYE9	A I S D G D E D R A R D A M R R H L R		
UniRef90_C8NF71	A I K N R D A V A A R D A M		
UniRef90_L8TNG9	A V K A R D G E L A A R L L Q E H		
UniRef90_UPI00036834DB	A I E T R N P Q G A G E A M R T H L R E		
UniRef90_W0SJH3	A L H R H D A D A E A V M R G H L		
UniRef90_Q841L6	A V A A G D A P G A R R A A E Q Y L T A T E R I M L E		
UniRef90_D8IUH2	A I R A G D E M A A R N A A Q T H M F N A A R		
UniRef90_S6HJC1	A I A E R D G E L A E L L M R R H I A A S		
UniRef90_G9QH56	A I V D R D K E A A R K A M L K H L E		
UniRef90_J2TTV6	A L E N Q D V L A A Q T A M R A H L Q A S E Q R W V E S R		
UniRef90_H1QJ90	A V A R G D S D R A A L M T L H T E R S A S A Y R		
UniRef90_T1XL11	A L E A R D P Q A A V A A M L H H L S A S H A R W T Q		
UniRef90_N6Z7U6	A I L D G D A P Q A R A Q I G N H L		
UniRef90_UPI000373D308	A I L A H D S E G A R E A V V C H F S R A R E T Y A A Y R Q		
UniRef90_U4Q2P1	A I S D R D P A R A G E A M R Q H L		
UniRef90_U1YMF9	A V N A N D G G R A A E L V A A H I R		
UniRef90_E3G999	A I Q S G D A E G A R Q A M M A H L		
UniRef90_I3TUT7	A V I A G D E D L A A Q R A T A H V L R A G E		
UniRef90_UPI000329750E	A I R Q G D G E Q A R Q A S R A		
UniRef90_UPI00036A36AB	S V L E R N W E K A L A A L R E S I E E W K R L		
UniRef90_UPI00035C60D2	A I L N R D A R A A K T A M R A H L R N		
UniRef90_A0A011U4C6	A I V E R D G A G A E A S A R E H L R		
UniRef90_Q2RG78	A I I S G A A D S A R K A M A K H L R		
UniRef90_UPI0002DD0314	A V E A G D G K E A A E L V T Q H		
UniRef90_V4RKJ1	A I L G G D S D A A A R A M H H I E S A W S N R R E S		
UniRef90_E6MHP8	A I A A G N P D L A L K R M K E H M		
UniRef90_F9RQ77	A I R D R D E E L A E M L M R R H		
UniRef90_UPI00035D5BED	A L Q Q R N P E L A		
UniRef90_D9WFE4	A I A A S D P D A A M V A V K R H Y E V W R R		
UniRef90_A0A014LAP2	L V A A G D A R G A E A M T H R H		
UniRef90_UPI0004686FC2	A V I E R L P E Q A Q R A R E H I H S I R D N L		
UniRef90_F9DRR0	A M M D S D E E N A M R Y M K Q H		
UniRef90_UPI0003628813	C L V A R D P L M A E S A M R A H L R S A A E R W		
UniRef90_V9XEU4	A V R A G D A K R I V E H I R G Y Y T Q S		
UniRef90_UPI00046A8B1D	A I A D R D G E L A E L L M R R H		
UniRef90_UPI00036B4170	A L K M H N P E A V A A A F S E H		
UniRef90_UPI000360883F	A M Q Q R E A R T A A R I I K A H		
UniRef90_UPI00036D7236	A L T D R D L V R A T A C V R D H L		
UniRef90_S1TC05	L M A A G R G G E A E E C M R R H L A H V R T L W A D G R T N		
UniRef90_W2EN86	A I G A G R P E E A E E A M R A H L S R A R E		
UniRef90_H0THN8	V I R A R D S E R A R E L M R R H L E G S		
UniRef90_K9F0Y1	A Y Q E K D E G A V V E A L S A H L		
UniRef90_F81Z7	A I L A N D P D R A E A A K H H		
UniRef90_R5G9T4	A I S T R D T V K A K Q L M R A H		
UniRef90_UPI00047D7B3F	A V G R H D A H E A E A Q L R H H L Q		
UniRef90_D1BAC6	A V R		
UniRef90_B1Y609	A I R N G D A E L A V N A V R N H V I V Q G E R F A D L L A G L		
UniRef90_F0M5H9	A L A A G D P D A A A K I A F D H		
UniRef90_UPI0002EC63CD	A F D S D D P E A P A A M R A H		
UniRef90_D4KMI2	G L M T K D K G R V T E A M H K H V K N		
UniRef90_D3PNA2	A V A A H D E E K A A Q A M L E H L S Q V A E		
UniRef90_D3EZ18	A I A A H D V D A A R A M A A H M D R A		
UniRef90_A4YFM3	A L K N H D E N E A E L W A R T H V K N V R E L I Q N N K E		
UniRef90_R6PS43	A I E T G D Q R K I D A A V Q A H		
UniRef90_UPI0004778DBD	A L I E K N A K A R D A M G R H		
UniRef90_UPI00047954CF	A M R Q R D I E R G A A L M E K H		
UniRef90_G2JH97	A C K A K D V D L A V K L T E E H		
UniRef90_UPI0002E3C964	A I E A G D A E L A E L L M R R H V S A S R E		
UniRef90_J4YBB9	A I R S Q D V E G A R E A A R I H M V N A A K		
UniRef90_E2CL24	A I R K G D A E Q A S A S L R Q		
UniRef90_UPI00035D50AC	A I A R R E P E A A R A M R M H L T N S R E		
UniRef90_D9XHX5	A I A A G D T Q A A G D L V E A H		
UniRef90_R5YQW4	S L K N R D V K N A V E A M H V H		
UniRef90_T2L6V4	A L E A R D P E A A E K L A R N H I R E A Y K I		
UniRef90_UPI0003606F47	A I A S G D A R L A R R A A D E H		
UniRef90_UPI000375ADD6	A A Q R R D A E T A R R V W S D Y L L A T S R L W		
UniRef90_V9VZM5	A I A S R D V E S A V E F I K L H L I D		
UniRef90_W1N4P4	A I K T R D R E M A R Q A M D E H F E T W N R		
UniRef90_U1YKE2	A I A S G D P D R A A		
UniRef90_U1LD01	A V V S R D P E R A E A V M R A H I D S A K		
UniRef90_A0A021X9F7	A I E A G D G Q A A A E A M S R H L E N A R A		
UniRef90_UPI000360D563	A I E D R R G A D G A D M V E D H I R		
UniRef90_E3HJ17	A L D A G D P D A A G R A A D R H L R N A A		
UniRef90_C7PWX2	L I R V Q D A E G A R R A M R G H		
UniRef90_D8IU92	A V T E R L P D Q A Q R A A R D H		
UniRef90_S6AVP9	A I K Q Q N E E L A K H A M S S H L		
UniRef90_X2GWB5	A V V A G D V I D T A R A A M R V H L		
UniRef90_UPI0004663871	A I I K Q Q A D E A R R L Q E H I Q E S Q A E V Q K I T L H M		
UniRef90_UPI00037E351D	A I E A Q Q D E G A R R A M R T H		
UniRef90_A0A023XFG0	A I R Q R N P E M A G Q A M I E H		
UniRef90_UPI0003B711A3	A I E A G D G E R A A R I T A D H L E		
UniRef90_D3FBL0	A I E A R D P I Q A Q A M Q R H L K		
UniRef90_UPI0003676DC9	A I V R R D P D G A R N A		
UniRef90_UPI0003F728D0	A L R T G D A E A V D I V H Q H		
UniRef90_UPI0003764C54	A I K A G N A D E A E Q L A T L H M T N A		
UniRef90_R9NEW9	A I K A G N A D E A E Q L A T L H M T N A		



1 10 20 30 40

UniRef90\_D3E7V5 I L D N I E R A T I I E L L E A R E L F E T G I V E L L A A K  
UniRef90\_M3JJ33 I M Q A R S L I E G S A V I M A C S  
UniRef90\_A6CY62 D T D N V Q R F L T Q F L G L R K A I E P E A C S M A A R  
UniRef90\_U6ETW1 E E I L E L R K L I E V G T V K L A A K  
UniRef90\_A0A010SFJ1 L D E V F Q L R Y A L E G F A A G A V T  
UniRef90\_D3F016 L C E L R L T I E V P A A R V A A E  
UniRef90\_UPI00031253F5 L I E A R Q A L E P L A A R L A A G  
UniRef90\_UPI0003639967 L I E A R Q A L E V K L T E L A A A  
UniRef90\_V6L2N5 L R S A V E P S A A R L A A Q  
UniRef90\_UPI000288D4E3 A Q L M D A R L L I E P Q M V S L I V R  
UniRef90\_B2SD83 F V D H L A E M R M A L E P A A A A A A E  
UniRef90\_U2N7W7 L R T L V A D D P D Y R Y D I L E A R H A I E A S T A H A A M R  
UniRef90\_I7A0X7 I M E L R I S L E V I E S A G L A A R  
UniRef90\_Q5LKG4 S L S P E L V M D L Y E A R V A V E V I E A A R L A A L  
UniRef90\_J3D9C2 H A L L E V R R I E E S C V L A A Q R  
UniRef90\_H6N116 L M E A R P H I E P A A G W A A E R  
UniRef90\_C4WL71 S D I T S D I M E A R K A I E H H A I R L A C Q  
UniRef90\_UPI00036E4F99 E D V L D A R E A L E V A A V R R L L R  
UniRef90\_I0RZ46 P A V V E A L V R K L G P D F L V E I L E L R A A F G A F I G R L A A R  
UniRef90\_UPI00037CC37A L Q L L I T L N E D N V N A L Y E S R K L T D G G L G R M A A E  
UniRef90\_H5XD15 D T V L Q F L E V R R I L E P A A T A M A A L  
UniRef90\_I0UYU5 L D D L A E V R L L L E P S V V A V V G  
UniRef90\_UPI00047808BC D P L A S M V E R R D P R M L H A L T E V R M G L E T W S A Y L A A K  
UniRef90\_D3L199 E D F V E L R K V L E S A C A K M A A E  
UniRef90\_UPI00036576AF E D L F E T R E V L E V K L A G F A A Q  
UniRef90\_R6N3X9 L R D F I E V R M A I E E L A I R L A I E  
UniRef90\_UPI0003696404 E D M V I E R L L L E P A A A R R A A E  
UniRef90\_UPI000366EBE7 V L D L N Q F R S M L E I Q A V T L A C Q  
UniRef90\_I4XQ93 S S Q P R T L Y D L F E V R S L L E G E S A R L A A L  
UniRef90\_Q1LBT6 I A N V T E A R V E L M A V A I R L A C A  
UniRef90\_F7NIJ8 I N E I Y E I R M A L D V L A A G L A A E  
UniRef90\_D7AXC6 D L I V A R A A L E P V C A E H A A T  
UniRef90\_V3V7B8 Y S R D I T P D G V I A D V V E T R L L V E T H A V R K A V P Q  
UniRef90\_UPI00036B6559 Q E L D Q L Y D L R L V L E T A S L K L A S S  
UniRef90\_K8RLT3 L D H L T V R S I I E P E M I R L A V M  
UniRef90\_X6L032 D L V A T R V V I E S Q A A S A A A Q  
UniRef90\_W5XZQ6 H T L E V R R G I E A E A S M V A A R  
UniRef90\_X6GBE0 I R V L Q T S L H D L L E E V F A L R L M L E P A T F R A T S R E  
UniRef90\_UPI0004086E94 R I P A E I L P E I I V A R A A A L E A V T V R A A A E  
UniRef90\_D9WM72 D S L L Q L L E L R E A V E T G I A R L A G R  
UniRef90\_UPI0004645308 N P L S I M I Q L S M V G L P E L L E L R Q I L E S E A A G Y A A L  
UniRef90\_G4KXK3 L R S A L L E V C A I E D A A A  
UniRef90\_UPI0003B61CFF D L L E F R H T L E G A C A Y Y A A R  
UniRef90\_Q0FY54 H A L L E Y R R S I E P D A A Y A A A I  
UniRef90\_E3HR76 E Q M Y E L R L Q L E P F G A S L A A Q  
UniRef90\_A4BC68 E E L R E Y R Q A I E S Q T A F L A A Q  
UniRef90\_UPI0002FA49A9 N W I A K V Y Q V R G S L D A L A V R L A A E  
UniRef90\_J3DBM0 I D Y T E V S S P E A V L Q I V E L R R A I E A E V A A Q A A K  
UniRef90\_W7DMH0 V L E L L E M R H A L D R E A V S L A C L  
UniRef90\_G4NW94 L E V R Y A L E R E G A H L A A R  
UniRef90\_G1Y134 Q L S P A Q V R E Y F E V R L L L E D L L R R A I P  
UniRef90\_UPI0003B36DE5 P R L V I E L D E V R L I I P S A A R M A A E  
UniRef90\_T0IGG7 D R I V Q A M Q D Y V H L S L D E L T E A R L A I Q D I I I R L A C E  
UniRef90\_B3PCC6 E Q L Y D V R I V L E L A A V K K L C E  
UniRef90\_G8PV69 L I E V R R A L E E A S I L A A Q R  
UniRef90\_M1FBJ3 D L F E V R Q E L E G K A A Y L A A E  
UniRef90\_UPI00037C9990 E D L F E T R K I L E V K L A G L A A Q  
UniRef90\_A3JZV9 V A Q N I E V M T A L E L L S A R L A C E  
UniRef90\_J3DB56 L L E L R I S L E T E T A G A A A R  
UniRef90\_H2CHQ3 I E T L V R I R R T I D A E T M K S L M Q F R L Q T E S Q A A A D A A R  
UniRef90\_D2AV23 R L A G E G R G E Q L R S L G E L R H G V E P V A A L A A R  
UniRef90\_B1BAM8 L Q E I F E L R K V I E I E T A A L A A K  
UniRef90\_E9T2A1 E H V V D A R L L V E V H A V E A V A  
UniRef90\_UPI000349AD5B L L E A R R A I E P F C A R L A A R  
UniRef90\_C1DFN1 D L L E F R H T L E G A C A Y A A L R  
UniRef90\_UPI0004650651 D I L E L R Q A L D T Q A R L A A Q  
UniRef90\_UPI000345F0E6 S Q F L R D V I E F R V L I E P A S A L A A M R  
UniRef90\_A8H2Q5 S Q P N G L Q Y F D Q L R S F F E S S L V R H A A E  
UniRef90\_R6V3L6 R A R L E G L A A R M A A K  
UniRef90\_A4FGF5 R L D A E P V E E L V A D V L E A R E A L E T K L A E L A A E  
UniRef90\_L0KFP7 A R A G L P L D P L Q I Y E T V E L R K I H E I K A A E L A C S  
UniRef90\_UPI00046AAC5A D L M E V R R L L E P A A T T L A A T  
UniRef90\_UPI000369F7F5 E G H P R T L Y D L L E V R E Q L E G Q A A F L A A Q  
UniRef90\_M7CQ25 L E N V Y T V R A S L E S L S V L L A T Q  
UniRef90\_UPI00047A7464 P R T L F D L L E V R A L L E G E S A R A A L R  
UniRef90\_A0A031MBC2 L S T I A A V A G Q T N P S E V M R A R L L I E P L L T G E A A L  
UniRef90\_A8TX71 F R M V I E P A A I L J E S F Q  
UniRef90\_UPI00037FCAB0 L D E I T Q I R E L L E P V V A D Q T G R  
UniRef90\_E8SDE5 D S L S H F R P T S M E D V L M L L D Y R T V I E S E T A R R A A T  
UniRef90\_H2K1A1 D Q L L E V R E A L E G M A A R I A A E  
UniRef90\_W0DZD4 S D L V R H V Y D L R E A F D G L A A R L A A E  
UniRef90\_UPI000375584A I Y D L L E V R A G L E S Y G V V L A V E  
UniRef90\_K2M3M5 L A D V L E L R Q G L E T M A A G L A A R  
UniRef90\_UPI00035ECD3F Q L F E A R L A I E P Q L A E A A A K  
UniRef90\_UPI00035DE3F0 L E N D Y D P R L I S A M S E V R N L V E P A I A R W A A E  
UniRef90\_E1HSA4 I Q F D Q A S S A D A V L Q I V E L R R A I A E V A A L A A T R  
UniRef90\_G0AAM1 L K D L F A I R K I L E N S A V E W A I E  
UniRef90\_UPI0003FA8E84 E A L R Q L E A E G L I Q I I D H L D I R A M L E S S L L R A A I R  
UniRef90\_G2J016 I A E L M E M R A V L E R H A A R  
UniRef90\_UPI000300421C

UniRef90\_D3E7V5 R A T D E D I A A F A T W G E I D Q N A E D R S K P D Q A F H L S I A K A T H 80  
UniRef90\_M3JJ33 Q N T E A L E R L R G N L D A M R L Q I E A P T E L D R Q F H L I I A E Q T S G N  
UniRef90\_A6CY62 N H R K A L S V G C F Q N E M K Q A A R F N H D A W T H E N D H A F H H Y K T F A E Q T S A N  
UniRef90\_U6ETW1 R I T E S E L G K L F N E L K K E A L R T P E N L A E I L D R E F H H Y K T I F A A A T S K N  
UniRef90\_A0A010SFJ1 L S A D E L D A L E D N V A A M R A D D F D A A A R L D F E F H H R R I L L A S G N  
UniRef90\_D3F016 R D A A G L V A V A A E L E A M R A D D E A A F M A R A D D R A E F H H S L L L E A A G N  
UniRef90\_UPI00031253F5 D I R D E V R Q R L A D M V E I M N D G L T F F A R A D A D R E F H H S L L L Q A A A G N  
UniRef90\_UPI0003639967 R R T P Q D L D A I D S A L E L M E N G D R G V T G D E H F H A A I T A A A R S  
UniRef90\_V6L2N5 H A P Q E C A E L T E R A M G M A A T S D G Y L V H D I A F H R V V L R A S R N  
UniRef90\_UPI000288D4E3 F A T A A D F E R M E A C S E M A A G S I E F E H W D G A L H Q A F A E A T H N  
UniRef90\_B2SD83 R A T S E L Y A L A K F D N P D H T P E S I A K V D L E F H L A I A R E M S G N  
UniRef90\_U2N7W7 A T A A D K E K L Q A L A L Q E S D S H P E L A A Q A D V R F H L A I A E A S H N  
UniRef90\_I7A0X7 R T P E Q L A G M R G F L D E L N E S M A H S S E A D F V R Q F H L A Q I A A Q A T S G N  
UniRef90\_Q5LKG4 R G D E R E I A L M Q D L E D I R A D T E A L L S M D E W F H H T R L C A L S G N  
UniRef90\_J3D9C2 A T T E D L H A I E Q R L E E M E R S V H L A I G S A D W A F F H A S I Y T R A A G N  
UniRef90\_H6N116 R S A E D L R Q L T E Q A M A E S N Q T D W V J A L D G Q F H H L A I A T R A S G N  
UniRef90\_C4WL71 R A T E Q D F A N I A H I T I E T I E N P D A G G T A D F K F H H E A I V T A S H S  
UniRef90\_UPI00036E4F99 R N P A D I T R A C A E E L R Q A L D D L G A F S E A D E K F H H R T I V A A G R N  
UniRef90\_I0RZ46 A N P D D V K S L H A L L T T V Q D T A R A R Q E A D L A R F F R V L V H A T R N  
UniRef90\_UPI00037CC37A R I T A E E L A R L K N L R G L L D D P I G F R V S D V E F H H R R I A E A T E N  
UniRef90\_H5XD15 S M P Q E I A E L G T L L D S L G T N P E E L V A N D L E F H H R I A A G A S G N  
UniRef90\_I0UYU5 R V P E G F A E L R E L A Q R I V D A E A Y L M A D R E F H H A G L L G Y T S G N  
UniRef90\_UPI00047808BC R A E D E I A R L R E L Y E V M E E Q A E S G G A I D A E F H L T I T A A T H N  
UniRef90\_D3L199 K R T E E M E D L I K K M E E S R L E D E K A V A D A D K E L H K A I S V A A G N  
UniRef90\_UPI00036576AF R A T I E D I E L I G N L K E M S E K A N D F V T A D R F H H E A I A E A A Q N  
UniRef90\_R6N3X9 R A A P K E I Q A L A D I H Q E Q N N Y D K A P K L D A K F H H G Q I A K M T H N  
UniRef90\_UPI0003696404 R M T P E A V A L E L I R L E A A M Q S L H A F S E I D A Q L H H D G I A A G S Q N  
UniRef90\_UPI000366EBE7 R R T E Q L I L T A S R A R H A A G Q S L S E Q D A Q F H H M A L C A A S S G N  
UniRef90\_I4XQ93 R G T D A D F V L T I G R A Q A L L D D A S A H A R L D H A F H L A I C E A S H N  
UniRef90\_Q1LBT6 R A T E E E L D A I E A D I S Y H T E L F R Q G D G E F Y R L I Y R A S T H N  
UniRef90\_F7NIJ8 R I T E E M E A L E R A T H I E Q N I E K L I E A D T L H D I L Y R A S R N  
UniRef90\_D7AXC6 A R T S N D L R V L E D L E R V L E E G A D P S A V D A D F H H L A V A A A S H N  
UniRef90\_V3V7B8 R A S D S D I A Q T Q S C H R A L P D D W T K V A E A D E A F H H M S A R I A K N  
UniRef90\_UPI00036B6559 A P P D R L T E L L A L C R E Q A A G A L A D L T D R T F H H A E I V R S G G N  
UniRef90\_K8RLT3 A P P H P E V D A L K S V D A Q E S D P V A M F R L D E D F H H R G L V R A S G N  
UniRef90\_X6L032 N D L E E L A R V V A R I E A V R T D L N E F R R E E E F Y R S I A R A T R N  
UniRef90\_W5XZQ6 R T P D R D A A I E K A L I E M M D P E E Y H S L D T E F H I L I T S M A G N  
UniRef90\_X6GBE0 R R T A D D L R T I E E L I E M E A T G T S G P E D L A F H L A V Y D A T H N  
UniRef90\_I1CYV2 R T P E L M A R L I T T H L D T M R R A A D E F M V A D R K F H H E A L N V A S G N  
UniRef90\_UPI0004086E94 S A K A G L R A I I E R Q R E T L A T G D G F H A A D E L M H R A I L A D A G R L  
UniRef90\_D9WMM7 I P A A D L Q T L D A I T R Q M E A E A A E R A E T D R A F H H A A L Y G S L D N  
UniRef90\_UPI0004645308 R A T E T Q V R D L E N M A V L M Q K P E E Y I D L D V R F H H L A Y S E A S G N  
UniRef90\_G4KXK3 H I T E S D L A L L E Q I W E Q Q D L E A F I M Q D R R F H H T C L Y K L S G N  
UniRef90\_UPI0003B61CFF A T P A D H E R L D A A F A Q L J E A C Y D G S A E A D A R F H H L A I A E A S H N  
UniRef90\_Q0FY54 R G G P N D L A V I A E A L J E A D D F R S F D E H D A Q F H H K A I A R A G G N  
UniRef90\_E3HR76 H R Q E L A A L S A A M S A P S A D D A R K F A V L D A Q F H H S W I A A Q S G N  
UniRef90\_A4BC68 R A S E N D L K A T E R A H H R Q G D L K A E G L A D A R F H H L A I A Q A S G N  
UniRef90\_UPI0002FA49A9 R G A K I D P E V M K Q G R R V H Q G D V Q A M I Q A D L A F H H R A I Y A S G N  
UniRef90\_J3DBM0 R R T D A D M V A I D N A D R V K E G G D G V A A D V A F H H R A L A T A T R N  
UniRef90\_W7DMH0 R R T E N D L K R M V K Y R N A E N N L E K F V E A D W Q L H Q A I A A A S Y N  
UniRef90\_G4NW94 R T D D E A R E L L Q L E R H C E A A A E D F V T A D R L H Q S I A A A S H N  
UniRef90\_G1Y134 Q I T A K Q I K K A E G V I K E L H T A E A W G A L N W Q L H H E S I Y E P A Q R  
UniRef90\_UPI0003B36DE5 R R S D E Q L E R T R A A C D L L D R S Y A H T A A D L E F H H R A V L A A T G N  
UniRef90\_T0IGG7 R A T E A D L E A V A E R T R R E T V D A R Y E C A V Q Y A V L L A R A T K N  
UniRef90\_B3PCC6 M E P A P N L E D L K R I E D R L E D G P S V C A L D E R F H H E Q L V E A T G N  
UniRef90\_G8PV69 A T P D E I E E M R T K L E H M E A N G T A G P E D L E F H H L S I Y R A A G N  
UniRef90\_M1FBJ3 R A T A K D Y Q I T K A F D A M E N D P L E T N A D L D H A F H H R A I V N A C H N  
UniRef90\_UPI00037C9990 R A T I E D V E M I E N I E K A N Q N P Y E F V T E D I K F H H E S I A E A A Q N  
UniRef90\_A3JZV9 R A S D D V A A R M E R E Y D K L D K L E V F E I D M S F H H R A I A E A A G N  
UniRef90\_J3DB56 R T D A Q L L E I R Q A L D A F A H A D N Q K K G N D T D F R F H F Q I A N A T G N  
UniRef90\_H2CHQ3 H I Q D S D L E I L R R K R E N A S V E K L V E A D Y L F H H R I A I L L S G N  
UniRef90\_D2AV23 H T P E Q C G A L T G A V M Q M A G D L E A Y L A A D Y L F H H R T L E A S G N  
UniRef90\_B1BAM8 K I T E D M R S I L D T I K T S D D E D E K V K L D T Q F H H Y S L A K A S Q N  
UniRef90\_E9T2A1 S N P R V R D A L V A A L R E T G G D A A Q F S A L D A D F H H R T L V R A G G N  
UniRef90\_UPI000349AD5B T R T D E Q L D D L E E T L D T T D G D W H V A V A R A G N N  
UniRef90\_C1DFN1 A T P E R L R A A F E R L Q R C Y E D S P E G L A D A D H F H L A I A E A S H N  
UniRef90\_UPI0004650651 R R D S D I L A A F L R L L E A Y D D A G A I D A V A L H R A I A V V A S H N  
UniRef90\_UPI000345F0E6 A T P A E V A E A F D A F R S T A P N D P A Y Q D A D E L L H T R I V A A S G N  
UniRef90\_A8H2Q5 F A T S E Q I E E L E K A V A L I D N E S Q F K K T D T Y F H H L A S I P G N  
UniRef90\_R6V3L6 N I T P E L L D A M E Y H A K K E H Y E Q V C E M D S K Y F H H K L I Y K A S G S  
UniRef90\_A4FGF5 R T T D E D L A A L A D M R A Q I E S G D R G E A G D Q R F H H A A V T A A A H S  
UniRef90\_L0KFP7 R A T E E L R E I L K A S E D R I A A G E G L A K A D D R E F H H L E I V R A T K N  
UniRef90\_UPI00046AAC5A P K D L A R I E S A L Q R L E T M A V S V D S Y Q F H H L A I A A S G N  
UniRef90\_UPI000369F7F5 R A L A E V K Q H L D A M R E A H E D V E L L N V H D A A F H H R A V V S A T A N  
UniRef90\_M7CQ25 R A T S L D R R I T K A F R A L E D D P L S N A K P D H G F H H L A I A V E A S H N  
UniRef90\_UPI00047A7464 R A T L A E V K M L E R L T D K L A A A V K S A D L D R E F H H R K L A E M S G N  
UniRef90\_A0A031MBC2 G T D A D F V L I Q R R Y D E M V A A D P E T L A H L D H A F H H L A I C D A S H N  
UniRef90\_A8TX71 Q A T T E D I E E M H R C L S G A R R A E S W R Q Y N A R L H R A V A E A A R N  
UniRef90\_UPI00037FCAB0 L S P E W A A H M R I Q H S A F E A S P V A F F E T N A F H H E G L A M A S G N  
UniRef90\_E8SDE5 L S E P Q V R E L R R L A D N I R G D L V A Y I E S D N A F H H L T L L H A A G N  
UniRef90\_H2K1A1 L A P I E V R D I R E A A Q A S R N D G H E F A R G D E A F H D A V I G A A S H N  
UniRef90\_W0DZD4 R M P E E A I E E L K A L I A R D D W Q T Y F Q E D L D F H R I V Q A G G N  
UniRef90\_UPI000375584A E V E E L L D A M D D P E L T R Q E F L V L D A Q F H H L T L T R A A G N  
UniRef90\_K2M3M5 K A P D R E S A L R A A I Q S G D T A N L V A A D V A F H H Q T I Y R L S G N  
UniRef90\_C8X1D3 R S T D Q D I Q F M E E A K N R A N N Q D K N S A R D A D F H H L G I A Y A T H N  
UniRef90\_UPI00035ECD3F A S P A D T I E R M A E A A E T M E G D A A L A A E W D A R L H H L A V A E G A H N  
UniRef90\_UPI00035DE3F0 C Y P E D I E H L K T A A R H L I E E F A T G Q Y E S D L H R A I A R A A R N  
UniRef90\_E1HSA4 R A T S E L A Q I E A A L N D M I A N N Q A F F E T N A F H H E G L A M A S G N  
UniRef90\_G0AAM1 R T P R Q L K A I E T A L K G I A A D V D A G G D A D V M F H H R S I A E A T G N  
UniRef90\_UPI0003FA8E84 H A P S Q V N E L A G T V E E A K N D H H N L A E L N D Q K F H H L A I A H L S G N  
UniRef90\_G2J016 Q T K A D V L A M A A D T L Q K F E N D I R H W G E L N S R F H H L A L Y R A A K N  
UniRef90\_UPI000300421C C T V E R D T T P V I E G M E R V I E H S A R E F T A A D H R F H A T L I G A V G N

UniRef90\_D3E7V5 V V L V N M I E L H M D L L Q R T L S K T A Q I P G R K S E V Y E E H L L I M Q  
UniRef90\_M3JJ33 S V V A R T V R D L S P L L T A Q M R T R Y E N A E T W T Y A L I A E H E K I Y I A  
UniRef90\_A6CY62 P F Y V P F A N L I E S L F K F T F I D E A A V R F C I E E H G N I Y F D  
UniRef90\_U6ETW1 F L L L G V L N A I L E S A L M E S Y R K S I L E E E G N R Q E L I T E E H G D N I Y F E  
UniRef90\_A0A010SFJ1 Q A M L S I L T A S A E L F L E S Q K L P F I R A E R A M E T W Q E H R K I L R E  
UniRef90\_D3F016 R R L V A I V A D L R A D H V R L R G A S T V G R G R D L R A I Y D E H A A I V E D  
UniRef90\_UPI00031253F5 R M L E H L S G L V A A A L Q V I S G G A V S G C H P S E A S L V L Q H R I L D  
UniRef90\_UPI0003639967 R L L A R M M E I A P M I R E T R L E S L S Q P E R P R A S L D S H E R I A S E  
UniRef90\_V6L2N5 E M F A R L G D V V A A V L R T E H D V M F T S P P E R P A A V T L H V Q I V A  
UniRef90\_UPI000288D4E3 N F F L R I L N V V R E E G E W G R L K R I S T P P E R R E R Y E M Q H R A I V A  
UniRef90\_B2SD83 P F M R S V S G L I E A A L A V S F Q L S S P A A S Q E G I A E H L R I A H  
UniRef90\_U2N7W7 V V L L Q T M R G F F D L M R H S R Q R M Y T Q D P T I F T R L T E Q H E E L L L  
UniRef90\_I7A0X7 R Y F T D I M N H L G T A L S R V N S A R L A H D D Q Q Y Q L R E H E E Q I Y D  
UniRef90\_Q5LKG4 G E L A R M L D N L R I R Y L R L I D L R R L Q A L G P Q Q T M V S A H Q R I L D  
UniRef90\_J3D9C2 P L L Q A L M L N G I T Y D S F A H F F E S P P E Q A L F S D S F H R E L F E N  
UniRef90\_H6N116 R V F Q A L V N I R N S L T A Q S A T L N L A T G R M R R S N E S H H E R I V E  
UniRef90\_C4WL71 P T L V T I Y A S I S Q L M M R S H L E R R R V E G I E E F L I D H H R L I L E  
UniRef90\_UPI00036E4F99 A L T A R F Y N S L A D R Q R M S R R I V S D P S F F D L V L R Q L H E N L I M  
UniRef90\_I0RZ46 R A L G L L Y R R W E Q A F G G R H E L T A A L A R E H R A I T E  
UniRef90\_UPI00037CC37A P F L V R V S T S L Y L L G M E Y R R I A A E T P G V L G Q S F R D H E Q I L A  
UniRef90\_H5XD15 Q V L C S F V D S V S G R T Q R A R T W R G T Q D A A V A R T V A E H R A I Q Q  
UniRef90\_I0UYU5 D Q L V A L A T S L R M R T R M Y G L Q S L I R Q G L L A E S A R E H H E H L L N  
UniRef90\_UPI00047808BC T L Q V H V L D T I Q T L F Q T T I M V F Y T K E G Y L E L L L N H H R E I L L E  
UniRef90\_D3L199 K L L A D M V E A I S D L Y I K D A R A R L M N P Q N S K L L K Y H K A I V Q  
UniRef90\_UPI00036576AF R V L Y E I F I A V R L L L R K A Q E V V K Y P G I M K R S L K Y H K A I F E  
UniRef90\_R6N3X9 N L L I S I N R Q I S S Y L D T F R K Q T F R I P R N M R N A I S P H T E I V E  
UniRef90\_UPI0003696404 G Y L R D S L A R L H P H R H L F R L S E T S A I T A A L D E H R A I L D  
UniRef90\_UPI000366EBE7 R L I Q R A R N S F W L A S R A R R E Q Y F S E P G N A K R S I T Q H T A R L R N  
UniRef90\_I4XQ93 P V L V Q T L R S L T D L F A S V N N L Y H R Q A Q K R Q I D R Q H A R L Y N  
UniRef90\_Q1LBT6 A V I V L M V D A L S E I T R K L L A Q I A P E P R K D I M Q V R R K V L T  
UniRef90\_F7NIJ8 D R I L V G I L S N L R E Q T R F R S I S M Q I A P E P R M K R T L E E H S R M V  
UniRef90\_D7AXC6 S V L F A L E R T L V D L M R E P M W L K G R S R G R R D Q A R H Y H R Q I V L G  
UniRef90\_V3V7B8 S R L Y E R L D Q L N S L R F F R R L D L E T P S R R N N A Y D E H H V E I L A  
UniRef90\_UPI00036B6559 A L S R Y L D Q L R D R Q L R M G E A V V A R P D R V A L A J A E H Q E I L D  
UniRef90\_K8RLT3 G E M L R V H N E V T E R I R V R R L D F L K P H R T S A T Y D E H A K M L R  
UniRef90\_X6L032 P L Y E L T I E V C Q R S F R T A L M R K H L T P G R I Q A Y Q A R F N S L F E N  
UniRef90\_W5XZQ6 L V V D T I M E S L R E A T M S Y L M R E A J A E R E I R L H L Q Q Q R R I L E  
UniRef90\_X6GBE0 P L F R Q L L G Q M R E A F E R F W D H P F D R Q D F A R R S F P Y H R E L F D  
UniRef90\_I1CYV2 L R L A R Y I E S L R D M M F L R G T S T V D R S R G L G D I L A E H E I A A  
UniRef90\_UPI0004086E94 P G L W T M I L Q L K V Q L D R Y R G T L T L P Q P H R M R A L A E H E A I D  
UniRef90\_D9WM72 T L L S E V L E A F W D A F H R V R T D L V D V P T D P H V I T L A Q H R R I L Q  
UniRef90\_UPI0004645308 T A L N Q R L I K D V N T V L R R H F P K A C H L E F A L E S S A I S K  
UniRef90\_G4KXX3 H Q L I R L L E N Y D I F R F L G T Q A V M N S V E R R L T L L E H Q A I L D  
UniRef90\_UPI0003B61CFF V V L L H T I R G L F T N I G G M Y T Q R S E T R A M L I E Q H R S L Y H  
UniRef90\_Q0FY54 E H F V K A L D I L G A G V T L A H H L L G Q A E R R A A I F A E H R S I Y E  
UniRef90\_E3HR76 E L L A E A L A R L Y A H T H L F R L R F H S R A E V T E E A V T E H A R I V Q  
UniRef90\_A4BC68 Q I L A L T L N S L F T L L R A N V I T R M S R R S P E T R L R L M K Q H T A L F E  
UniRef90\_UPI0002FA49A9 P L I A Q S I E L H W H H Y L K R V M G A V L Q S S E Q R Q T V W D E H E A I A Q  
UniRef90\_J3DBM0 P Y F I K T I E F L S Q Y L E A A T T V T R G N E A R R R Q V R E H E A I V A  
UniRef90\_W7DMH0 P L L I D M Y A H L F E E I Q M S I T S T T E M N D A N G A G H K D L I L  
UniRef90\_G4NW94 E I L I E T Y N H I A E A L Q D S I T S L T S F E V D T D F L E M H R Q L V E  
UniRef90\_G1Y134 P V M L D M V K R I H D S L Q D R Y V R L H L S T P A I H D R S M A E H E Q L V A  
UniRef90\_UPI0003B36DE5 E L L E H F E V V L A P A L Q A R D R L A H R H L T L D G H R S V L D  
UniRef90\_T0IGG7 R M F G I F V N S L S A L L H E F V R G P D Y E T L Q K S L I E K L I G R  
UniRef90\_B3PCC6 A E M A R I H H E I T E R L R I V R R I D F T Q A N R I E A T Y E H H A K I L R  
UniRef90\_G8PV69 P L F E Q L L Q M R E S F E S F F E M P F D R K D F A G R S F P F H R Q L F D  
UniRef90\_M1FBJ3 P V L T H V L N S L K D L M L S S V Q A S V D N L S H R D A  
UniRef90\_UPI00037C9990 R V L Y E V F I A V R L L L K K A Q E E V I K Y P G I T E R S L K Y H E K I F K  
UniRef90\_A3JZV9 P V L A E M H R A L L A R L W R A Y L S A S R K D S R E R V L L E Q H S A I V R  
UniRef90\_J3DB56 R Y F T E I L S H L G Q V I P R K R L N T A E L A R D P Q A S Y R E H E D I Y E  
UniRef90\_H2CHQ3 R I T Q L I F K S L F G P V Y M F T E F Y S L A R D A A S S L R H N E K I L R  
UniRef90\_D2AV23 E M L G A L T G V V T E V L T G R T R H H L M P S R P E P A A I R W H A E V A Q  
UniRef90\_B1BAM8 F L I V S L I N A V S T R L M D S F A R K N I S N L H K E I I D K Q H D K I W K  
UniRef90\_E9T2A1 P L L E T F Y D G L R E R Q R R M A S S L A R D P E Q I T K L V E D H S R A V T D  
UniRef90\_UPI000349AD5B P L L S G L M V S L T Q G I H A A T E H D L M D A E A L G H A V E S H R A V T D  
UniRef90\_C1DFN1 A V L L H T I K G L E D L L R R I G G M Y A Q R G E T R D M L L Q Q H R E L Y E  
UniRef90\_UPI0004650651 A V Y L E F I Y D S L L P V I E V V I R S R T A K S G D T Y H A E H A E L V H  
UniRef90\_UPI000345F0E6 Q F F Q Q M A A I V R G A L S A V N P I I M R K E S A W E T V V R T H G R V V E  
UniRef90\_A8H2Q5 P T E L A I H Q A L V D W I D A R P A K T N V K E L N A K S H Q D H V D I L E  
UniRef90\_R6V3L6 R I L E H T L T D F H Q Y V Q R V R M A S I M K K R R M E K S N D E H D A I L T  
UniRef90\_A4FGF5 S M L A E F M R T I A A E I A E S R E E S L R Q P N R P S K S L A Q H E R I A E  
UniRef90\_L0KFP7 S V F H N I C S V Y Y L M G E Q R L P I Y F N D P E R S V L S H A E H V Q I Y E  
UniRef90\_UPI00046AAC5A E V F V D M L E C S T R D A J E R A Q K L T R E G T Q A R N L V M R E H R Q I F E  
UniRef90\_UPI000369F7F5 E T L L T I L D G I S G R T L R A R W R G L V D S Q A A G R T L A E H E A I Y E  
UniRef90\_M7CQ25 P L L H V L N G L K N M L T I T V Q A A V S N L N P R E E M R K T H R Q I Y D  
UniRef90\_UPI00047A7464 P L L L E M L D A F D V V I T E C R N L A F O D T K H R T A P M V L E H L Q I K  
UniRef90\_A0A031MBC2 P V L V H T L Q S L G S V F A S V Q N L Y H R P T H K R Q L D R Q H A R L Y H  
UniRef90\_A8TX71 V V L L S L F D S L N A I R R T V N W G R L R D P P T D H H S F G D H E A I V A  
UniRef90\_UPI00037FCAB0 R F F V D A I R R L N R M R R T S N Y D W K H G R E R V E V S C H E H L G I L A  
UniRef90\_E8SDE5 Q R L V E T V A D L R N H T R L Y G L D A L V E S G G L V D S A N E H L E I L E  
UniRef90\_H2K1A1 L F L R S V A G V R R L A S Q S D V L L F H A P G S L E V A A R Q H L A I A E  
UniRef90\_W0DZD4 R R L V D L N D Y I H L A R M Y R C Q F G M R S E R A R V A L K E H E L V D  
UniRef90\_UPI000375584A Q V V T A M M S G L R E T Y T R I A T A L D S W E D T A N R L R A E H R A I T A  
UniRef90\_K2M3M5 P L L P E A S A A V W L Q R R V M H A Y L Q I G Y P R D P I W T E H Q A I A D  
UniRef90\_C8X1D3 I I Y I D L I K R L Y E Q M H S L L Y E T P K N L E I E Q H H F K I L S  
UniRef90\_UPI00035ECD3F H V M R G M F S V M R E H V R R A R E A L F T R H D A E V N L R E Q H R A L V E  
UniRef90\_UPI00035DE3F0 P I L E A L L H T E S P R W V T L R S R A L I P G H T R E G H V D E V R R V I R  
UniRef90\_E1HSA4 P V L Q A L S G A I S S L Q R A V F E R T W M G D E A M P K T L Q E H K A L F D  
UniRef90\_G0AAM1 P F L L Q T L A F L S Q Y L E A A T A V T R S N E A R R  
UniRef90\_UPI0003FA8E84 T V L I H V M H N L I D L L Q E S R L Q S M K I P S R P V K S V D E H V K I V G  
UniRef90\_G2J016 P N T L A L I E Q L H N K T D R Y T R M Q I L F T Q T M E R A H A H T K L L E  
UniRef90\_UPI000300421C E L M A K Q Y D A L R S R Q I R A G V D A L Y R S G G R Q D V L T E H R R I V E

UniRef90\_D3E7V5 A I K E R D P V K A K L A L L N H L S R 130 140 150

UniRef90\_M3JJ33 A L E A R D P L L A Q A A M R T H L D T S K Q R W M E N

UniRef90\_A6CY62 A I M T G D A D S A K V A S R Q

UniRef90\_U6ETW1 A L N N N S E D E A V K A M T K H L

UniRef90\_A0A010SFJ1 A L A R R A S G A A Q K A M Q E H V R N A A

UniRef90\_D3F016 A L R S G D P D A V A E A M R A H L E Q T R K L

UniRef90\_UPI00031253F5 A I S S G E P A A A E S A M R Q

UniRef90\_UPI0003639967 A I R A G D P R A A A D A M R D H L

UniRef90\_V6L2N5 A V R T G D P D R A E Q L T K E

UniRef90\_UPI000288D4E3 A L R D R D E D T A R G L L E E H L L E

UniRef90\_B2SD83 A I A S R D P Q K A R L A M E

UniRef90\_U2N7W7 A I L A G D P E R A G K A A K S H L

UniRef90\_I7A0X7 A I A R Q D P E S A R A A M R L H L T N S R E

UniRef90\_Q5LKG4 A V A R H D A D G A M A E M R A H L E R

UniRef90\_J3D9C2 A I R Q R D C A A A R A I C H Q

UniRef90\_H6N116 A I S S G D R Q A A E R A M A D H L

UniRef90\_C4WL71 A L A A R D R V R A D D L L H Q H

UniRef90\_UPI00036E4F99 I V E S C D E A A F A D A L R D H L

UniRef90\_I0RZ46 A V G T R D A K A A T S V E A Y L Q S S A

UniRef90\_UPI00037CC37A A L E A R D A D A E A A M V R H M T N

UniRef90\_H5XD15 A L A E R Q P E

UniRef90\_I0UYU5 H M E A G D A E A V L G L M R R H

UniRef90\_UPI00047808BC A T A A H D P E R A R Q K M M E H L

UniRef90\_D3L199 Y I K E R N G D A A A K E M E R H

UniRef90\_UPI00036576AF A L K K Q N V L K A E R A M F A H

UniRef90\_R6N3X9 A F Q K H D V N G G V R E M H L H F Q Q

UniRef90\_UPI0003696404 A I S A R D P D A A A Y A M R R H I E K S A A

UniRef90\_UPI000366EBE7 A I A Q G D T G K A L D V L N Q H L G N V E R Y W

UniRef90\_I4XQ93 A V T G R L P E Q A R K A I A H I Q

UniRef90\_Q1LBT6 L L R Q R D A Q G A C D A M A T H L R

UniRef90\_F7NIJ8 A I A Q R N A D L A Q Q L A R E H M E N S

UniRef90\_D7AXC6 A I E R R D H R R A R Q L M A V H M S E

UniRef90\_V3V7B8 A L R Q R D V E T G I P L T E T H V S L S A E

UniRef90\_UPI00036B6559 A L R A G D A E A A L A V T V R H V S R V S E L

UniRef90\_K8RLT3 F I D R G K C G E A A M L L R A H I T Q S K L E V R K I T V S M

UniRef90\_X6L032 A I A T R D V E A A V E I T K L H L V E

UniRef90\_W5XZQ6 A V R N R Q P A E A A D A V R E H

UniRef90\_X6GBE0 A I V A G D A E L A

UniRef90\_I1CYV2 G V E E G K P A E A A E A M R R H L L T T A R L

UniRef90\_UPI0004086E94 A I A R H D T A T A T A A M N R H L

UniRef90\_D9WM72 A V R S G D A L R A E E A I R D H

UniRef90\_UPI0004645308 A I K A R D Q Q E A T R Y M S K H L S E S A A L

UniRef90\_G4KXK3 A L K R R D I A G A V Q A M K D H M R H T E E N M Q N H R

UniRef90\_UPI0003B61CFF A I K A G D A E L A R Q L S N Q H

UniRef90\_Q0FY54 A I K A Q D P K A A R E A M L T H L E R S

UniRef90\_E3HR76 A L E A R D A D G A Q A A M R D H L L R S R E

UniRef90\_A4BC68 A I Y Y R K P D R A R Q L A Q E H M

UniRef90\_UPI0002FA49A9 A I A S G K A D V A V R L V Q E H V H E A S

UniRef90\_J3DBM0 A I R A G D E M A A R A A A Q T H M F N A A R

UniRef90\_W7DMH0 A I H N Q D A A S A V H C V D M Y

UniRef90\_G4NW94 A I V G Q D A D R A V E A V H R Y I Q E S

UniRef90\_G1Y134 L C R D G K G D E A V E V L R G H L

UniRef90\_UPI0003B36DE5 A T A A A D P D L A H D R M R A L M E L S A

UniRef90\_T0IGG7 Y L R K R D A E A A N E M R R H L E R V H R H V R K N L K

UniRef90\_B3PCC6 T I I E R R A E D V K S Y L K T H I E A S K A E V R K I T L H M

UniRef90\_G8PV69 A L A S G D T E K A R K H T L E

UniRef90\_M1FBJ3

UniRef90\_UPI00037C9990 A I K M Q N V S K A E R A M F D H L D D

UniRef90\_A3JZV9 G L R S R D A T E V I E Q N L R A H L

UniRef90\_J3DB56 A I A R R D T E A A R A A M R N H L T N S R E R L R R A Q E

UniRef90\_H2CHQ3 A L T V R D A A G A G K A M

UniRef90\_D2AV23 A V Q S G D A A A E R A M R N

UniRef90\_B1BAM8 A L N N H N P S G A A D A M R T H L E

UniRef90\_E9T2A1 L I A G D A A G F A A A V R R H M R E V H A L

UniRef90\_UPI000349AD5B A I R A R D E D T A E R E M E R H A H

UniRef90\_C1DFN1 A I V G G R A E E A R E V S S R H

UniRef90\_UPI0004650651 A V I D G D P E R A A Q A

UniRef90\_UPI000345F0E6 A I E R H D P K E A E A A

UniRef90\_A8H2Q5 C I K N R D V E G A

UniRef90\_R6V3L6 A I R E H D E E K A E L V A T R H

UniRef90\_A4FGF5 A I R D R Q P R A A V T A M R R H L R

UniRef90\_L0KFP7 A L L R R D G N L A Q A L M S A H L Q G A E S Y W K G L

UniRef90\_UPI00046AAC5A A I R A G D A E A A G V C M S H L L Q A

UniRef90\_UPI000369F7F5 A L A M G D A S Q A A A L M H I N S T E R W L R

UniRef90\_M7CQ25 A V

UniRef90\_UPI00047A7464 A I K S G D A N V A G R K M K T H

UniRef90\_A0A031MBC2 A V M E R L P T Q A K R A A M D H

UniRef90\_A8TX71 A I E E R D V E E A T R A M R R H L

UniRef90\_UPI00037FCAB0 A L E S G N R D G A A D L M R R H L

UniRef90\_E8SDE5 L I A G G D R E A V V G L M R H H L R H V R G I W A A R R E D

UniRef90\_H2K1A1 A V A A G E A D L A Q K L M V E H

UniRef90\_W0DZD4 A I A A R D G E L A E W L M R R H I R A S R E

UniRef90\_UPI000375584A A V R D G A A D L A G E R V A A H I R

UniRef90\_K2M3M5 A I C V I G D G P L A E K L A R D H G R N A

UniRef90\_C8X1D3 A I S G R D K D G A K R H M L Q H

UniRef90\_UPI00035ECD3F A I R A R D P D A A V R A V E N H L R

UniRef90\_UPI00035DE3F0 H I E N G E G K Q A A D V W R R H L

UniRef90\_E1HSA4 A L R H Q D S N A A E Q A

UniRef90\_G0AAM1

UniRef90\_UPI0003FA8E84 A V Q A R K V D Q A Q H Y M A E H L E

UniRef90\_G2J016 L C Q G G A A E E A A E F I R F H I L S A G

UniRef90\_UPI000300421C A L I G E G D A A K A C T A I D E H I A A T R R I

1 10 20 30 40

UniRef90\_UPI00041E626E D L L E M R R S L C P L A A S L A T E  
UniRef90\_UPI00035DE236 L L E S R K V L E S G L A K L A A K  
UniRef90\_U2B9H8 V K D I Y A I R S L L E G L C A R W A T E  
UniRef90\_UPI000427AA16 D L T T L G T L V D S L M E F R F G L E V E A V G L A A A Q  
UniRef90\_U3B643 E S N P D A Q R D L L E F R H T L E G S C A Y A A Q R  
UniRef90\_W7KV59 P D I T I Q E L F Q A R K M V E T G L A E M A A A  
UniRef90\_UPI00047A4D09 E L E L F Q A R K M V E T G L A E M A A R  
UniRef90\_K0JZ80 R L D A D R E P Q L T L L G E L R G G I E P V A A A L A A V  
UniRef90\_K2KB58 H L Q A V V R G I F E P E M V R L A I P  
UniRef90\_D3D2C5 D D L I E V R A A L E V T A V R R A A T  
UniRef90\_UPI000465402B R L G G S E R T G I L L R S V T E L R E A I E P I A A R V A A Q  
UniRef90\_UPI000366D67E D M A R E V Y D V R L L L E P E A L R R T V Q  
UniRef90\_J1EG50 L A A R L L S A R R M P A A L R  
UniRef90\_K8RAD8 L L H L D P A D V A G S M D A L L E L R I S L E T E S A G L A A R  
UniRef90\_M4X1X6 E S N P E A Q R D L L E F R H T L E G S C A Y Y A A Q  
UniRef90\_UPI00046630D9 E H V V H A R Y V V V E T A A A R G L A A  
UniRef90\_G7CBB2 E T L A R L I L E Y E G V T V K D V Y E A R V A L E P M V V Q L A K D  
UniRef90\_UPI00047EC7C8 I L E M F E V K E T L E G M A A R L M A R  
UniRef90\_M3V671 R L D G A D R A E F L A T L S E L R R G F E P V A A A L A A E  
UniRef90\_UPI0003B66CFB P E K V W E L V E A R T E L E G V T A G L A A E  
UniRef90\_B9JLX2 I D E I I T A R L E T E T I C C R L A C E  
UniRef90\_L0LMU2 M L R D L T E L R Q V T I E P S A A R F A A R  
UniRef90\_D7A0P3 L L E V R L A L L E K E A A Q L A A K  
UniRef90\_UPI0003F7D797 D L A D V R I L L E P G I A Q E M A A K  
UniRef90\_U2CLK2 I T H L L E M R Q I I E V G A A S A A I H  
UniRef90\_UPI000287DCBE I E D I L E V R R I I E V E A A A L A A K  
UniRef90\_E8ZSA7 P Q L I E E A A F M R F I L E R E I R L A C K  
UniRef90\_U31FH9 E Q L Y D L R L V I E T A A V Q R L C G  
UniRef90\_F3KPP7 A N L M A V R G A L E G L A A R Q A A E  
UniRef90\_E3EZA4 R S L L E G L C A R W A T K  
UniRef90\_R5QJ20 V L Q A R L L M E L F A L D A L J A A  
UniRef90\_X0MWN0 L G R L F R L H L A L S S T S A L D L T D T R V A L E R S T A T L A S R  
UniRef90\_I6XRF9 V A E L L E A R S A L E V L G A R L A V A  
UniRef90\_I4EWM8 D T L I E L L E V R K M L E G Q T V A L A A K  
UniRef90\_L0F7G6 L E E V F A V R L L L E P A T F R A T T Q  
UniRef90\_UPI000382AC24 S E I L L E L R R V L E V E T A S L A A R  
UniRef90\_V717B5 I L L E F R R I N E V A L V E L A C Q  
UniRef90\_G4KP11 I T E L L E L R E I V E S A T V K A A I H  
UniRef90\_U1SUR2 T L D V E P V E Q L V A D V L E A R E A I E T K L A E L A A R  
UniRef90\_H5XGQ1 D E L L Q I Y Q V R E T L E G L A C R L A A Q  
UniRef90\_UPI0003B52796 D D I V D F R T A L E T E T A R A A V R  
UniRef90\_F4CLK2 V L D M I E V R V S N E Q L C V K L A V E  
UniRef90\_UPI000240E04 I D T I A L Y L Q F R Q P S R E D L R C V R D A T E I D N V A K V V R  
UniRef90\_A0A024JVS3 I M D V L E V R A S L E G L A A Y L A A E  
UniRef90\_C9XSG9 L I H D L L E V R F L L E P S T I A M A A T  
UniRef90\_U2D9X5 L A D L L E A R A E F S A S C V R L T G R  
UniRef90\_UPI000466DDE5 Q E L A D V V E T R L L V E E H A V R K V V P  
UniRef90\_UPI0003685E0A P D F K S L V E T R I L L E L K T T S L A A T  
UniRef90\_UPI000373E1B3 V S D V L E V R M V L E G L A A S L A A K  
UniRef90\_A8ML32 I Q E I F E L R V E L E G L S T R F A V E  
UniRef90\_W7LD80 E R L Q Q F R E I V E V G N A R L A A T  
UniRef90\_UPI0003B6CA90 V L E L L E I R K I L E V Q A V G M A A E  
UniRef90\_B8FPJ0 P P R E A T D L L E M R L A L E S S A V R R L C R  
UniRef90\_W9B023 D L I E V R A A L E V T A V R R A A A  
UniRef90\_Q0RCM9 A Q L T E A R T W L E S V V V R E A C R  
UniRef90\_M4Z4Q0 E D V L Q V R F A L D T Q A A R L A A A  
UniRef90\_M7NFP4 P R W A L H I M E L R A G L E V E A C G L A A E  
UniRef90\_J4YXZ4 D L L E F R D A M E G L S A Y Y A A R  
UniRef90\_W1N6I4 I E V R A L L E G Q N A R L A A R  
UniRef90\_A0A038FT56 E L R S G V E P I A A R L A S R  
UniRef90\_UPI0004774775 D I L L Q I R G I I E S Q A C A L A V E  
UniRef90\_UPI0003172369 I M E V R H A L D R E A V R L A C L  
UniRef90\_UPI000360729F E F R L T I E P A A A Y F A A K  
UniRef90\_J2RM27 V L E A R L A L E S F A I R D A M A  
UniRef90\_UPI00038127E4 L E Y R L I V E K G A A A L A A E  
UniRef90\_UPI00023791B8 L F E L R M I I E P Q T T A L A A H  
UniRef90\_B2AHT5 E H M L Q V R T I V E P E G A F L A A E  
UniRef90\_G5IL17 L D D L A Q I R L M L E P P A M R I V A G  
UniRef90\_W4P013 D L L E L R M A F E V H A A G L A A P  
UniRef90\_UPI00036B65FB I A E L I S F R M I L D G S A S L A A R  
UniRef90\_UPI0002629F13 M M E T R G A L E A L V A R A A I H  
UniRef90\_W8IFJ3 L Q D L M E V R R L L E P M A T A L A A T  
UniRef90\_D9W7Q4 H S P T E E E A A Q L L G V R S V L E T Y S A Q L A A A  
UniRef90\_E6MH46 L L E E I V E V R R G L D L S L A R I V E R  
UniRef90\_B5J405 V K N L Y D V R V F L E A S L A R A A I H  
UniRef90\_L7EZIO P Q G L I E L Y Q V R E S L E G M A A R L A A K  
UniRef90\_S3WYP9 V D D I F S A R L L L E P R L A A Q A A T  
UniRef90\_E8TPT2 F V S H I L Y E L R G I L D G Q A R L A A E  
UniRef90\_Q082W1 V L E F R I S V E T A A A L A A V R  
UniRef90\_A5V6L2 T S A Q L P Q T Q A P G P F E I L E A R K L I E S E T C A L A A R  
UniRef90\_UPI00036CDD9A T P E Q L I E L F D M R T I L E V A A V E R A A R  
UniRef90\_C5T8E0 V A V L D E D S L R H V F E V R E V L D G L A A R Q A V E  
UniRef90\_B7RYS0 L A D L V A L R V L L E A E A I R  
UniRef90\_UPI000347B140 E N N P E A Q R D L L E F R H T L E G S C A Y Y A A L  
UniRef90\_H5TK36 L L V R L L V E P E A A R L A A V  
UniRef90\_D9X1U9 D E L Y E L R I V L E P A C A R A A E R  
UniRef90\_UPI00036BD168 L R H I S Q I R V N L E P V A A R S A A E  
UniRef90\_A6UK58 L R H I S Q I R V N L E P V A A R S A A E  
UniRef90\_B0UHD8  
UniRef90\_F4DPE5  
UniRef90\_X5L250

UniRef90\_UPI00041E626E R R T D E D I L E E M R E A A N G L D A G L A E L E A Y H R F Y G A V Y R A S H N 80  
UniRef90\_UPI00035DE236 R R K D A D L R L I S S A V E S T D D L E Q M I Q A D L D F F H L L L A K A A S Y N S  
UniRef90\_U2B9H8 N S R E Q M E E E M E E N I Y L S E G H A Q N R A E L D N Q F H H L L L Y A A S N S  
UniRef90\_UPI000427AA16 R H L D E L R E L L D R L G Q P A F G S V N E R A A E L D F Q F H L N I A Q A T S G N  
UniRef90\_U3B643 A T P V D H E R L R A R F D E L Q N S K A S R A E A D A R F F H L A I A E A S H N  
UniRef90\_W7KV59 N R S E E D L G M K M R L L I S D E S A I H G W E E D Y Q F H H M A I A R A A A G N  
UniRef90\_UPI000474A4D09 N R S K D D L A K M M N L L I S D S A I H G W K E E D Y Q F H H M A I A H A A A G N  
UniRef90\_K0JZ80 R T P E Q C G D L T R A V V D M A G N L D A Y L D A D L L F H R T L L A A S G N  
UniRef90\_K2KB58 K Q I D A L S E V L S Q M E A V Q A D A L A F V R L E E F F H R M I A V G T S G N  
UniRef90\_D3D2C5 R T A E I D A E L E A V L V E G E S V T E A L S A L N A R F F H D L L A R A S T G N  
UniRef90\_UPI000465402B S A P E E S R R A M A E A I R A G D R S E F L A A D L R F F H D T L L A M S G N  
UniRef90\_UPI000366D67E R R A D A A R D A L R S A D T A A D T A Q R S L A A N R E F F H R A L Y V P C G N  
UniRef90\_J1EG50 R D L Q A S F Q A C E T A A A K D D S V A Y E E A N R W F H H Q T I Y D G S L N  
UniRef90\_K8RAD8 C D A A R L A T M R S T L G D S R N V G E A S D T V D L R F F H M E I A H A T G N  
UniRef90\_M4X1X6 R A T E D H Q R K Q A F D T L Q D C A E E G A A D A A F H L A I A E A S H N  
UniRef90\_UPI00046630D9 A D R A G V A E A L R E A I E A A G D L E Q F A A A M D T E F H R T L A R A S G N  
UniRef90\_G7CBB2 R N P A V I A E L E R I V E A L E P G A E T V S Q L T D F F H G A I A R L S G N  
UniRef90\_UPI00047EC7C8 R D I P E L L A R L A N V E A S E N D S D A Y A R L V H D F H H E T I V A G S D N  
UniRef90\_M3V671 R A D E Q C Q R L L A A A V S D M D G D L E Q F A A A M D T E F H R T L A R A S G N  
UniRef90\_UPI0003B66CFB R A T Q E D L E R I R E L K K A M A G D E D P L N P D L E F F H G A V A R A C H N  
UniRef90\_B9JLX2 N R S E E G L Q A M A E A L A Q R D D D E D F C A S D V T F H R A L V D S T G N  
UniRef90\_L0LMU2 N R S E E G L Q A M A E A L A Q R D D D E D F C A S D V T F H R A L V D S T G N  
UniRef90\_D7A0P3 G S M E D L R R L R T A L Q A M E A D L S A Y A R A D V E F F H M A V F A A A H N  
UniRef90\_UPI0003F7D797 R S K E D I N K L H A S I K Q C Q Q A D A A E R F I K A D I T F H K N M V A A A N N  
UniRef90\_U2CLK2 A H P A D V E K L C K R I E K R I A R E E S Y I D E D I A F H H T C I A E C S G N  
UniRef90\_UPI000287DCBE R T P G D I E A L K Q S L D S M K K T L N A V G E Q D L A F H A A V A N A S H N  
UniRef90\_E8ZSA7 R I T K D Q L K K L R E E F K N S E D E K L F V N L D K N F H H Y E I F Q A S N R K  
UniRef90\_E3IFH9 S F P D E Y L K K L R R L V D Q K N S E R E F F H Q L N D N E F H H R I I F Q A N R K  
UniRef90\_F3KPP7 D D P Q V D R A R L E A L D A V S G D V R Q V A Q W D E E F H A S L V A A A G N  
UniRef90\_E3EZA4 N A T D E R A S L A V M L D A H R D K L E R E G P V D Y D F H H R V A T L S R N  
UniRef90\_R5QJ20 I T P E Q L N E M E E N V H E S K G H S D E L D N R F H H E L I Y E S C D S  
UniRef90\_X0MVN0 R G P E A M R Q A A E T L P Q A N D A P D G A A L D V A F H T Q L M R A G G N  
UniRef90\_I6XRF9 H W D T E A L N K L J G D L V D R M D T L D E F N A L D T D S F H H V E I A L T A H N  
UniRef90\_I4EWM8 R L T D D D V A A I A R M R R V A D D G R A L A I V D A D S F H H E K I M S L S G N  
UniRef90\_L0F7G6 R A S Q D L R E L E D A L Q R A M L E D G K V G E E A D M R F F H Y A I A G A S K N  
UniRef90\_UPI000382AC24 H A P E D L L A G H L A A M R A A A D E H D A F M A A D R R F H Q A L N A A S G N  
UniRef90\_U7I7B5 S I T D E E L N L A E I I J A S H P D E Q E N V V L D K R F H Y I L I A R A S R N  
UniRef90\_G4KP11 R A T D D L A A I Y E A I R H L E A T P D D Y M T D V E F H D A L A V J A S H N  
UniRef90\_U1SUR2 R N E A D L V L K K A L D E M G E D G T S G E K A D L Q F H H L S I A T A A A K N  
UniRef90\_H5XGQ1 R T H E D L D E L E S A L S H M R A E L E S G V E G D R R F H A A V I A R A A R S  
UniRef90\_UPI0003B52796 H M T D E L K A L L J A S H E R A E Q D G R A Y I Q E N V D F F H Y R I I H G S H N  
UniRef90\_F4CLK2 R G P A D L A A L R E T I D D L S R A H D A F R Q S D S R F H A A L A T A A A R S  
UniRef90\_UPI0002D40E04 R A K D A D I Q A M R D I L E Q T P A L L A N H D V Q F H H M S I S A A A H N  
UniRef90\_A0A024JVS3 R E P E V A A F L R A H R S A L D D D A R H A T S E E S R F F H I G L A Q L A G N  
UniRef90\_C9XSG9 R I S D E D I K K L C D D V E S E L S S D V D A L L K L D V E F H E C I F K A T N N  
UniRef90\_U2D9X5 R A N K K D I K L C D D V E A L L S K H V D H T Q K D L E F H T A I A L S S K N  
UniRef90\_UPI000466DDE5 R T P E G L A E L H A C V E K Q R D T A N D F A S L T G D F H E L I A H H C G N  
UniRef90\_UPI0003685E0A A P A R L L D R L E G L L H E Q R D R A G A F A V A D R A F H H A A V R A A G N  
UniRef90\_UPI000373E1B3 R P T D E D L E Q I K D A L E Y R K N G E D A V Q E D L L F H L A I A K A S H N  
UniRef90\_A8ML32 M S D D E I K E L T A K L C A Q Q N D I D G L I Q K D V E F H D C I F S A T G N  
UniRef90\_W7LD80 G M T E S L L A E L R E T L D E S E A F N E K D Y K F H K K I Y S A C A N N  
UniRef90\_UPI0003B6CA90 H R G A A L E D A M A Q M R S V T S A E E L H A A D V A F H A A I A R A T A N  
UniRef90\_B8FPJ0 R A A E D I R E L S A A L D R L Q D D L H S P T S S D H R F H H A A I T R A T K N  
UniRef90\_W9B023 T S D T L E A L F A E L T D L A G D E H R F A A A D D A F H H R I V E A A G N  
UniRef90\_Q0RCM9 R G V D P A V L A E L A E I V A T G S E A A A N D T R F H H R L L A R G S G N  
UniRef90\_M4Z4Q0 R A T A A D I E M L N R N I D E A Q E A R R R A E R H I E F H R M L A R L T D N  
UniRef90\_M7NFP4 S A T Q G V A E L R D L E R R R D S A E D Y A A A D W A F H H L S I V A E A S G N  
UniRef90\_J4YXZ4 R R T A G L I E A F D A F N R A T R D M E A A V K A D Y E F H H L S I A E A S N N  
UniRef90\_W1N6I4 S T P T D K A L L L I Q R F E E L E E N P Q Q E A K A D A A F H M A I A E S A H N  
UniRef90\_A0A038FT56 R R D Q D L A R L A A V L N K G S E A V A T K R Y D L Q F H H E L A A A A G N  
UniRef90\_UPI0004774775 Q D I D D A V R A M A P A V H G D Q A Y R E F A E E D A K L H G T I A N A S G N  
UniRef90\_K7S3B5 A D P H Q C A E L T G A V M G M A P D L E S Y L I G H D I V F H R T L L L A S G N  
UniRef90\_UPI0003172369 H I T D E Q I K Q L K E M E E E K R P D S S E K A D W K F H S I I A E A T Q N  
UniRef90\_UPI000360729F R R T D E D L Q A M D Q Y A D L A G D V E A F V E A D M K L H Q A I V A A S Y N  
UniRef90\_J2RM27 R R D E A A I Q K I A A A L A D L R E A T S H T D A D F T F H R A V T E A A N N  
UniRef90\_UPI00038127E4 D V K A L T D A D V A F H H A L Y E A A S G N  
UniRef90\_UPI00023791B8 A V G E Q L A A H P A C D A A E L S D A G L H E A D R A F H A T L V A A A G N  
UniRef90\_B2AHT5 R T D A Q L A A M R Q A L D E L K H G A D A G N D A D F A F H L A I A R A T G N  
UniRef90\_G5ILI7 H I T E E L G R L R E E L E Q M R E N S E E F V R C D M A F H R E I A R A S D N  
UniRef90\_W4P013 R H L Q Q L S A L I E A E A A L N D N F V T S V R V N L E F H S L I A Q A A G N  
UniRef90\_UPI00036B65FB R E L Q Q L E D Y I Q Q S I E P D C T R E W F R A L D V K F H L T I A K A S G N  
UniRef90\_UPI0002629F13 R L P E E D L P R L R E L A H A C D H L E Y L R F D R E F H A R V I A D A T G N  
UniRef90\_W8IFJ3 R R A Q E S N N A R Q F E A S I D D E T A L D N L D F V F H R S I A D A T N N  
UniRef90\_D9W7Q4 L R S E E E L S A M E R T L A V M A D A E E F S K A D V A F H E A V A V J A S R N  
UniRef90\_E6MH46 A T P E D T A A L R A S N Q K F E N D G E A I T D N D L T F H E V L V R A S G N  
UniRef90\_B5I405 R I S D E V K R H L D A M R E A R N D V A Q L N A H D A F H R A V V S A T G N  
UniRef90\_L7EZI0 N A P E D V D H L C Q G V D A L A D D V I E R L V A N T A L H A F V T S L A A N  
UniRef90\_S3WYP9 L T G T D A V E L Q E A C V E E L N A C A E N F A D A D R R F H H A L A R E L G N  
UniRef90\_E8TPT2 A R K E D I A L G A L E A A I P D S Q N F Y A T D V A F H A A L Y D I A R N  
UniRef90\_Q082W1 N M T D D E I A L Q S H F D E V K G G E S Y Y Q E A D V D F H Y R I I L G S K N  
UniRef90\_A5V6L2 H A N A Q D I D S L K D C L A E M S G A T S F V Q L D D R F H R T I A E A T H N  
UniRef90\_UPI00036CDD9A R H T D D W L R V V A G R Q A F D M D R A F A L M V R D V E F H R T V A E A T A N  
UniRef90\_C5T8E0 R N D D N L R E M R D A L T A M E E G R D A A S A D L Q F H Q E I A E A T Q N  
UniRef90\_B7RYS0 H N A Q Q L A E L K S L R S A M E G Q E Q S V E A D E Q F H C I A E A S G N  
UniRef90\_UPI000347B140 V A H A Q H V L A A H K V R E V R G A G E T F A D L D W E F H H T I I R A A G N  
UniRef90\_H5TK36 R T Y A D I D D L W K R I R A Q E D D H K R D A Q L D L E F H T A V R S L S G N  
UniRef90\_D9X1U9 Q N P A T A R S C L A T M A A A V E N A D T F H A A D V D F H V Q L A Y A A G N  
UniRef90\_UPI00036BD168 R A T E A F E T L Q Q C Y A R E P S K I S R A E A D A R F H H L A I A E A S H N  
UniRef90\_A6UK58 N M T P D A L R Q L E N S A D M G H G E A F A R A D A Q F H D A I L K V A G N  
UniRef90\_B0UHD8 I G A A D L A R L D A V L A E A P A A P D P I T E A D R R F H A A A A A S G N  
UniRef90\_F4DPE5 R H P A L Q D L M V R K N E Q L Q A D G S A V S Q L D E A F H C Q L L E A A G N  
UniRef90\_X5L250 N A S P M V R A H L L E L A D I E D R D E L M R W D L R V H R A I Y R A T G N

	90	100	110	120
UniRef90_UPI00041E626E	E L L V I E A L D S L A	D R Y Q R L A L A E G S	A K K E R G G K N A	E Y R K L L E Q
UniRef90_UPI00035DE236	N T L S D T L V V V S	D L L P Q I R R L Q T H	G V E G V N E T F A S	E Q H E R A V L E Q
UniRef90_U2B9H8	K M L E H V L R E F H	E Y V L R V R R K T L	S D D A R G V Q S M A	S E H H R Q I M E Q
UniRef90_UPI000427AA16	H I A N T V L N M G V	V I I P R S R R R L F	H D E P L H E O Q R M	Q S E H H E H E Q Q
UniRef90_U3B643	A V L L H T I R G L F	D L L K H I G G M Y L	Q R S E T E R D R L R	K E Q H Q A L F E E
UniRef90_W7KV59	D I L Q F V F Q F L S	E T L K K S M L D F H	H Y L E L E M A K K L	E Q Q H E M E Q H L E
UniRef90_UPI00047A4D09	D L L Q F I S E T M K	S M I D F H H Y L Q T	Q S E M A K K I E Q Q	H E M E Q I Y L E
UniRef90_K0JZ80	E M L A A L T G V V S	E V L I G R T H H H G	L M P E H P N P L A I	R L H A H D V I A Q N
UniRef90_K2KB58	P L L V A C Y N L V R	R Q A F R A A M Y R R	H L T P A R R I A T Y	Q G Y N G L F E N Q
UniRef90_D3D2C5	N H L V E V L R R D L	Q N R L Q L L F S A	G V S R R S R A W E	F H R R V L V L Q
UniRef90_UPI000465402B	E L F V S L S R S V R	G V L Q A A L V S A	R V L A W A D P S W	E R E A A E H H R Q
UniRef90_UPI000366D67E	P L L G K M L D E V L	R D Q A A L V S A R	V L A W A D P S W	E R E A A E H H R Q
UniRef90_U1EG50	E V L A R Q L R Q M R	L R M R H P Q R S L	F D R P P N R V R N	S L A A E H H R Q D
UniRef90_K8RAD8	R Y F V E T M E H L G	T R M I P R T R I T	A T R P I P R D Q V	N R E H H E R Q D I
UniRef90_M4X1X6	A V L L H T I R G L F	D L L K R R I G G M	Y A Q R D E T R A E	Q L M R Q H H R G R
UniRef90_UPI00046630D9	P L L I G F Y D S L R	E R Q R R M N S A A	V R H A D E G A E Q	I V E Q H H R G R L
UniRef90_G7CBB2	K T L Q I V T D M L H	H V I E K A N R S L Q	P T E G T R A E S T	K T H R R M V L D E
UniRef90_UPI00047EC7C8	R K Y R M L M N Q L	A Y H R F V L R S V R	H P T G R L A T S T	A E H H R R M V L E
UniRef90_M3V671	E M F R S L A D V L	G E V L A G R T H H	G M M P P T P N P A	A I A L H H D D V V
UniRef90_UPI0003B66CFB	S V L V K F F H E M R	Q P T R H W M E Q K	A R E N V V V E Q H	H R A I V R E
UniRef90_B9JLX2	P L K L M M Y L V T	E S F I P L T N M L	V F R V R E R R Q V	I V A F H Q Q R I H
UniRef90_L0LMU2	Q V F R R L S S A M	H A G L K Y A L H A	S N V A A D E S R	D E A I A V H G G E
UniRef90_D7A0P3	A L L A S L V A D F	L Q L S F S I Q Q E	A L N E A D N R E	D D V G Q H R L V
UniRef90_UPI0003F7D797	K L L Q D L Y E H M	D P L Y S S I L R D T	M L M D N Q F D	Y N K E L H S R A I
UniRef90_U2CLK2	I V V K Q L E P I	L Y S D T A V L M F	V N V T H R R L T	K Q T H H R A I V
UniRef90_UPI000287DCBE	P L L I T F L N Q V S	E L M L E T I R Y L Y	T K K E T M E T L Y	E E H L K I F E
UniRef90_E8ZSA7	F L L L N E I N S I	D S T L K N A R Y K	I M K N V E N K K E	L V D Q H H E I Y L
UniRef90_E3IFH9	E H I W E A I T K L	S T H Y N R I R L I	S E L E F G F N H	V I E H H H E I V R
UniRef90_F3KPP7	A E M A R V H R D V	T E R I R I R R L D	F T K P A R I D A T	Y E E H A K I L H
UniRef90_E3EZA4	S L I D L I N D R F	W P L F Q L V R R A	R R D E P G R L R	S Y V E H H R R I
UniRef90_UPI0003R5QJ20	K M L E H L S D F H	Q Y Q V I R I R R M	T J A S E K R G R	S N K E H H E H E
UniRef90_X0MWN0	P V L A R L H E N L	W D Q Y Q I R I A A	S T A G P G H A A	D D L D E H A A I
UniRef90_I6XRF9	P T I G D L S S A I	R Q A M R R D A S	M A V D D W Q A L	R N T L G K H Q R Q
UniRef90_I4EWM8	S T L R L V W R S I	R E P M S R T Y I	T L V G P N S D	P Q W T C H H D P
UniRef90_L0F7G6	K I L L R L M N A I	S D T M H Q S R V	R L Y E G N V S P	E R L Y K E H V F I
UniRef90_UPI000382AC24	L R L A H Y L D S L	R D M V L L R G T S	T V D R S R G L H	D I L A E H E T I H
UniRef90_V7I7B5	N L I V S I T A V S	S L M D S F R E A I	J N R D E N K E T	L L L E H H E K I Y
UniRef90_G4KP11	V M L A A T I H L V	S M I A D V R R R F	F G L I Q D Y Q Q	R T Q D S H R A I Y
UniRef90_U1SUR2	S L L V E L L N N I	S E L M Q E T R K T	E Y S K Q K R T	M N K L H E H H V I
UniRef90_H5XGQ1	A L L A E F M H S I	S E Q I T E S R T E	S L R Q P G R P H	R S L R Q H Q Q A I
UniRef90_UPI0003B52796	A V L I Q M L C G	E L Y H R V R I Y R	F S L T E G R A R A	L G E H H Q Q R I V
UniRef90_F4CLK2	T R L L A A V E S I	R E L F N T Y D L L	P F V D P N V I Q	E S V D D D H Q A V
UniRef90_UPI0002D40E04	R V L A E E L R N L	H E K Q A R F W L T	L S E N H H S E R	I Y E A H L Q I L E
UniRef90_A0A024JVS3	A L L D L F L R I I	V E L F R R H W S	S T G Q E P P S R	D D V V A A H L R I
UniRef90_C9XSG9	K K L T Q L I N S L	W E Q V Y R F R V	T Y M S A Y D T S	H N I V E H H K Y L
UniRef90_U2D9X5	V V V P R L I P V I	N S S I P L F V E S	T S G A H E I T I	E T H H R E I A D
UniRef90_UPI000466DDE5	K T L E A Q A K S L	G E V L R A L S I R	R R E D P D A T A	D T I A A Y A E L L
UniRef90_UPI0003685E0A	R L L E Q L Y D Q L	R D R Q L R M G A V	M H A E P D R V S	R S L E H H T E I L
UniRef90_UPI000373E1B3	S T M N T F M L I T	E I T I N F G E K Y	H V I C D K G L A	Q E G I K E H Q E I
UniRef90_A8ML32	S K L N Q I S Q S L	R E Q V Y R F R V	R Y I S R Y D R A	K D L V D E H H Q A
UniRef90_W7LD80	Q L L R T I D E L W	A N T K R Y P S L	F K G N D E H I	Q A S I E E H H E I
UniRef90_UPI0003B6CA90	D L C E L T L D A L	E P M L R R L R R R	V V Q A G D T L E	S I L R A H H A I L
UniRef90_B8FPJ0	K I M I R L M D T I	S D L L K A S R S	K L Y E G K Y T P	A L L F Q E H H K K
UniRef90_W9B023	A L G Q R F Y G S L	R D R Q R R M M A	S V V R S D T A R	A R A R L D E H H
UniRef90_Q0RCM9	G A L V E V L R D	L Q N R R L Q L L	F S T G V R R R S	G A W D E H H R R
UniRef90_UPI0004M4Z4Q0	P I M V I V M N G V	L D V L T H F V Q R	I F V L P S R R R	F M E H F
UniRef90_M7NFP4	A L L H E L Y D S F	G D V F H G T K M	V Q R L E A G F H	E E L L E
UniRef90_J4YXZ4	P H F P A L L D V M	L D L N I K H G G K	T P E E L E T E T	R N V R H E A L L T
UniRef90_W1N6I4	V L L L H T I R G	I F H L L E R H L F	E K P D S R P K L	M E Q H H R A L L
UniRef90_A0A038FT56	R V L S D L L K R	L R E R T A M L F	A T D P E R Q A	R T W A G H A G I
UniRef90_UPI0004774775	P L I A E T L D R L	R A H V H S Y R L	Y F R H G I A	E V T A G E H H Q A
UniRef90_K7S3B5	P L I A E H A E V V	E A V L R T N L L	P F V P N P A A T	A J A L H R E V V D
UniRef90_UPI0003172369	S A I T S V V N W L	W E L R L S A F A	Q R L R A E G V H	P S L Q D G H K D
UniRef90_UPI000360729F	G L L I D L Y A N	L F E Q I Q M S L	L S T T E S N D	R Y H T G H C K D I
UniRef90_J2RM27	H Y Y T A S I D A	L K A I A V G M H L	H G L S L L G P R	E Q V Y E E H N K I
UniRef90_UPI00038127E4	P L I A Q S A Q T H	V H L R R V M G A	V L Q A S G S R D	A I W D E H H Q A I
UniRef90_UPI00023791B8	P V V A D L Y N A	L R D K Q M R I T	A T A R T H A V R	P H I T Q Q H A H L
UniRef90_B2AHT5	R Y F T D L M G H	L G T M V I P R S	R L H V N T P E R	V I E R V S I E H E
UniRef90_G5ILI7	M L L Y H G L N	E V L N N T V D Y	H R Q L N H I Y Y	H T I L E
UniRef90_W4P013	R L A Y D V I H	D L E L R L A R Y	F F E S E N E R S	E T A H E H L A I
UniRef90_UPI00036B65FB	S Y L E S A V R Q I	R T Q I N P A L D	L M P Y N E Q I R	S I N Y G V H S E
UniRef90_UPI0002629F13	A Q L V I E F A T S	L R R R T R L Y G I	A T V I S R E G R	L G S A R E H L E L
UniRef90_W8IFJ3	G A F I E F L M S	P A F S K E L N P	A L I T P E Y I Q N	T V R H R A I C
UniRef90_D9W7Q4	S L I E V C N Q V	V R G I S D K V A	H A H N S T A L M	R E S L R H H E E
UniRef90_E6MH46	G R L K S M I H T	L R E Q M L R F R	V E Y V H R I D	K K K P L P G Q
UniRef90_B5J405	E T L L T L T E G I	S G R T L A R A R	W R G L V D D K	A G R T L A E H H A
UniRef90_L7EZI0	D V L A E M L A Q V	G Q K V R W Y Y T	P I A K P R K E A	W N E H T Q L I K
UniRef90_S3WYP9	N V Y S Q L V T A	F W D I H T A I	G A R F P K A G R	E E T A D A H H E
UniRef90_E8TPT2	P V L P V V H K A F	T A W L S P Q W M R	M P R S P R E	N R V N F L S H R E
UniRef90_Q082W1	K H L I S M L F D	G I Y H L V R M Y	R V M A G P R V	I T A Y D E H K H
UniRef90_A5V6L2	P L L L I L Y D T	L R S Q M K R V G	E V F G Q L A Q	P P R S T D V E H
UniRef90_UPI00036CDD9A	P L L A E S A G V M	W R N V Q R V M G	E V L L Q G G P	A W V W D H H A I
UniRef90_C5T8E0	H H F L D L M K S	L G V I P R T R L	E A P A M V Q P	E R L A N Q H E N I
UniRef90_B7RYS0	G A L S V T V E W L	S E I S T R H Q R I	R E E G S M P L	V I S D H T R I E
UniRef90_UPI000347B140	R F L T O S A E W	S A H V H R L R Q	T V Q H G T G M	D M D Q A I A H E
UniRef90_H5TK36	K P L C D A L L K	L D T Q S H L Y	R S D M W G H D	V N R R L S V T E
UniRef90_D9X1U9	R A L G F V I G V L	R D C Y L L D A L	A A V A D P G A	V A R L L A E H H Q
UniRef90_UPI00036BD168	A V L L H T I R G L	F D L L R R I G M Y	A Q R S E T R E	L L M R Q H H R A
UniRef90_A6UK58	E V I R S T L S N Q	H V H L H I F R L	M F H T R V T Q E	A L I E H H E N L
UniRef90_B0UH8	R V L A E V L D G L	H G R S V R F W A	L S L G T G Q H	L A E V A V E H H A
UniRef90_F4DPE5	R E M A R V H R D V	S E K I R L R R L	D F T Q A R R I	D L T Y A E H H Q R
UniRef90_X5L250	P H L E D V L V R Y	D N L A T R I F C	L F L D R L P T	V A R H V G E H T

UniRef90\_UPI00041E626E S I V S G D A D A S A S M L R H V E S G 130 140 150  
UniRef90\_UPI00035DE236 A V I D R D G S R A A E E M E R H  
UniRef90\_U2B9H8 A I R Q R D A D L A E Q L A N A H I R K A  
UniRef90\_UPI000427AA16 A I F N Q D I E W A R A A M R L H L H D S R E Y L H Q A R Q E L  
UniRef90\_U3B643 A I I E R R A D A A R D L S H Q H  
UniRef90\_W7KV59 I I K N K Q P D Q A H Q N M V D H L E  
UniRef90\_UPI00047A4D09 A I K N Q Q P E Q A H K N M I N H L K L V E Q L L Q  
UniRef90\_K0JZ80 A V Q S G D P S A A E R A M R E  
UniRef90\_K2KB58 A I A A R D I E E A T E F M K L S L I E  
UniRef90\_D3D2C5 A I R A R D A D W A E A E I R A H  
UniRef90\_UPI000465402B L A L A G D A Q G A S R A L R D H  
UniRef90\_UPI000366D67E A I L D G D E D A A  
UniRef90\_J1EG50 A I E R G D A D S A R T A M R L H L I N S R E R L R R A Q S S L  
UniRef90\_K8RAD8 A I V G G H A E A A R K I S Q R H  
UniRef90\_M4X1X6 R I E A G D A E G F A A L L V E H L  
UniRef90\_UPI00046630D9 Y I K A G D A E K A G E L W Q K H L Q K A G E Y  
UniRef90\_G7CBB2 L I I Q K D G V I G A E L A M K D H V V S S A R  
UniRef90\_UPI00047EC7C8 A I R L R D P E A A E A S M R  
UniRef90\_M3V671 A V E A R D P A L A Q E A L R S H L E S T G E  
UniRef90\_UPI0003B66CFB A L S N R D V G E A T A A L  
UniRef90\_B9JLX2 A L R L R D R D A A R A C A H R M L  
UniRef90\_L0LMU2 A I N R G D G E A A A L A M R D N G K N S  
UniRef90\_D7A0P3 A I R H Q D I D G A T K Y V D A Y  
UniRef90\_UPI0003F7D797 A I A E H D S I G A K T A M L M H M I  
UniRef90\_UPI000287DCBE A I V E K D V A G A Q L A M Q H H L  
UniRef90\_E8ZSA7 A L K E K D S E D R A S K L M K E H L E F S G E  
UniRef90\_E31FH9 I I E S K E A D R A E E I A R K H I L E P T K K W K K L L  
UniRef90\_F3KPP7 A I Q R K R G D Q A V L L R A H L E T S Q A E V R K I  
UniRef90\_E3EZA4 A I I D R D G D V A E L L M R R H  
UniRef90\_R5QJ20 A I K A H D A D K A E R L A N L H M I N A  
UniRef90\_X0MWN0 A I R R G D G T A A R A L L T R H  
UniRef90\_I6XRF9 A I E K R D G D L A A V L M E E H I R  
UniRef90\_I4EWM8 G H R R D A D A V V A A I E R H  
UniRef90\_L0F7G6 A V T R Q N E E D A R R Y M L E  
UniRef90\_UPI000382AC24 A I R H G E A E R A A E A M R E H L  
UniRef90\_V7I7B5 A L A D H D E K K A A K V M E D H M  
UniRef90\_G4KP11 A V A D R D A V R A K R E M I S H L  
UniRef90\_U1SUR2 A I V E Q N A T N A V K A M E S H L L E  
UniRef90\_H5XGQ1 A I S V I G D P T R A A A M R R H  
UniRef90\_UPI0003B52796 A I E A R D G E L A E F L M R R H  
UniRef90\_F4CLK2 A V E A G D V D G A T A A I R D H I E N A R A  
UniRef90\_UPI0002D40E04 A V E Q R D  
UniRef90\_A0A024JVS3 A I A A G D D S L A R Y R I R R H L D A A A S W W  
UniRef90\_C9XSG9 A I I K G D S E  
UniRef90\_U2D9X5 A I A E H D A L R A Q D A M  
UniRef90\_UPI000466DDE5 L I E T G D S A A A E H W R S H L Q A S A D V V Y R N R D  
UniRef90\_UPI0003685E0A S L R D G D A V T A A E Q V R R H  
UniRef90\_UPI000373E1B3 A I L N Q D P K L A K Q K M K D H  
UniRef90\_A8ML32 A I V K R D A E L A Y K L T N H M M E Q L D I Y S Q  
UniRef90\_W7LD80 A L L K K D S M L A E S Y M I K H K T R A G R  
UniRef90\_UPI0003B6CA90 A I E D G D E E R A V A T M T Q H L A Q A R A  
UniRef90\_B8FPJ0 A I V A K D V E M A R N Y M L T H L  
UniRef90\_W9B023 A I Q R R D L A E F E M L L L A H L Q  
UniRef90\_Q0RCM9 A I R A G D A D W A E A E M R S H I R  
UniRef90\_M4Z4Q0  
UniRef90\_M7NFP4 A I E A G D G D A A V A T V  
UniRef90\_J4YXZ4 A I M R R D P G A A R A A M A R H L G D S I A R Y R K L L S Q  
UniRef90\_W1N6I4 A I L E G R P E D A Q R L A H E H L  
UniRef90\_A0A038FT56 A I I A G D E R A A A T L A A E H V M R A G A  
UniRef90\_UPI0004774775 M I R D H D Q T G A E Q A M R I H L E N S  
UniRef90\_K7S3B5 A V I G H R G E D A E E A M R Q  
UniRef90\_UPI0003172369 A L E K R N A K K A E Q A M K K H L E N A T E  
UniRef90\_UPI000360729F A I R E Q Q P D Q A A S I V D D Y  
UniRef90\_J2RM27 A I V E G R A E D A R A L M K A H L E G S  
UniRef90\_UPI00038127E4 A V K A G D A E L A A Q L V E Q H  
UniRef90\_UPI00023791B8 A I R D G D P E L A K A R L R E H L  
UniRef90\_B2AHT5 A I E R R D P D A K A A M R M H L T N S R E  
UniRef90\_G5ILI7 A L E K R D G K K A A R L M K K H L Q  
UniRef90\_W4P013 A I R D Q R A D D A E T I T R N H L  
UniRef90\_UPI00036B65FB A L K A H D P E R S R E R M K N H I K F S A E I Y A R L  
UniRef90\_UPI0002629F13 L L A A G D G A G A R V L H R H I S H A R A L W A T A R E  
UniRef90\_W8IFJ3 A I S S G N S E Q A R E A M R A H L N R S  
UniRef90\_D9W7Q4 A I R A G D G P A A A S I S R R  
UniRef90\_E6MH46 N I E A G D  
UniRef90\_B5I405 A L S T R D  
UniRef90\_L7EZI0 A I A K G D T V R A G E V M R K H T E R T T D F Y R R  
UniRef90\_S3WYP9 S A V A G N L D A Y L E A V R A H  
UniRef90\_E8TPT2 A I I E R D P D G A E R A L L N H L  
UniRef90\_Q082W1 A I L N R D A E L A E M L M R R H I M Y S  
UniRef90\_A5V6L2 A I L A H A P E R A E Q A M R D H  
UniRef90\_UPI00036CDD9A A V R D R D G D A E G L A R R H  
UniRef90\_C5T8E0 A I A A Q D F E A A R A M R T H L S N S  
UniRef90\_B7RYS0 A L E S S D P A A A S Q A M S D H L Q R  
UniRef90\_UPI000347B140 A F E S G D P E A L R A T M R S H L E  
UniRef90\_H5TK36 A L E A G D  
UniRef90\_D9X1U9 A L D A G E T D H A A E L A V H H  
UniRef90\_UPI00036BD168 A I I E R R A E D A R E I L S S Q H  
UniRef90\_A6UK58 A F R A G D P Q A A F D A M R I H I E R S  
UniRef90\_B0UH8 A L A R R S P S D A A A M T A H  
UniRef90\_F4DPE5 A I L T R R S E E A Q Q L K G H I E V S K A E V H S I  
UniRef90\_X5L250 A I A R G D A E A A K I A H D H



1

10 20 30 40

UniRef90\_M7NBG8 T M A R L E A L S M D D L V P F R L V L D S A A C R L A A A

UniRef90\_U4JJ83 D S K Q S S Q V M R E V F E M R L A F E P E A A Y L A A S

UniRef90\_S4NFP5 D L D A A D T K A K V L Q I V E V R R A M E G E A A S L A A A

UniRef90\_E2XM00 E T R Q I L E V E A I G A L R

UniRef90\_H0UPL7 L L E L M E A R R V L V D P A T A R E A M P

UniRef90\_UPI000374CB28 E D L G E T R L I V E K E A I R L A C Q

UniRef90\_UPI00034A23BE I R L M E I S H Q R L E Q I I D V R I P L E T L A C Q R A I R

UniRef90\_B5ZP50 E I I A H F D N G V T E E F L L Q L Y D I R L A I E P F A A G L A E R

UniRef90\_A4WXV7 D H S P K T L A D V L N F R I V E T G A A P L A V Q

UniRef90\_R7PHF1

UniRef90\_A0A059KM04 Q R Q P L M Q A D L L E F R D M L E A R C A E L A A E

UniRef90\_R4KF05 L M E I R K L L E T G S A S L A A A R

UniRef90\_UPI00028A2DA2 L F Q M R M A L E G V A C N L A T R

UniRef90\_E3HKL8 V L E F R R I V E S E A C Y M A T L

UniRef90\_G1WQ16 L D E V F S V M S M L E G E C A R A S T E

UniRef90\_N6Y7B7 V H A A R L L V E Q Q I V G D A A E

UniRef90\_UPI0004678DFB D V V D A R K L L E E H A V R A V V

UniRef90\_K6WR77 L Q E V F E M R S A L E G L A V R V A V A

UniRef90\_J2F012 L G S A L R L H V A T Q H L P V E D V V I E T R V L L E S W A A R A R P

UniRef90\_H0QGZ1 L M D T R F A L E P H I C R L A V L P

UniRef90\_A6FT98 I V E L R M A V E E F V I Q L S L P

UniRef90\_D1Y4X1 D E L Y E L R V V L E L E A V R R C L R E

UniRef90\_U2A2B1 D L Y E I R V T L E L R G L Q R A V E

UniRef90\_Q0RC02 P D L L R D L Y E I R V T L E L R G L Q R A V E

UniRef90\_G4RFN3 D H A R I S S I I E L L E L R A A V E V E A A G A A V R

UniRef90\_B9KXE2 E E V R D L F E L R V A L E S Y V V R R L A

UniRef90\_UPI0003702C61 L S D I M G A R A I F E G A I V A L V A P

UniRef90\_J1RC48 T S A Q V G E G I V D L L A M S M L E A R Q V F E L G I I P L V C E

UniRef90\_W8H0S6 M D T I V R I G A L N I D E I T E V R R V L E I P A T E W A A R

UniRef90\_T1VXL2 H A S V D E M K Y V F E V R R A L E M E A V R L A C E

UniRef90\_UPI00036B23FB I R D V F Q C R A V I E G L S A R L A A E

UniRef90\_V7FNE7 I R D V F Q C R A V I E V A A V R L T C A

UniRef90\_H1HUB7 L R D V L E V R R A L E D L A V E L A V E

UniRef90\_H5X430 A H H G T T V A P L S L R D V L A V R E N L E G L A A R L A A V

UniRef90\_Q0FJT3 L R D L Y E V R L M V E T H A V R K I C R

UniRef90\_UPI00039EB37C E L I A D V H A A R S L L E G M A C R Q A A E

UniRef90\_UPI00036C3373 L A D V H A A R S L L E P V A V R A S A R

UniRef90\_R6HHW0 E N L M E L R E M V E S G I M R L A S A

UniRef90\_N1ZFC6 I Y G I I L N A D E S Y V E L K E F R E L M E Q S I V R S A I K

UniRef90\_O50514 A D L L E T R T L L E P L G A S R A A R

UniRef90\_C6LCZ8 V E N L T V L R A R I E P L A I E L A F P

UniRef90\_D1Y5J6 L T E V R K L I E G Q A A Y W C V Q

UniRef90\_K2NXJ1 V L E I R E A L E S Y A A R K A A E

UniRef90\_L8FGN0 V A E I Y T L R G L L E S H A A R L A S E

UniRef90\_A0A011A6U0 T I E V R S A V E P L C A R I V I A K

UniRef90\_Q7CTB6 D L I E A R P F I E P A A G W A A V R

UniRef90\_UPI0002D8ACB6 D L L E M R T T L E V Q S A G L A A K

UniRef90\_UPI0003114337 L R D V L Q V R R C L E V E G A R A A V A

UniRef90\_G0A9Z0 I I S L L L E L R I S L E S E A V F L A S E

UniRef90\_B7GX12 E V R R I L E A G A A E L A Q R

UniRef90\_Q47NZ7 I D D A L R L R E I L E V G A T R M A A G

UniRef90\_UPI000466FAEC V Q D V V R T R I L L E T W A V D A A A R

UniRef90\_R7WHB9 L R S L A E L R S A V E P V A A E L A A G

UniRef90\_U2A932 R L A G E A R G A Q L R D L W E A R T A L D A E A A R L A A R

UniRef90\_UPI000474CC96 P L W R A D I L L E F R L I F E C G A A R A A V R

UniRef90\_H8L305 R T A M Q

UniRef90\_F8GQI5 F A M R E A L E G M A A R L A A S

UniRef90\_F6D090 I M N L L E V R K I L E T G A V A V A A K

UniRef90\_UPI00037E59F4 D L Y E Y R L G I E T A I A R L A C R

UniRef90\_UPI00047C7D2B D K I S M P E L C Q A R Q I I E P E V A R A A M K

UniRef90\_I4C4M4 F T P E E V E E V Y R V R A L L E G E A V R E A A L

UniRef90\_UPI000379EE27 D I Q N D S E L I S G L I E A R R I F E P A A E L A A R

UniRef90\_UPI0003B520FA I D E V F P V M A L L E G R V A E E A A R

UniRef90\_M5ET19 L E G E C A R A S V R

UniRef90\_E9T7B1 I K E L L E V R K I L E L G A I R L L I E

UniRef90\_W0SN27 D N F S H V V E E F L I M R N S L E P Q A C A L A A I

UniRef90\_A1K396 L M R A R L V I E P E I A R A A A I

UniRef90\_A0A033UYN7 L D F D G V S S L I Q R C F E F R T E V E G G A A Y L A A D

UniRef90\_J1GES5 E D L F N F R L L V E P E G A R L A A L

UniRef90\_I4YXF0 L C Q A R M L I E P Q V A R M A A K

UniRef90\_U3B0D7 L Y E T R E S L E G M A A R L A A K

UniRef90\_U3B0D7 Q I L E V R H S L D L Q A A V L A A E

UniRef90\_F4GVQ7 P E L I E I Y S C R E A L E G M A C R L A A E

UniRef90\_A1RFG5 D L A N D I Y E T R Y A C P I T A R A A E Y

UniRef90\_A3QDY7 E V R A A L E A L C A R K A A E

UniRef90\_D8ISV8 E H V L D V R A V L E V A A E R A A R

UniRef90\_UPI00046F003E I D D I Y T V R Q L L E P E L J A A G A V P

UniRef90\_COD954

UniRef90\_HOQNJ9 E A L I R L E A D G L V D L V A K V L P I R Q D I C E I Y Q I L A V K

UniRef90\_UPI000347CD79 P R E T A E I F D L R A L V E P E I I R N A V

UniRef90\_G8MFX8 D I M D A R L V L E P Q L A A Q A A I

UniRef90\_W1SAL9 E V R V A L E G D A A R A A L R

UniRef90\_A0NN57 L D V R L I L E P A T A R L A A R

UniRef90\_U7GDN9 L F Q L R V P L E I E A A G L A A V

UniRef90\_G1XVH6 V S D V W D V R R V L E I E A A G L A A V

UniRef90\_M5NVL5 L F Q L R V P L E I E A A G L A A V

UniRef90\_Q0B952 V T E L S E D D A Q Q L V M A L L E G R C A Y A A L R

UniRef90\_F6IEQ4 E V L T A L E S L A A E M V A K

UniRef90\_K2QR70 D L R A L L E P E A V R R A V E

UniRef90\_UPI0004774AD3 V I E L R R G V E G E M A A L A A R

UniRef90\_UPI00037AB9EF

UniRef90\_D8HKN7

UniRef90\_I3CX18

UniRef90\_M7NBG8  
UniRef90\_U4JJ83  
UniRef90\_S4NFP5  
UniRef90\_E2XM00  
UniRef90\_HOUPL7  
UniRef90\_UPI000374CB28  
UniRef90\_UPI00034A23BE  
UniRef90\_B5ZP50  
UniRef90\_A4WXV7  
UniRef90\_R7PHF1  
UniRef90\_A0A059KM04  
UniRef90\_R4KF05  
UniRef90\_UPI00028A2DA2  
UniRef90\_E3HKL8  
UniRef90\_G1WQ16  
UniRef90\_N6Y7B7  
UniRef90\_UPI0004678DFB  
UniRef90\_K6WR77  
UniRef90\_J2F012  
UniRef90\_HOQGZ1  
UniRef90\_A6FT98  
UniRef90\_D1Y4X1  
UniRef90\_U2A2B1  
UniRef90\_Q0RC02  
UniRef90\_G4RFN3  
UniRef90\_B9KXE2  
UniRef90\_UPI0003702C61  
UniRef90\_J1RC48  
UniRef90\_W8H0S6  
UniRef90\_T1VXL2  
UniRef90\_UPI00036B23FB  
UniRef90\_V7FNE7  
UniRef90\_H1HUB7  
UniRef90\_H5X430  
UniRef90\_Q0FJT3  
UniRef90\_UPI00039EB37C  
UniRef90\_UPI00036C3373  
UniRef90\_R6HHW0  
UniRef90\_N1ZFC6  
UniRef90\_O50514  
UniRef90\_C6LCZ8  
UniRef90\_D1Y5J6  
UniRef90\_K2NXJ1  
UniRef90\_L8FGN0  
UniRef90\_A0A011A6U0  
UniRef90\_Q7CTB6  
UniRef90\_UPI0002D8ACB6  
UniRef90\_UPI0003114337  
UniRef90\_G0A9Z0  
UniRef90\_B7GX12  
UniRef90\_Q47NZ7  
UniRef90\_UPI000466FAEC  
UniRef90\_R7WHB9  
UniRef90\_U2A932  
UniRef90\_UPI000474CC96  
UniRef90\_H8L305  
UniRef90\_F8GQI5  
UniRef90\_F6D090  
UniRef90\_UPI00037E59F4  
UniRef90\_UPI00047C7D2B  
UniRef90\_I4C4M4  
UniRef90\_UPI000379EE27  
UniRef90\_UPI0003B520FA  
UniRef90\_M5ET19  
UniRef90\_E9T7B1  
UniRef90\_W0SN27  
UniRef90\_A1K396  
UniRef90\_A0A033UYN7  
UniRef90\_J1GES5  
UniRef90\_I4YXF0  
UniRef90\_U3B0D7  
UniRef90\_F4GVQ7  
UniRef90\_A1RFG5  
UniRef90\_A3QDY7  
UniRef90\_D8ISV8  
UniRef90\_UPI00046F003E  
UniRef90\_C0D954  
UniRef90\_HOQNJ9  
UniRef90\_UPI000347CD79  
UniRef90\_G8MFX8  
UniRef90\_W1SAL9  
UniRef90\_A0NN57  
UniRef90\_U7GDN9  
UniRef90\_G1XVH6  
UniRef90\_M5NVL5  
UniRef90\_Q0B952  
UniRef90\_F6IEQ4  
UniRef90\_K2QR70  
UniRef90\_UPI0004774AD3  
UniRef90\_UPI00037AB9EF  
UniRef90\_D8HKN7  
UniRef90\_I3CX18

UniRef90\_M7NBG8  
UniRef90\_U4JJ83  
UniRef90\_S4NFP5  
UniRef90\_E2XM00  
UniRef90\_HOUPL7  
UniRef90\_UPI000374CB28  
UniRef90\_UPI00034A23BE  
UniRef90\_B5ZP50  
UniRef90\_A4WXV7  
UniRef90\_R7PHF1  
UniRef90\_A0A059KM04  
UniRef90\_R4KF05  
UniRef90\_UPI00028A2DA2  
UniRef90\_E3HKL8  
UniRef90\_G1WQ16  
UniRef90\_N6Y7B7  
UniRef90\_UPI0004678DFB  
UniRef90\_K6WR77  
UniRef90\_J2F012  
UniRef90\_HOQGZ1  
UniRef90\_A6FT98  
UniRef90\_D1Y4X1  
UniRef90\_U2A2B1  
UniRef90\_Q0RC02  
UniRef90\_G4RFN3  
UniRef90\_B9KXE2  
UniRef90\_UPI0003702C61  
UniRef90\_J1RC48  
UniRef90\_W8H0S6  
UniRef90\_T1VXL2  
UniRef90\_UPI00036B23FB  
UniRef90\_V7FNE7  
UniRef90\_H1HUB7  
UniRef90\_H5X430  
UniRef90\_Q0FJT3  
UniRef90\_UPI00039EB37C  
UniRef90\_UPI00036C3373  
UniRef90\_R6HHW0  
UniRef90\_N1ZFC6  
UniRef90\_O50514  
UniRef90\_C6LCZ8  
UniRef90\_D1Y5J6  
UniRef90\_K2NXJ1  
UniRef90\_L8FGN0  
UniRef90\_A0A011A6U0  
UniRef90\_Q7CTB6  
UniRef90\_UPI0002D8ACB6  
UniRef90\_UPI0003114337  
UniRef90\_G0A9Z0  
UniRef90\_B7GX12  
UniRef90\_Q47NZ7  
UniRef90\_UPI000466FAEC  
UniRef90\_R7WHB9  
UniRef90\_U2A932  
UniRef90\_UPI000474CC96  
UniRef90\_H8L305  
UniRef90\_F8GQI5  
UniRef90\_F6D090  
UniRef90\_UPI00037E59F4  
UniRef90\_UPI00047C7D2B  
UniRef90\_I4C4M4  
UniRef90\_UPI000379EE27  
UniRef90\_UPI0003B520FA  
UniRef90\_M5ET19  
UniRef90\_E9T7B1  
UniRef90\_W0SN27  
UniRef90\_A1K396  
UniRef90\_A0A033UYN7  
UniRef90\_J1GES5  
UniRef90\_I4YXF0  
UniRef90\_U3B0D7  
UniRef90\_F4GVQ7  
UniRef90\_A1RFG5  
UniRef90\_A3QDY7  
UniRef90\_D8ISV8  
UniRef90\_UPI00046F003E  
UniRef90\_COD954  
UniRef90\_HOQNJ9  
UniRef90\_UPI000347CD79  
UniRef90\_G8MFX8  
UniRef90\_W1SAL9  
UniRef90\_A0NN57  
UniRef90\_U7GDN9  
UniRef90\_G1XWH6  
UniRef90\_M5NVL5  
UniRef90\_Q0B952  
UniRef90\_F6IEQ4  
UniRef90\_K2QR70  
UniRef90\_UPI0004774AD3  
UniRef90\_UPI00037AB9EF  
UniRef90\_D8HKN7  
UniRef90\_I3CX18

90 100 110 120  
A L V S L V S G A I F D L T S Q Q L K D S P D S T R T E A D S A A L D R G I F E  
A L Y S L I S V I G L K H M F K A N L D L D S E K E D E E W L K R R H K D V A V  
A V M V S T V R Y L G S D V V S R G A S Q L R Q T R A N E S A R R R Q A V R D E H H E L L A  
P A L M S E L T Y H Y F L G A V V S G A G L R Q T L T V S P R R R Q A V F D H H E L L D  
F V F V N I V R M N F N L I M A T H D R I Y A L L E D K E A F L N E H H K T L Y D E  
H L L H N I W L P L V E Y S K A A L E S L A R S G R S P L I S L Y E H H E R L Y E  
P V L S N I W E S I A R Q L T V I F G L S T I G K S M E S I J E E H H Q R L V E V E  
P F M R T L G S L I E A A L V G M F R M S T P P S E A N I A D T H H M R I V D E  
S V L T R M Y R V L S K F Y L E V G K S R S Q P E T E E S N A Q H H M R I E R  
M M F K K M M E L I R M M L T E M Q N F L V A Q G E D V D S T F Y H H E M V L R  
P V F S Y L V A T L L A L L H E I A D L A P D S D E A R A L J A A Q H H E A L W R E E  
P R L Y G M I T T L V D H I Q R Y A R V G Y S Q P Q R E E A T R E E H H R R L A E  
T L L F Q M M E S L H D K L Q E S I K E T R K L L A A E H H R D I Y E  
R I I N A L C G D L Y H L L R V Y R R H S G T V L E R K D D A Y A E H H W Q I L R E  
P L L E K C M Y R V F E E N K K S Q Q L T R K Y E H H R R I L E  
R W L L H V I E D L R K V I K L S R H H S L F E Q S L J A E H H K G I L D S  
P L L A D I V T D L Y T Y M M E H R R R A M A Q S P G A V D G S F A D H H Q V I L L S T  
P L L A E F F V I G L G S E R H R A M P T A S V H R D V J A A S R I L T D H H Q Q L L T  
P R L L K Q I S A L Y S L I E A M T R L W L Q H V D K P L S A R Q E H H A V I L L D  
A V V S A M M G S L R E A I Q G Y A G Q L T A N D A T A S R L R A E H H R E I L L A N  
G L L T W L L D Q S A N R V S E D D W T R M R H L L T L D Q H R Q I L N G  
Q L L R D T L K J A N E R F L A P G G V I L R N K P Q M L E A L E G H V K I L L E  
R E M A R V H R E V S E K I R L R R L D F T Q A Q R T E L T Y A E H H G Q I L E E  
A E L A H M L D A L N A R L R P V R M H D F V T A D R V E L T L S Q H H L G I V E V E  
P R F V L G F I A L M G A L S D S T G E V S K D Y L Q L H E H H A R I V G Q E  
E L Y S S M E R L S D R L H R T I A S V I S R R P A R M L D S T I E H H R A I V L Q E  
E V L V Q T V A R L Y P L I S A K L L D H Y E P E D S W F T A L K H E H H R L E A E  
A A I V M L A D S F Q P T R R S L E Q V K E E H P E R G N K H E H H R Q F V A  
R L L A A F I A S V H D A T H P A Q F L D V T S D V A Q K T V R Q H I A T E A E  
P V L T D L F A G I L E T V R A T Y E V T E G V H P S L T S S H H Q G V I A E E  
A V I N R L E L L T N I H L T A F A G R T P K D T L P H H R S I L L E  
E F L F R A V R D A M T R L S R A R W L I E V R D E A A L G R A W A E H H D I L S  
D K L V Q M L N N L R D Q M Y R Y R L E Y I K D P T G K R Q L L H E H H E Q I L T R  
S Y L G R F L G Q V E H A V Y R R L P A S T L G H P G R A E E V L S H E H D A V L T R  
R V L V D V F D G L Q A P L S R V A M V S L Q Q G F G K E V I E E H H R E M I A E  
R T L A D M L C G D L Y H L V R M Y R Y R F S T P K R P Q Q A F A E H H R I L E A  
Q T L G I V A E M L N E I V A R A V A A V S S T P E T R L R G L R S Q A R L L A E  
P L A D K I S R V V R T L T H A M R Y E T V A N T G R G E E L I A A H R C H L L E  
S L M T K I N S V R T L S L R L K T V T F M L E G S K Q E L L D A H K D I Y E  
P S L T A L L T Q V R H K I A W M Y V E A P V G P V E H W A E H H A A I A D  
S L L A D T F N Y L A P T V I R V H I L T G T L N P Y K E T A I E E H H L E L I H  
P Y L T R M I D S L N G E I K R Q K E V N F K M L P R E D R K E H H W K V L E  
D R L S D M L Y G D L Y E A L R V L R Y R S S A H A G R R L A I E H H A V V A T  
P F L A T L V G Q V L A F T V S F R A N Y T S P A E R S Q T A L V E H H D A I V A  
K M L T F M S R K L D E A L S R D F R L K T F Q V P Q N A Q N A L R A H H R I V E  
G L F A K V V A D R E A L S Q S E M V N L M A G R R V A S N F E H H R R I V E  
D F M I Q T F S N L Q S V H R D A L I E F S L G K P R K R E M V Y G E H H V R V F E E  
P V L T E L Y C G L T E V V V A S V A T A S G K P V R A D Q I R H R G L L Q E  
Q V L T D V L K L A G R S S L I T M L Y Q S T R D A A C S S D E H H V E F L L Q  
Q Y F V D F L K Y L E K I T P R A R V K S I E S P E N R E A V H H D H V N I T Y N  
V F I P A I C A P V D R L L L H L H A R T A T I A H I R V R A Q S H H R R I L S  
P S L V P L V A Q N R M R L N E L L D C I P L P L N I S H S D E Q H E A I V T  
A V V R E M M A S L R G S Y V M A A V P L L D D W K A A D N L R A E H H R G I V A  
E M F A N L I G Q V T E T L T G R T V H G L M P E H P Q Q Q A L Q W H I D V A E  
R A M V E L Y D F V A S L A E T I N S T L A G E L P E P D T T A H T A I L E  
R F H A I V I N V L R P T Y D A S R R P S P R T R Q Q S L Q Q H L D I Y S  
D I L S R Q I R T M R A R M R G M R D L R F E K P A R L A S L A E H H E A V M G  
G K L I R L L S H E L Y A V I R M Y R R H T A D Q R R Q A L R E H H K A I L D  
P L L V G L M N H V S D L I D M S R I L L F T D D S D F S T L Y D Q H M R I Y H  
E E Y V R A L A N I N A R L T Q Y V R W L D M R N G R R P Y T Q A E H H V G I E  
R F I E A L V K S L M R V T Q V V J A T V H Q S S E S L H P A G M H R P I E  
R M L S H T L S D F H Q Y V Q R V R Q V S T M N R L R L N K S G N E H H T E I L E  
R L Y R L Y E D L L A T L L A R S A L P T L S Q E E R T R A E H H R A I L E  
V V L K G L I G M L E A L S A S F L V T N R M E A Q S R A E H H Q A V L E  
P V L D E L F A G I S E P L R A T Y D F T E G V H E E L G A G H H R N V V D  
R Y L A Q L I D D A R K V I K L T R R D S L R L E G R L K Q S L A E H H R A I L E  
R W L Q V I E D D R K V I K L S R H S L F S E G R L E Q S L A E H H R A I L E  
Q T L I T M S K V I K E Y F D K N Q F N Q I V D K E D I E K S Y K E H A D L I E  
P F M T S F A N L F R S I Y Y N Y F T A I T D N E D H H K L D L H Q A I V D  
P L L G L M L N A L R R A V T W G R L R S N P V P E P D H H S F T E H E M I T  
K F Y V T V M N S V K Q G M D T R S L S L S A S V I E R K R V L L E H E L I Y Q  
E V I R S T L F N Q H I L L H L F R L M F H S R V T Q E A L E E H H E V I L A  
R F L E A I V K S L L I L L R N Q T M K Y E P T D E I H P L G L H S V I L V E  
K H L I S M L F D G I Y H L V R M Y R V M A G P R V T T A Y D E H H R H I V Q  
P L L S A I I S G L S P I L L T R S V H S H T R N Q Q E W D S V L L N H Q N I A A  
E T L T R I L I G E L Y I L V R M Y R Y Q F S T Y A H H Q A I K D H H Q I V D  
K G V F N I N N S F H F D R M R R L R H R L D Q T E E Q L I A H R E I L Q  
Q T A A T I Q R L R G Q A V R F Q F R L A R Q P G R A Q A V S L P Q H H E I L D  
P L L T R L Y D A L R E N V V E S I R R T T S Q P E A Q G L N D L H E G I L A  
P F L R F T C E L I N E M I R Q L I E F R N D T P Q A E R A N V K I H K A I T E  
S K L S F T L N M L L N Q Y N R Y V E I T T E D P L R R E K S L H E H Q T I L S  
L R L R A E I E G F L D Q V Y R A N L V L L R L N K A P A S N A A D H R A I V E  
K F F Q E I A N A I D R V E R Q I R A Q L V M S N G M E R A G R E H H F A I L E  
M L L L L Y D T L R S L D S R I D A V L F G A A T A T A V S D G E H H R V L V D  
D F Y L D V L E N I H E A V S G F M R L R T G S R Q R A E R V A E H H A I L S  
A L I V K I A D E V A K T M D Q P L W K R L K D D G G R R L Y V S E H R I I Y E  
P L Y Q I V R S F G S L M D E A A W K T R Q T E Q Q R G N M L R H Q Q E I A Q  
E Y F A L F I G F I A E L A I D A A R S R A V L E I V E V T I A E H V R L R D  
R W L D R V T Q E L R K F M R M L R G R Q L H W P G R L E A S L A E H H R A L I E  
R L L A E S V F G H W D R A H R A R M F T L R L R P K P V N S T Q E H H R A L D  
P L L V E V L D G L R D Q A A L I T V T G W G L S P T W O G E A E H H R A I L N  
P L Y T S L V Q F L S Q F L H A A I R V I A R M N E E F V Q Q V R A E H A A L A Q

UniRef90\_M7NBG8 A I A A R D A V E A G R L A R Q 130 140 150  
UniRef90\_U4JJ83 A I D A G D S E Q A K L A M  
UniRef90\_S4NFP5 A I E S G D P E A R A A A R R H M K  
UniRef90\_E2XM00 A V E Q Q D P E A R A K S L C R Q L T H E  
UniRef90\_HOUPL7 A I L D R D P D R A E S A R E H I E R I Y K T L Q E V L  
UniRef90\_UPI000374CB28 A V L Q R D A A K A V E E L S A H L Q N S A  
UniRef90\_UPI00034A23BE V F A E G D I D K M A Q E I E Q H I R  
UniRef90\_B5ZP50 A I V S G D S L A A R R A M E  
UniRef90\_A4WXV7 A L R A R D R A G L M A A L N A H F D H S G A V  
UniRef90\_R7PHF1 C I I E G K P E E A A F F M E R H L  
UniRef90\_A0A059KM04 R I E A R D P A G A A Q A A R R H I D F V R Q R W Q R A L D D  
UniRef90\_R4KF05 A I K A Q N G A L A E Q V A R E H I D N S R K A Y F Q T L A N  
UniRef90\_UPI00028A2DA2 A I R L H D E E R A S S L M Q S H L E K  
UniRef90\_E3HKL8 A I R A R D A E L A E S L M R S H I E R A A Q  
UniRef90\_G1WQ16 A I E A G D A R L A R H Y M Y Q H L Q N  
UniRef90\_N6Y7B7 A L L A R D P A A A E A R M R E H I R S G R  
UniRef90\_UPI0004678DFB A L E K R D R  
UniRef90\_K6WR77 A I E Q G D A D I F A D A L A S H L  
UniRef90\_J2F012 A I R A G N A D Q V E A V V R A H  
UniRef90\_HOQGZ1 A I R K D D G G R A A E L V A A H I R  
UniRef90\_A6FT98 A V R T R E P E R A A N I M K E H L E  
UniRef90\_D1Y4X1 A L R K R G S E E A K R Q M H A H M  
UniRef90\_U2A2B1 A I L T R R L E E A Q Q L L K S H I E V S Q A E V H S I  
UniRef90\_Q0RC02 R V L A G D L E G S V A A L R Q H V G E S M D V  
UniRef90\_G4RFN3 A I S N G D A E E A R E A M R V H L L G S Q R R Y R A L L Q N  
UniRef90\_B9KXE2 A I A T G D P D A A E M A M I T H L  
UniRef90\_UPI0003702C61 A I E A R D A I Q A Q A A M Q R H I K L S L K  
UniRef90\_J1RC48 A V S K R D T D K A T A V M R T H I A R T A R  
UniRef90\_W8H0S6 A I E A G D A E K A G A M R E H L  
UniRef90\_T1VXL2 A I A E R D V T K A R A A  
UniRef90\_UPI00036B23FB A I A A G D G P M A E R R M R G H I E A S G R L  
UniRef90\_V7FNE7 A V R A G D A D G A A  
UniRef90\_H1HUB7 A V K T R N I A L A R Q T M R E H  
UniRef90\_H5X430 A V E Q R D G V S A E R L A K A H M R R A R E I  
UniRef90\_Q0FJT3 A L S V H D E A R A L A V V E R H L  
UniRef90\_UPI00039EB37C A I A D R D G E L A E M L M R R H I S A S R R I E R R M Q E Q  
UniRef90\_UPI00036C3373 L V E A G D A A G A E E H W K E H M  
UniRef90\_R6HHW0 T L Q N R R L E N V I E L V R  
UniRef90\_N1ZFC6 V I K N K D F D R L E S V I H A  
UniRef90\_O50514 A V A R G D A E R A R A L M T R H I E R S A  
UniRef90\_C6LCZ8 Y L E R G K K D F A M L A L K E H V M Q V G  
UniRef90\_D1Y5J6 A I K S G D P S L A R R V M V K H  
UniRef90\_K2NXJ1 A I A T G Q P E V A E Q A M R V H L R R S H E  
UniRef90\_L8FGN0 A I A D R D G E L A E R L M R D H V A S S C A  
UniRef90\_A0A011A6U0 A L K A R D E E V S E L Y A K R H  
UniRef90\_Q7CTB6 A I R R N S A P E A R E A M E L H L  
UniRef90\_UPI0002D8ACB6 A I K D G D A G M A S R R M E E H L F N  
UniRef90\_UPI0003114337 A L A A G D V E A A G R E A G G F L D E L L D Q L  
UniRef90\_G0A9Z0 A A K A G D T E K A V Q L M Q H H L H  
UniRef90\_B7GX12 A T V D Q D G L L A R Q M M R A H L S K S I K  
UniRef90\_Q47NZ7 G I A A G S P A A A R D A M R A H  
UniRef90\_UPI000466FAEC A I L A G D A D T A A Q I M A A H V W A S A A L L H G F L D  
UniRef90\_R7WHB9 A V Q A G H P S K A S R L V R E H  
UniRef90\_U2A932 A I H A G D R E A S D Q I M R H T I A E L A P I W  
UniRef90\_UPI000474CC96 G I A S G N P D H A A A T V R A F M  
UniRef90\_H8L305 A I M D R F P E Q A A E A M R R H  
UniRef90\_F8GQI5 A I V R N G E D D A A A A M V R H I A T G G D V Y A D M I A S M  
UniRef90\_F6D090 A I A N Q E G D L A E L L M R R H I S R A S R L L Q Q  
UniRef90\_UPI00037E59F4 A I E K Q D A D D A R K E L L S H L E E  
UniRef90\_UPI00047C7D2B A L R A R D E A A L V N L L E S H  
UniRef90\_I4C4M4 A V L A G K P D E A A E A M R L H A I E F G E I M I E M R Q N M  
UniRef90\_UPI000379EE27 A I K S K D S D L A E Q V A A R H  
UniRef90\_UPI0003B520FA A L S R K D P E G A R R A V E A H I E R  
UniRef90\_M5ET19 A I R M R D T A G A R A A M N R  
UniRef90\_E9T7B1 G I E Q G D  
UniRef90\_W0SN27 A L R L K D A D L A G Q R M R D H L  
UniRef90\_A1K396 A V L A R D P D A A E T R M R R H  
UniRef90\_A0A033UYN7 A I E K Q N L T L A H D I I N K H L S R  
UniRef90\_J1GES5 A I A K G E G Q A A F N A  
UniRef90\_I4YXF0 A I E N R D M N A A A A M R T H L Q  
UniRef90\_U3B0D7 A L A E K D P D R A K R H I Q R H L  
UniRef90\_F4GVQ7 A F R A G D A I A A E S A M R E H I Q R S  
UniRef90\_A1RFV5 A V V A K D E D K A E A E M L A H L E D  
UniRef90\_A3QDY7 A I A N R D Q E L A E M L M R R H  
UniRef90\_D8ISV8 A I I N G N A S A A R R L V  
UniRef90\_UPI00046F003E A I A A R D G E L A E M L M R R H  
UniRef90\_C0D954 A I E S G D V E A T R A S A K H L I Q S F E D I R E L R E  
UniRef90\_HOQNJ9 A V C A H D S D A A E A M R V H L E  
UniRef90\_UPI000347CD79 A I E D G S P E H A R A I  
UniRef90\_G8MFX8 A A R A R D S D R V R E L M V I H M T E A P R Y V K R M K G K L  
UniRef90\_W1SAL9 A I I K G D S E E A E K A M R D H V R A S G K  
UniRef90\_A0NN57 A I R E G K S D A A A E V A R V H R L N G L A R M N D L L Q H  
UniRef90\_U7GDN9 A C E K G D A D L A S N L T R E H  
UniRef90\_G1XWH6 S I R A H D P E R A E Q C M R D H L R  
UniRef90\_M5NVL5 A I R A Q D S E R A R V A M Q F H L  
UniRef90\_Q0B952 A I V S G D A D A A F Y V E Q H  
UniRef90\_F6IEQ4 A V A G R D R A R A I S A M  
UniRef90\_K2QR70 A I A K R D G A G A R E A M R A H L H  
UniRef90\_UPI0004774AD3 A L V Q R D A P R A E R L M H D H L M A Q L H A L Q A L R  
UniRef90\_UPI00037AB9EF C L R A G D S A G A A A V N R A H R Q R A S  
UniRef90\_D8HKN7 A A E S G N A R Q T E H L L R Q H  
UniRef90\_I3CX18 A T S D G N A E A A R A A A L R H M E N S A Q

UniRef90\_D8MU19  
UniRef90\_G8AYX3  
UniRef90\_UPI000255C9A0  
UniRef90\_UPI000237A583  
UniRef90\_F7Y5X5  
UniRef90\_UPI000406C1F1  
UniRef90\_UPI00026288C6  
UniRef90\_A0A052ITQ8  
UniRef90\_UPI0004789626  
UniRef90\_C5EIE6  
UniRef90\_D9QS12  
UniRef90\_H2G5M2  
UniRef90\_V8QRQ9  
UniRef90\_HOQK79  
UniRef90\_UPI000370E070  
UniRef90\_R7GR19  
UniRef90\_UPI0003B73D11  
UniRef90\_K0JUE6  
UniRef90\_A0A014N4Q2  
UniRef90\_R5IPQ8  
UniRef90\_A0A016X138  
UniRef90\_D2B529  
UniRef90\_K1E7H8  
UniRef90\_J3AVJ8  
UniRef90\_H1SDW2  
UniRef90\_D3QBW6  
UniRef90\_ROD349  
UniRef90\_C1DL28  
UniRef90\_UPI000463BF4C  
UniRef90\_A0NZV8  
UniRef90\_UPI0002E55678  
UniRef90\_W814K7  
UniRef90\_UPI00034DC1FD  
UniRef90\_A6LTK7  
UniRef90\_K9HAY7  
UniRef90\_K4QTU0  
UniRef90\_UPI00037BE61F  
UniRef90\_UPI0003B457D4  
UniRef90\_I0G1P6  
UniRef90\_UPI000472E895  
UniRef90\_K0V3W7  
UniRef90\_X5KDV9  
UniRef90\_UPI000380A9F2  
UniRef90\_B2TD84  
UniRef90\_U5MXV7  
UniRef90\_F8JKA0  
UniRef90\_W6WZM4  
UniRef90\_G0PXL0  
UniRef90\_E3E684  
UniRef90\_UPI00045E631A  
UniRef90\_D6KF75  
UniRef90\_UPI000475C363  
UniRef90\_UPI000374F5EA  
UniRef90\_I4YUF4  
UniRef90\_A0K1B1  
UniRef90\_K2JBG3  
UniRef90\_E3HH73  
UniRef90\_UPI00047EAB5B  
UniRef90\_A0A037ZK28  
UniRef90\_V5PN13  
UniRef90\_K4TM76  
UniRef90\_F8JG47  
UniRef90\_A0A059KKV6  
UniRef90\_E6V8B5  
UniRef90\_H0JF61  
UniRef90\_UPI0003C73BAA  
UniRef90\_F6AE58  
UniRef90\_N1V416  
UniRef90\_R5AR26  
UniRef90\_W6S7G5  
UniRef90\_S3HF26  
UniRef90\_F7KN50  
UniRef90\_UPI0002D84564  
UniRef90\_S4YX71  
UniRef90\_B9KKN4  
UniRef90\_L0MKJ6  
UniRef90\_G0AEI3  
UniRef90\_N6YQN8  
UniRef90\_E0XTW9  
UniRef90\_R6PYB1  
UniRef90\_W1N9M9  
UniRef90\_N7N0M2  
UniRef90\_A0A011PT86  
UniRef90\_UPI000479DF55  
UniRef90\_W4F0X3  
UniRef90\_R5DLN4  
UniRef90\_G4QDX4  
UniRef90\_F0G943  
UniRef90\_M7CX17  
UniRef90\_C7R029  
UniRef90\_S3YWB0  
UniRef90\_UPI0001E2E74F

1 10 20 30 40

REAVVEVAVIRAAVE  
LADLPEARKTLEQATVRFAAE  
FEVMAELEGMAAARLAAAR  
SAEDLVNLLLPLVRLAILETFGVKKKSSAA  
LTEMRVAVVEPMAAELAAAD  
VLELRRSMEELAVRRLAAH  
EVRVALIEGDAAARLAAAL  
LVTAVRNKGFRVTPELLDEITAVRTLIEVPTVGVKVAE  
PDMDSLYEFRRVFEVDLLELVLK  
LIEVRKILLEVESALATK  
PSAQRRTAIV  
LFEVREVLLEALAVRLATE  
SLTPEEAKDLYVIRENLDPLAAGLAAE  
LLEGIQAVELLLQGDTILEELTEVRRLEFPAAAAALATR  
VQVQELRSLALEQEAALLAAG  
VIEVFRVRLLESESAARLAAAR  
HTPTDEEADQLLSVVRGVLETHSAKLAAEA  
EELYDLRIVLLECEAVRRLCA  
MDDRRQLTEDLIQARLILEPALAALAAQ  
QIFEARRALLEAAVRLVAE  
LEHSEPIQTVADCLAVRDRLDPMVVVEAAR  
PQRRLAQREVRRGVLEPQAAWLAAQ  
IEHAFEVRRMLEGRTAALAAAR  
LADMLEALCELESLCCRIATQ  
LDNITELRLLIEPTVRRVVS  
IEHAFQVRRMLEGRTAALAAAR  
EFFDKLSSVRCILIEPASAALAAV  
DSVMEFRRAFEPGVSAALAAAR  
PEEFREVYEMRAALETLALRLAII  
LEQAQETRQILLEVEAISLAAAL  
TLDAGHLRDVLLMTLIEVRGILEVEANMVAAAR  
LFEVREELLETLAARLAAAT  
VKDLYEMRLIFEPEHLCGLAAH  
VMEARLILEPLHLCGLAAH  
ADLLEMRGLLEPLGAARAAQ  
LEELFE MRMLLEPPATAFAAS  
E  
LVHLFHSQ PRTIFDLYELRKSTIEVASIRLAAIK  
LYDLLLEVRALLEGESARLAAI  
VVRHTLEVLAAREAAAT  
IDDVLEVREAIIEVKAAAGLAAAD  
LDQFTEIRALIEPTVGRVAAAR  
LDQLYDLRIVLLEVIAAVE  
EIREVLEGLAFLAAAC  
DLSVRAALEQAALAAEA  
PVLRDILLEFRVLEGATAYAAAR  
EIRALIEIPITRTASR  
LDYRLSRAEITIEVYEVRSVLELEIARLAAAL  
QVFLRAIVLEPAAATAASR  
DSVLSLLEVRRILEPAAATAMAAR  
EVRQCILESEIARAALR  
LDELTLELRRLIEPTVARLAAAGT  
LDHITDVRALLETLAAARRAIR  
LADVSEVRELLLEPLAARSAAT  
VFE LRSIVESAAGLAAAR  
LDHFYELRSVLEAAAVQAASA  
EELYDLRLLLEREAVRRLCA  
LLIQAARQLLENIAGFAAST  
VD DVLEMRVLEAKAVELAAQ  
INDFYERTVIE SVALSLVIGQ  
SFYEDLYDFRVEILEALALRRCAR  
ARSAAS  
LEGETIAALAAK  
ERTPRELAELAEVRALEIPVMLRLART  
DLLEFRHTLEGS CAYYAAAL  
LE NVLDLRIVLETDVCRDLIAK  
EMILLARAALLESMI AHLLAAK  
HIFAVRQSLETLVDTLIK  
VEEILTVRNLEVKAAELLSAG  
FEVMAELEGMAAARLSAR  
DMMVFRQTVEFKCME LAAVL  
RAALEAETVRVAE  
APLSIDDLTIEVRLANELLCMRLASK  
KLLQARRLVEPETAAALAAAM  
G P V I T D P L V H L L Q R H P S T V D D V L E L R H G I E C I A A Q F A A L  
DEIEELFEVRKLECELLRHAIIP  
SIVDEVFARLFEADAAARLAAQ  
LRELFELRLLETHILRHSP  
DRLVRLLEPNRSP EEAREVFEARSLIEPEIAALAAK  
MLIEGRCALEATRKA  
IAELVEVRKII ESGTAAASAAK  
IQELLEVRQLLETGVASAAQ  
DVLEVRCTLEELAVALLAK  
TPEG LIQLYQVRESLEGMARLAAK  
VQDLFDMRIALLEGLAMRVAAP  
LADQLIEVRIMLLESEAKLAAADR  
R  
EELYDVRIVLLEKDSIRKLCQ  
IDDLYTIRLAIIEGLAARWAAE

UniRef90\_D8MU19 A S A E S L A Q L E Q K M A A E R H D S Q A F L L L D D E F H R L I A Q S I N C  
UniRef90\_G8AYX3 C A T S Q V A A L E Q A N L E R Q R E C A D G F H Q A D E A F F H A T L I A D I A G Y C  
UniRef90\_UPI000255C9A0 R A L D E Q V A A E C A R H A D A G D D A D G Y Y Y A N A R F H A T M L Y D S C  
UniRef90\_UPI000237A583 T R R E Q Q L S I V S R M R D A A D D R T V N E L D V I Q F H A Q T M V I H L S G S  
UniRef90\_F7Y5X5 S P A D I L A E I E R K L D I M E Q D A F R T S S E E D W E F F H Q A V I V R V S G N  
UniRef90\_UPI000406C1F1 H A P E W V G E I A N K M R A T G D D A R R R F Q Q L D V R F H A V L A G S G N  
UniRef90\_UPI00026288C6 R A T E R L L A L A E V L S E F D P R R F G E L L K S T H T L I V E A A H N  
UniRef90\_A0A052ITQ8 R R S D E Q L Q H I E Q A H E M L A G G R V S P E A D L A F H A S I L A E A S G N  
UniRef90\_UPI0004789626 S V P M E E R L A A L R P M A E A L I Q V A S E A Y I E A D H A F H L L E L A L A G N  
UniRef90\_C5EIE6 H N M E E R A A L E K N L V Q L Q A S S D R I L E N D I E F H R L L G N A C H N  
UniRef90\_D9QS12 R A T E E D I E V I Q D M E Q D V K E G R L G D Q A D V K F H I A I V K A T H N  
UniRef90\_H2G5M2 A A L E A T L K K Q E E A L S R E R L D L Y T D F D A E F F H R L M K A A G N  
UniRef90\_V8QRQ9 R S D P G S A D L I E Q A L K Q L Q D A A D L A A M T A H R F H R A V I Y T A S H N  
UniRef90\_HOQK79 R T P E D I A D I E Q A L K Q L Q D A A D L A A M T A H R F H R A V I Y T A S H N  
UniRef90\_UPI000370E070 I S P A E V S R H L E A M R A A A D D V E L L N K H D A A F H Q A V I S A T G N  
UniRef90\_R7GR19 N C T E K L R S I L A Q L E S S E D K A R A G L D K K L H T K I G R I A G N  
UniRef90\_UPI0003B73D11 I S A E D L D Q L E E G A A A V I E A D A T L L L E L N E R F H N T V L A A S D N  
UniRef90\_K0JUE6 R A T A Q D V A G L A E I Q Q A G L R A L A A E D A A F H A A L S G L S G N  
UniRef90\_UPI000370E070 L P S G E A G E L L A E L H H F G Q D G K T V S L H H D E A F H M A L V A A T G N  
UniRef90\_R5IPQ8 N G S E E E I K I L K E L E G L I R D K K D Y S E K D S Q F H A Q I A T C S H N  
UniRef90\_A0A016X138 R A T A R D L K L R A E H E A M H D Q P A W A R L A S A Y H L R L A E L S G N  
UniRef90\_D2B529 H R T D E L N A L L Q K L R S Q D D P N T Y L A A N W A L H R R L A E V S P N  
UniRef90\_K1E7H8 R A P E Q A T R L R E A A E G M E G D L Q A Y L A H D V F H Q T L E A S G N  
UniRef90\_J3AVJ8 N A P S D L V A I A A E A A I A A G D F R A M L A M D H A F H R A V A F A T H N  
UniRef90\_H1SDW2 R S A M Q R R Q L E L H H E Q T E A D A Q A Y L E L N H R F H Q L I C Q G T Q N  
UniRef90\_D3QBW6 L T P E K L R R L A Q D I V D L I E G S L G Q Y V E A D R I F H L E L L A Y N D N  
UniRef90\_R0D349 R R P A D L L A L V A E A A I A A G D F R A M L A M D L A F H R A V I A A Q N  
UniRef90\_C1DL28 N A T P E D L E A I A E A M A A K S P E S F L E P D L D F H S R A V A E A T H N  
UniRef90\_UPI000463BF4C N L T E E L Y E A L A E F E A R V A A G D S E I Q A D A D F H S M I G H A T G N  
UniRef90\_A0NZV8 P E L T N S Q I R D R A A A I Q D K A E A F G A L N K A F H S A L Y E P C A R  
UniRef90\_UPI0002E55678 R R T E E D L N G L R E T L E V S G D L E A Y I S A D L V F H K R L V D A A H N  
UniRef90\_W814K7 R R T D A D L E I I E E M E R V H I A K G T S G P E D L A F H L A I Y D A T H N  
UniRef90\_UPI00034DC1FD R R T D A D L R L M R E L L D D A R A L A T A A A N A G F H R A V I A A C G N  
UniRef90\_A6LTK7 R A T D K E L E R I L L Y G R L E E E M E D R T E V E R S F H K S I A K A T H N  
UniRef90\_K9HAY7 R S S P A Q I A F M E T C L A E G A A E T F E R W D G A L H R S I A E A A G N  
UniRef90\_K4QTU0 R T E A H L K V L R G L V R L R G N S E D L R S L G G W F H E T A Q A S G S  
UniRef90\_UPI00037BE61F H A D D A Q L D A M E R V D E M Q A H P R D F A A L D Q R F H A A I T Q A A R R  
UniRef90\_UPI0003B457D4 R D R L Q S V L S E G R A L M A N E V P A L V A A D A A F H R Q L Y Q L S G N  
UniRef90\_I0G1P6 R A R D E R I L D A L K F L E A E R S S V E L V E L D E T F H E R L M G E M S N N  
UniRef90\_UPI000472E895 R G T E R R Y E A M M A A Q G V Q T D S A T H A H L D H A F H R A V I A C S H N  
UniRef90\_K0V3W7 H R S K A D V D A L R V A L Q A K A D L D A F I D H D V A F H I G V A R A S H N  
UniRef90\_X5KDV9 R D S R D L D R L K A T L K A R A D A E A L V E A D L F H R A V I V R A A S G N  
UniRef90\_UPI000380A9F2 A A R E E L E A L R P V A E I V R A A R E Y L E A D R R F H S L V A L S G N  
UniRef90\_B2TD84 R V I G A G D A A H A A V E E L E S D P V K M F G M D E N F H R Q L V A A T G N  
UniRef90\_U5MXV7 N T D E Q I L E L K A L E K M R A D L K K Y W F H G E F H N S I L Y S G N  
UniRef90\_F8JKA0 G D P G R L T P V R A A L E A M E T T A E N D T A D R E F H D A L C A A G N  
UniRef90\_W6WZM4 A T Q A D I K R I R S L M R E L E D D Q D S E A T A D A Q L H D A I A L A S H N  
UniRef90\_G0PXL0 E Q L E A V R P V A E E I V A A A Q G D G Y L E S D R R F H L D L A L A G N  
UniRef90\_E3E684 R R N D Q V R L R M A E A L D A A G D M N G Y L D A D I T F H L A V A A A T G N  
UniRef90\_UPI00045E631A G D G D G L A R L Q A I Q Q Q M E A D L V G A A E H D L A F H M E I A A L S G N  
UniRef90\_D6KF75 T S A A D V K A L G E V L D G L G D P D D L L A A N D M E F H S M I A A G S G N  
UniRef90\_UPI000475C363 I T Q S R L R R L H Q V L E Q M E R T G E G A L E A N D F E F H M E I A R A S E N  
UniRef90\_UPI000374F5EA L E A A A F E R L R P I A E E T V V A G E A Y V D A D L R F H V I E L A L S G N  
UniRef90\_I4YUF4 I G P Q E R R E L D G A I T R G L D N D A Y A F G L A D T A F H R T L C G F A R N  
UniRef90\_A0K1B1 R A N A E V A T I J A E L D P S P A E S R E L M R Y D L T V H R T I Y K A A A N  
UniRef90\_K2JBG3 R D P E D I A T L R G H L E A M A T D G R E G V D A D T A F H T A I A R A A D N  
UniRef90\_E3HH73 T G R Q R A L R P L A D L W L V D E D C E R L A D L D E R F H I T L V A A A G N  
UniRef90\_UPI00047EAB5B L P P A Q C A N T L A A L E A R Q E D G K A V S L Q D E R F H I T L V S A T G N  
UniRef90\_A0A037ZK28 V T K A D L R L R E T L R A A I D A G D D D Y K A D R Q F H V Q I A E A T Q N  
UniRef90\_V5PN13 R A T P E D I A Y A A G R D G L D G E G D A V P E L D A H F H L A A E A T H N  
UniRef90\_K4TM76 L Q P S D I E R V E A A L R Q Q E E C V R E Y H Q L D M A F H L S L A Q I H G N  
UniRef90\_F8JG47 D V A P D L S E L R A E A R E L D G A I V G P K D E E F H R T L I R L S G N  
UniRef90\_A0A059KKV6 T D L A T L R A L H E R L E R E V G Q R E F F A T N E A F H M Q L L A L S G N  
UniRef90\_E6V8B5 R A T R S Q I A A L R R A L K A I D T A A A V A E D L A F H R V I G E A T G N  
UniRef90\_H0JF61 A V L L D F D F H R Q L L A A D N  
UniRef90\_UPI0003C73BAA V P A D R W A E L R T A A A A A H G D L A E Y G E A D R A N F H R A L L G L A G N  
UniRef90\_F6AE58 R A T D R L S E A F E R L Q D C Y G R A G E V T R A D A N F H L A I A E A S H N  
UniRef90\_N1V416 A A E Q D A E R Y A E L V H E F H R T I T G A D N N  
UniRef90\_R5AR26 S A K T D E I E A L A D Y D Y I G T P I D R Q S V L D S Q F H N S L M R M S H N  
UniRef90\_W6S7G5 R S T D E A D T L E A L V V Q M A G S P D E L I A L N E T F H D Q I H V I S R C  
UniRef90\_S3HF26 L T P Q Q I T R Q L E A H V D A R T N N T S A S I Q L A G E F H V L A K L T E N  
UniRef90\_F7KN50 C R D E R L G D I L S R Q M K Q S K K Q E F L E Y D I Q F H G C I A C S G N  
UniRef90\_UPI0002D84564 R I J A Q E A L D D L A R T H A A A G D A D R Y Y A N A R F H H D V V I Y D S C G N  
UniRef90\_S4YX71 N A P K D I T A L E Q A L N R M K D D Y K K Y S Q A D F E F H L A I A K A S Q N  
UniRef90\_B9KKN4 R L T E R L L D L Q R E A S E A R D R L R F H A L D D Q F H R E L C D R S G C  
UniRef90\_L0MKJ6 R A S A S Q I A G L E A I N R Q I D A A V R M M T L D H E F H Q A L A Q I A G N  
UniRef90\_G0AEI3 N A S D E Q L R S J A E A R N V E D N R S G S H T H D R L F H R I A E A S G N  
UniRef90\_N6YQN8 R A T D A D I K L V T R M R K R K G E F D A L A D R D V D F H M A V A E A S H N  
UniRef90\_E0XTW9 R L T P A D L K S V E D I L L V Y D E A F R A G D V E F H D R L Y R A S N R  
UniRef90\_R6PYB1 N R T S E D L K C L Q E A H K G E I S A E V M M E Y D G A I H L G I A A S A H N  
UniRef90\_W1N9M9 R L T D K A E D I L K K Y D E A L D S G D N W S E Y N F A F H S A L Y A P A E L  
UniRef90\_N7NOM2 A T P K Q I E L R Q H L E R E H D A L Q A G H D S D A L F H S Y L A K I A G H  
UniRef90\_A0A011PT86 S P E Q I A R L E G L H R Q L Q N Q I G R F F E V N Q E F H L R I Q E M S G N  
UniRef90\_UPI000479DF55 R R T D Q M E A A L E A M L E A K G G D E L G E T A D L Q F H M A L A E A A Q N  
UniRef90\_W4FOX3 K R T A E D L E V M R E M I N H K K N S D L G E R A D L A F H L A I A K A A N N  
UniRef90\_R5DLN4 N T P E R T M D L R A S A I V S K D V V N I V D A D V Q F H D T I Y A M T D N  
UniRef90\_G4QDX4 N M T D D L N T L S T H F Q E V K T G E T Y Y Q E D V D F H Y R I I V I G S G N  
UniRef90\_F0G943 H C T D E H L R T L E R L E D M D D T E L W V I E R H S V F H Y R I C E I G G R  
UniRef90\_M7CX17 R R T E A D L K L M S D A L D S A D Q L I E E R L H D Q R F H H A V V K A S H N  
UniRef90\_C7R029 Q A K D T L A L A A M R K A G D D V D A F A T L D T D F H R A L L R A S G N  
UniRef90\_S3YWB0 M D H H N S V L E L V Q P S E Y L K D I K Q L S Q Q D E D F H C A L V R A S G N  
UniRef90\_UPI0001E2E74F N V T D E E L K D M K H S L E L E N D L E H I L K L D T K F H E A I F R A S K K

UniRef90\_D8MU19  
UniRef90\_G8AYX3  
UniRef90\_UPI000255C9A0  
UniRef90\_UPI000237A583  
UniRef90\_F7Y5X5  
UniRef90\_UPI000406C1F1  
UniRef90\_UPI00026288C6  
UniRef90\_A0A052ITQ8  
UniRef90\_UPI0004789626  
UniRef90\_C5EIE6  
UniRef90\_D9QS12  
UniRef90\_H2G5M2  
UniRef90\_V8QRQ9  
UniRef90\_HOQK79  
UniRef90\_UPI000370E070  
UniRef90\_R7GR19  
UniRef90\_UPI0003B73D11  
UniRef90\_K0JUE6  
UniRef90\_A0A014N4Q2  
UniRef90\_R5IPQ8  
UniRef90\_A0A016X138  
UniRef90\_D2B529  
UniRef90\_K1E7H8  
UniRef90\_J3AVJ8  
UniRef90\_H1SDW2  
UniRef90\_D3QBW6  
UniRef90\_R0D349  
UniRef90\_C1DL28  
UniRef90\_UPI000463BF4C  
UniRef90\_A0NZV8  
UniRef90\_UPI0002E55678  
UniRef90\_W814K7  
UniRef90\_UPI00034DC1FD  
UniRef90\_A6LTK7  
UniRef90\_K9HAY7  
UniRef90\_K4QTU0  
UniRef90\_UPI00037BE61F  
UniRef90\_UPI0003B457D4  
UniRef90\_I0G1P6  
UniRef90\_UPI000472E895  
UniRef90\_K0V3W7  
UniRef90\_X5KDV9  
UniRef90\_UPI000380A9F2  
UniRef90\_B2TD84  
UniRef90\_U5MXV7  
UniRef90\_F8JKA0  
UniRef90\_W6WZM4  
UniRef90\_G0PXL0  
UniRef90\_E3E684  
UniRef90\_UPI00045E631A  
UniRef90\_D6KF75  
UniRef90\_UPI000475C363  
UniRef90\_UPI000374F5EA  
UniRef90\_I4YUF4  
UniRef90\_A0K1B1  
UniRef90\_K2JBG3  
UniRef90\_E3HH73  
UniRef90\_UPI00047EAB5B  
UniRef90\_A0A037ZK28  
UniRef90\_V5PN13  
UniRef90\_K4TM76  
UniRef90\_F8JG47  
UniRef90\_A0A059KKV6  
UniRef90\_E6V8B5  
UniRef90\_H0JF61  
UniRef90\_UPI0003C73BAA  
UniRef90\_F6AE58  
UniRef90\_N1V416  
UniRef90\_R5AR26  
UniRef90\_W6S7G5  
UniRef90\_S3HF26  
UniRef90\_F7KN50  
UniRef90\_UPI0002D84564  
UniRef90\_S4YX71  
UniRef90\_B9KKN4  
UniRef90\_L0MKJ6  
UniRef90\_G0AEI3  
UniRef90\_N6YQN8  
UniRef90\_E0XTW9  
UniRef90\_R6PYB1  
UniRef90\_W1N9M9  
UniRef90\_N7N0M2  
UniRef90\_A0A011PT86  
UniRef90\_UPI000479DF55  
UniRef90\_W4F0X3  
UniRef90\_R5DLN4  
UniRef90\_G4QDX4  
UniRef90\_F0G943  
UniRef90\_M7CX17  
UniRef90\_C7R029  
UniRef90\_S3YWB0  
UniRef90\_UPI0001E2E74F

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

UniRef90\_D8MUI9 A L V A K D V D G A E H A L R R H L Q E 130 140 150  
UniRef90\_G8AYX3 A I A D H D P D R A V K A L G D H  
UniRef90\_UPI000255C9A0 A V R A G D A G T A E D A A R E H  
UniRef90\_UPI000237A583 A I R S E D P G T I E E V M H E H I I E  
UniRef90\_F7Y5X5 C I A A R D P Q G A  
UniRef90\_UPI000406C1F1 A I A L R R P A E A R E T M N E I M R A T I D E I H Q  
UniRef90\_UPI00026288C6 A I C H G D Q A K A S E A  
UniRef90\_A0A052ITQ8 A I R T Q D G E R A R V A M Q F H L  
UniRef90\_UPI0004789626 T I A S G D P S A S A A M D H H L R H V R N A W  
UniRef90\_C5EIE6 I I T A K A Y D R I D E C I K S S A D I W Y G L Q K  
UniRef90\_D9QS12 N I A A K K P Q L A R E S M Y N H L E  
UniRef90\_H2G5M2 A L R D G N S D T Y Q Q V L S E H L A T S  
UniRef90\_V8QRQ9 A M S A G D A E L A E R L K R A N I R S S R E S F S E Y R K Y L  
UniRef90\_HOQK79 A V I S G D A V R A R E I M Q R H  
UniRef90\_UPI000370E070 A L V A G D A  
UniRef90\_R7GRI9 A I I S G D R N Q A E K L M R E H M E  
UniRef90\_UPI0003B73D11 A L R A G D G E A A A R H M A D H V R Q T G Q T I R D S L  
UniRef90\_K0JUE6 A I G A H D P D T A G R I M A L H T E R T R Q A Y R A T R T D  
UniRef90\_UPI0003B73D11 A V M Q Q H H E E A Q R I L T D H  
UniRef90\_R5IPQ8 A I R D G R G E D A R Q E M  
UniRef90\_A0A016X138 C I A Q G D A E S A V K L M D Q H L R D  
UniRef90\_D2B529 A V C V G D V E A A R Q A G E R H  
UniRef90\_K1E7H8 A I A D G H P D L A E E T T R R  
UniRef90\_J3AVJ8 A I A D R D P V A A E A  
UniRef90\_H1SDW2 A I L A G Q P E E A Y L A M R S H T T R  
UniRef90\_D3QBW6 L I A E R D A E G A E S L M R R H  
UniRef90\_ROD349 A I A E G D A A L A E R L C E Q  
UniRef90\_C1DL28 A I Q N R D  
UniRef90\_UPI000463BF4C A I V T R D A D A A A R E M T R H L E E  
UniRef90\_A0NZV8 A C S R R D G V E A C E I L R R H L E A A G E  
UniRef90\_UPI0002E55678 A V E N Q D P E R A K S L C R Q  
UniRef90\_W814K7 A I A A K D P D T A R E  
UniRef90\_UPI00034DC1FD L L Q V R N S E G A A E L Y R A H  
UniRef90\_A6LTK7 F L E A R D A E G A K T A M K I H I I R A M K  
UniRef90\_K9HAY7 A I R D R D A E A K R L M R E H L  
UniRef90\_K4QTU0 A V A R G D S E R A R A I T A M H T E R S G A H R L R  
UniRef90\_UPI00037BE61F A M L R R D S G R A E A M T E H L T R S L E  
UniRef90\_UPI0003B457D4 A V L A G N A A Q A K S L A E V H A A R A G E I W Q R L Q D  
UniRef90\_I0G1P6 G L K A R N E E A C V S V L E K H  
UniRef90\_UPI000472E895 A V I G R L P D Q A V N S V R Q S L K E  
UniRef90\_K0V3W7 A I Q R G D H G A A  
UniRef90\_X5KDV9 A I R K R D P E R A A G A M  
UniRef90\_UPI000380A9F2 L M L A G D A K K A E R C M A R H L G H V R S L W  
UniRef90\_B2TD84 L T E R N R L T E A I I L L R A H I T Q S  
UniRef90\_U5MXV7 A F E K R D E V L A E S Q I G R R H  
UniRef90\_F8JKA0 A V A A G N P A E A S S A L  
UniRef90\_W6WZM4 A I C S R R P E E A R T A M H T H  
UniRef90\_G0PXL0 I M I A G D A E G A E E H M R R H L A H V R T L W A A R K  
UniRef90\_E3E684 A I L E Q D G K A A E L Y S I Q H L  
UniRef90\_UPI00045E631A A I L R Q D P A A A Q A A M F D H L Q  
UniRef90\_D6KF75 A I A A R R P D V A  
UniRef90\_UPI000475C363 A I S T G D G E L A K L Y M K Y H L  
UniRef90\_UPI000374F5EA A L A G G D G E A V A R L M D E H L G H V R G I W  
UniRef90\_I4YUF4 V F L S G D V A A T E A A V R E H  
UniRef90\_A0K1B1 A V A A G D A D K A G E L A L H H  
UniRef90\_K2JBG3 A I A A G D S R A A E R A M R R H I E N A M R  
UniRef90\_E3HH73 A A L A G D A P R A M A L L H V H I Q G S  
UniRef90\_UPI00047EAB5B A I F R Q Q T E E A Q H K L T T H I A E S K A E V R K I  
UniRef90\_A0A037ZK28 A L R H R N P D R A R Q A M W Q H L E N  
UniRef90\_V5PN13 A V A S H D A D S A Q R S L R E H L  
UniRef90\_K4TM76 A I K D G D A K R A Q N Q M R A H L  
UniRef90\_F8JG47 A V E A R D A A L S E R L T R H H I E T S  
UniRef90\_A0A059KKV6 A L E R R D A E A A S R L M R Q H F E N G L E  
UniRef90\_E6V8B5 A I A A R D P V A A R H H A T Q H L I R  
UniRef90\_H0JF61 A L S R R S P A A A Q K A M R E H I R N A A  
UniRef90\_UPI0003C73BAA A L V A G D L N V V E S L V R E H  
UniRef90\_F6AE58 A I I E G R A E D A R S L S N Q H  
UniRef90\_N1V416 M I K D K D H F G A E A A M R N H V Y A S S R  
UniRef90\_R5AR26 A L R D R D E A A V A A A Y D H L T L T G  
UniRef90\_W6S7G5 A I I S G N S D K A E R V M R D H V V R S G E T Y L K I  
UniRef90\_S3HF26 A L D K G E R E H A C E L M R H H  
UniRef90\_F7KN50 R I L E R D S S G A A E A M K E H L E R S A A R Y N N R  
UniRef90\_UPI0002D84564 A I T A G D A E A E N A A R D H  
UniRef90\_S4YX71 A I K N R D S S T A V A V L N E A M A E  
UniRef90\_B9KKN4 A L E A R D A P E A M R R M H S H L S R  
UniRef90\_L0MKJ6 A L Q  
UniRef90\_G0AEI3 A L Q  
UniRef90\_N6YQN8 A L Q  
UniRef90\_E0XTW9 A C K A G N V D E A V G L L A D H I E N S A K  
UniRef90\_R6PYB1 A I E N Q N M D M T Y R K M Q E H I I Q  
UniRef90\_W1N9M9 L A R K G D V D Q A C A L L K T H V Q E A C E  
UniRef90\_N7N0M2 A I E K H D A H E A A A L M K T H  
UniRef90\_A0A011PT86 A V R T G D A L R A Q K L M H D H  
UniRef90\_UPI000479DF55 Q I K A Q D E E A A R D N M L I H L E N V D A I  
UniRef90\_W4F0X3 Q I E A Q D A E G A A K A M K A H L Q  
UniRef90\_R5DLN4 K L A D K D V E G A K M F M R Q H L R N  
UniRef90\_G4QDX4 A I S N R D E E L A E M L M R R H  
UniRef90\_F0G943 A L R T R D P A A A E R A I R E H  
UniRef90\_M7CX17 A I R R G D  
UniRef90\_C7R029 A I A T G D A E R A H A A L T H I M H R  
UniRef90\_S3YWB0 F I F D R H T E Q A I N A I E A H I M Q S R D E V K K I T L Q M  
UniRef90\_UPI0001E2E74F A I S G K D A K K A E E L T I E H V K K A S



UniRef90\_Q39WL5  
UniRef90\_L0LI73  
UniRef90\_A9D2N8  
UniRef90\_UPI000366A9CF  
UniRef90\_S4AUB9  
UniRef90\_J2AUD9  
UniRef90\_UPI000464C27A  
UniRef90\_UPI0003652604  
UniRef90\_W4HFR0  
UniRef90\_W8RJP9  
UniRef90\_K7RQ16  
UniRef90\_J2L681  
UniRef90\_UPI00036E137E  
UniRef90\_H0F825  
UniRef90\_K2MGM5  
UniRef90\_V2GEF6  
UniRef90\_UPI000361E91F  
UniRef90\_UPI00047D6E22  
UniRef90\_B9KVL4  
UniRef90\_UPI000380B6AE  
UniRef90\_C7QJW7  
UniRef90\_UPI000380E195  
UniRef90\_UPI00046798DB  
UniRef90\_A0A038GCB2  
UniRef90\_W6QQQ4  
UniRef90\_UPI0003B7A00B  
UniRef90\_B4D3N6  
UniRef90\_K2P2S9  
UniRef90\_UPI0002FE8DB9  
UniRef90\_F9S1E5  
UniRef90\_UPI0001FFDC03  
UniRef90\_UPI000468AF21  
UniRef90\_UPI0003786160  
UniRef90\_G1UPD6  
UniRef90\_M1P9H5  
UniRef90\_UPI000474EEAA  
UniRef90\_B1Y7N2  
UniRef90\_UPI0002DC5A82  
UniRef90\_W5TGW0  
UniRef90\_F6C166  
UniRef90\_X7F4J8  
UniRef90\_UPI000374D58B  
UniRef90\_Q39NQ5  
UniRef90\_R9KU58  
UniRef90\_R7WXR0  
UniRef90\_S7XLS6  
UniRef90\_UPI00040CDA9B  
UniRef90\_A0A011UQQ4  
UniRef90\_A8IFP5  
UniRef90\_UPI0004729A53  
UniRef90\_UPI000371AA94  
UniRef90\_A9ASX0  
UniRef90\_C0B185  
UniRef90\_UPI0003678565  
UniRef90\_UPI000471399A  
UniRef90\_G9AFX5  
UniRef90\_B8ICD3  
UniRef90\_U7GN71  
UniRef90\_UPI00034D1E82  
UniRef90\_Q12EQ9  
UniRef90\_U1SLP5  
UniRef90\_A0LM72  
UniRef90\_E9T2K7  
UniRef90\_UPI00026268BD  
UniRef90\_I0H593  
UniRef90\_A9IQ65  
UniRef90\_A0A059IRU5  
UniRef90\_W7TD33  
UniRef90\_D6TGC3  
UniRef90\_W2EYV3  
UniRef90\_UPI0003688836  
UniRef90\_W8ABH5  
UniRef90\_UPI0004742016  
UniRef90\_UPI00034BBA97  
UniRef90\_UPI0003744E89  
UniRef90\_I4XZ73  
UniRef90\_UPI0004763F8C  
UniRef90\_I4YX57  
UniRef90\_W0IGW0  
UniRef90\_D8HKY9  
UniRef90\_E5Z237  
UniRef90\_U3AJV4  
UniRef90\_F4B5B8  
UniRef90\_E2XSD5  
UniRef90\_UPI0002379193  
UniRef90\_F3LJE0  
UniRef90\_UPI00047C59E5  
UniRef90\_L0A8V9  
UniRef90\_Q0SK26  
UniRef90\_S5S502  
UniRef90\_I3TKF5  
UniRef90\_E8REJ2

1 10 20 30 40

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

UniRef90\_Q39WL5 N M T D S E 50 L I A E L K K L L D E 60 H E K S I I A E D F D F H Y R I L Q G S R N 80  
UniRef90\_L0LI73 R M T P L E R S H L I E L H D V S E T L D A Y D V F N R A F F H E A I I Y H A T S H N  
UniRef90\_A9D2N8 V L K P E D F S L L D A Q H K K A L V S E T L D A Y D V F N R A F F H E A I I Y H A T S H N  
UniRef90\_UPI000366A9CF L D P A T T R R L H T T L K A V L A Q A D P V R Q L D T D E W H T T I I A A A A S H N  
UniRef90\_S4AUB9 R R T P E D L A A L R T A L A V L D G D T D A F I D A D M A F H R T T V I A A A A S H N  
UniRef90\_J2AUD9 E S P A E T A Q V L K E A V A S P D Q F D S Y Y A L S F D R D F H R A L F E R S G L  
UniRef90\_UPI000464C27A R T P E E R A Q Q E V H E V Q S E G D Q D S Y Y A L S F D R D F H R A L F E R S G L  
UniRef90\_UPI0003652604 N A T S Q Q R K E I A E I E S L I R R G E P Y A D A D C R F H Q M I A E A S G N  
UniRef90\_W4HFR0 S A S D E L Q S L N D E M A G A E G D G A Q L F A L N Q L F H R T L I D A A R N  
UniRef90\_W8RJ9 R A T D E D I L E L K Q T I K K M E S G V Y V P A T D E Q L H R M G I A K A S H N  
UniRef90\_K7RQ16 A R A A E L L E Q M R H V E S P D P F N E L D T A F H H V A L A E A G D N  
UniRef90\_J2L681 G N P D P S P G L E E P E E Q R E S E A V K V A E L D E S F H T N L V A A A G N  
UniRef90\_UPI00036E137E Q Q V P E I D Q L K E N L R Q A D D D R Q R Y A Q L V E E F H D L I V I G A D N  
UniRef90\_H0F825 R A S D E A L A L L A R A E Q N R D E P D T D A Q A D E D F H E R L A A L A D N  
UniRef90\_K2MGM5 R L T P E D L K S V E D L L A V I D L S K W G E L N R S F H I D R L Y R A S N R  
UniRef90\_V2GEF6 R A T A A D Y K R I D K H L A A E N D A Q T R T R L L S D F H I L Y A E V S G N  
UniRef90\_UPI000361E91F R R T A E D L E L I E A L N S K L N G E N A L E E D L L F H L A I A R A S G N  
UniRef90\_UPI00047D6E22 R I T D A E L D I A E N L R Q A D D D R Q R Y A Q L V E E F H D L I V I G A D N  
UniRef90\_B9KVL4 H A S R A E A S L L R E A D R A L E D P V K L R E R N K I L R Q I V H A S H N  
UniRef90\_UPI000380B6AE R R T E A H L K V L R G L V R L G Q D G E D L R S L G A W F H E T L A Q A C G S  
UniRef90\_C7QJW7 V H R D W A P A R A A L E A A D E S T D A K A G R S L A N R F H R H M Y L A C H N  
UniRef90\_UPI000380E195 H A S N A E I L L T E L V E A D A D E K A S M V R S N R E F H R R R I Y L A S H N  
UniRef90\_UPI00046798DB L M T K P Q I D A L Y R Q L E H Q N D A Q A F M E L D D L F H K T L A Q G A D L  
UniRef90\_A0A038GC2 R T P E Q L D A I R Q A L D E L T R Q G K D T L Q A D F E F H R Q R I S L C T A N  
UniRef90\_W6QQQ4 N R L D F E F H Q R I L A A S G N  
UniRef90\_UPI0003B7A00B N A T P Q V D S L Y A A L Q A M A S S D D D A A F T A L R F H H A I T E A S G N  
UniRef90\_B4D3N6 A T A P E L R E L Q D E A T E L L A T S S T S A A A D R R L H D L I A A R C P N  
UniRef90\_K2P2S9 L Q P P A A L R E I K R V H K A M E A A R Y A L N D E F H R A V A L G S G N  
UniRef90\_UPI0002FE8DB9 H I P K D R Y E L L E A R Q V E G N I E P F F L S D R N L H R T L I S Y S H N  
UniRef90\_F9S1E5 E H R A L R E T M V N D Y Q A F S E L D Y R F H R L L S A S N N  
UniRef90\_UPI0001FFDC03 H S A E E A S R G F A L V A E A A D R E K N Y A A A D D F H R F V T E H S G N  
UniRef90\_UPI000468AF21 R R P P E L I E Q L N A L L D V Q A D E Q A A L K A A P E F H R L I A A V A R N  
UniRef90\_UPI0003786160 D D L A R I D E A L A E M A R D V E A G G R G V E G D E R F H G A V T A A A H S  
UniRef90\_G1UPD6 H S P E R Q L D Q R R L L T G O E D G D L D A R F H G A V L A L C A G N  
UniRef90\_M1P9H5 A S T E E R A E L L A L A R E L R E A S E E F L A A D I R F H S L L E I S D N  
UniRef90\_UPI000474EEAA R A T E E D L A T I E S T E R S D L S D E E F C R L D V A F H H A I A Q A T G N  
UniRef90\_B1Y7N2 L S A E Q L A Q L R E M V S E A A D A R A S I R L S G Q F H R A L A Q M C G N  
UniRef90\_UPI0002DC5A82 R R T D E D L R R L H E A L D V I S G E H D T Y I C D L L F H Q R L I D A A H N  
UniRef90\_W5TGW0 A E F E S Q R E L L G S A P A V D E H L D A Y Y A L I D R M D T A I L H G T A N  
UniRef90\_F6C166 R H D E T S L A S I R R A L E L L R D A T N R Q D A D F Q F H H I A I A R A A Q N  
UniRef90\_X7F4J8 R M G D A D L S A L E A L H E V E D D P D A Y A V L N L E F H H Q A I W A G A H N  
UniRef90\_UPI000374D58B R T K D D L A E I K K T L K A Y E K Q E P A I E E D L F H H L K I A E A S K N  
UniRef90\_Q39NQ5 R R T D E D L A T R L K L K A R G E R A F V E R D R A F H I A V A A A S H N  
UniRef90\_R9KU58 A A T E E L E M R Q I L E E M E Q S A K E S A R L D L D F H H M L V K S S H N  
UniRef90\_R7WXR0 I T P E A C D A L A A L I D Q M E P G G H A L N R L N T E F H D L V K A A D N  
UniRef90\_S7XLS6 A M E D A N A C F A A A L D T E D V D G A L D A D D D F H H E V F I A A S G N  
UniRef90\_UPI00040CDA9B R S E Q D V A A L R A V V A D M A D D L E G E R T D V Q F H L A L V A A T R N  
UniRef90\_A0A011UQQ4 R H D D T A R S R M V E A L R M D Q P D S F N E A D T Q F H H L I A E A S G S  
UniRef90\_A8IFP5 R A T D A D I K L R E N I R A F A D D P E A F S E A N L A F H R L I I R L S G S  
UniRef90\_UPI0004729A53 R I D E Q A L K E L E I V I E L K N D F D Q L T Q L D T R F H G V I Y D A C D S  
UniRef90\_UPI000371AA94 L D A D T L K Q L E D L C D A M H S Q G A F A N Q D A E F H R I I A E H S G N  
UniRef90\_A9ASX0 L T A E D F A R L L A E Y S K V A S Q S G R W G E L N T E L H V I L S R A E Q  
UniRef90\_C0B185 R R T E D D L I H L I E N A L J A Y T D G E D A V I Q E D L L F H L A I A K A S G N  
UniRef90\_UPI0003678565 Q E I I D Q Y E E F H R A D E I V T S A R A Y L D A D R R F H L G L A F S N N  
UniRef90\_UPI000471399A A T A E D K Q R L F D A M S E L Q E G G D A S A Q A D A R F H L M I A E A S H N  
UniRef90\_G9AFX5 T D A D F L F H K A V A E A A N N  
UniRef90\_B8ICD3 H A K P A D L A L I D R I A A A D Q D R E A F R Q R D E D F H A A V A G A A G Y  
UniRef90\_U7GN71 S A T P E Q R R I A I A E L M A V F E A G E D W R P A D H R F H N A V H A D A T G N  
UniRef90\_UPI00034D1E82 R I T D S D I A A L R A I N M Q Q I A A A S S M M L L D R Q F H H L L A S I A G N  
UniRef90\_Q12EQ9 A L L E A V F A Q M V A A S E A D D E I G Y G H C D S A F H E A L E T H C G N  
UniRef90\_U1SLP5 R G T V E A R T H I G V I A A R E D R L D D F H A L D I E F H A G L L R N C G N  
UniRef90\_A0LM72 N H D K R D L A L L K R V A Y R K Y R N D T F N Q L D V D F H V Q I A G M G K N  
UniRef90\_E9T2K7 D R L A E L L D E G A D L V D D A A F A H H D V Q L H Q S L V D L A G N  
UniRef90\_UPI00026268BD T A K S E L A E L D E V A D L V R A L E R T E L D L R V H R A I Y R A A G N  
UniRef90\_I0H593 E Q A T Q T I T E S G D E R A W H A A F T A Q D A E L H R L V A Q A S A S  
UniRef90\_A9IQ65 G D A R L A L R R T D E E L Q A I A D A H A A F D L A F H A S I A Q A T G N  
UniRef90\_A0A059IRU5 R I D D A T L A R L S D I L H M G D A V R F M L S D R E F H G T L Y H A C G N  
UniRef90\_W7TD33 A G T A P V D E L R E A L A D Q R G D D R A F I E A D T R F H T I L V R A A G N  
UniRef90\_D6TGC3 I T T E N D L L L L E Q M E V K E T Y K E Y Q Q F D A V F H N I I A R T S G N  
UniRef90\_W2EYV3 R I P D A D L A L L D E A Q E R L A A D S A K L V A L D Q D V F H S L I V S H C G N  
UniRef90\_UPI0003688836 N A T P D Q L K N I A T I N T L E P P D G S P W E K D I R F H S A I A Q A S G N  
UniRef90\_W8ABH5 R E R E R W L A L Q A D P P A Q E P S F V I V D E E F H V A L I A T A S G N  
UniRef90\_UPI0004742016 V H E E D L L A L E K A L I V M E N A S G N E E L D L D F H L A I A N A T H N  
UniRef90\_UPI00034BBA97 R V I T E E Q L R L E Q L I E Q S K E E G D F P V I E D Y L F H Q T I V E S C H N  
UniRef90\_UPI0003744E89 E S T E E L A R L R S A F D R M E T A S E L L E P D L F E F H R A I M A A T H N  
UniRef90\_I4XZ73 A A A R L D F E F H Q K I L Q A S G N  
UniRef90\_UPI0004763F8C H H T P E C A R A L C D A A E G E P D P S L Y V I T R N E A F H M C L Y E P S G R  
UniRef90\_I4YX57 R A T E K L Q L A I N T R I A E T I D D A D A G S A A D F K F H R A V T A G K S  
UniRef90\_W0IGW0 R R T D E Q M N A L T R Q A L H D D D Q A T S L T E A D A R F H H I A I L R A S G N  
UniRef90\_D8HKY9 R A T E D L R E A L A D M A A A G D D P A A S V I Q A D L A F H R R L M A A T H N  
UniRef90\_E5Z237 L T P E Q E K E L E G N L E E A E D V K N F A Q A D H D F H L I C E C T G N  
UniRef90\_U3AJV4 L G S D S D L A V F A R M E A A Q S N A E A G L D A E F H H L A I V E A S H N  
UniRef90\_F4B5B8 R A N E E L Q R I K E E M E K E N P D P L T L A E L N G S F H E E V A L L S K N  
UniRef90\_E2XSD5 R I G E R L E R L D E M D D Y R D E S A A W V I R R H R A F H E A L C S L S G R  
UniRef90\_UPI0002379193 L D A V P V E Q M R A E L A A Q D D Q A R A F I D R D H G F A H A A V C A V G N  
UniRef90\_F3LJE0 R A N E L D R Q A F Q R M D S A Q N D L Q K S S D A D A D F H L S I A E S S H N  
UniRef90\_UPI00047C59E5 R T S Q D V A R M R A A L A G L E P T P Q Q L A A H R H F H S A I V Q A S H N  
UniRef90\_L0A8V9 Q R N D I L A W L A D L N S E D P F Q T V I R T N H A F H S T V W Q A H N  
UniRef90\_Q0SK26 R H T E R L S R L F E Q A I E S P D P A T S L A L H N E W H T A L R S A A H N  
UniRef90\_S5S502 A E E D Y A F H R S I L V A T Q N  
UniRef90\_I3TKF5 R I T E R G R V A L Q Q A Q A V K G D V N A Y Y E V N E R F H E L I Y E A H N  
UniRef90\_E8REJ2 R T P E A L G R L C D Q Q R A V I A G R E E D S L D A E F H R L L A A G T G N

UniRef90\_Q39WL5  
UniRef90\_L0LI73  
UniRef90\_A9D2N8  
UniRef90\_UPI000366A9CF  
UniRef90\_S4AUB9  
UniRef90\_J2AUD9  
UniRef90\_UPI000464C27A  
UniRef90\_UPI0003652604  
UniRef90\_W4HFR0  
UniRef90\_W8RJP9  
UniRef90\_K7RQ16  
UniRef90\_J2L681  
UniRef90\_UPI00036E137E  
UniRef90\_H0F825  
UniRef90\_K2MGM5  
UniRef90\_V2GEF6  
UniRef90\_UPI000361E91F  
UniRef90\_UPI00047D6E22  
UniRef90\_B9KVL4  
UniRef90\_UPI000380B6AE  
UniRef90\_C7QJW7  
UniRef90\_UPI000380E195  
UniRef90\_UPI00046798DB  
UniRef90\_A0A038GCB2  
UniRef90\_W6QQQ4  
UniRef90\_UPI0003B7A00B  
UniRef90\_B4D3N6  
UniRef90\_K2P2S9  
UniRef90\_UPI0002FE8DB9  
UniRef90\_F9S1E5  
UniRef90\_UPI0001FFDC03  
UniRef90\_UPI000468AF21  
UniRef90\_UPI0003786160  
UniRef90\_G1UPD6  
UniRef90\_M1P9H5  
UniRef90\_UPI000474EEAA  
UniRef90\_B1Y7N2  
UniRef90\_UPI0002DC5A82  
UniRef90\_W5TGW0  
UniRef90\_F6C166  
UniRef90\_X7F4J8  
UniRef90\_UPI000374D58B  
UniRef90\_Q39NQ5  
UniRef90\_R9KU58  
UniRef90\_R7WXR0  
UniRef90\_S7XLS6  
UniRef90\_UPI00040CDA9B  
UniRef90\_A0A011UQQ4  
UniRef90\_A8IFP5  
UniRef90\_UPI0004729A53  
UniRef90\_UPI000371AA94  
UniRef90\_A9ASX0  
UniRef90\_C0B185  
UniRef90\_UPI0003678565  
UniRef90\_UPI000471399A  
UniRef90\_G9AFX5  
UniRef90\_B8ICD3  
UniRef90\_U7GN71  
UniRef90\_UPI00034D1E82  
UniRef90\_Q12EQ9  
UniRef90\_U1SLP5  
UniRef90\_A0LM72  
UniRef90\_E9T2K7  
UniRef90\_UPI00026268BD  
UniRef90\_I0H593  
UniRef90\_A9IQ65  
UniRef90\_A0A059IRU5  
UniRef90\_W7TD33  
UniRef90\_D6TGC3  
UniRef90\_W2EYV3  
UniRef90\_UPI0003688836  
UniRef90\_W8ABH5  
UniRef90\_UPI0004742016  
UniRef90\_UPI00034BBA97  
UniRef90\_UPI0003744E89  
UniRef90\_I4XZ73  
UniRef90\_UPI0004763F8C  
UniRef90\_I4YXS7  
UniRef90\_W0IGW0  
UniRef90\_D8HKY9  
UniRef90\_E5Z237  
UniRef90\_U3AJV4  
UniRef90\_F4B5B8  
UniRef90\_E2XSD5  
UniRef90\_UPI0002379193  
UniRef90\_F3LJE0  
UniRef90\_UPI00047C59E5  
UniRef90\_L0A8V9  
UniRef90\_Q0SK26  
UniRef90\_S5S502  
UniRef90\_I3TKF5  
UniRef90\_E8REJ2

90 100 110 120  
K R L L A L L D G G L Y Q L T R M Y R Y Q F S T D S P R P L A L K E H R R I V D  
S F L A E Q A T M I R N R L A A F R R A Q L Q S Q E S R L E R S R A N E H E A I M Q  
A F A W D I T R E N K A H M D R S R Y E F L S L S F A S N D A F N D E H V I V M E  
R H L L G M L T Q L R T N L M D R S R Y E F L S L S F A S N D A F N D E H V I V M E  
T V Y G H L S D A M R A T L Q S V L G A A V P D A V R H Q T D A H S S A I V L D  
L G L W A T V T R R L S V H L D R L R R L N L P M P G K L E T V L A D H H R A I V E  
K E L I D M T N R K L G S V H L D R P Y R R F Q L G Y P G Q S S N L E D H H R A I V E  
R V I G Q L M Y I L H S S V S K N I E I T L D T L R D K N T V F Y H H K I A L R  
R F L V K S V N A V I H T T L L L L G P S T V L G R S P D R A P A A V T E H H Q A V I D E  
D L F I T F M S S I Q E M W R F L R D R T V T R S D Y R E V N F Q E H H K L I I E  
T L M V A I R K S V G T P I S S A E H A L T S W P A L R E M L V S Q H H D E M L K  
E E M T R I H T E V T E K L R L V R R L D F L K K N R V L A T Y E E H H G K I L K E  
R K Y R T L H M Q L A Y S R L V T T S L K Q P G R P H Q S D R E H H H H V L R  
P K T L E L I R M I G S N T S V R F T Q A Q L A L S R S G A T D R A E R E H H H L L D E  
K V L T E M L H E L G S N R S A V I T M A Q L A L S R S G A T D R A E R E H H H L L D E  
S T M A L M L Q I T P K I V S V F E N N R V C D E D E F V L E L Q R H E A I F E  
P N L M Q L L T G L R A L Y V R W S I L L S S D V P A R A N A D H H R Q L I V E  
K F M I E A L G N L R V H L S L L P G S T Y T S A G R V G E A Q A E H H E E I V D  
P G L T A L L T Q L R Y K I A W M Y A V E Q P A R P L E A W A E H H G A I V D  
P Y L V R T L D D L R D Q S T A L V S A A A W A Q R P S W E R E A A E H H A I V A  
R Y L V G Q I D H L R L S M I L M A G A T T L D T P E R R E T A I E H H A I V R  
P F A W N V I E M Q K A Q L M D R V R F L A L S K E P S K G I P A Q H F A I V E  
S F F T D V M S Q L S S I L P H T R S G F G H S V D D D P L Q R R E Q E S I Y E  
Q A M F A L V T S G A E I F M E S Q K L P F I R P E R A Q E T W Q E H H R K I L K  
R M I S L L V E G M V G R L L S L R G Y L Q G T P D L D A L T A E H H R A I V D  
U N I R E F 9 0 \_ B 4 D 3 N 6  
S T I L A R E I L A R Y E T F V V Q L V R E T V G N R H R F Q D T A L K E H H K A V I D  
U N I R E F 9 0 \_ K 2 P 2 S 9  
R T I A K M H E T V M W F V S R A R N Y A N E R E P L N Q S A A E H H D A I V D  
U N I R E F 9 0 \_ U P I 0 0 0 2 F E 8 D B 9  
N R L I S I M D S L E L Q I K R F G I M M T T N L D R P F R A V I E L H K K I I T S  
U N I R E F 9 0 \_ F 9 S 1 E 5  
P F M D Q F Y D I I S V I F H H Y Q W D N S D L R K R N M V A L E H H M A V I L S  
U N I R E F 9 0 \_ U P I 0 0 0 1 F F D C 0 3  
P L L V E S A G V I R N V Q R V M G E L L F R G S A P K W V W E D H H A A I F S  
U N I R E F 9 0 \_ U P I 0 0 0 4 6 8 A F 2 1  
D R V D R L L R T Y F D E T R V M H Y L F Q E A S A H V L S L S A H R E I L D  
U N I R E F 9 0 \_ U P I 0 0 0 3 7 8 6 1 6 0  
L L L A R L M D E I T R D L V R E T R I E S L R D T Q G R P A D S L V S G H R A I A D  
U N I R E F 9 0 \_ G 1 U P D 6  
S L L A G T M A Q L N S H Y A A G R T A E L R S D T Q W R Q F S V S H L R I I D  
U N I R E F 9 0 \_ M 1 P 9 H 5  
E M F P S I L N V L Q G R T T F G L Q P D E P A T A I E A H E E L A H  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 4 E E A A  
N E L R F I M L V I V D S L I P A T N M L S F R F R E R G R V V A L H S S D I L D  
U N I R E F 9 0 \_ B 1 Y 7 N 2  
P V F V R L L D E L L P T T S I L M A L Y Q N P G Q P A C V A H R H T E L I D  
U N I R E F 9 0 \_ U P I 0 0 0 2 D C 5 A 8 2  
P A L S E L Y R Y S A S V F T H H L R N T M D V Q P R R Q R V F D L H V E I L D  
U N I R E F 9 0 \_ W 5 T G W 0  
P Y L A E A L G S L R G N L R L R H I A R G T R R M L Q T I E E H H L A I C R  
U N I R E F 9 0 \_ F 6 C 1 6 6  
S Y F S T A M E A L K E H I A V G M K F H G I S N K R E A S F A E H E A I A D  
U N I R E F 9 0 \_ X 7 F 4 J 8  
T Y L E A Q L S T L R L R L A P Y R R W L T E K M D R L R R S H R E H A D I L A  
U N I R E F 9 0 \_ U P I 0 0 0 3 7 4 D 5 8 B  
V V L S L M L I T P D I I K N F T Q Y K V C D D E T E Y K A F H H Q L V L K D  
U N I R E F 9 0 \_ Q 3 9 N Q 5  
H A L E A L Y R I F S G I L A N V E D I L V E L D E A E E P D M R S H Q Q D V L  
U N I R E F 9 0 \_ R 9 K U 5 8  
R I L L Y S S M L D G L L D Q F R A K I L T N K M R A E L L R R S H W G I Y H  
U N I R E F 9 0 \_ R 7 W X R 0  
I V L A Q F H D R Q T F Y Y W A L R I P V M F S D E Q L S A T N A Q H R E L L A  
U N I R E F 9 0 \_ S 7 X L S 6  
E T I T Q Q V L S Q T P V L R R V R M R F S S H S G R E S V A Q H E L I V Q  
U N I R E F 9 0 \_ U P I 0 0 0 4 0 C D A 9 B  
K M M A S I M T P M E Q A I R E V R R V L Y A N R S V A E R L Y E E H S A I F E  
U N I R E F 9 0 \_ A 0 A 0 1 1 U Q Q 4  
A L S A A L T A A I R S A M K R A A E R T E E W P D E A Q R L R R E H R A I Y A  
U N I R E F 9 0 \_ A 8 I F P 5  
E L L V E T T D N L F P H M R G V R K V T I G Q D H R A Q R S I D H T K I V E  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 2 9 A 5 3  
K V L K H M L D N L R Y V E R A R R G S L K V P M R A R L I S F H E H R S I F E  
U N I R E F 9 0 \_ U P I 0 0 0 3 7 1 A A 9 4  
A L L A D A I G R L R S H M H Q R Y R I Y F K H G V V D E T S G E H E A V L E  
U N I R E F 9 0 \_ A 9 A S X 0  
P K T A A I V A S L L Q Q T D R Y T R V Q L S S Q A A R D V A E S E H A E L V A  
U N I R E F 9 0 \_ C 0 B 1 8 5  
P T L N T F M L K I T E I T N F E K H H V C D K D T S F N G I Q E H K H I L D  
U N I R E F 9 0 \_ U P I 0 0 0 3 6 7 8 5 6 5  
E R L V A A I D G L R D N T R Q Y G L K S S E K G A L V A S A E E H L P I L D  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 1 3 9 9 A  
T V L L Q T M R G L F D L L H Q S R Q Q M F S S E D I V S R L S E Q H D H L L Q  
U N I R E F 9 0 \_ G 9 A F X 5  
H Y Y T A S L E A L R A I A V G M H L H G L S L M G P R E Q V Y E E H R Q I Y R  
U N I R E F 9 0 \_ B 8 I C D 3  
P G L W R L T R Q V K I Q V D R F R R L T P Q P P G R F A R I L T E H R A V L D  
U N I R E F 9 0 \_ U 7 G N 7 1  
P L F R Q F I E Q I Q K A F H D I Y E T P F G K P H L G O D T I P L H R P L A D  
U N I R E F 9 0 \_ U P I 0 0 0 3 4 D 1 E 8 2  
S R L I D I L S V I H A Q A Q R F W A T T L S H E S H M Q E V I A E H E A I A  
U N I R E F 9 0 \_ Q 1 2 E Q 9  
P A Y A L V S G K I A A L R T N M A K Q F S D A R K V S L S A H R E M I A Q  
U N I R E F 9 0 \_ U 1 S L P 5  
P I F A E L S S T V A A T V L R G R V E I N M Y P Q H E E S A L S A H E K V A Q  
U N I R E F 9 0 \_ A 0 L M 7 2  
P F F V I Q M V R Q Y Y E S V H F M F K A S P D R F D S F K D E H E R L Y G  
U N I R E F 9 0 \_ E 9 T 2 K 7  
E M L V H L T E A H N A L F I A S H G D N Q D K P A A R A A H R A Y T K L L A  
U N I R E F 9 0 \_ U P I 0 0 0 2 6 2 6 8 B D  
P H L E D T L V R Y D N L A T R I F C L F D R D R M P H F D R H V G E H T A L L R  
U N I R E F 9 0 \_ I 0 H 5 9 3  
P L L L D A F T R L H A H L H L H R R Y F P Y A Q T A V I T Q R E H R A L A E  
U N I R E F 9 0 \_ A 9 I Q 6 5  
D Y L L G V L E S I H E S I S G F M R L T L S R T G S R Q R A Q D E H A A I C  
U N I R E F 9 0 \_ A 0 A 0 5 9 I R U 5  
L L M A E L M I D L Y S Y M I A H R R R A M R R P G A I A R S L A D H H R I F A  
U N I R E F 9 0 \_ W 7 T D 3 3  
G T L A R T Y E T L R A R Q V V S G M V A L Q G A D R R E A V L T E H E A I V T  
U N I R E F 9 0 \_ D 6 T G C 3  
I F L Q A D A F E H L Y A H L H L Y R L Y F H T G L A L E T I S E H Q E I L S  
U N I R E F 9 0 \_ W 2 E Y V 3  
A V L A A V I Q N M S G R T V R A R W R G M T D P E A V Q R T L R E H R A V Y R  
U N I R E F 9 0 \_ U P I 0 0 0 3 6 8 8 8 3 6  
P L F V A L F N A S T A L E E T R Q A P L Q T P E R I T Q  
U N I R E F 9 0 \_ W 8 A B H 5  
S E I V R A L T A V N A R I R H V R M F D F M V N N R T E V T I A E H H A I L D  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 4 2 0 1 6  
K L L I N L M S S V S L I S E T R K V F L Y S G N T V E D L K V E H H R I F E  
U N I R E F 9 0 \_ U P I 0 0 0 3 4 B B A 9 7  
R L L L N L W I S L V E Y N K V A K Q S L I E R K G R P T A S I Q E H F E I Y E  
U N I R E F 9 0 \_ U P I 0 0 0 3 7 4 4 E 8 9  
D M L A F I L N M M S L A L S E S K L T S R H P D T H A L S L P R H K A I L T  
U N I R E F 9 0 \_ I 4 X Z 7 3  
Q A M V S I G N S T S A E I F L E S Q K L P F I R P E R A M E T W Q E H H R K I L R  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 6 3 F 8 C  
P R L I E M I A A L H R R G E R Y L R L K F G L P E Y K G E S D A E H R A I V D  
U N I R E F 9 0 \_ I 4 Y X S 7  
E T L I V L H D S M S G I L M R S H R T R R E L L Q V F D T M K T Y H R R I F D  
U N I R E F 9 0 \_ W 0 I G W 0  
D L L V P L G V L T E S A L N H L F A H V T R E E D N L R Y A L K L H E N I E K  
U N I R E F 9 0 \_ D 8 H K Y 9  
S F L M R M E R V I A G L A E R D K L V H G S S A A E D P V P N H R K V F D  
U N I R E F 9 0 \_ E 5 Z 2 3 7  
Q I H R V L L N Y H D H L Q R T R R H L R K D P H R M E K F L E D H W K I Y E  
U N I R E F 9 0 \_ U 3 A J V 4  
V V M L H M M R S I Y D L L R E N R Q V M F R Q R T T R A S V L E Q H H R A I N D  
U N I R E F 9 0 \_ F 4 B 5 B 8  
K Y L Y N C L H D I R V K L K I V R T S L F T S Y E R R K D E Y N E H Y S V F L  
U N I R E F 9 0 \_ E 2 X S D 5  
P R L M K Q I S A L Y S L V E A P M R L W L Q H S E K P L S A R Q E H A V I L D  
U N I R E F 9 0 \_ U P I 0 0 0 2 3 7 9 1 9 3  
D M L S K T Y D A L A R V I R A G V A L F S S G R K K A V L V E H  
U N I R E F 9 0 \_ F 3 L J E 0  
I V Y L H L M Q S L F D V V R S S V S H M V A R E P R R D L M R Q H S D I Y D  
U N I R E F 9 0 \_ U P I 0 0 0 4 7 C 5 9 E 5  
A R L V R T L D D L A D R Y R R H G L Q T E R T A E E R E E K A R E H R L L E E  
U N I R E F 9 0 \_ L 0 A 8 V 9  
G Y L T T R L A E L R E T I E R M Q T S T H T H E R R V E A L Q E H E E I L E  
U N I R E F 9 0 \_ Q 0 S K 2 6  
Q T L A Q L M D R L D A Q L R V Y D A E E A Q A S S N L Q Q I E T E H R E I L T  
U N I R E F 9 0 \_ S 5 S 5 0 2  
S Y Y G R L F D T F G N I M V P R Q W A R L E R K R H A A R M R E H H A I V T  
U N I R E F 9 0 \_ I 3 T K F 5  
R Y L E Q E T Q R L R D R L R P Y R L H Q G R S P G R L G R S D D E H G E V M A  
U N I R E F 9 0 \_ E 8 R E J 2  
Q V V I Q V M T T I Q S I L N E S R S T W L Q T S A R H A S V E G H L R I I D

		130	140	150
UniRef90_Q39WL5	A	I E E R D E E	L A E L L M R R	H I L R
UniRef90_L0L173	A	I A E G D G E M A S	R R M R A H M L N A A	
UniRef90_A9D2N8	A	I R A R D E E R A M K Y	M R K H L S R	
UniRef90_UPI000366A9CF	A	L A G G D F G H A A D	L L E A H G M R T I L L D W	
UniRef90_S4AUB9	A	I E		
UniRef90_J2AUD9	A	V R S G E P E R A V A A M R K	H L	
UniRef90_UPI000464C27A	A	I L A Q D V E R A A E Q F R K	H T K V Q G D I	
UniRef90_UPI0003652604	A	I N E G N		
UniRef90_W4HFR0	A	L R S R D G D A A E G A M R	H H M E A A Q R T R L R M L R D I	
UniRef90_W8RJP9	A	L E E R N A A E A V K R M T A	H M Q N	
UniRef90_K7RQ16	A	I A A G D G E R A A Q V S E E	H I T R	
UniRef90_J2L681	L	I A K R K A T E A Q L L R A H	H I T Q S	
UniRef90_UPI00036E137E	L	I L S K D G D S A E Q V M R E H	V R A S	
UniRef90_H0F825	A	L M A R D L I R V E A L M R Q H		
UniRef90_K2MGM5	A	C K A R D V D Y A V E L L E A	H I E N S	
UniRef90_V2GEF6	A	A R A G D A E R A V E L M		
UniRef90_UPI000361E91F	A	I K N K N V A K A I E S M Q L	H F E K L I E F C N N F E E N L	
UniRef90_UPI00047D6E22	A	C R N R E G D K A A A I E E K H	L E	
UniRef90_B9KVL4	A	I A A G D G D R A E K A A R	H H	
UniRef90_UPI000380B6AE	A	V A R G D A E R A R A L T A L	H A E R	
UniRef90_C7QJW7	A	A E N G D T E E V R D L M R S H		
UniRef90_UPI000380E195	A	I A S R D L D A A E T A A R R H		
UniRef90_UPI00046798DB	A	I A A H N P E R A E M E M R A	H L R D	
UniRef90_A0A038GCB2	A	I A H Q D R D A A R A A M R L	H L I N S	
UniRef90_W6QQQ4	A	L A R H H A A G P A Q K A M L	H I R S A A L	
UniRef90_UPI0003B7A00B	R	I A A H D P K G A A R A M R S	H L	
UniRef90_B4D3N6	A	L L R Q D A E K A A A M R T H	V H N A G K I	
UniRef90_K2P2S9	A	L E K G D P E G A A R A M R N	H L A E V I A	
UniRef90_UPI0002FE8DB9	A	M F H A E I D K A R S L M E Q	H I E E	
UniRef90_F9S1E5	K	T L S G D D I G A M G E L R	H H L Q	
UniRef90_UPI0001FFDC03	A	V V A G D G D R A E R L A R E H		
UniRef90_UPI000468AF21	A	I T A G E P E R A S Q A M S A	H L I E S N E	
UniRef90_UPI0003786160	A	I R S G D P E A A A D A M H A	H	
UniRef90_G1UPD6	A	I E R R S P A D S R K A I K E	H L	
UniRef90_M1P9H5	A	I A D G D P D A A E Q H A R	R I L L T E	
UniRef90_UPI000474EEAA	A	L R A R D		
UniRef90_B1Y7N2	A	L T G S G A A G A A E M R R	H L Q E	
UniRef90_UPI0002DC5A82	A	V E Q Q D P Q R A M T L C	R	
UniRef90_W5TGW0	A	I H D G N E E L A A Q A T A V	H V N N S	
UniRef90_F6C166	A	I A A G S A E E A R M L M L K	H L T G S	
UniRef90_X7F4J8	A	L R D G D G A A A S A L M A R	H V Q D	
UniRef90_UPI000374D58B	H	I T D K Y S Q G A A E V M R K	H L R D	
UniRef90_Q39NQ5	A	I E Q R D E N K A V R A		
UniRef90_R9KU58	A	L R E R D L P E A M K A F D K	H F R	
UniRef90_R7WXR0	A	L R A H D D E R A A Q I A R A	H V E T T M D I	
UniRef90_S7XLS6	H	A R E G K F D E A L V A V R E N		
UniRef90_UPI00040CDA9B	A	V A R G D A A S A A D S M K R	H L Q	
UniRef90_A0A011UQQ4	A	I D E G D P A R A A D L T E A	H I R R A A	
UniRef90_A8IFP5	A	I E K R D A D L A E R L V R E H		
UniRef90_UPI0004729A53	A	I M K R D A A E A E R L M A E	H	
UniRef90_UPI000371AA94	A	L R S G K P A S A E K A M L D	H I T K S	
UniRef90_A9ASX0	L	C R K G D A R A A A S L L K R	H I E H A G	
UniRef90_C0B185	A	T R S M D T T E A K N A M K K	H F K N	
UniRef90_UPI0003678565	A	I V A D S P D K V R E L M Q R	H L R	
UniRef90_UPI000471399A	A	I L R G		
UniRef90_G9AFX5	A	V Q E G R A D D A R E L M R K	H L E G S	
UniRef90_B8ICD3	A	I R A R D P		
UniRef90_U7GN71	A	I A G D E D K A A E L		
UniRef90_UPI00034D1E82	A	L A C Q D R Q A A E A A N R E	H	
UniRef90_Q12EQ9	Y	I D D G D F D R L E Q L T Q S	H	
UniRef90_U1SLP5	A	V V A G D A H A Y E A M		
UniRef90_A0LM72	A	I K S K D L E A A R R I G R E	H I R G A R E L	
UniRef90_E9T2K7	H	L R S G D A L A A Q D F W R K	H L	
UniRef90_UPI00026268BD	A	I A E G D A D T A A E L		
UniRef90_I0H593	A	I A G H D P D R S E A A M R Q	H L T Q A	
UniRef90_A9IQ65	A	I R E Q D G E R A R V A M Q F	H L	
UniRef90_A0A059IRU5	G	L A A H D R A A T E A A L S A	H L	
UniRef90_W7TD33	A	L A A G D P G P A R D A I T A	H L	
UniRef90_D6TGC3	A	L Q Q H N T E A A A V L M A R	H L Q Q A	
UniRef90_W2EYV3	A	L R A R D A E R A		
UniRef90_UPI0003688836	S	C		
UniRef90_W8ABH5	A	V L A G D L P R A H E L L R L	H I G E S	
UniRef90_UPI0004742016	A	I K N R Q P N E A S E A M L E	H L Q N	
UniRef90_UPI00034BBA97	A	L K K R D Q R A A V S A M E A	H L K N S	
UniRef90_UPI0003744E89	A	I E N H D P L G A R Q A		
UniRef90_I4XZ73	G	L A R H A S G A A Q K A M Q E	H	
UniRef90_UPI0004763F8C	A	V V R S D T A A A Q S L V A A	H L L G T G E L I H R	
UniRef90_I4YX57	A	I V G R D P E H A E K V M R E	H	
UniRef90_W0IGW0	S	I R L Q R P T M A R N A V R K A	L A N T D E I	
UniRef90_D8HKY9	A	I V A G D P A A A E Q A M		
UniRef90_E5Z237	A	L K T G K E S S A D V M R R	H L Q E S	
UniRef90_U3AJV4	A	L Q A R D P		
UniRef90_F4B5B8	A	I K E K D P E K A E K I M I E	H	
UniRef90_E2XSD5	A	L R A G D A A R A E A V V R E	H	
UniRef90_UPI0002379193	A	I M N A Q P T T A R E A A H R	H I R	
UniRef90_F3LJE0	A	V V E G D G E T A A D V M R T	H L R T S	
UniRef90_UPI00047C59E5	A	I K S S D A D G A E R V T R E	H F R K A E A I	
UniRef90_L0A8V9	A	V Q S G D A E K A R I L M I A	H	
UniRef90_Q0SK26	A	I R D G N E A A A R A L R S	H L S K S A A R F E E L R	
UniRef90_S5S502	A	I L A G E A D R A A D L M R A	H	
UniRef90_I3TKF5	A	L E A G D A E A G A A M H D	H L A E	
UniRef90_E8REJ2	A	L E A G D A E A G A A M H D	H L A E	

UniRef90\_H0FEG8  
UniRef90\_W9H6I4  
UniRef90\_X5DNI0  
UniRef90\_W4RM72  
UniRef90\_UPI000477E0EE  
UniRef90\_D3FES1  
UniRef90\_D7GSN9  
UniRef90\_S6GGR7  
UniRef90\_G2P3S0  
UniRef90\_E1RCP7  
UniRef90\_R0FKN9  
UniRef90\_Q1ARM8  
UniRef90\_UPI0003831453  
UniRef90\_V9VXU8  
UniRef90\_UPI0002555930  
UniRef90\_D1AQ77  
UniRef90\_UPI000463C7EC  
UniRef90\_A6T157  
UniRef90\_Q8YDV3  
UniRef90\_I0DW29  
UniRef90\_S9RWN1  
UniRef90\_UPI00046A50D5  
UniRef90\_J7IWM9  
UniRef90\_A0QVJ8  
UniRef90\_Q5WJD8  
UniRef90\_F0P485  
UniRef90\_A0A031FT40  
UniRef90\_UPI0003B50E35  
UniRef90\_X8B4A3  
UniRef90\_N1V503  
UniRef90\_N6X0E9  
UniRef90\_F8FRS7  
UniRef90\_B2JXQ5  
UniRef90\_G2NMY3  
UniRef90\_A0K0U6  
UniRef90\_UPI0003B580F9  
UniRef90\_R6DTC2  
UniRef90\_B1M8R5  
UniRef90\_M5E2A1  
UniRef90\_UPI0003B46D5A  
UniRef90\_UPI0004657B17  
UniRef90\_E6PSY5  
UniRef90\_R6WJT6  
UniRef90\_UPI00036E5363  
UniRef90\_E8TC94  
UniRef90\_UPI00037B6BA8  
UniRef90\_J2Y5D9  
UniRef90\_X0VPF1  
UniRef90\_W0AL15  
UniRef90\_UPI00036333B4  
UniRef90\_C7RQX3  
UniRef90\_UPI000370286A  
UniRef90\_UPI00047AEEB9  
UniRef90\_D4LPZ5  
UniRef90\_S1RL74  
UniRef90\_Q1AZJ2  
UniRef90\_X5LIL7  
UniRef90\_F0QC15  
UniRef90\_UPI000474B563  
UniRef90\_C7DEI0  
UniRef90\_A0A017HMB5  
UniRef90\_UPI00030C58DF  
UniRef90\_E3J9C9  
UniRef90\_R7N953  
UniRef90\_F9TLB5  
UniRef90\_N2ATN4  
UniRef90\_UPI0004766763  
UniRef90\_A6VZ19  
UniRef90\_M7MM44  
UniRef90\_UPI000376F20A  
UniRef90\_B5WHF4  
UniRef90\_UPI0003B3C3FD  
UniRef90\_C4Z648  
UniRef90\_V2Y4T2  
UniRef90\_UPI00040D0486  
UniRef90\_UPI00046D5E0B  
UniRef90\_G8PQ14  
UniRef90\_UPI00036F12F1  
UniRef90\_L8FJ11  
UniRef90\_L8J687  
UniRef90\_UPI00047BB3CE  
UniRef90\_K8WVK6  
UniRef90\_K5BID1  
UniRef90\_N2IXT8  
UniRef90\_UPI0002559F4A  
UniRef90\_W6WA36  
UniRef90\_UPI000344A732  
UniRef90\_D6TI70  
UniRef90\_G8QU99  
UniRef90\_M2VI29  
UniRef90\_B5ZP38  
UniRef90\_X7FA57

1

10

20

30

40

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

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

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

S D I V E Q L R D L R C V L L E A Q L A V E A C K
D I T E E D L Q D V L L E V R C A L E E L A V E L A C A
L E R Q F S V D L L R Q F N Q L R V A I E P E A A A L A A R

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

UniRef90\_H0FEG8 R R D D D D L A A M R V A L R K M A D A I A S V D A D M E F H R C V A R A T R K N  
UniRef90\_W9H6I4 R D L K R L R A L Q E R M E L L R E R G D G Y F D L N Q R L H H S M V I V A G A K N  
UniRef90\_X5DN10 A P P A Q L N D L C R Q K L E G S R H H L A T F A A Q A N S N L H S M V I V A G A K N  
UniRef90\_W4RM72 V H E E E D L L D M E K A L I V M E H A E L A S Q A D L D F H V A I V A N A T H N  
UniRef90\_UPI000477E0EE T T P A K L Q E L T A E A Q K S P E Q S L K L L E I D Y Q R F H L A I A Q I S G N  
UniRef90\_D3FES1 H D L L A L E E E L A E M R A A R D G A A G F G E A D V Q R A H T L I V E A S G S  
UniRef90\_D7GSN9 R I T A E E L E S L N K A E A A I D G N G D A I A Q T D E V Q R A H T L I V E A S G S  
UniRef90\_S6GGR7 R S T E V D R E I R T R H S E L Q A D N K D F A R A D V E F H L A I A E A A H N  
UniRef90\_G2P3S0 R T D E Q V A A L E A A L E R M R E A I D A D A F S A A D V T F H D V V A Q A S G N  
UniRef90\_E1RCP7 A L P E K E L L S F R E A F S G E D D V Q V G Y R L D T A M H L F I L E Y C  
UniRef90\_R0FKN9 R I S D A A L A E L R D A N E H C Q Q A V A A R D V D A R F H H R F I Y Q Q S G N  
UniRef90\_Q1ARM8 R L E E R D L R L M E A N E R A G K A V E A S E A D R D F H H E V L M S R T D N  
UniRef90\_UPI0003831453 R D V D W E A R V R A A H H R L A R T P D A W S E A H H R S F H R T L L E G C  
UniRef90\_V9VXU8 N H F E A C E R L L T E M E R S A D D V S Q W G K F N H E Y H M G L Y A A A D R  
UniRef90\_UPI0002555930 R S P E D L E E L Y A V M V G A V A D L K A F S E A D L F H Y R F H E L T T G N  
UniRef90\_D1AQ77 I K T K G F L E K F T E L L V E L D E N D T L F N K Y N D E F H Y F F T A E N C  
UniRef90\_UPI000463C7EC R R S E A D I V A M E L M R Q E A P D S I G F A D A D L A L H I A V A N A S G N  
UniRef90\_A6T157 R S P A E H A L L M A T H K Q A R D D A D S D A Y F N E E F H Q Q I Y T G S K N  
UniRef90\_Q8YDV3 R T P E D L K Q I K R A L I G L E Y S D K L G D E D Y A F H D A I L E I A T H N  
UniRef90\_I0DW29 K N K N Q C I V Q M A R A A K L A D S Y E F S L C D V N F H R T L C Q L S G N  
UniRef90\_S9RWN1 H A T A E L R A L A A A E H A S R E A S G R D W I R L S G D F H H Q L A E A N G S  
UniRef90\_UPI00046A50D5 A R P D E I G L L R S L S D Q M E A E F E T L S D L N E E F H R T L Y G L N R S  
UniRef90\_J7IWM9 A N I D D L K D M S E A L E I M R K D L K L H Q E A D H N F H Y A I A K S A H N  
UniRef90\_A0QVJ8 R T L S A A E R R L A D V R A A E G T D D Y R R L D S R F H L A I A E A A G S  
UniRef90\_Q5WJD8 N R S E E A L S Q M A K A E A G K D L G E E A D V R F H L L A I A E A A T N  
UniRef90\_F0P485 R T E E E L V M E E A L D E M N G A T E R H Q E A D L K F H L A I A K A S D N  
UniRef90\_A0A031FT40 R A R D E L V R W A A L L S D L L G D S D E Y L C A D A D I A Y H R L L V K A S G N  
UniRef90\_UPI0003B50E35 R R T A D H L A T M R A E I H R Q N Q P E S F C A S D V I A F H R A L V D G A G N  
UniRef90\_X8B4A3 D G T Q K A R R E F R R I V A A V P E A W A A A S A E L H L R M V Q L S G N  
UniRef90\_N1V503 H S D P D A E R L K L M D D E Q T A V A D F L H L D A E F H H Q L S R A A S G N  
UniRef90\_N6X0E9 H R R D Q D L A D M K S A L J A R D D L E A R I R F D E A Q F H R A I V T A S R N  
UniRef90\_F8FRS7 L V K A E A E L L A K R E A A E A G D A F L Q L D E A F H Q A V I G V T G N  
UniRef90\_B2JXQ5 R G T P A D Y M M I T R A H D M A T D P A T H A R E L D H A F H L C E A S H N  
UniRef90\_G2NMY3 R R T D A D L D A L E A A L T A M G E Q E G G A E A D L A F H R A L L A A T H N  
UniRef90\_A0K0U6 Q K R V P A R T M Q D T L Q Q A E A A R E F I R L D T L F H Q Q L I D A A G N  
UniRef90\_UPI0003B580F9 R A S T E S V A A M K E A L H M A E A D E R F T S I T Y R F H H L L Y E H A S  
UniRef90\_R6DTC2 R R T D E D L A A L D A A E Q A L G D Y R R F A E L D V R F H S L L S R A T G N  
UniRef90\_B1M8R5 K D V L L K E Y T K E L E E C I E N D N Q R G C I R V D I A F H R I I K E A S N N  
UniRef90\_M5E2A1 Q A V L L E L R R I L Q E E L D A L D D P Q V Y F A R L L H E A L V D L S G N  
UniRef90\_UPI0003B46D5A R A T P K D V T L L R R Q L A R E H E A V A W A R L A S D F H L Q V A L L A G N  
UniRef90\_UPI0004657B17 R A N D K R I G V A F D A L E L Q D D L L Q A C I K N D V F H H Q A I A S H N  
UniRef90\_E6PSY5 K I T K E A A E T F K K A Q K T K D I T Q L A E A D V H F H D L I N T A S G N  
UniRef90\_R6WJT6 A N P A G S L E I M K R T G D L R Q D L V A H D T R F H D T I L A A S G N  
UniRef90\_UPI00036E5363 N R S D A D L A I F A R L D S L E D D V K A Y L R A N Y T F H F A I Y R A A G S  
UniRef90\_UPI00037B6BA8 E D F D K L T L C D K M E S S L H N T L E F S A A D T E F H H T L V Q C T R N  
UniRef90\_J2Y5D9 R R T D E D L R L Q A S A G H F H G D V N A Y V S C D L V F H Q R L I D A A H N  
UniRef90\_X0VPF1 N N S K K L G E I F E K R K N V R P R R E L I L E D T L F H L S I V E A N N N  
UniRef90\_W0AL15 D M E L H R R L J A K A T G N  
UniRef90\_UPI00036333B4 R R D P D A L R R M K Q C L D T Q G D A T T A R R A A A D F H E A M T E A S G N  
UniRef90\_C7RQX3 I A R L E A I H R Q L E R F A N E N D T A E R F F E A N Q E F H S Q I Q L M A G N  
UniRef90\_UPI000370286A S I T H A Q L Q L A E A A N N D T A A F L A A D E A F H Y S I A Q S I M D C  
UniRef90\_UPI00047AEEB9 K H I E A M S K A L A S M K A D A D H S V L P L I E S D R A F H T A I V E S C G N  
UniRef90\_D4LPZ5 C T P L D A A E L L A R L D A E A D E K V R G E L D R E L H K K I A K L A D N  
UniRef90\_S1RL74 R A T E E V A Q L E K I V F E J S A I E R H L E L D V E F H S M L A R M S G N  
UniRef90\_Q1AZJ2 N R T Q E D I A G L R E I L S Q A G D L L G A S D L N G Q F H S R R L V E I T S N H  
UniRef90\_X5LIL7 R H T A E L D Q L E S A H Q R L L D D D A T F M R S D A V F H L T L A H I T A N  
UniRef90\_F0QC15 R G K R A D Y Q L L E S A H I R F E A T G S V Q E K L G D F H V A L A E A A G N  
UniRef90\_UPI000474B563 G A P P Q F R L L A E Q I T D A A R T G D A F L D L D R K F H L G L L E L L I G N  
UniRef90\_C7DEI0 N A S D L D L T V L V D H I A L J E A A R A R A N E A L S G E F H T K L A Q A T S N  
UniRef90\_UPI00047HMB5 R S V E D V A N M R S T V E R M A A A P D S F A A V D I E L H R Q V A K A S G N  
UniRef90\_UPI00030C58DF R M S E A A H R A C Q Q A R D A N D A D S Y Y Q N E A F H Q E I Y A G S H N  
UniRef90\_E3J9C9 L P D R R A V V D E L T R L V D E S E E F T E A A H A F H L R L T E L C G N  
UniRef90\_R7N953 H I T E E Q M E Y L A S F H A S K G H M E Q M A E L D N R F H H I L Y A S C D S  
UniRef90\_F9TLB5 R A K P K D I R L L E K H L K K E S A A R A S I K L S G Q F H T L L A Q V V D N  
UniRef90\_N2ATN4 R G A Q Q L S E L K K A E E D F E D D T V V A E A D V A F H D L I Y L A T D N  
UniRef90\_UPI0004766763 R H K Q R L I D L H Q K F L Q A C H H T T Q A R D E D L A F H A I A Q A T H N  
UniRef90\_A6VZ19 Q A T K K D I I K M R D A L L E L I E D T A D Q N H A A D K L F H L A I A E A T Q N  
UniRef90\_M7MM44 R R S S E L V E E L R E L A R Q V D E S L E F D N D F H R A I A A T A G N  
UniRef90\_UPI000376F20A R H T Q E E L D L F Q K R E T I I Y N P E E L Q K V N E R F F R L F S Q A T R N  
UniRef90\_B5WHF4 H D A M D A L R A C V D E R E R E S R P A T M F V L D E G F H R G L V S A A G N  
UniRef90\_UPI0003B3C3FD Q S L D D A R T I L R E D R G D H E G L L A A D L A L H R G V A A L A G N  
UniRef90\_C4Z648 N Q L D S L Y E L W E M Y I K R G D E K I F T D L K E F H G S L Y K M C G K  
UniRef90\_V2Y4T2 R R S E E A A R A F I E A T K S G N I S E M A E K D V E F H N H I F S A T G N  
UniRef90\_UPI00040D0486 V G T A E D L A R T I E R M E A E Q G L E D T L E A D L A F H V A I L R A S G N  
UniRef90\_UPI00046D5E0B L R E M V E A D R V L L D D P Q A L A R A N R R F H V Q I H L A S H N  
UniRef90\_G8PQ14 R A P E E R E A L H Q C A E E I L A Q A R A Y L R A D K V F D E V L C A V S R N  
UniRef90\_UPI00036F12F1 H A T E E Q V E S I A R Q N K L M A D D G K I P L Q E D R E F H E L I A K A S G N  
UniRef90\_L8FJ11 N R S D D D L A V Q K Q K S S V D D P E I P D L D R Q F H T L I A R A S G N  
UniRef90\_L8J687 A S D E D R A A L Q T L M D E M Y L L G D S F I D V D T R F H H Q L I Y F A S G N  
UniRef90\_UPI00047BB3CE R A D D G V N L R Q T A D E I N A A S D A M T E A N R R F H F I M V K A A N M  
UniRef90\_UPI000478WVK6 A T H E Q V N Q L L L A N E M K L L A E Q F I Q V D H R R F H L A I Y E A C A N  
UniRef90\_K5BID1 R N P A A I A E L E R I V E E S Q S D E A V D Q L T D F H A A V A R L C D N  
UniRef90\_N2IXT8 R S P Q E L K E I E L A L L S M R D S G G I A L H A D S Q F H H L R I A K A S G N  
UniRef90\_UPI0002559F4A D G L P A D L A L F A R M E Q V R G D A A E E A R L D A S F H H L R I A K A S H N  
UniRef90\_W6WA36 N R N E A D L A M E A E I A V Q D E A E D F C A S D V R F H R A L V E S T G N  
UniRef90\_UPI000344A732 E E L E S L R P V A E E I V S A A S R H D G Y L E A D R Q F H L S L L A L G G N  
UniRef90\_D6T170 H A T A R L V I E Q A E N A R E E T A V Q R F L D D D Q F I R F L A S C V H N  
UniRef90\_G8QU99 H D P E I L Q P M R E H L E N L P S L G A Q S A V E D E L F H K T L A D V A G N  
UniRef90\_M2VI29 R T A T E L R E L E S L L A E A V D D A S F M R S D A V F H L T L A N I T A N  
UniRef90\_B5ZP38 H A T E Q R V R L G D C A R A M E D C A V T F F A D K T F D E I L E D A C P N  
UniRef90\_X7FA57 H A R M S A L R K C A A D S R A A Q T W R E Y E A C D N R L H K I V A D A A N N

UniRef90\_H0FEG8  
UniRef90\_W9H6I4  
UniRef90\_X5DNI0  
UniRef90\_W4RM72  
UniRef90\_UPI000477E0EE  
UniRef90\_D3FES1  
UniRef90\_D7GSN9  
UniRef90\_S6GGR7  
UniRef90\_G2P3S0  
UniRef90\_E1RCP7  
UniRef90\_R0FKN9  
UniRef90\_Q1ARM8  
UniRef90\_UPI0003831453  
UniRef90\_V9VXU8  
UniRef90\_UPI0002555930  
UniRef90\_D1AQ77  
UniRef90\_UPI000463C7EC  
UniRef90\_A6T157  
UniRef90\_Q8YDV3  
UniRef90\_I0DW29  
UniRef90\_S9RWN1  
UniRef90\_UPI00046A50D5  
UniRef90\_J7IWM9  
UniRef90\_A0QVJ8  
UniRef90\_Q5WJD8  
UniRef90\_F0P485  
UniRef90\_A0A031FT40  
UniRef90\_UPI0003B50E35  
UniRef90\_X8B4A3  
UniRef90\_N1V503  
UniRef90\_N6X0E9  
UniRef90\_F8FRS7  
UniRef90\_B2JXQ5  
UniRef90\_G2NMY3  
UniRef90\_A0K0U6  
UniRef90\_UPI0003B580F9  
UniRef90\_R6DTC2  
UniRef90\_B1M8R5  
UniRef90\_M5E2A1  
UniRef90\_UPI0003B46D5A  
UniRef90\_UPI0004657B17  
UniRef90\_E6PSY5  
UniRef90\_R6WJT6  
UniRef90\_UPI00036E5363  
UniRef90\_E8TC94  
UniRef90\_UPI00037B6BA8  
UniRef90\_J2Y5D9  
UniRef90\_X0VPP1  
UniRef90\_W0AL15  
UniRef90\_UPI00036333B4  
UniRef90\_C7RQX3  
UniRef90\_UPI000370286A  
UniRef90\_UPI00047AEEB9  
UniRef90\_D4LPZ5  
UniRef90\_S1RL74  
UniRef90\_Q1AZJ2  
UniRef90\_X5LIL7  
UniRef90\_F0QC15  
UniRef90\_UPI000474B563  
UniRef90\_C7DEI0  
UniRef90\_A0A017HMB5  
UniRef90\_UPI00030C58DF  
UniRef90\_E3J9C9  
UniRef90\_R7N953  
UniRef90\_F9TLB5  
UniRef90\_N2ATN4  
UniRef90\_UPI0004766763  
UniRef90\_A6VZ19  
UniRef90\_M7MM44  
UniRef90\_UPI000376F20A  
UniRef90\_B5WHF4  
UniRef90\_UPI0003B3C3FD  
UniRef90\_C4Z648  
UniRef90\_V2Y4T2  
UniRef90\_UPI00040D0486  
UniRef90\_UPI00046D5E0B  
UniRef90\_G8PQ14  
UniRef90\_UPI00036F12F1  
UniRef90\_UPI0004766763  
UniRef90\_L8J687  
UniRef90\_UPI00047BB3CE  
UniRef90\_K8WVK6  
UniRef90\_K5BID1  
UniRef90\_N2IXT8  
UniRef90\_UPI0002559F4A  
UniRef90\_W6WA36  
UniRef90\_UPI000344A732  
UniRef90\_D6T170  
UniRef90\_G8QU99  
UniRef90\_M2VI29  
UniRef90\_B5ZP38  
UniRef90\_X7FA57

90 100 110 120  
E H Y L N F F D F L A V L L K K N L R V S R S I A G R G A Q A Q K E H E A L F A  
P A L L E A H D L L I G R L A R A R Y L A L A I Q G R W E Q S T D E F H R N L L L A  
R F L G D R V G P L I G R V L S W A F Q V S D N S E P E L V L D L H T R R I F E  
K L L I N L M S S V I S A L V N S Q T R K V L L Y S D N I V D D L L H S H T R R I F E  
S C L V S L L E Q V F D K M A L L R T K T T R N N P R V L R E E H K T E I Y D  
L P V R V L F A A I A D L L R H S R T E T A A N A P L R A D A L R E M E T H E H I V G K  
Q K L V Q L L N A N I R E Q M Y R Y R L T E Y I K A D A D K R Q I L M V H E H E H I V G K  
M V L L H M M R A L F D L L K Q N L N E I Y P Q Q S V R A N I H D Q H K L L M Q E  
N L I Q V C S E V V R G V L A L I E D K L Q R A P D S V A L M R A H H A E V I E  
R F I L I D M M R K L F D E N T R V I I S S K Q N Q H D A R L E H H A E I V I D R  
S F L A Q E A A K L H K R L Q P F R R Q Q L R F R G R M G Q S M S E H H E Q I V I R  
P D L T R L V D D L K A K L R L L E V V Y F G G S L V A E R S A E E H K E I L L A  
P V L L E T F D R M S E L A R R W S A H R N P D R D G I D E H H R R L E E  
R M S M E F L E R I S L H S D R Y V R I H L S V M K Q R K P A Q E E H R K L L T  
S I L L K V Y S L I N D M L S V A M M D I V R L L G H R R D G L T Y H R A L I D D  
Q F F Y S Q M N F I Y E N L T R I R K A L H K D I L P K R R E T I K E H H E I L I D  
L F M R S I G H V I E A A L R A S F L L S A P S E R E T V L L W H Q R I V D D  
T F L E E Q A R A L Q R R L R P Y R R L Q L R V R N R V T A S F D E H H G A V I Y E  
P H F I A L C K H L E Y G A R H V I R Q A R T N R S N D A V Q D E H H K A I Y E  
N T L T A L W N V S K Q L T I T I G I S T F T K P M E E I I D E H K V L L D  
P I I T S M L R T L V A R T S L L G L Y E S P A R P S C G H D E H L A L L D  
P R I L Q V I M G A V V D V G I V A R T Y R S Y S D R A M I R S A N H H A E L V D  
K I M T T L S D T L K K S L K S N R S K I F E H E D S P L K L L N E H F N I Y E  
P S L V P L I A E N R M R L N G L L D R I P L L P R N I A H S D D Q H E H H A I V M  
D L L M E M M Q L S D M Y E S R K I S L Y A E T Q T I A K Q L H D D E H E Q I Y K  
H L L Y E L L N N I A D L I Q Q T M K Y I Y S R Q K T M E K L M E E H H S V I L E  
A L F E K L G D P I A E I L R G R S M V R G L T P G M P R V T L G E A H L A T A Q  
P V L S Y Q L A G V I E A M Q P L M N M I T F S A R S R E R I V G F H T A T A A Q  
A T L G M T A G M L H E I T T K H Q G D N V D K P E F E R V M R S Y E R L A T E  
P L I S T L M D A M R T S I L A D H T L A R A M A Q A A S R L R S E H R G I L E E  
Q A L V E L Y S Y F A S S I S K T I H E T E K D M S L P E P S H A D D H H H A I V L D  
A T L Q Q V I T Q M R G H L N R L R C L A L R Q Y H Y M P Q M I E E H H Q G L L E  
P V L V L T E L L S S V F A S V N N L Y H R S P H R K R I G R Q H A C L Y N D  
E L I E R M E M V I E S G L A R R D E I V H S S P H G E N P V P S H R A V L D  
E L I S R T Y S K L H V R Q I L V G S A L F R T G G R R E Q V C A E H H Q G I L D  
P T A V I Q F L N Q L N S R L E R Y R R L S Y R A L P E Y T I D T V I S E H H E I L G S  
Q V A M I V T D V L H T L L K K M E T L N D S A L E R R I L A R H H R E I L S  
G L M V E M T N L F I H M R A L R S A F L H R A G R L E D S M R E H H A A I I A  
K W L E K F L D T L F E Q A T R F R S S F S R K G R M Q E F L S E H M L A D  
R T L A L L W A T L R E I L D S V G T S V S M A S V E I R Q Q S E H S K D L F T  
P I L L R Y L K E L V S R C S L I V G L Y E A P G N A P C E H D E H A A I V A  
V L I A H L S A S H R L R I Q K N L H Y L H A H P E K W Q Q L R E Q H R D I W E  
Q K L I Q L L N N L R E Q M Y R Y R V E Y L K N P E V Y P Q L I A E H H E L I T  
P V V R H A F A Q T H C H L H T F R L Y P A D V D G A I T V A E H T A V R E  
E T L L K I T K D W L Q I S P Y F N M L H G S Y S T A N T Y H Q Q M F A  
V L L I W I N S I V R G Q S D W K R M R G L T N P T I I D Q Y N N Q H R K I L E  
P A L S E L Y R Y F S G V V S A A L Q R N M A T V P R C Q A T F D L H G Q I L A  
V I Y N L L K Y V F E Q V Y L K Y R P E Y L R D D R I K V C L R E H R V L L N  
P A F L L V F D A L R S D I E I M R A G V D I S R S R A T M L G R E H E V I V D  
S L L A E M S S S L A G R M R W L L G Q Y D D L E P V Y D E H R E L Y L  
R W L R Q V I Q D L R K V L K L T R L L S L S L D G R L E Q S L I R E H R V I L D  
I A A W E T I Q D L K A Q M D R V R Y L S L A D V S P L D L L I R Q H A K I L A  
V L A T E T V Q R F G P L F E R L G G Y F E T A H S W R A A I A E H A I L E  
P M V Y S V L A A A D Q L T E N I V S I M K K N N S A R E V D D Q H H R L V N  
I A M D N L L P V I N Q S I H L I N A N Y T T R K D T L H S H R R I L K  
A T I S K L L K M L N S Q L I R F Q Y R T I L T P G R P A S S L A E H R A I F E  
P F L I R G L E E T R Q C C H P A L A L L P E G H E A T I A E H G E V L A  
H T L A Q L V Q E M V A R S L I A M L Y H S S N D A H C S G E H A E F L R  
E R L V I T M V G Q L R D Q A R M Q G L Q K L A D Q G E L T Q S G E E H I A T V D  
K F I F R M M R E L V I T R S L I L F G S Q N A S C P D D E H S N I L K  
V F M H S V S A L I E A A L L S S F W I S A E S P I I Q S E V T E D H R R I V E  
T F L A E Q A R N L H R R L R P Y R R L Q L R V R D R V A T S Y S E H E D I V N  
T T M T L L A G T L E A V W S R V A R V L D A E D H R Q R S I A S H R R L V A  
K M L E N L L Q D F H Q Y V I R I R R K T L S T K E R S M A S N E H R L I M E  
E V M L Q V V R D L I T Q S S L I I G I Y D S A G A S A E E H A E L V E  
Q R L I Q L L S N F R E Q M Y R Y R A E Y L K R K E H P K L L V E H H R E I I R  
P A F V T I Y E Q W D V G A P R A K L M S V Q E H H A D I L L  
S V L V D L V E N L S P M W K Q L H S H I T D Q A Y R K K W L V D H E N I L L  
K R A E R L L C T Y F D E T T R M H Y L F S R A S N H V V S L D A H Q E I L D  
Q I Y E L L Y N T M W A G A F L K I N E M V D I L L G K Q E L D R J A E R L L E  
N E M L R V H N E V T E R I R I V R R L D F L K A H R T S A T Y D E H S A M L H  
P V L A G F I D V L A G Q T A R S R W A R V D A G V A E R S V A E H H A A V L A  
T V W Y N L V E S M A P H T F D R T T I L S F R C K E T G R I L K D H G E L V S  
K R L I Q L V G N L S E R M Y R Y R I E Y L K N K G V Y E G L I K E H N D I R  
P F Y A Q F R D V V G T A L R T S I R F T N R L K G R T A N V A D H A A V I R D  
R Y L V I Q Q L D L V Y R S M A L M A R T S L A A G R G E K A L E H H A A I V E  
P F T A R A V A P L Q T M S R R A W S A F R G A E K L E D S A I R H H K L A E  
F I L A L Q L V W G E G A H L P A T A L I R R S V G S E L V V D H Q K I V E  
R L L A S C V A A L H H A T E P V H Y L D L S P E V G K Q T V R Q H A A I V R  
H F I S P F G N L F K A V F E N Y F R V I T R D R L L K L D I H Q R L V D  
P R L E R L V Q V L W D A T D T Y R Y V Y Y G T P A N R A V V R R E H D Q M I D  
P F L I S F A N L F H S V Y E R Y F D A T E N E V I E V D L H R Q V L D  
Q T L Q M I S A M L H H I I E K A N R S L Q R A E Q A A R S A E T H R M V L D  
A Y M F D L M K H L G T K L T K M N S A Y A A Q K D R V D L V Y R E H E K I Y S  
I V L V H M M R S M L D L L R S N R E I M F D G P D T A T R L L D Q H R A I N A  
P L K L M M Y T V I E A F I P I T N M I V F R V R E R R H V A S L H Q E I V D  
D R L V E T V G D L R K R S R L Y G L P G L N E R D Q L I P S A E E H H E L L E  
S L L Q D A T N Q L M H S L R F W R F Y F A R Y H I A E S T L I S H R A L L A  
L V M A E M L S E I S Q Q I H F V R L S D D Q S R R R T C E D H L E L L D  
P F L I R G I E E S R Q C C H P A L V L L P E G H E A T I T E H R Q V L D  
G F I M A A L R G P V Q T H A R R L W Y S T A N P E R M D R A I A L H V A V I R  
P I T S A L Y D M L A G I R R T V V W G R L R R P G P E H H S F A E H D A I D

UniRef90\_H0FEG8 A I E K G D V E L A R Q H A R T H 130 140 150  
UniRef90\_W9H6I4 A L E A R D A E R A R H V F A Q H L G R T G  
UniRef90\_X5DNI0 A I A E H R F A D A E A V M R E  
UniRef90\_W4RM72 A I K N R Q P N E A R Q A M L E H L Q N  
UniRef90\_UPI000477E0EE A I A T G K P D I A I A A T Q S H L N A S  
UniRef90\_D3FES1 A I R A H D G A A A E A A M R G H L A H V G A  
UniRef90\_D7GSN9 A L T L R H I Q E A K M A V R E H  
UniRef90\_S6GGR7 A I F E G D P Q K A Q S A S H A H  
UniRef90\_G2P3S0 A V R H A D L T Q A A D R L A R C N L Y E  
UniRef90\_E1RCP7 L L L S R D I E K A A Q A M A S H I E S C K  
UniRef90\_R0FKN9 A L E A G D A E A A T D A L R N H V A V I Q G E K F H Q L M A T L  
UniRef90\_Q1ARM8 A L R E G D T G R A S R A V E D N W R N S L Q R V L E Q L  
UniRef90\_UPI0003831453 A A V A R D A D T A A G V L A Q H L T Q T A A  
UniRef90\_V9VXU8 Y A R N G D V D G G A A L L R Q H I E R  
UniRef90\_UPI0002555930 A L K A G D K A K T E A I M E E H L  
UniRef90\_D1AQ77 L I L N D E Y E K L F E C  
UniRef90\_UPI000463C7EC A I A D R D A D M A A R A M  
UniRef90\_A6T157 A I I E G K G D L A A E L L R Q H  
UniRef90\_Q8YDV3 A I E L G D P E Q A G I A A E R H L R N A  
UniRef90\_I0DW29 K I R S G D L N I L E I E I K E H I R N  
UniRef90\_S9RWN1 A V E R R D G E R A A R L M G E H L G E Y I A  
UniRef90\_UPI00046A50D5 A I E A G Q P D W A E S V M R S H  
UniRef90\_J7IWM9 A I K N R D V E S A Q K L M L D H L  
UniRef90\_A0QVJ8 A I L A G D A D R A A T A M L D H V S G S A A L L H G F L D  
UniRef90\_Q5WJD8 A V E A Q D K D K A H Q A M  
UniRef90\_F0P485 A I K N K D S V A S A N L M T A H L A E  
UniRef90\_A0A031FT40 A I R D G R G A D A E A S A R E H L  
UniRef90\_UPI0003B50E35 A I E A Q N  
UniRef90\_X8B4A3 L I D D R D G D G A E A H W R K H M L N A S A  
UniRef90\_N1V503 A L R G G E R T R A A E L V R Q H I R  
UniRef90\_N6X0E9 M I R F R D A E A A H D V A R A L L K P S  
UniRef90\_F8FRS7 A V E Q G N E A L A A E R L E H H L  
UniRef90\_B2JXQ5 A V T G K L P E Q A Y R A  
UniRef90\_G2NMY3 A V R E Q D A D A E R A M R A  
UniRef90\_A0K0U6 A L V S G D A A K A Q E A I D H H L  
UniRef90\_UPI0003B580F9 A I E Q K D G P A A E Y Y M R A H L R R S  
UniRef90\_R6DTC2 A I R R Q D D A A A K Q A M R E H T R A A A  
UniRef90\_B1M8R5 A L Q A R D A D R A A V L V R D H  
UniRef90\_M5E2A1 A I N S G D S D R A R K C A E D H  
UniRef90\_UPI0003B46D5A L I E E G K A T E A P R V V R R H G  
UniRef90\_UPI0004657B17 C L A D K D S A G A I T L M A A H L T D  
UniRef90\_E6PSY5 K M R A R S S Q A A A L A A R Q H  
UniRef90\_R6WJT6 K I T H H E K Q E A T K I M C R H  
UniRef90\_UPI00036E5363 A I E A C D P E R A E A A M T H L R N S  
UniRef90\_E8TC94 A L R D R D E Q A V I Q A A V R  
UniRef90\_UPI00037B6BA8 A L Y R R E P E A A A N S M K D H L E  
UniRef90\_J2Y5D9 A I E Q R D A E L A K R L S R  
UniRef90\_X0VPP1 S L A K G N I E E T I T I L V R E H I R S G M E Y  
UniRef90\_W0AL15 A I R A Q D P E G A A L A M R W H L  
UniRef90\_UPI00036333B4 A I E A G D  
UniRef90\_C7RQX3 A I K A G D A V A A Q T A M H D H  
UniRef90\_UPI000370286A G L R A H D P V A A E E A M R R H L R E  
UniRef90\_UPI00047AEEB9 A V R K H D P A A A R L A M H Q H L D N S S V S W R R A Q K  
UniRef90\_D4LPZ5 A I I N G D T E Q A E R C M S E H M D T I E R Y M E E M Q K  
UniRef90\_S1RL74 A I Q E K D P V T A Y D E M M F H M  
UniRef90\_Q1AZJ2 A V E A G D P E R A E Q A M R R H L  
UniRef90\_X5LIL7 A V R N R K S E D A E R A M S A H V Q R S M W S V Q K L L S T L  
UniRef90\_F0QC15 V C R S G D A E A A V A C M V D H L D R  
UniRef90\_UPI000474B563 A L E A G D G E L A A D L M R K H L T H S R G I W  
UniRef90\_C7DEI0 A I Q S Q D P E N A E Q L L I S H L  
UniRef90\_A0A017HMB5 A I A A R D D P S A E A A M R H  
UniRef90\_UPI00030C58DF A I V A G D G E R T A D L L R N H  
UniRef90\_E3J9C9 A I A D G N S D R A S R E M R H  
UniRef90\_R7N953 A I K E K K P D E A E K Y A T Q H M I N A  
UniRef90\_F9TLB5 A I R T K N G E L A H D L M L E H I H H I R D N I  
UniRef90\_N2ATN4 A I E N S E V E Q A T R I T C Q H  
UniRef90\_UPI0004766763 A I L A R D S K A N A M Y Q H L N R A Y K T Y Y S Y K  
UniRef90\_A6VZ19 A I Q Q K K P D I A R M A M W R H L E N  
UniRef90\_M7MM44 A L T E Q D E A R A R Q A M T D H L Q E S N E  
UniRef90\_UPI000376F20A A F E Q R D G D L A E L L I T R H L E A V Q K Q F E A N L K D I  
UniRef90\_B5WHF4 L T I D R G K F G E A A I L L R A H I T Q S  
UniRef90\_UPI0003B3C3FD A I S D G D P E R A R L R M S V H L L E  
UniRef90\_C4Z648 A I E K K D K E K A H I S Q R H M S R Y S E N I D A I R K  
UniRef90\_V2Y4T2 Y L E E N A P S E A R G A I R K H  
UniRef90\_UPI00040D0486 A I A D R D G E R A A Q V L K D H L  
UniRef90\_UPI00046D5E0B A L A N N D A E K A E A A T V E M M  
UniRef90\_UPI00036F12F1 C I A T G S P Y E A A S A M V T H I N Q M I E D V H K Y Y D Q I  
UniRef90\_L8FJ11 A V D G R D P D G A Q E A I V E H L  
UniRef90\_L8J687 G I M A R D P D A A R Q A  
UniRef90\_UPI00047BB3CE A F A R R D A E E L I D L H R K H A I A S  
UniRef90\_K8WVK6 S I I K D D S A K A F E L  
UniRef90\_K5BID1 L I K A G D V E K A T E L W R K H L Q K  
UniRef90\_N2IXT8 A I A L Q S P D S A R A A M Y L H L S N S  
UniRef90\_UPI0002559F4A A L Q A R D A A G A R Q A V E A H L  
UniRef90\_W6WA36 A V R S R E  
UniRef90\_UPI000344A732 L M L A G D A E G A E K C M A R H L G H V R S L W  
UniRef90\_D6T170 A L E Q R D A Q G A Y M A M R E H I R T S R A L L N K L  
UniRef90\_G8QU99 A L E K R D C D K A I A L V K R N  
UniRef90\_M2VI29 A V Q S R Q S D M A E K A M S D H L Q R S M W S V Q K L L A S L  
UniRef90\_B5ZP38 A I R Q G R P E E A H A M  
UniRef90\_X7FA57 A I E H R D P A L A H A A M L R H L



```

UniRef90_UPI000477FAB4      1          10          20          30          40
UniRef90_UPI000379AE39
UniRef90_E3HST0
UniRef90_L7GB06
UniRef90_A0A024PWQ8
UniRef90_R0FTJ3
UniRef90_E3HFX6
UniRef90_C4UGN4
UniRef90_U1IHF8
UniRef90_UPI00047B1586
UniRef90_UPI000374C867
UniRef90_I4AAT8
UniRef90_A9CXJ7
UniRef90_UPI000372C0CD
UniRef90_C9A828
UniRef90_K0ULC1
UniRef90_UPI000478F4AF
UniRef90_L0G3U9
UniRef90_W0HY00
UniRef90_Q8XSN1
UniRef90_K2M7K7
UniRef90_UPI00047DD3BE
UniRef90_V9QYY7
UniRef90_M9R3P1
UniRef90_M8DA72
UniRef90_G2NYG2
UniRef90_UPI000362F744
UniRef90_C5BRV6
UniRef90_C7MC38
UniRef90_K9WNA8
UniRef90_UPI00036D4318
UniRef90_U3T9C2
UniRef90_D0X281
UniRef90_I0RCQ8
UniRef90_F8FND3
UniRef90_E1SN84
UniRef90_UPI00047876EB
UniRef90_N9B6J9
UniRef90_B1FX33
UniRef90_S1SE53
UniRef90_E8X5S6
UniRef90_A3X9X7
UniRef90_V5CJ23
UniRef90_Q0K4G0
UniRef90_UPI0002485792
UniRef90_M5B749
UniRef90_F0RWD1
UniRef90_UPI0004697D83
UniRef90_X1DVU8
UniRef90_G7V660
UniRef90_F0Z173
UniRef90_H0HXY0
UniRef90_X4ZJG7
UniRef90_UPI00047E1004
UniRef90_W6W623
UniRef90_M5EJG4
UniRef90_UPI000478FA6B
UniRef90_U11Q04
UniRef90_B7QR15
UniRef90_UPI0003740703
UniRef90_R612E9
UniRef90_V2JCK9
UniRef90_V9VWP7
UniRef90_X0NIL0
UniRef90_UPI0004694117
UniRef90_UPI0003B53ED3
UniRef90_F9U6J7

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

      M L Q A R Q L I E S N I A E F A A T
      Q E I E Q L F V Y R E V L E V A A I Q L A A K

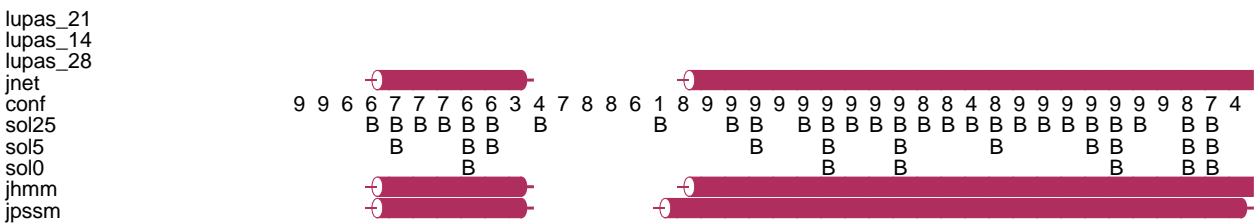
      V S E L M E L R G V L E R H A A R L V I R
      E E L Y D V R I V L E L A A V S R A M E
D T L V R L F S S H D E A V F D Y I D F R R D M E G L A A H R T A T
      T P D D F T H L Y E C R L S L E P T A A M F A A E
      L C E L R W T I E P L A A R L A A G

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

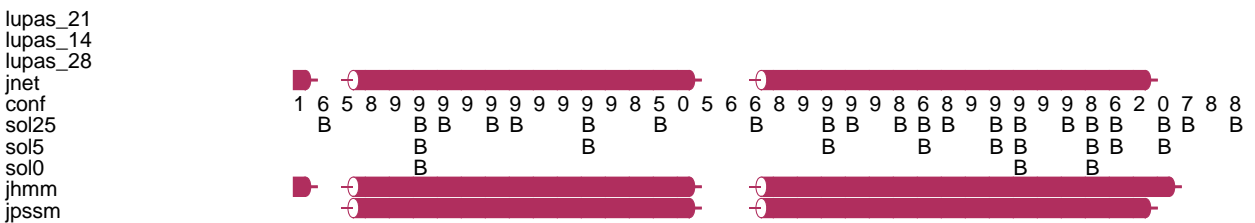
L E T L I A I M R Y N G G A M K N E V K S L L E T R D A M E C L C L R L V C K

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

```



UniRef90\_UPI000477FAB4 K A S Q E I Y E S L H K M E G A I S N I P E M M E F D R E F H I N V A R A A H N  
UniRef90\_UPI000379AE39 N M S D E A L K L C K E Q D T S E D D A E R I A S L D E A F H H K L A E G G G N  
UniRef90\_E3HST0 R E H M D E A G I L G A L K D V I L D G R L V A Q L D E A F H H C A L V A A A G N  
UniRef90\_L7GB06 Q N A E K I E H A L Q R M I A A E R G E D D H L S S D V A F H V A I L D A T G N  
UniRef90\_A0A024PWQ8 Q A P E E L I D R Q Q R C I E T Q D H D R F Y R L D E A F H R T L A L E T G H  
UniRef90\_R0FTJ3 C S Q E E P G A G L E Q L N A I E D D A V Q V A E L D E A F H T N L V A A A G N  
UniRef90\_E3HFX6 A A L E E N I A C C D P S A E H V D D P L A Q R Q E E I N F H D I F A A A C P N  
UniRef90\_C4UGN4 N A K K Q L T I L M A E M Q A L H D D R E R W I Q V D T Q F H Q L I Y E A S G N  
UniRef90\_U1HF8 N P K D L P A V R G W A D Q L A D D V Q L Y L E A D R A Y H R E F I A A A G N  
UniRef90\_UPI00047B1586 R N E P A L A A I A A A L D L M R D A T R A H R D A D F A F H L A V A K A A N N  
UniRef90\_UPI000374C867 R R T E K D L K Q L D T L L V R R E D A E A F V T A D T F H L A V V A A S H N  
UniRef90\_I4AAT8 R R T A E D L I Q M K L I C L D D D P F Q F A L M D I A F H K S I A K A T H N  
UniRef90\_A9CXJ7 P D R M L V R E L K S Q L K A Q K K V A E D F I V L D E R F H R T L A G A A G K  
UniRef90\_UPI000372C0CD R T D A D L A A I R A A L E E M E R D I A A G V E G D E L F H G A V T R A A R S  
UniRef90\_C9A828 I S T S D L K A L E D L I E Q M K E F A A S Y S Q C N Q Q F H E I I Y R A S E N  
UniRef90\_K0ULC1 H R T A E D V A M R A L L A J A S A D D T D A F A R V D A E F H L A V V R S A R N  
UniRef90\_UPI000478F4AF C S D E L M A E L E S S Y E K M Q S D M R K F T E E D L K F H T K I S E G T Q N  
UniRef90\_L0G3U9 A E L D N D Y H R I L L S I A D N  
UniRef90\_W0HY00 Q V S K Q D I I L L M E I Q E N A R Q E D R F S Q W D L K F H V Q V A A L A T G N  
UniRef90\_Q8XSN1 H N I E A L D R L E A A L E A C R P S T R E A H Q L G T E F H V Q L A L A A N  
UniRef90\_K2M7K7 D M A A Y A E A N H A L H R A I Y D A C H N  
UniRef90\_UPI00047DD3BE V P A A E M Q E T L A L Q V A L P D T A R E F I R L D T L F H Q A I D A A G N  
UniRef90\_V9QYY7 Q P N P I L Q G L Q A T V E E C E Q D S Q A V S A L D E H F H C A L V Q A T G N  
UniRef90\_M9R3P1 L G S E T D L S I L D E A A H G K R N P A E E A A L D A D F H L S I I E A S H N  
UniRef90\_M8DA72 R R T E A E V R E I L R D L L E R M S P R R T H E L N F T F H Q R I S E A S K N  
UniRef90\_G2NYG2 H G R E E V Q Q R L A D M V E I Q G D T L T F S R A D A E F H G L L L Q V G G N  
UniRef90\_UPI000362F744 L P E E L A A L K G A V Q E M E D D L K A W A R A D G H F H T L L I E A C R N  
UniRef90\_C5BRV6 L A P E D V V Q L Q A K K A H E Q D D I T A F V E A H Q A L Q K L R I T S R N  
UniRef90\_C7MC38 H D E A D F A R L E Q L M V D L S E H S E E L V Q A D I E F H Q L I T S R C P N  
UniRef90\_K9WNA8 Q L R E S D L E K A A L I L D A T N D A A R W A T L N W E F H A V L Y T P A N R  
UniRef90\_UPI00036D4318 A S P A Q L A E L E A R L E A V H D R E A F F A L N E A F H M R L L E I A D N  
UniRef90\_U3T9C2 S H R L D L S E L Q E S H E R L A G N W A E W I K L S G Q F H L K L I E A N Q N  
UniRef90\_D0X281 N A T A E L S E A F Q D M L J E V A K A D E R W M D V D I R F H S I I E N S T G N  
UniRef90\_I0RCQ8 R P D K L R E Y N A M E E H I L E D G A R F T E I G G Q F H S D E I V R E C G N  
UniRef90\_F8FND3 F L T E E L E K L L D D E R E A Q G K G D I F I Q I T G D F H L K L A G F S G S  
UniRef90\_E1SN84 R D H A Q M R Q K M D T I K S V I Q G D T A E A Q A I V D F Y R S I A E A S H N  
UniRef90\_UPI00047876EB R D A A A L R R L L D R N K S L V G H A D D A M R A G H E L H L R I A D I A G H  
UniRef90\_N9B6J9 K Y K Q E L K A L I D K E E K V R S A G K E W I K L S G D F H I C L C E A N H N  
UniRef90\_B1FX33 Q H D A A L I A T I A R Q T E L L D N Y E R F A L F D Q T F H R Q M Y E A G V  
UniRef90\_S1SE53 R D V D W E A R V R A A H R R L S R T P E A W S E A H R L F H R A L M E G C G N  
UniRef90\_E8X5S6 V T P E L L Q A L W Q S V D D M K Q D K V K H I E E D N R F H A L I A Q A T G N  
UniRef90\_A3X9X7 R I S D A L E K C Q A A V S A Q N T D D Y Y A E N E K F H K I I Y Q E A G N  
UniRef90\_V5CJ23 Q A T P Q L L L M A E M H S I N F D R D H W I D I D T R Y H Q L I Y Q A S D N  
UniRef90\_Q0K4G0 R A S A E S I E E L A R Y L I E H S K S V P A N T E L D E G F H L R I A A M A G N  
UniRef90\_UPI0002485792 A V R R A L A D R A A R R E G L E D H V D A D T A F H R S I V L A A G N  
UniRef90\_M5B749 A D P S R L V A T T E R V R A T G D G E E Y F V V D W D F H H R I F E A T G N  
UniRef90\_F0RWD1 N G A D P S V L E Q I L D S M D E D V I Q T F S S L H Y Q F H L E L V K L S G N  
UniRef90\_UPI0004697D83 H G S G T D L A V V I Q T A V H S K R N A E E E A Q L D A D F H R S I I E A S H N  
UniRef90\_X1DVU8 K N R Q E I D E L E N V V A Q M K E D L S S Y C K V D D E F H D L I H L C G N  
UniRef90\_G7V660 I T P L Q I C R L E E A I E E E E K D L E D Y L R I N I Q F H H I I A E A T G N  
UniRef90\_F0Z173 N I T D E Q L D E L D E I K E G G S A D Q V T E L D G K F H A I L S E A S N S  
UniRef90\_H0HXY0 R A T A D D L A L L A E A A H E R G D F E Q E A A V D V E F H N A I Y E C A H N  
UniRef90\_X4ZJG7 R M S D A E I E H L Q R D L E S H Q R G R T G H E R H F D L H E R I V R A S G N  
UniRef90\_UPI00047E1004 L R T E E D L K N M R Y I L H R Q E E A K V I F L D D S E L H N Q I A G I S Q N  
UniRef90\_W6W623 N H T A E D L S K L D E A L E Q M T G G E K W T E A D L A F H R Q I A A S T H N  
UniRef90\_M5EJG4 R A T D T E I Q A T V D A W E G S W A K V A V A D E S F H M A L T Q L S K N  
UniRef90\_UPI000478FA6B Y M K D E D L Q K L K R C V J E I G R T G E E V M A A N K E F H D I I V G A T N N  
UniRef90\_U11Q04 R A T S E Q R E I A A G M R R A A E K S D D F M R L D H Q F N T L I S A S R R N  
UniRef90\_B7QR15 R E L E N A V L A C E R A E K G D S D P A G Y Y Q L N L R F H A C V A E G S G N  
UniRef90\_UPI0003740703 P E Q L R L L E A D L Q R I R E A S E A L L E I K D F S F Y T T L V V A S H N  
UniRef90\_R61E9 N D V T E L E K L S P I L D S I R D N A D E A A E R V F S F H E L A I M S G N  
UniRef90\_V2JCK9 D F A F H L A V A I A H A T K N  
UniRef90\_V9VWP7 D A D Q S L H L R V I A E L A G N  
UniRef90\_X0NIL0 K L T E S I A R L T E A L E T E R E L I E R G V T L G H H L H R V I A E L A G N  
UniRef90\_UPI0004694117 G T L D Q L G E L C E A M H R S G A A A K D F A N Q D A E F H R I I A E H S G N  
UniRef90\_UPI0003B53ED3 A D S S D R V T L S A L Q E E L E E E R D R F T D Y N E R F H S T I A R A S G N  
UniRef90\_F9U6J7 R M P D A A I A L L E R H R R E V A R A D W Q T Y F D L D F H F R I V Q G S G N



UniRef90\_UPI000477FAB4 N L L F S M M T Y L S N L L K E K L W I N M K E P G Y P Q K Y L K E H T E I F N  
UniRef90\_UPI000379AE39 Q A L M K L L I D I S N R I R I V R R L D F T D Q E R I R K T Y E E H H R I L R Q  
UniRef90\_E3HST0 P E M A Q L H R D V T E K L R L V R R L D F T K D F R V D A T Y D E H H A A I L R  
UniRef90\_L7GB06 P F Y M Q F H E L V N T A L S F S I Q F T N R I R G H T A S I P A H R G V L Q  
UniRef90\_A0A024PWQ8 D A A W R V T Q E V K A Q L D R V R Y L S V P D A T P I K K D Q H T H I L L E  
UniRef90\_R0FTJ3 H E M T R V H T E V T E K I R I V R R L D F L K K K R V D A T Y E E H G K I L L Q  
UniRef90\_E3HFX6 P F L C E M T N E M I R Q L T V F D N E M P L S E Q R F G S A N F H R K I L L A  
UniRef90\_C4UGN4 P F L T S F A N L F S S V Y H S Y F R A I T G D E V T K L Q H H Q S I V D E  
UniRef90\_U1HF8 E L L T E M V M G L R R D K M R L Y G I S S R A G H E R Q L A S V P E H Y R L I E  
UniRef90\_UPI00047B1586 H Y Y V S S L Q A L R E V G M K F H G V S L M G P R S G L A V L D E H R A I F D  
UniRef90\_UPI000374C867 D V M T E M Y A D L G A V L R  
UniRef90\_I4AAT8 K M F S E L Y E H I T D A L Q N S I D R I M R L K K P A N F E N E L H T D L F E Q  
UniRef90\_A9CXJ7 G G T W K L I E G L K S Q M D R V R F L S L G H F P V E K L I A Q H T S I V N  
UniRef90\_UPI000372C0CD E L L A Q M M A L E D L T K E T R L E S L S Q P G R P S E S L A G H H R R V A G  
UniRef90\_C9A828 Q E A V A L V K Q I K T Q L Q R L Q L R T N L V P G R T E Q S I Q E H Q Q I L A  
UniRef90\_K0ULC1 R T L T E L Y R G K L I E V V T A S V A T T R H V P V D R C D H G K I L L D  
UniRef90\_UPI000478F4AF S L I T K V N E L L R S V Y H Q R T L Y E S L G P E G G T H E H K F I L L E  
UniRef90\_L0G3U9 K V L E L L S P V F S L M P K F K M N V F A K P A S K A L M L Q H H Q Q I L L E  
UniRef90\_W0HY00 S A M A S I V E Q M W T Q R V H N P Y H I D D K A L E S W C E H H D Q I L K  
UniRef90\_Q8XSN1 D F I A R G V A D A M T R L S R A R W L D T T P E H Q G W D E H R A V L A  
UniRef90\_K2M7K7 D A L R D I T L D V R N R L S M F H A R F L F S E G R V A Q S W E H H Q E V V D  
UniRef90\_UPI00047DD3BE A L I S R T Y S K L H V R V G S A L F G T T G R R H D V C A H Q Q G I L D  
UniRef90\_V9QYY7 R E M A H M H Y A L T E K I R I R R L D F T Q A S R I A A T Y E E H G Q I L T  
UniRef90\_M9R3P1 V I M L H M M R S L Y Q L L H E N R Q V M F K Q R T T R D M L L D Q H R A I N D  
UniRef90\_M8DA72 P Y L T K I M N E L K V L I S F Y R N A I L E H P R P E T V I S E H Q A I V E  
UniRef90\_G2NYG2 R M L E H L A G I V A A S L H V S G A P V S A C D R L T E A G V T H H R R I V E  
UniRef90\_UPI000362F744 K R L R A L L V Y Q F W D Q T Y R V R M L T L T L R P R P T D S N R D C H Q A L V D  
UniRef90\_C5BRV6 A L M A M V N D S F Q L V R N Q L H E N K A N R E K T L E C D G K L L D  
UniRef90\_C7MC38 D Y L S S M L E G L A S A T A R A R W R G L T E A S A V D A T L A E H R R I L D  
UniRef90\_K9WNA8 P R L L T M I K T L H V M L D R Y V R L Q M E K M N Y L E K S Q K E H Y Q L L D  
UniRef90\_UPI00036D4318 R W R V Q I V T D L R K V M K L N R H N S L L S E G R L A Q S L Q E H R D I L L A  
UniRef90\_U3T9C2 S I M T S Y L Q T L I A R T S L L I G L Y E I P K H N N C S A D E H R A I L D  
UniRef90\_D0X281 D F F L P F G H V L T T M F I N F I A H S S E E G N T C I E H R E I Y E  
UniRef90\_I0RCQ8 H T M V A V V G S L E T L W T G H L N W W A N E T R R I A L S V H T K I T D  
UniRef90\_F8FND3 S Y Y S R F V E E L V S L Y V T I A L Y G E Q K T K C C Q D H R T I L D  
UniRef90\_E1SN84 V A M L H L V L S L T P L L V R N V E L L Y R R E R S S E V A N T H R E A L L E  
UniRef90\_UPI00047876EB G W A S R L H A Q V L D G H M S R Y R P F T N E T Q E R T A A L Q E H R E I A  
UniRef90\_N9B6J9 P I V T G Y L Q T L I A R T S L L I G M Y E T K P N H C S V E E H H A I L E  
UniRef90\_B1FX33 P Q L W D L V R R L S G H I D R L R R L H L P V E G K T M A V V Q E H T E I V D  
UniRef90\_S1SE53 P V L E T F D R L W T A S E L A R R W S T H R N P G R D G V E H H R R L E  
UniRef90\_E8X5S6 E E L G G T L R N V Q N W L C R S K S Y D L S S S T A P A A H A A I V E  
UniRef90\_A3X9X7 G F L A K E T G N L H R R L Q P F R R Q Q L R F R G R M A Q S M S E H K A I L E  
UniRef90\_V5CJ23 P F L I S F A N L F S S V Y R N Y F Q A I T D N E V I K L Q Q H Q A I V D  
UniRef90\_Q0K4G0 A E L K R M L V S L N E R I R F I R W I D M E N I G R D S T Q S E H A E I V H  
UniRef90\_UPI0002485792 P V L T G M F D S F T P R M R E V E M L R R R G G F G G D A D Q Q A H A D L V E  
UniRef90\_M5B749 P F L L D M S E A I S T R V R H R M R Q T M R T G V H D A D D A V H H R A I D  
UniRef90\_F0RWD1 N L L V L T Y S R L N L S E A A L L F A Q N I T D R G I T K A E H R R I V Q  
UniRef90\_UPI0004697D83 V V M L H M M R S M Y E L L R G N R Q V M F K Q R T S R A A L L E Q H R A I N T  
UniRef90\_X1DVU8 K W I T N I R D N L G S F I Y R F R I K S L S V P G R L K H S L E E H Q A I M E  
UniRef90\_G7V660 S L L V I E Y V N V L S R I Y V F M V F Y F D F D T N P S L D E H R E L V K  
UniRef90\_F0Z173 K I L S H L M D F Y H K Y V Q N L A R R S V S E E R A R K S I R E H K A I L R  
UniRef90\_H0HXY0 I L L H T L R S C Y R L L S H N R L L V F G L P G A R E Q L L A Q H R A I H A  
UniRef90\_X4ZJG7 R I I T A L C D D L Y H L L R I Y R R H S G S V L E R K D D A L L E H W Q I V R  
UniRef90\_UPI00047E1004 E Y L Q K Q L S S I A L M N S R R F L N A T T A D T F F L E V I R E H K E L Y K  
UniRef90\_W6W623 E Y F L L F L G F I A E L A I N T A R E A A V L T E L V E V T I A E H L S I R D  
UniRef90\_M5EJG4 A Q M V N A L E G L C S R I R F F R R I D L E S R T H S Y R E H E A I D  
UniRef90\_UPI000478FA6B P V M I D L I D R M Q S I I Y L F R K T V V L H K R P L L T E E H D D I Y Q  
UniRef90\_U11Q04 E F A S R A M G L M H G L S R R F W Y Q H Y K E A A D L P L A H A D V A E  
UniRef90\_B7QR15 P F L V E M I K T N A R K L M A Y Y R A R Y R Y P G V I G Q S A R E H R E I A Q  
UniRef90\_UPI0003740703 P A I G D M L S N V K A R I S Q L R K L T L S T P G R M G A M T A E L E R I V A  
UniRef90\_R612E9 V L L P L L Y S F K  
UniRef90\_V2JCK9 R Y F S E M L G H L G A S V I P R G R L H V T R E Q Y L E R V N F E H D S I Y D  
UniRef90\_V9VWP7 P F F S S V L E S L Y G V K L S R S L T L L D A P D R Q E L V L A E H R A V L E  
UniRef90\_X0NIL0 P A I T L F V E V L A Q L D Q D M V S D G R P D E G N R E A A H Q A H Q A M V A  
UniRef90\_UPI0004694117 V L L S D A I L R L S H M H R I Y F T H G V V D E T S G E H E A V L E  
UniRef90\_UPI0003B53ED3 A Y V E R F L S W R S Q L Y I Y A Y D T Y F I T P E S R E R T Y Y E H K A I T E  
UniRef90\_F9U6J7 R R L I D I L N D L Y H L A R M Y R C Q F G M K S D R A A D A L K E H E L V A D

