

QUERY  
UniRef90\_R4G5E8  
UniRef90\_F7J6J8  
UniRef90\_W5NF22  
UniRef90\_I1G923  
UniRef90\_T1J7P5  
UniRef90\_J9K433  
UniRef90\_B3RW50  
UniRef90\_A7SJ46  
UniRef90\_B7QKW0  
UniRef90\_A0PC13  
UniRef90\_W4XTL7  
UniRef90\_G6CN19  
UniRef90\_C1BUF7  
UniRef90\_E2AH73  
UniRef90\_F2U5R6  
UniRef90\_A0A026WYD7  
UniRef90\_H2ZVH2  
UniRef90\_H2XPD1  
UniRef90\_E0VEF  
UniRef90\_T1FM74  
UniRef90\_M2PG81  
UniRef90\_UPI00046231D1  
UniRef90\_A9V5M0  
UniRef90\_K2GD21  
UniRef90\_UPI00037E21A4  
UniRef90\_UPI00036C7A8F  
UniRef90\_J4IB59  
UniRef90\_R7VD68  
UniRef90\_M2NAJ0  
UniRef90\_UPI0003596D47  
UniRef90\_E6X370  
UniRef90\_F6Q414  
UniRef90\_S8FP08  
UniRef90\_UPI000288ABC4  
UniRef90\_UPI0001E8941D  
UniRef90\_S7Q7M2  
UniRef90\_V2YCS0  
UniRef90\_C9R9A1  
UniRef90\_UPI00035D0DE2  
UniRef90\_UPI0003B6A752  
UniRef90\_Q67KB6  
UniRef90\_Q1AYR8  
UniRef90\_A0B8R9  
UniRef90\_Q7UX90  
UniRef90\_X1UFK7  
UniRef90\_S2KCV2  
UniRef90\_H9GI65  
UniRef90\_L8GK72  
UniRef90\_W5LHN1  
UniRef90\_X1F5N1  
UniRef90\_R9C851  
UniRef90\_UPI0003B44DCB  
UniRef90\_W4RNG0  
UniRef90\_D3PD10  
UniRef90\_B9KYM2  
UniRef90\_A5D0X4  
UniRef90\_D6Y218  
UniRef90\_A6Q8Z2  
UniRef90\_K8EET2  
UniRef90\_S7VC84  
UniRef90\_A6BZH7  
UniRef90\_N1QJ54  
UniRef90\_D5X7Z7  
UniRef90\_K6E2L3  
UniRef90\_D7BGK7  
UniRef90\_B9M3A0  
UniRef90\_A4IRL2  
UniRef90\_UPI00031E9937  
UniRef90\_D8IVE3  
UniRef90\_UPI000376C5C0  
UniRef90\_V3ZQB0  
UniRef90\_Q2YAL7  
UniRef90\_M3HT66  
UniRef90\_V9KZ07  
UniRef90\_H5S9L8  
UniRef90\_A1VKG1  
UniRef90\_X1BQC8  
UniRef90\_W3XQL7  
UniRef90\_UPI000412036E  
UniRef90\_D0MJEM9  
UniRef90\_B5YFK0  
UniRef90\_A8UUUB1  
UniRef90\_G3X095  
UniRef90\_Q2LWZ5  
UniRef90\_K5VL0  
UniRef90\_UPI00031F5188  
UniRef90\_F7Z040  
UniRef90\_I1JCZ1  
UniRef90\_R1GJ39  
UniRef90\_F0SMD6  
UniRef90\_B6QS14

1 10 20 30 40

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

QUERY

UniRef90\_R4G5E8  
UniRef90\_F7J6J8  
UniRef90\_W5NF22  
UniRef90\_I1G923  
UniRef90\_T1J7P5  
UniRef90\_J9K433  
UniRef90\_B3RW50  
UniRef90\_A7SJ46  
UniRef90\_B7QKW0  
UniRef90\_A0PC13  
UniRef90\_W4XTL7  
UniRef90\_G6CN19  
UniRef90\_C1BUF7  
UniRef90\_E2AH73  
UniRef90\_F2U5R6  
UniRef90\_A0A026WYD7  
UniRef90\_H2ZVH2  
UniRef90\_H2XPD1  
UniRef90\_E0VEF2  
UniRef90\_T1FM74  
UniRef90\_M2PG81  
UniRef90\_UPI00046231D1  
UniRef90\_A9V5M0  
UniRef90\_K2GD21  
UniRef90\_UPI00037E21A4  
UniRef90\_UPI00036C7A8F  
UniRef90\_J4IB59  
UniRef90\_R7VD68  
UniRef90\_M2NAJ0  
UniRef90\_UPI0003596D47  
UniRef90\_E6X370  
UniRef90\_F6Q414  
UniRef90\_S8FP08  
UniRef90\_UPI000288ABC4  
UniRef90\_UPI0001E8941D  
UniRef90\_S7Q7M2  
UniRef90\_V2YCS0  
UniRef90\_C9R9A1  
UniRef90\_UPI00035D0DE2  
UniRef90\_UPI0003B6A752  
UniRef90\_Q67KB6  
UniRef90\_Q1AYR8  
UniRef90\_A0B8R9  
UniRef90\_Q7UX90  
UniRef90\_X1UFK7  
UniRef90\_S2KCV2  
UniRef90\_H9GI65  
UniRef90\_L8GK72  
UniRef90\_W5LHN1  
UniRef90\_X1F5N1  
UniRef90\_R9C851  
UniRef90\_UPI0003B44DCB  
UniRef90\_W4RNG0  
UniRef90\_D3PD10  
UniRef90\_B9KYM2  
UniRef90\_A5D0X4  
UniRef90\_D6Y218  
UniRef90\_A6Q8Z2  
UniRef90\_K8EET2  
UniRef90\_S7VC84  
UniRef90\_A6BZH7  
UniRef90\_N1QJ54  
UniRef90\_D5X7Z7  
UniRef90\_K6E2L3  
UniRef90\_D7BGK7  
UniRef90\_B9M3A0  
UniRef90\_A4IRL2  
UniRef90\_UPI00031E9937  
UniRef90\_D8IVE3  
UniRef90\_UPI000376C5C0  
UniRef90\_V3ZZB0  
UniRef90\_Q2YAL7  
UniRef90\_M3HT66  
UniRef90\_V9KZ07  
UniRef90\_H5S9L8  
UniRef90\_A1VKG1  
UniRef90\_X1BQC8  
UniRef90\_W3XQL7  
UniRef90\_UPI000412036E  
UniRef90\_D0MJF9  
UniRef90\_B5YFK0  
UniRef90\_A8UUUB1  
UniRef90\_G3X095  
UniRef90\_Q2LWZ5  
UniRef90\_K5VL0  
UniRef90\_UPI00031F5188  
UniRef90\_F7Z040  
UniRef90\_I1JCZ1  
UniRef90\_R1GJ39  
UniRef90\_F0SM6D  
UniRef90\_B6QS14

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

QUERY	Q D
UniRef90_R4G5E8	E D
UniRef90_F7J6J8	N D
UniRef90_W5NF22	S D
UniRef90_I1G923	A D
UniRef90_T1J7P5	Q D
UniRef90_J9K433	N D
UniRef90_B3RW50	A D
UniRef90_A7SJ46	K D
UniRef90_B7QKW0	A D
UniRef90_A0PC13	T
UniRef90_W4XTL7	K D
UniRef90_G6CN19	N D
UniRef90_C1BUF7	T D
UniRef90_E2AH73	K D
UniRef90_F2U5R6	A D
UniRef90_A0A026WYD7	K D
UniRef90_H2ZVH2	E
UniRef90_H2XPD1	K D
UniRef90_E0VEF2	K N
UniRef90_T1FM74	K D
UniRef90_M2PG81	T D
UniRef90_UP100046231D1	T E
UniRef90_A9V5M0	A N
UniRef90_K2GD21	E E
UniRef90_UP100037E21A4	R E
UniRef90_UP100036C7A8F	S D
UniRef90_J4IB59	T D
UniRef90_R7VD68	
UniRef90_M2NAJ0	D E
UniRef90_UP10003596D47	S
UniRef90_E6X370	K E
UniRef90_F6Q414	
UniRef90_S8FP08	T E
UniRef90_UP1000288ABC4	Q E
UniRef90_UP10001E8941D	Q E
UniRef90_S7Q7M2	T E
UniRef90_V2YCS0	T D
UniRef90_C9R9A1	R
UniRef90_UP100035D0DE2	Q E
UniRef90_UP10003B6A752	Q
UniRef90_Q67KB6	Q
UniRef90_Q1AYR8	E
UniRef90_A0B8R9	
UniRef90_Q7UX90	E
UniRef90_X1UFK7	A E
UniRef90_S2KCV2	K
UniRef90_H9GI65	E
UniRef90_L8GK72	E D
UniRef90_W5LHN1	
UniRef90_X1F5N1	A D
UniRef90_R9C851	D E
UniRef90_UP10003B44DCB	S E
UniRef90_W4RNG0	E E
UniRef90_D3PD10	E E
UniRef90_B9KYM2	R E
UniRef90_A5D0X4	Q E
UniRef90_D6Y2I8	A
UniRef90_A6Q8Z2	
UniRef90_K8EET2	K E
UniRef90_S7VC84	A E
UniRef90_A6BZH7	E
UniRef90_N1QJ54	A E
UniRef90_D5X7Z7	G E
UniRef90_K6E2L3	E
UniRef90_D7BGK7	
UniRef90_B9M3A0	E E
UniRef90_A4IRL2	R D
UniRef90_UP100031E9937	E E
UniRef90_D8IVE3	R N
UniRef90_UP1000376C5C0	A E
UniRef90_V3ZZB0	S
UniRef90_Q2YAL7	T E
UniRef90_M3HT66	K E
UniRef90_V9KZ07	
UniRef90_H5S9L8	K
UniRef90_A1VKG1	K E
UniRef90_X1BQC8	E E
UniRef90_W3XQL7	N E
UniRef90_UP1000412036E	K
UniRef90_D0MJE9	Q E
UniRef90_B5YFK0	R E
UniRef90_A8UUB1	K
UniRef90_G3X095	Q D
UniRef90_Q2LWZ5	
UniRef90_K5VL10	
UniRef90_UP100031F5188	E E
UniRef90_F7Z040	D E
UniRef90_I1JCZ1	T D
UniRef90_R1GJ39	L E
UniRef90_F0SMD6	A
UniRef90_B6QS14	

UniRef90\_D5G9D0  
 UniRef90\_UPI0003636602  
 UniRef90\_W4XDV1  
 UniRef90\_UPI00037ED9F6  
 UniRef90\_D8R0V4  
 UniRef90\_UPI000455FC2E  
 UniRef90\_E8MZN2  
 UniRef90\_S8EFL3  
 UniRef90\_D7V1B3  
 UniRef90\_F8QAF6  
 UniRef90\_K4MDQ2  
 UniRef90\_A6R1A5  
 UniRef90\_G9ADQ4  
 UniRef90\_W7CAH9  
 UniRef90\_ATX167  
 UniRef90\_D6XSW3  
 UniRef90\_Q609M0  
 UniRef90\_A6Q416  
 UniRef90\_X1R4S9  
 UniRef90\_I0K960  
 UniRef90\_J0RYH9  
 UniRef90\_B9L654  
 UniRef90\_B7GGY6  
 UniRef90\_T0YEC5  
 UniRef90\_K5XNG8  
 UniRef90\_A6CRS5  
 UniRef90\_D1JF68  
 UniRef90\_10GJ90  
 UniRef90\_D5MKY3  
 UniRef90\_A5GEK4  
 UniRef90\_UPI00036DB3C1  
 UniRef90\_J8T6M8  
 UniRef90\_B3S2V4  
 UniRef90\_B1I432  
 UniRef90\_Q220H4  
 UniRef90\_K0J3F1  
 UniRef90\_N4V3Z3  
 UniRef90\_A0A024Q3Y9  
 UniRef90\_A9KEA4  
 UniRef90\_D5SXJ3  
 UniRef90\_A0A017S2X8  
 UniRef90\_F4BX02  
 UniRef90\_G9QQB8  
 UniRef90\_G8ND86  
 UniRef90\_A9TCX5  
 UniRef90\_D7C670  
 UniRef90\_E8WMS2  
 UniRef90\_N4WVE3  
 UniRef90\_W0TN70  
 UniRef90\_UPI0002897B53  
 UniRef90\_UPI000473D55F  
 UniRef90\_B5EQJ9  
 UniRef90\_UPI000288619E  
 UniRef90\_UPI0003B5D62  
 UniRef90\_F4PP22  
 UniRef90\_UPI00036031CB  
 UniRef90\_G3YGA2  
 UniRef90\_E6UOH6  
 UniRef90\_T0LES1  
 UniRef90\_B2A5N2  
 UniRef90\_X2GV98  
 UniRef90\_UPI0002FA66F0  
 UniRef90\_UPI0004734C94  
 UniRef90\_G2XF37  
 UniRef90\_G7XRF9  
 UniRef90\_I8UET6  
 UniRef90\_D1C3B8  
 UniRef90\_F8GIB5  
 UniRef90\_H1XUA0  
 UniRef90\_M5 RTP9  
 UniRef90\_A7NFC4  
 UniRef90\_F4LW91  
 UniRef90\_D3UMD1  
 UniRef90\_C1DUY9  
 UniRef90\_R8BC80  
 UniRef90\_B2UIV3  
 UniRef90\_C1GWJ1  
 UniRef90\_LOGWH6  
 UniRef90\_B9TB85  
 UniRef90\_A4J509  
 UniRef90\_G7WQV8  
 UniRef90\_D3BV46  
 UniRef90\_K4LU48  
 UniRef90\_C3L809  
 UniRef90\_A0A024QBR8  
 UniRef90\_A4G7K8  
 UniRef90\_C3YJ28  
 UniRef90\_UPI00036DF3BC  
 UniRef90\_D1CB26  
 UniRef90\_UPI00047ADCDB  
 UniRef90\_C0QSM4  
 UniRef90\_Q49WR0

1 10 20 30 40

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

	50	60	70	80
UniRef90_D5G9D0	D H R   I R F A N E A R E L P G	G D R   I A [ ] K   E E I V   R T D R   L R R   L D Y T K		
UniRef90_UPI0003636602	T V D I A S [ ] D E L V K   L P G	G K S I A Q K   I R E I I   D T G H   L T E K   L D E L L		
UniRef90_W4XDV1	G K D V T T W E E A S A I   P G	G T K M A D K   L E I I   E S G H   L R K   I H V C		
UniRef90_UPI00037ED9F6	P E P   V E E R L R L L E   P G	G E G I A R S   S E Y V   M T G R M S R   L E E S L L Q		
UniRef90_D8R0V4	P Y Q   V T S V D Q V K N A P S	G K S L Q N H   Q E I L   S T G K L S K   L E H F R		
UniRef90_UPI000455FC2E	P K R I K S S L S Q A R A I   R G	G E K T A M K   M E I I   E T T G K L K R   I Q Y E N		
UniRef90_E8MZN2	G E D L A Q Q R G E L T Q V   P G	G K S L Q D H   N E I L   T T G K L G F   L E R L E		
UniRef90_S8EFL3	P F R I L E S V D Q V K S L L P   P G	G E R T G E I   T T F V   E T G E S P   E L E F F E Q		
UniRef90_D7V1B3	D R S L L S E I D E F T K L   P G	G E K T A L K   M E I I   K T G D L R   R I E Y E Q		
UniRef90_F8QAF6	P R R I K S L I N E A R A I   R G	G K A I I E D K   K E I L   T T G T F E A Y E R   I L		
UniRef90_K4MDQ2	E M D I D S I H Q L S D V   P G	G K A I L A A K   E E I V   W T G R L K   S L E E A S		
UniRef90_A6R1A5	K E K V I T T K E Q A L S D L   P G	G E D L A G K   A E F V   V E T G H   L K S   L D S L L K		
UniRef90_G9ADQ4	P E N V A E G R S I L S D L   P G	G K S T A A I   Q N Y   E T T G E S E E   L D S L L K		
UniRef90_W7CAH9	E R S S L L T E I E D F T K I   S G	G K G V A E V I   I N D Y   R E T T G E S Q Y   L Q Q		
UniRef90_ATX167	E R P L I D E I S D V T E L   K G	G K G V A E V I   I N D Y   R E T T G E S Q Y   L Q Q		
UniRef90_D6XSW3	E R S V I E E I E D P A K   A G	G D D L L A G K   M R E I   A E T G R C   A A L D K L L H		
UniRef90_Q609M0	G R D V R T G E D L T A L   P G	G T D L L S [ ] Y   I K E I   V K T T G K F S K   L E Q I K		
UniRef90_A6Q416	E E L V N E G Y D L T K K   P G	G E A I I A K K K   T M E   V T T G R L R Y Y   D E L R		
UniRef90_X1R4S9	P V E I L K E G Q R L L E D I   L G	G E A I I A K K K   T M E   V T T G R L R Y Y   D E L R		
UniRef90_I0K960	T L D L A E E Q P E L L E A I   P G	G K A I V A G K   R E F A D T G H   L L A E   D E E L L		
UniRef90_J0RYH9	A E P   V I S S [ ] E D L E A I   P G	G K A I V A G K   R E F A D T G H   L L A E   D E E L L		
UniRef90_B9L654	S K L V K E G F D L T K L   P G	G H D L S E Y   K E I L V N T G K F H   K L E E E L L Q		
UniRef90_B7GGY6	E R A L T D I D D F T S I   A G	G K G T A A V   Q Q W   Q T T G T S D V   L E E Q L L K		
UniRef90_T0YEC5	P S E V R T L K D I R A L   P G	G E A L S L K   E E Y R   E T T G K V P Y   L D R   L R		
UniRef90_K5XNG8	P K R I Q S Y S E A R S   R G	G D K T A L K   I L Q T G D   S R S V L E E L Q		
UniRef90_A6CRS5	D R S L L N E I D S F T A I   N G	G K G T A A V   E E Y I   T D G K S S V L E E L Q		
UniRef90_D1JF68	T Q D L K V I S E L K K   P G	G E G I A K K   L E I A E T T G D C   K K K H   I E L L K		
UniRef90_I0GJ90	T I P   I E D L D K L L D G   K G	G K G T A A V   Q Q W   Q T T G T S D V   L E E Q L L K		
UniRef90_D5MKY3	T E E I V E A R G G L L A E   A G	G K D L L A A K   Q Q A I   E T T G R I E Y   L E E E L L R		
UniRef90_A5GEK4	S R S V V E S R D E L L E   P G	G E E D L L A A K   Q Q A I   E T T G R I E Y   L E E E L L R		
UniRef90_UPI00036DB3C1	A D L I A E G R D D L S E E L   P D	G E D L A A E K   E T T I V R T G R L P   L L E E V E		
UniRef90_J8T6M8	E R S L I N E I G K P E L L   P G	G K G T A E V   T E L K E T T G T S S L   L E E L M		
UniRef90_B3S2V4	P R E I L T R E E A E A I   P N	G K R L L A D K   W E I L S C   G H   L R K   L D Y M D		
UniRef90_B1I432	G V D L A E L R R L T D I   P G	G R D L L A G K   T E I L D T G T C   A Y Y D R   L I		
UniRef90_Q220H4	G R S V V R T M V D L D A L   P G	G P D L L A G K   V E V V   T T G S C   A L L Q R L L R		
UniRef90_K0J3F1	E R S L I S E I E D F S Q I   K G	G K G T Q E L   N E F I   E S T G Q S S L   L S E E L K		
UniRef90_N4V3Z3	S T K I L T T A E E A I   P G	G Q R L L A D K   Q E I V   T T G R L Q R   L E H A E		
UniRef90_A0A024Q3Y9	D R S L L G D I D D F T K I   N G	G K G T S N V   E E F I   E Q G E S E T T A Q   L E E V E		
UniRef90_A9KE4A	P E E M L V K E G E D L T E E   P G	G A A L L A E K   K T I V   T T G K L P Q   L D Q   D E V R		
UniRef90_D5SXJ3	P D E V V Q S P H A L L E   P G	G K D L L A Q K   S S L A T T Q G Q   L D Q   D E V R		
UniRef90_A0A017S2X8	P K R I V T R T Q A R V   T G	G P R L L A D K   V E E Y I   V L T N R L R R   L E N A		
UniRef90_F4BX02	T E D I I C R D G R I L E G   P G	G P K A I A E K   K E E Y I   R T G R I Q S   H Q D   L L Q		
UniRef90_G9QQB8	E R G L I N E I K D F T S I   P G	G K A T S S V   E E F I   E T T G T S S V   L E E Q L L Q		
UniRef90_G8N86	D I P   I E D L I A R G G K   P G	G P D L A A E K   L E F L   A T G R L K K H   E E E L L		
UniRef90_A9TCX5	P F K I V T S V N Q I G F P   T G	G K S L I A D K   V E I L S T G R F S K   L E E H   L K		
UniRef90_D7C670	P R D V S S E L D G I L R E   P G	G K S L I A D K   V E I L S T G R F S K   L E E H   L K		
UniRef90_E8WMS2	N R D L I M S H K E L L E   P G	G A D L A A R   E E Y L   Q T G T M A Y Y   E E Q L L K		
UniRef90_N4WVE3	D R S L L S E I N D F T A I   Q G	G K G T A T T V   D T Y I   E T G Q S E T T L E E E L K		
UniRef90_W0TN70	D R S L L A D M E A L E E   P T	G K D L L A A K   R E I L V K T G S L R K   L S Q L L E E E L K		
UniRef90_UPI0002897B53	D R S L L S T I D E F T T L   P G	G K G T A A V   T E Y L   E T G E S K V   L N E E L L K		
UniRef90_UPI000473D55F	E R S L L S D I E D V T T L   Q G	G K G T A T T V   E E F R E K G Q S S S V L   D E E L L K		
UniRef90_B5EQJ9	K T M V S E A G E D L T E L   P G	G E D L A A K K   I E I V T T G H   C S S F   L D E K L E		
UniRef90_UPI000288619E	E R S I I G G I D D F S K I   K G	G K G T G D V   R E I L A T T G E S S   V L N T L K K Q		
UniRef90_UPI0003B35D62	S E D I I E K E G K L L S S   P G	G K R L L Q A K   I E F L   A T T G K I I E E F E K L L K		
UniRef90_F4PP22	P K K I I T S G Q E S K K   D G	G L K I S Q K V   Q E I L D T G K L K K L E E K L L K		
UniRef90_UPI00036031CB	P D D I I S S L T G L K K   P T	G E A I I A K K K   Q D Y L   T S G Q I R Q V E E E L R		
UniRef90_G3YGA2	P H K I I T T K S Q A L   A I	G Q R L L A D K   Q E I V L   V T N R L R R   E N A N		
UniRef90_E6UOH6	E R T I I N E I D D P S K   L P	G K G T A S V   N E I N E L M E T G Q S K   L L N E L V		
UniRef90_T0LES1	T G D I I S S E K E L L A E   P G	G K A I I A Q K T K E L   V E T T G K L K Y Y E D   L K		
UniRef90_B2A5N2	S E D M T R I L N R L L R Q I   S G	G K G I I A S Q I   E E I V R T T G R S S S L L K E   L Q		
UniRef90_X2GV98	E R S L L S E M E D V T K   K G	G K G T A A V   I E D L I   E T G E S S S L L K E   L Q		
UniRef90_UPI0002FA66F0	P E D V S R I L D D L R E   P N	G K S I I A D K V A E F L   R T G H   L K V   L D E R R		
UniRef90_UPI0004734C94	G R E E L I T S L I D L P K   P G	G P D L L S A K I   R E I A T I   G H C A L L D A L L R		
UniRef90_G2XF37	T R K I I A T A A E A I   P G	G A R R L L A D K   E E I V T T D R L L R R   L E H A E		
UniRef90_G7XRF9	P R K I I I S T R E A L A I   P G	G E R I A I A N K   E E I V S T N H   L R Q   L E Y A E		
UniRef90_I8UET6	D R S M E Q I I H D P A E E   K G	G K G T A T T V   T E I V T E G K S S S L L K E   E E E L K		
UniRef90_D1C3B8	P E P   I I A R E E E L T A I   E G	G P G   L A A A   T E I V Q T G R Y S A T E E E L L K		
UniRef90_F8GIB5	S Q E E V S R G E D L L T E E   P G	G D D L L A G K   K E I V G S G H C S   L L D R L L H		
UniRef90_H1XUA0	Q E D L T T R L V E L K E   P G	G D A L L A Q K   I E T L V K T G R L P Y Y E E E L L K		
UniRef90_M5RTP9	D E P V P V I A I R N R L L A D   I S	G G K T I S E K   T E T L I Q T G G G L P Q   L E E E L K		
UniRef90_A7NFC4	P A P L I A T Y R E L L E Q   P G	G K A I I A E K   I G E L L D T G E L P Y Y N R   L L R		
UniRef90_F4LW91	P L E I I E D L S Q L   Q E	G K A I I S E E K   I Y E E I I D T G T C   R Y Y E E E L K		
UniRef90_D3UMD1	S R S L L S E I I D D F T K   I S	G K G T T Q H   F L   A T G E C P   V E E L L K		
UniRef90_C1DUY9	P D D V P R N Y I I A L G K   R G	G T H   T Q E K I   Y E Y I K T G K I Q K Y E E E L L K		
UniRef90_R8BC80	P V K I I T T A A E A E L   P G	G S R L L S Q K   I E E I V N T N G L K R   L E Y A E		
UniRef90_B2UIV3	T E M M L I A R G A D L T A I   P G	G V D L L A A K M   R E I V E T T G S C   A M L T R   V R		
UniRef90_C1GWJ1	K H K I I V T K D Q A L A I   P C	G E R I A L A S K I   I E E I V W T N R L R R   L E E A K		
UniRef90_L0GWH6	A E R V A N G A D L T E L   P G	G E A I I A K K I   A V I E T G R L P Q   L E E V R		
UniRef90_B9TB85	A K M I I A E G A D L L K T   P A	G D D L L A [ K   R E I V A T G S C   P L L A S L   L R		
UniRef90_A4J509	E E P   L Q E L H R L L S K   P G	G K G T S A V   Q E Y M K N   G K S E T T L L Q   L L R		
UniRef90_G7WQV8	K E D I I A G R G E L E A I   P G	G K A I I E G K   E E I L E T T G K L A K H Q K   L L R		
UniRef90_D3BV46	P K K L I I S S G S E S Q K   D G	G K A I I A K K V   Q E I L D T G K L A K L I K   L L Q		
UniRef90_K4LU48	P L A E L S T E G R L L Q E   V	G K G T A A V   Q E Y I E S G T S E V L Q E E E L L K		
UniRef90_C3L809	D R S L L S E I I E D F T K   P G	G K G T A A V   Q E Y I E S G T S E V L Q E E E L L K		
UniRef90_A0A024QBR8	D R S L L T D I I D D F T K   I S	G K G T S A V   Q E Y M K N   G K S E T T L L Q   L L R		
UniRef90_A4G7K8	A F S V Q T M V K L T D L   P G	G D L L A G K   V E I V T T G T C   A L R E Q   L L R		
UniRef90_C3YJ28	P K P I I T S W E E A H S   S P	G Q R L L A D K   V E I V T T G T C   A L R E Q   L L R		
UniRef90_UPI00036DF3BC	Q D D I I T Q L P E L T Q   Q G	G K S V A T R   R E I V E T T G Q L   T D L N E E L L K		
UniRef90_D1CB26	P E P   L S T L R Q L L E T   P G	G K A I I A Q K   E D D L D T G T F E L L L E E V T		
UniRef90_UPI00047ADCDDB	E R S L L S E I I E N F T A I   S G	G K G T A A V   D E Y I K D G T S T V L   D E E L L K		
UniRef90_C0QSM4	P E D I I R N Y I I V S G K   Y G	G P S I A S K   E E Y V K T G K I Q K F E E E L L K		
UniRef90_Q49WR0	E R T L I D E I E D V T E L   K G	G K G V G E V   D E Y R Q S G Q S S A L E A L Q		

UniRef90_D5G9D0	M D
UniRef90_UP10003636602	A
UniRef90_W4XDV1	K
UniRef90_UP100037ED9F6	S
UniRef90_D8R0V4	D D
UniRef90_UP1000455FC2E	T E
UniRef90_E8MZN2	Q E
UniRef90_S8EFL3	K D
UniRef90_D7V1B3	K E
UniRef90_F8QAF6	T E
UniRef90_K4MDQ2	A E
UniRef90_A6R1A5	T E
UniRef90_G9ADQ4	A
UniRef90_W7CAH9	Q E
UniRef90_A7X167	E E
UniRef90_D6XSW3	S E
UniRef90_Q609M0	K
UniRef90_A6Q416	E E
UniRef90_X1R4S9	A E
UniRef90_I0K960	A
UniRef90_J0RYH9	A
UniRef90_B9L654	K E
UniRef90_B7GGY6	Q E
UniRef90_T0YEC5	E
UniRef90_K5XNG8	T D
UniRef90_A6CRS5	Q E
UniRef90_D1JF68	Q E
UniRef90_I0GJ90	K
UniRef90_D5MKY3	T
UniRef90_A5GEK4	G E
UniRef90_UP100036DB3C1	Q
UniRef90_J8T6M8	E
UniRef90_B3S2V4	N D
UniRef90_B1I432	R E
UniRef90_Q220H4	K E
UniRef90_K0J3F1	A E
UniRef90_N4V3Z3	R E
UniRef90_A0A024Q3Y9	E E
UniRef90_A9KEA4	K
UniRef90_D5SXJ3	S
UniRef90_A0A017S2X8	
UniRef90_F4BX02	A D
UniRef90_G9QQB8	Q E
UniRef90_G8ND86	
UniRef90_A9TCX5	N D
UniRef90_D7C670	A
UniRef90_E8WMS2	Q E
UniRef90_N4WVE3	K
UniRef90_W0TN70	S
UniRef90_UP10002897B53	E
UniRef90_UP1000473D55F	K E
UniRef90_B5EQJ9	K
UniRef90_UP1000288619E	Q E
UniRef90_UP10003B35D62	T E
UniRef90_F4P22	S N
UniRef90_UP100036031CB	A
UniRef90_G3YGA2	N
UniRef90_E6UOH6	E E
UniRef90_T0LES1	K
UniRef90_B2A5N2	S E
UniRef90_X2GV98	
UniRef90_UP10002FA66F0	T
UniRef90_UP10004734C94	K
UniRef90_G2XF37	R D
UniRef90_G7XRF9	
UniRef90_I8UET6	E
UniRef90_D1C3B8	D E
UniRef90_F8GIB5	T E
UniRef90_H1XUA0	A
UniRef90_M5RTP9	Q
UniRef90_A7NFC4	E
UniRef90_F4LW91	K N
UniRef90_D3UMD1	K E
UniRef90_C1DUY9	K
UniRef90_R8BC80	K E
UniRef90_B2UIV3	T E
UniRef90_C1GWJ1	M E
UniRef90_L0GWH6	R
UniRef90_B9TB85	A
UniRef90_A4J509	Q E
UniRef90_G7WQV8	Q E
UniRef90_D3BV46	S D
UniRef90_K4LU48	E
UniRef90_C3L809	K E
UniRef90_A0A024QBR8	K E
UniRef90_A4G7K8	R E
UniRef90_C3YJ28	
UniRef90_UP100036DF3BC	N
UniRef90_D1CB26	S E
UniRef90_UP100047ADCDB	E E
UniRef90_C0QSM4	K
UniRef90_Q49WR0	K E

1            10            20            30            40

UniRef90_W8ACJ2	K Q   V I   Q T L   E E   L A R Y   L E   L K G   E N T   F K I   S A Y   R K A   A Q A   L   E   K   D			
UniRef90_T5AEG1	N P   N A R T   I   Q V L   Q S M A S Y   D R T   N D Q   W R T   M G Y   R K A   I   S T   L   K   R   Q			
UniRef90_L8G3Q9	N P   N A R T   I   S I L   Q E   M A A Y Y   T R M   D D T   W R P   I G Y   R K A   I   T   L   K   K   Q			
UniRef90_B7QK41	N R N   V   H   I   E Q L   Q A M   V E T   Y Q S T   K D H   W R A   L S Y   E R A   I   M A L   K R   H			
UniRef90_UPI0004751427	K E I   I K L   L E K   I   A V Y   M E   L   K G D   N A F   K I   S A F   R K A   A G A   L   E   N   D			
UniRef90_A8FG12	K D I   I K L   L E T   I   A V Y   M E   L   K G D   N P   F   K I   S A F   R K A   A A A   L   E   Q   D			
UniRef90_F4Q5G1	N Y N E S   I   T S V   L   E K   L   E K   A L G   D D R   W R E   Y A Y   K R A   I   G   L   K   G   L			
UniRef90_K7QXK0	N E E   L   A Q V   F   E E   I   A L M   S E F   L   G D N   P   F   R   V   R A Y   L   E   A   A R T   L   R   D   L			
UniRef90_U5LED8	N P   N K D   V   V   R   L   L E T   I   A V Y   M E   L   K G E   N   P   F   K   V   A A   F   R   K   A   A G   A   L   E   A   N			
UniRef90_K1QPA4	N P   N K D   F   C   D   F   L   M E   L   A N Y   E   K   N   V   N   R   Q   M   H   K   Y   N   A   Y   R   K   A   V   G   V   L   A   K   H			
UniRef90_D8PJ6	N A E   V   A   T   A   F   E   M   A   D   L   L   E   I   E   G   A   N   P   F   R   V   R   A   Y   R   F   A   A   R   T   L   R   D   L			
UniRef90_E4U4R7	N A E   I   A   R   I   F   S   E   I   A   D   M   L   D   F   L   G   D   S   P   F   R   V   R   A   Y   R   F   A   A   R   T   L   R   D   L			
UniRef90_UPI000463BB55	D E A   I   A   V   L   L E E   I   A   T   L   L   E   L   R   G   E   N   P   F   K   S   R   A   Y   R   T   A   A   R   A   I   D   S   L			
UniRef90_V6JYA0	P   N   K   D   V   V   A   A   L   L   Q   E   Y   A   E   L   V   R   I   T   G   T   D   A   F   R   A   R   Y   E   K   A   A   R   A   I   G   G   H			
UniRef90_W0DF53	S   K   N   K   E   I   A   E   I   F   S   K   M   A   D   I   M   E   F   L   G   E   N   P   Y   R   I   N   A   Y   R   R   V   A   E   V   L   S   E   L			
UniRef90_UPI000225C03E	K   D   V   I   N   L   L   E   T   M   A   I   Y   L   E   L   K   G   E   N   P   F   K   I   S   A   F   R   K   A   A   Q   A   L   E   K   D			
UniRef90_Q9XIK1	L   N   R   N   I   T   E   I   F   G   K   L   I   N   I   Y   R   V   T   L   G   E   D   R   R   S   F   S   Y   Y   K   A   I   P   V   I   E   K   F			
UniRef90_D2AYP2	N   D   T   V   V   A   A   A   L   E   E   Y   A   E   L   F   A   M   T   G   G   D   A   F   R   V   R   S   Y   Q   K   A   A   K   A   I   A   G   F			
UniRef90_UPI00035D2810	N   E   Q   I   A   E   L   F   E   N   M   G   S   L   L   E   M   K   G   D   T   I   F   K   I   R   A   Y   Q   R   A   A   R   T   I   I   E   Q   L			
UniRef90_UPI000479183C	K   Q   L   I   K   K   L   E   Q   I   G   V   Y   L   E   L   K   G   E   N   P   F   K   I   S   A   Y   R   K   A   A   Q   A   L   E   S   D			
UniRef90_XOSWF7	N   A   E   V   V   A   V   F   D   Q   I   A   D   I   L   E   I   Q   G   E   N   A   F   R   I   R   S   Y   R   N   A   A   R   A   I   R   D   H			
UniRef90_J3P9G4	N   P   N   A   R   T   I   E   M   L   Q   S   M   C   D   F   Y   E   R   T   N   D   H   W   R   T   T   A   Y   R   R   A   I   I   G   T   L   R   R   T			
UniRef90_D2R879	N   E   K   I   A   D   A   F   D   L   I   A   D   L   L   E   F   Q   G   A   N   S   F   R   V   R   A   Y   R   R   N   S   A   R   T   L   R   D   Y			
UniRef90_C5FJW6	N   P   N   S   R   T   I   E   V   L   Q   G   M   L   N   Y   Y   E   T   A   D   Q   W   R   C   L   Y   R   R   A   I   S   A   L   R   R   E			
UniRef90_B1ZX38	H   E   I   A   D   V   L   N   E   I   A   T   L   L   E   L   K   G   E   N   P   F   K   I   R   A   Y   Q   S   G   A   R   V   I   E   S   L			
UniRef90_I3IL82	N   H   E   I   A   A   L   F   E   R   I   A   N   V   L   E   L   K   G   E   N   A   F   R   I   N   S   Y   R   K   A   A   R   I   I   L   G   D   V			
UniRef90_UPI00036A9E62	N   D   E   V   V   A   A   L   L   L   Q   E   Y   A   D   L   L   S   I   S   G   G   E   A   F   K   V   R   V   Y   E   K   A   A   R   A   V   A   G   H			
UniRef90_I4EEI4	N   H   E   V   V   A   Q   L   L   N   G   M   I   A   E   L   L   K   G   E   T   P   F   R   I   R   A   Y   T   E   A   A   Q   Y   I   I   D   T   M			
UniRef90_UPI000423F8BE	K   Q   V   I   K   L   L   E   T   I   A   V   Y   L   E   L   K   G   E   N   P   F   K   I   S   A   Y   R   K   A   A   Q   A   L   E   R   D			
UniRef90_Q8EPI0	K   D   I   I   K   L   L   E   K   I   A   V   Y   L   E   L   K   G   E   N   P   F   K   I   S   A   Y   R   K   A   A   Q   A   L   E   T   D			
UniRef90_X8IWG8	C   L   N   Q   A   L   V   D   E   L   S   R   L   R   D   I   Y   E   A   K   K   H   N   Q   F   R   V   L   N   Y   T   K   A   I   R   S   I   T   K   H			
UniRef90_C0GJM0	N   R   D   V   V   A   E   M   L   D   R   A   A   R   I   L   A   L   R   G   E   N   R   F   K   T   Q   A   Y   A   R   A   E   T   I   A   L			
UniRef90_UPI00035EDEE8	N   A   E   I   A   Q   M   L   Y   E   F   A   E   L   M   D   L   K   G   D   V   F   K   R   N   A   Y   R   K   A   A   Q   S   V   E   D   L			
UniRef90_B9XCM8	E   Q   V   A   E   I   L   I   E   I   G   I   L   L   E   L   K   G   E   N   P   F   K   T   R   A   Y   A   N   A   A   R   T   L   E   T   L			
UniRef90_M5D123	S   H   N   A   D   I   A   A   I   F   E   E   I   A   S   S   L   L   E   I   Q   G   A   N   P   F   R   I   R   A   Y   R   N   A   A   R   T   I   G   E   L			
UniRef90_UPI0002E9899C	M   N   K   K   I   I   R   T   L   E   K   I   A   V   Y   L   E   L   K   G   E   N   P   F   K   I   R   A   Y   Q   S   G   A   R   V   I   E   S   L			
UniRef90_B0D7W4	N   Q   Q   V   A   Q   V   F   R   D   L   A   D   A   L   E   A   L   G   E   N   R   F   K   T   Q   A   Y   A   R   A   E   T   I   A   L			
UniRef90_UPI0004785F37	N   A   D   V   V   A   A   I   F   N   E   E   I   A   D   L   L   E   I   Q   S   A   N   P   F   R   V   R   A   Y   R   N   A   A   R   S   V   G   E   H			
UniRef90_E1TH8	L   N   D   E   V   V   G   A   L   L   R   E   Y   A   D   L   L   I   L   S   G   N   G   N   A   R   F   R   S   Y   E   K   A   A   R   S   V   G   G			
UniRef90_C7PW28	N   Q   E   L   A   K   I   F   E   R   M   A   D   L   L   E   F   L   G   E   N   P   Y   R   I   R   T   Y   R   V   A   N   L   I   S   E   L			
UniRef90_O67416	N   Q   N   K   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_U9UPA5	N   K   N   Q   K   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_G3JNT4	K   D   I   I   K   L   L   E   T   I   A   V   Y   L   E   L   K   G   E   N   P   F   K   I   A   A   F   R   K   A   A   A   S   L   E   S   D			
UniRef90_UPI00029A8E0E	N   N   D   V   V   A   I   N   I   F   E   E   I   A   D   I   L   T   L   Q   G   A   N   F   Y   R   I   R   A   Y   R   K   A   A   A   Q   L   R   D   M			
UniRef90_F8K462	K   T   V   D   I   D   L   D   E   I   S   L   L   E   L   K   G   E   N   P   F   K   I   R   A   Y   R   N   A   A   R   L   E   T   L			
UniRef90_UPI0003713209	P   N   E   P   V   V   A   F   Q   L   E   K   L   A   D   L   Q   S   T   T   T   E   D   Q   F   R   Q   R   S   Y   K   Q   A   A   N   K   L   R   S   C			
UniRef90_UPI00047D9FC1	N   K   N   Q   K   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_UPI00037555C00	N   R   D   V   V   A   A   F   E   E   I   G   D   L   L   E   L   T   G   A   N   P   F   R   V   R   A   Y   R   N   A   A   A   R   L   R   D   W			
UniRef90_UPI0003837DC0	N   A   F   L   T   E   A   L   E   I   L   A   Q   N   A   E   F   N   D   N   E   G   R   S   V   A   F   R   R   A   A   S   V   L   K   A   L			
UniRef90_UPI000476B496	N   D   R   I   V   V   A   I   F   E   D   I   A   D   L   L   D   V   E   N   A   N   P   F   R   V   R   A   Y   R   N   A   A   R   T   I   G   A   L			
UniRef90_Q1ZXF2	N   K   N   Q   K   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_UPI00030F19C6	N   R   Q   D   V   V   D   K   L   E   E   L   K   A   L   H   D   V   K   E   D   D   R   W   R   V   Y   G   L   N   K   A   I   A   A   L   R   R   C			
UniRef90_G4QKM2	N   R   Q   L   A   A   V   F   R   R   I   A   D   L   L   E   I   R   G   E   V   V   Y   K   V   L   A   Y   R   R   V   A   D   S   L   E   A   L			
UniRef90_A9BFQ2	N   H   N   K   H   I   T   D   K   L   Q   I   L   M   Q   T   Y   K   N   T   K   D   Q   W   R   A   L   G   Y   S   K   A   I   S   A   L   K   N   Y			
UniRef90_G0SXG6	N   K   N   Q   K   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_E0XYK4	M   N   Q   E   L   L   N   N   L   R   I   L   Q   D   Y   Y   K   K   V   G   D   N   W   R   V   L   A   Y   T   K   A   I   T   A   S   I   Y			
UniRef90_T1XK87	T   K   N   Q   K   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_H819B2	N   H   E   V   V   A   A   L   L   A   D   I   A   R   L   L   E   L   K   G   E   T   D   Y   T   R   V   R   A   Y   R   K   A   A   H   G   V   E   A   L			
UniRef90_R7T2A8	C   P   N   Q   D   V   V   D   K   L   E   E   L   K   A   L   H   D   V   K   E   D   D   R   W   R   V   Y   G   L   N   K   A   I   A   A   L   R   R   C			
UniRef90_H5SDX5	N   R   Q   L   A   A   V   F   R   R   I   A   D   L   L   E   I   R   G   E   V   V   Y   K   V   L   A   Y   R   R   V   A   D   S   L   E   A   L			
UniRef90_UPI0003F09AA8	N   H   N   K   H   I   T   D   K   L   Q   I   L   M   Q   T   Y   K   N   T   K   D   Q   W   R   A   L   G   Y   S   K   A   I   S   A   L   K   N   Y			
UniRef90_F0ZL7	N   K   N   Q   K   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_F6CQI3	N   M   E   I   S   W   A   F   R   E   I   A   D   L   L   E   F   E   G   E   V   F   F   K   I   R   A   Y   R   R   A   A   K   V   I   A   G   L			
UniRef90_X0Z5Y7	Y   N   Q   C   L   V   E   L   L   E   V   I   E   H   A   R   E   L   N   G   E   E   R   N   A   L   S   Y   R   H   A   I   A   A   L   K   V   Y			
UniRef90_A0A024TPC2	U   N   Q   D   V   V   A   A   F   R   E   I   A   D   L   L   E   I   E   G   A   N   P   F   R   V   R   A   Y   R   N   A   A   F   K   V   D   K   L			
UniRef90_H1Y7H5	U   N   D   V   V   A   A   V   F   R   E   I   A   D   L   L   E   I   E   G   A   N   P   F   R   V   R   A   Y   R   N   A   A   F   K   V   D   K   L			
UniRef90_D4GTB4	U   N   D   E   I   A   T   L   L   E   E   F   A   D   L   L   E   A   K   D   V   I   H   L   L   E   T   I   A   V   F   M   E   L   K   G   E   N   Q   F   K   V   A   A   F   R   K   A   A   G   A   L   E   S   D			
UniRef90_UPI000401C3E4	U   N   E   Q   I   A   N   R   F   E   T   L   A   D   L   L   E   F   D   G   A   N   S   F   R   V   R   A   Y   R   N   A   A   R   T   I   H   D   L			
UniRef90_A3ZU52	U   N   A   E   I   A   R   V   L   S   E   I   A   D   L   L   E   L   S   E   G   N   A   F   K   V   R   V   R   R   A   A   Q   A   V   D   L   H   H			
UniRef90_A7H7H8	U   N   A   E   I   A   G   R   F   E   F   A   D   L   L   E   A   D   D   V   E   Y   K   P   F   R   Y   R   R   A   A   E   N   V   R   S   H			
UniRef90_M0L861	U   L   N   K   S   I   T   D   V   L   R   E   L   A   K   Q   E   R   A   A   G   D   N   F   R   E   R   R   Y   A   A   I   K   S   I   E   A   Y			
UniRef90_U9U695	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_UPI0004139DE1	U   N   P   E   I   V   E   L   L   E   T   A   K   L   M   E   L   H   G   V   D   P   F   K   I   R   K   Y   S   A   A   F   Y   L   D   K   Y			
UniRef90_L2TQT3	U   N   D   A   V   V   A   G   M   L   Q   E   Y   S   E   L   L   A   I   S   G   R   A   P   F   K   V   R   A   Y   E   K   A   A   R   T   V   A   G   H			
UniRef90_E2BD47	U   N   Q   D   V   V   D   F   I   Y   D   F   L   M   E   L   L   E   K   K   I   A   Q   Y   M   E   I   R   G   E   N   T   F   K   V   S   A   Y   R   K   A   A   Q   A   L   E   Q   D			
UniRef90_C4L4C7	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_UPI00040B148B	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_K6NYM6	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_UPI000366DF64	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_U9U304	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_A7SK52	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_K4RFQ3	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_F8E721	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_S3DHN1	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_X1HJ54	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_S9RKH6	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_G7V756	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_F1SSF6	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_A0A024HJN7	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_UPI00045EA86F	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_Q2HF10	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			
UniRef90_I0JYV0	U   N   K   N   Q   L   T   D   I   I   T   E   L   S   I   F   E   K   N   K   G   L   Q   H   K   Y   S   A   Y   R   K   A   A   Q   S   I   R   A   H			

	50										60										70										80											
UniRef90_W8ACJ2	E	R	S	L	Q	E	I	D	R	P	Q	Q	L	A	G	G	K	A	T	S	E	V	L	E	L	K	E	T	G	Q	S	T	V	L	S	E	L	Q				
UniRef90_T5AEG1	D	V	K	I	R	T	E	E	E	A	F	R	L	P	H	G	R	R	I	A	Q	K	I	E	E	I	V	T	T	D	R	L	R	R	L	E	Y	A	E			
UniRef90_L8G3Q9	N	K	L	I	S	T	A	G	E	A	V	K	L	P	A	G	Q	R	I	A	D	K	I	E	E	I	V	H	T	D	K	L	R	R	L	D	N	T	K			
UniRef90_B7QK41	P	T	E	I	T	S	W	E	A	R	S	L	P	K	V	G	E	R	L	A	D	K	I	W	E	E	I	V	H	E	R	G	K	L	R	K	E	E	F	Q		
UniRef90_UP10004751427	E	R	S	L	S	E	I	E	S	F	T	S	L	A	G	G	K	G	T	S	A	V	I	E	E	Y	I	Q	D	G	Q	S	T	V	L	E	E	L	K			
UniRef90_A8FG12	D	R	S	L	S	S	Q	I	D	D	L	L	K	A	L	P	G	G	K	G	T	F	A	V	I	T	E	Y	I	E	K	G	Q	S	E	T	L	V	E	Q	L	K
UniRef90_F4Q5G1	T	F	K	L	S	S	S	K	D	D	L	G	D	I	R	G	G	P	K	I	R	E	K	I	D	E	I	I	E	T	G	T	L	R	R	V	E	S	S	L		
UniRef90_K7QXK0	D	I	P	I	E	T	V	A	Q	L	L	E	L	P	G	G	P	D	L	A	E	K	I	L	E	F	L	I	E	T	G	R	V	K	K	H	Q	E	L	L		
UniRef90_U5LED8	D	D	K	F	S	E	I	K	D	F	T	K	L	S	G	G	K	G	T	A	A	V	I	E	E	Y	I	E	D	T	G	S	L	R	K	L	E	K	I			
UniRef90_K1QPA4	P	T	R	V	K	S	G	A	E	A	K	K	L	D	G	G	D	K	I	A	K	K	I	D	E	Y	I	D	T	G	S	L	R	K	L	E	K	I	R			
UniRef90_D8PJ6	P	A	E	V	G	E	M	D	L	T	T	G	L	P	G	G	G	D	D	L	A	G	K	I	K	E	I	L	S	T	G	T	V	L	K	E	A	Q	R			
UniRef90_E4U4R7	S	E	D	F	E	S	L	V	R	L	D	Q	L	K	G	V	G	E	G	I	R	A	K	L	Q	E	M	V	D	T	G	R	L	G	Y	L	E	E	L	K		
UniRef90_UP1000463BB55	H	T	D	V	S	T	L	D	R	L	R	E	I	P	G	V	G	R	S	I	A	E	K	V	A	T	Y	L	V	I	T	G	T	M	P	E	V	E	R	A	R	
UniRef90_V6JYA0	G	V	D	V	E	E	L	V	K	T	G	K	I	Y	G	G	E	S	S	I	S	K	I	L	E	Y	I	R	T	G	K	I	S	K	Y	E	E	L	K			
UniRef90_W0DF53	E	R	S	L	S	D	V	I	E	D	F	T	L	A	K	G	G	K	T	S	I	T	I	L	E	Y	I	R	T	G	K	S	E	V	L	E	Q	L	Q			
UniRef90_UP1000225C03E	P	T	R	I	E	S	V	D	Q	L	K	H	L	P	G	V	G	K	A	M	R	D	H	I	Q	E	I	V	T	T	G	K	L	S	K	L	E	H	F	E		
UniRef90_Q9XIK1	P	E	D	I	A	A	T	A	V	R	S	V	P	G	V	G	E	A	I	A	K	K	V	E	E	Y	L	E	R	G	S	F	R	Q	L	D	D	L	R			
UniRef90_D2AYP2	S	S	P	V	E	N	G	E	D	L	T	K	L	P	G	V	G	K	A	I	S	K	I	A	E	F	I	G	T	Q	G	V	A	T	Y	Q	R	L	L			
UniRef90_UP100035D2810	D	R	S	L	S	E	I	E	D	F	T	A	M	N	G	G	K	G	T	A	T	V	I	Q	E	F	I	E	K	G	E	S	D	T	L	N	Q	L	E			
UniRef90_UP1000479183C	A	E	R	M	E	D	G	A	L	T	E	M	N	G	G	G	K	G	T	A	T	V	I	Q	E	F	I	E	K	G	E	S	D	T	L	N	Q	L	E			
UniRef90_XOSWF7	A	E	R	V	A	T	E	D	A	A	R	L	P	G	V	G	P	R	L	A	S	K	I	E	I	A	T	T	D	R	L	R	R	L	E	D	L	R				
UniRef90_J3P9G4	D	R	R	V	A	T	E	D	A	A	R	L	P	G	V	G	P	R	L	A	S	K	I	E	I	A	T	T	D	R	L	R	R	L	E	H	A	R				
UniRef90_D2R879	S	G	S	L	A	E	L	A	Q	L	K	E	I	E	G	G	D	D	L	A	A	K	I	A	M	V	E	T	G	K	L	A	M	L	D	E	L	R				
UniRef90_C5FJW6	K	D	K	V	T	K	S	Q	A	L	K	I	R	G	G	E	A	R	L	A	V	K	E	E	I	V	W	T	N	R	L	R	E	Q	A	N	R					
UniRef90_B1ZX38	E	E	R	L	A	A	N	E	L	T	V	K	G	G	E	A	L	A	K	K	I	A	E	L	H	T	T	G	K	L	E	F	E	K	L	R						
UniRef90_I3IL82	T	E	D	I	E	V	L	A	R	L	K	D	I	P	G	I	G	E	G	M	A	E	K	I	M	E	Y	I	H	T	G	K	M	S	K	Y	D	E	V	M		
UniRef90_UP100036A9E62	H	A	D	V	S	D	A	E	E	L	R	A	V	P	G	V	G	G	S	I	A	E	K	V	A	E	Y	L	R	T	G	R	V	T	A	L	E	R	L			
UniRef90_I4EEI4	T	E	D	V	D	S	L	Y	Q	L	E	D	I	P	G	V	G	G	S	I	A	T	K	A	E	Y	L	K	T	G	H	S	S	Y	Y	E	Q	L				
UniRef90_UP1000423F8BE	U	N	I	R	S	L	S	E	I	D	D	F	T	K	M	K	G	G	K	T	A	V	I	D	E	Y	V	A	E	T	S	E	T	L	Q	Q	L	S				
UniRef90_Q8EPI0	D	R	S	L	S	E	M	G	D	F	T	K	I	K	G	G	K	G	T	S	V	V	I	Q	D	G	Y	S	E	T	L	Q	N	D	S							
UniRef90_X8IWG8	P	T	K	I	T	S	V	D	Q	V	S	H	L	P	G	V	G	G	A	I	A	E	K	I	S	E	F	I	A	T	G	C	V	A	K							
UniRef90_C0GJM0	P	E	E	I	V	E	Q	L	N	R	L	Q	S	L	P	G	V	G	V	G	S	L	A	A	K	I	K	E	V	R	T	L	E	R	R	L						
UniRef90_UP100035EDEE8	G	R	D	V	Q	D	L	V	N	L	D	S	I	P	G	V	G	G	E	S	I	A	K	K	I	K	E	V	R	T	L	E	K	L	R							
UniRef90_B9XCM8	N	E	P	V	I	V	A	E	N	R	L	G	D	I	K	G	G	E	A	L	S	K	I	K	E	I	A	F	T	G	H	C	S	L	L	D	R	L	H			
UniRef90_M5D123	S	T	E	V	E	K	N	D	D	L	T	R	F	P	G	I	G	H	D	S	A	V	I	K	E	I	A	F	T	G	H	C	S	L	L	D	R	L	H			
UniRef90_UP10002E9899C	E	R	S	L	S	E	E	I	D	D	F	T	K	I	P	G	I	G	K	T	G	A	V	I	E	E	I	Q	T	G	E	S	Q	Q	L	I	E	L	R			
UniRef90_B0D7W4	P	K	R	I	N	S	Y	A	E	A	R	N	I	R	G	V	G	G	E	R	T	A	K	I	E	E	I	I	E	T	G	R	S	T	E	K	L	R				
UniRef90_UP10004785F37	P	T	S	L	Y	R	Y	L	E	D	L	P	G	V	G	G	P	A	I	T	A	K	L	T	E	L	T	T	G	R	S	T	E	K	L	R						
UniRef90_E1TH88	G	R	S	V	Q	T	M	I	D	L	K	I	P	G	V	G	G	D	D	L	A	G	K	I	A	E	I	A	E	I	E	G	S	R	E	V	E	Y	T			
UniRef90_C7PW28	P	G	D	L	A	H	L	D	E	R	L	R	A	I	P	G	V	G	D	S	T	A	K	I	S	E	Y	L	K	E	R	R	L	R	G	F	L					
UniRef90_O67416	Q	E	D	V	E	K	A	F	Y	T	R	K	H	G	I	P	G	G	E	S	T	L	K	I	K	E	E	F	L	T	G	R	S	T	E	L	R	R				
UniRef90_U9UPA5	K	K	P	I	T	S	Y	E	E	A	K	K	L	P	G	I	G	L	R	T	A	E	K	I	A	E	I	I	D	T	G	N	L	K	R	I	D	S	F	S		
UniRef90_G3JNT4	P	A	R	I	S	T	E	N	E	A	L	R	L	P	G	V	G	A	R	L	A	K	I	A	E	I	A	T	T	D	R	L	R	R	L	E	H	A	Q			
UniRef90_UP100029A8E0E	S	Q	S	V	A	E	G	G	G	L	E	T	L	D	G	V	G	K	D	L	A	S	K	I	A	V	V	L	Q	T	G	Q	P	L	E	E	L	R				
UniRef90_F8K462	U	H	A	D	V	S	D	V	R	Q	L	R	E	I	P	G	V	G	A	S	I	A	V	V	E	Y	F	R	T	G	H	I	P	A	L	D	E	R				
UniRef90_UP10003713209	G	R	M	I	A	D	G	T	D	T	L	E	E	I	P	G	V	G	D	D	L	A	A	R	M	H	E	I	V	D	G	R	S	V	E	V	L	Q	L			
UniRef90_UP100047D9FC1	D	R	S	L	A	L	I	D	D	F	T	K	I	P	G	V	G	G	K	T	S	A	V	I	K	E	F	V	V	E	T	K	S	E	V	L	E	Q	L			
UniRef90_UP10003755C00	P	D	E	L	S	W	H	S	F	D	E	P	D	I	P	G	V	G	D	D	L	A	G	K	I	D	E	L	L	K	R	G	I	K	Q	V	L	R				
UniRef90_UP10003837DC0	P	H	R	V	K	S	M	E	D	L	R	C	L	P	G	V	G	D	H	S	R	V	I	A	E	I	E	T	G	R	S	R	E	V	E	Y	T	R				
UniRef90_UP1000476B496	T	E	D	V	G	R	G	I	D	T	L	T	P	G	V	G	G	D	H	S	R	V	I	A	E	I	E	T	G	R	S	R	E	V	E	Y	T	R				
UniRef90_Q1ZXF2	P	K	E	I	T	S	G	I	E	A	Q	K	L	D	G	V	G	K	K	I	A	K	K	I	Q	E	I	I	D	T	G	S	H	L	Q	L	Q	L				
UniRef90_UP100030F19C6	S	V	D	A	E	Y	Q	D	L	S	Q	L	P	A	G	G	G	K	T	A	K	V	E	I	Q	G	R	C	S	A	L	E	T	L	R	K						
UniRef90_G4QKM2	P	D	E	I	E	K	N	N	E	A	R	N	K	L	K	V	G																									

UniRef90_W8ACJ2	E
UniRef90_T5AEG1	N E
UniRef90_L8G3Q9	S D
UniRef90_B7QK41	
UniRef90_UPI0004751427	K E
UniRef90_A8FG12	K E
UniRef90_F4Q5G1	S D
UniRef90_K7QXK0	A
UniRef90_U5LED8	E E
UniRef90_K1QPA4	A D
UniRef90_D8PJE6	K
UniRef90_E4U4R7	K
UniRef90_UPI000463BB55	R
UniRef90_V6JYA0	E
UniRef90_W0DF53	K
UniRef90_UPI000225C03E	K E
UniRef90_Q9XIK1	T D
UniRef90_D2AYP2	
UniRef90_UPI00035D2810	E E
UniRef90_UPI000479183C	E D
UniRef90_XOSWF7	K
UniRef90_J3P9G4	A E
UniRef90_D2R879	S
UniRef90_C5FJW6	M E
UniRef90_B1ZX38	A
UniRef90_I3IL82	K E
UniRef90_UPI00036A9E62	
UniRef90_I4EEI4	Q
UniRef90_UPI000423F8BE	A E
UniRef90_Q8EPI0	K E
UniRef90_X8IWG8	
UniRef90_C0GJM0	T
UniRef90_UPI00035EDEE8	Q E
UniRef90_B9XCM8	A E
UniRef90_M5DI23	T E
UniRef90_UPI0002E9899C	K
UniRef90_B0D7W4	T D
UniRef90_UPI0004785F37	E
UniRef90_E1THR8	K
UniRef90_C7PW28	A
UniRef90_O67416	R
UniRef90_U9UPA5	E
UniRef90_G3JNT4	R D
UniRef90_UPI00029A8E0E	Q
UniRef90_F8K462	T
UniRef90_UPI0003713209	
UniRef90_UPI00047D9FC1	A E
UniRef90_UPI0003755C00	R E
UniRef90_UPI0003837DC0	Q
UniRef90_UPI000476B496	R E
UniRef90_Q1ZXF2	K D
UniRef90_UPI00030F19C6	S E
UniRef90_G4QKM2	E
UniRef90_A9BFQ2	A
UniRef90_G0SXG6	T E
UniRef90_E0XYK4	E
UniRef90_T1XK87	A
UniRef90_H819B2	K E
UniRef90_R7T2A8	T E
UniRef90_H5SDX5	A E
UniRef90_UPI0003F09AA8	Q
UniRef90_F0ZLU7	Q D
UniRef90_F6CQI3	R
UniRef90_X0Z5Y7	K E
UniRef90_A0A024TPC2	A
UniRef90_H1YH75	A
UniRef90_D4GTB4	E D
UniRef90_UPI000401C3E4	D E
UniRef90_A3ZU52	K
UniRef90_A7H7H8	
UniRef90_M0L861	A E
UniRef90_U9U695	
UniRef90_UPI0004139DE1	R N
UniRef90_L2TQT3	S
UniRef90_E2BD47	K D
UniRef90_C4L4C7	E E
UniRef90_UPI00040B148B	E E
UniRef90_K6NYM6	A
UniRef90_UPI000366DF64	R E
UniRef90_U9U304	A
UniRef90_A7SK52	
UniRef90_K4RFQ3	A
UniRef90_F8E721	S N
UniRef90_S3DHN1	└ D
UniRef90_X1HJ54	A E
UniRef90_S9RKH6	S D
UniRef90_G7V756	Q E
UniRef90_F1SSF6	
UniRef90_A0A024HJN7	G E
UniRef90_UPI00045EA86F	G E
UniRef90_Q2HF10	
UniRef90_I0JYV0	K E

1                    10                    20                    30                    40

UniRef90_E3DR70	N K E I A K I L S E F A D L M A I	K G E N D F K I K A Y T N A A R Q I	E S Y
UniRef90_UPI0003B62325	P N A E I A D T F D R L A D L L E V	P F R V R A Y Y R N A A R V V	R G Y
UniRef90_I4EGB2	N Q Q L A G V L R Q F A D L L A I	K G E N P F R I N A Y Q R A A E V I	D H L
UniRef90_B4D2N1	D Q I A D L L E S I A Q M L E L	K G E N V F K I R S Y Q N A Y L T L	E T Y
UniRef90_F4KQ17	N K E I I A K T F Q F L G D I M E L	Y G E N P F K I R S Y Q N A Y L T L	R K L
UniRef90_F6SV89	N F H L T E A L E T L A E A A D F E	G G S Q G R F I S F H R A A S V L	K A L
UniRef90_UPI000361A0AB	T D N K T I I R Q L R I A A T L L E L	V Q G E N P F K I S A Y R K A A Q A L E	E Q D
UniRef90_M7N2F1	C P N Q D L A R E L D I I R Q S R A L	E G E D R S A L S Y Q R A I S V I	K A Y
UniRef90_UPI00046248DC	E I F G K L I N I Y R A L G E D	R R S F S Y Y K A I L P I I E K F	
UniRef90_D7KPB4	T T N A E L A A R F E E F A D L L E	A D G V E Y K P R A Y Y R R A E N I	R A H
UniRef90_L9XV95	N V D I A R I F D E V A D L L E I	Q D E S P F F R V R A Y Y T A A R T L	G A L
UniRef90_S4Y252	L A K M L A E I A V L L E L L R G E	N S F K I R A Y Y E N A A R A L G Q L	
UniRef90_A1HML4	V N A D I E T I F R K V A D L L D I	L N A N P F R I R A Y Y R N A A A T I	A G L
UniRef90_B4S7G4	S P N L A T I E I L E Q M V K Y Y T D	T R D E W R S R A Y R Q A I S V L R K H	
UniRef90_F9X0R1	N Q Q I F N L L K I H A S L L E	H G E N N F K V R S Y H T A V F N M E A L	
UniRef90_A1ZGE9	K Q V I K H L E T I A Y L E L K G E	N A F K I S A Y R K A A Q A L E R D	
UniRef90_UPI0002E4A38A	N A E C A A V F A E I A D M L E I	Q G A N P F R V R A Y Y R N V A R T I A D Y	
UniRef90_A9AKZ1	N K K F T D A F E I L A G N Y E F K	E N A V L C L A F M R A A S V L K S L	
UniRef90_K7FH8L	N K K I I K L F K L A A E L M E L	H D E N P F K V R S Y V N A V S A L E L V	
UniRef90_UPI000475A6D9	K D V I R T L E Q I A Y M E L K G E	N P F K I S A Y R K A A L A L E S D	
UniRef90_UPI00036B1E3E	N Y N A S L S E A L E T L A E A A G F	E G R L L S F Q K A S S V L R S L	
UniRef90_UPI0003F086F4	M N K D I A D V L N E I A T L L E I	P F K V R S Y R K S A R V L G E T	
UniRef90_X1YH8	N S D I A R I F D E V A D L L E I	E G A N P F R V R A Y Y R N A A Q T V A S L	
UniRef90_UPI0003786C93	N S N K K I T D A F E V L A E N Y E F	N E M D G S C L A F R R A A S V L K S L	
UniRef90_B0KBK8	N P N A P T I A V L Q R M A D Y Y N R	I N D H W R T T S Y R K A I S T L K Q H	
UniRef90_G7Q6H0	N H E I A R I F Q V I A E Y L E M E G	V R F K P Y A Y Q K A A L T L E N L	
UniRef90_B5JH43	A R I A Q I L S E M G T L L E V R G E	N P F R C R A Y H N A A Q T L K G L	
UniRef90_G3NEP6	N P N A D F C D F L T E L A N Y E K N	V N R Q M H K Y N V Y R K A A S V L S K H	
UniRef90_M1WF65	K D V I K L L E K I A I Y M E L K G E	N F K I A A Y R K A A Q G L E K D	
UniRef90_F2NDQ2	T T N A E I A A R F E E F A D L L E A	D D V E Y K P R A Y Y R R A A E N V R A H	
UniRef90_L0DBD1	N K E V S R I L K E L A K L M E L K G E	N F K I V R A Y Y N A S R Q L I N M	
UniRef90_L5LTN3	N D A V A A M L L E F A E L L L A I	S G G P P Y K V R A Y Y E K A A Q A V E G H	
UniRef90_UPI0003F09D33	N Q E V A K I L H D I S V L L D I K G E	S R F R V V A Y E E A A R R I E N W	
UniRef90_W9A7D7	N D E V A D A L D E I G T L L E L K G E	N A F R T N A Y H N A A R V V Q Q L	
UniRef90_L0JK27	K D V I R L L E T I A V Y M E L K G E	N S F K I S A F R K A A S A L E T D	
UniRef90_B8D297	N P N R Q T I E I L G E M G A Y Y E R	R D Q W R T L A Y R K A V G T L K K Q	
UniRef90_H5X3U8	I N K E V S D R I L R E I I A R L L E D	Q G A N P F R S T A Y L R A A V T V D E L	
UniRef90_UPI00035CF07F	K Q I I K H L D T I A L Y L E I K G E	N T F K V A A Y H R A G L A L E N D	
UniRef90_UPI00016C46AA	N D E I I A R Q F E A F A D L L D A K	G V D Y K P R A Y Y R R A A E N I R E Y	
UniRef90_N0AWV3	N I E V A W I F A E L A D L L E L K G E	D F F P F K V R A Y Y R R A A K T L A N L	
UniRef90_K1XIA1	N V R I S Q V F E E I I A D L L D I E E A	N P F R I R A Y Y R R A A R T L L S E Y	
UniRef90_UPI00037D18B0	N T E I I A R V F E D I A D L L K V K K	D N I F K I R A Y Y Q K A A D S M E Q L	
UniRef90_UPI000255BF2A	P N D E V E A L L Q E Y A D L I A I T	T G G D A F K A R E Y E K A A R A I G G Y	
UniRef90_C7P1K1	P N E R I I K V L S E L E S H Y T L H	E L A N Y E K N V N R Q M H K Y N A Y R K A A G A I A K H	
UniRef90_F6B415	N P N A R T I E V L Q A M C D Y Y T R I N	D R W R S I A Y R K A I I N T L R R Q	
UniRef90_G2J3Q0	Q M L T E A L E I L A E E A H F W G S E	N D R L E T Q G D D Y Y R I R A Y R K G A Q S I R A Q	
UniRef90_X1MYU0	N E E I E A I L Q E Y A D L I A I T	G R S L A F S R A A S V L K S L	
UniRef90_H1A0G4	N K E I I A T A F R E L S R L M E L H K	T G G D A F R A R S Y E K A A R A I G G W	
UniRef90_V6JVY6	I F S D I A D M M E I K G E N F F K I R	P F K I R S Y Q N A Y M T L R K L	
UniRef90_R7V4H1	N K N S H I T D Q L E I V M V E T F R S T	K Y D W R A L G Y S K A I N A L K S Y	
UniRef90_U4LGA6	N D Q I I A L A F E Q V A D L L E T Q G	K Y D W R A L G Y S K A I N A L K S Y	
UniRef90_G0SDS2	K Q I I I D R L D T I A M Y L E I K G E	D D Y Y R I R A Y H R A G L A L E N D	
UniRef90_UPI000462B655	N D E V A A L F Q E Y A D L I I T G G D	P F K I R A Y E K A A R A I G G H	
UniRef90_UPI00037E741D	N A E V Q A L L Q E Y A D L V R I S G G	D P F K A R A Y E K A A R A I G G H	
UniRef90_UPI00037B67F1	N Q E I I A D I L S L T A S L M E L H D	G D A F K A R A Y E K A A R A I G G H	
UniRef90_D9RXS5	N A D F A A V F S E I I A D L L E I K G E	D F R K I N A Y R R V A E S L E K E	
UniRef90_A0A023GLT6	N L N K E V L Q T L E K I A V Y L L I Q G	D K R E T A F G R V L A V L R A W	
UniRef90_B4WND8	N K A I I A D Q F K L L G A L M E L H Q	E N P Y K I K S Y K T A Y Q N L R R V	
UniRef90_V6J2U6	N Q A L A E I F G E L L A G F E F K R	G E R F K G G T Y S K A A K A I R D A	
UniRef90_UPI000374C01A	N A E V Q A L L Q E Y A D L V R I S G G	G D A F K A R A Y E K A A R A I G G H	
UniRef90_I4BTY6	N Q E I I A D I L S L T A S L M E L H D	D E F R T K A Y R R A A R T V E E F L	
UniRef90_W7TDL3	N A D F A A V F S E I I A D L L E I K G E	D A F K I R T Y T S S A A F N L S R F	
UniRef90_H6L0C6	N L N K E V L Q T L E K I A V Y L L I Q G	D D A N P F R I R A Y R V A A R T L R A L	
UniRef90_A0A024G265	N E D I A A V F D D I A D L L E I D D A	N P F R I R A Y R V A A R T L R R Q	
UniRef90_UPI00037E20FC	N P N A R T I E I L Q Q M C D Y Y S Q I	N D H W R T T A Y R R V I N T L R R Q	
UniRef90_W7YXX5	K Q A I I Q V L E T I A T A Y M E I K G	N D E E G R G V A F R R A A A L K T L	
UniRef90_UPI00034D21EB	N K Q V I Q G L E E I I A V Y L L E I K G	E N P F K I R S Y Q V A N H I Y R M	
UniRef90_UPI00047BC3A9	N A D F A A V F S E I I A D L L E I E A A	N D E E G R G V A F R R A A A L K T L	
UniRef90_I7LLQ2	N P N A R T I E I L Q Q M C D Y Y S Q I	N D H W R T T A Y R R V I N T L R R Q	
UniRef90_UPI000369E68A	N I E V A V L Y E V A D L L E I K G E	N D E E G R G V A F R R A A A L K T L	
UniRef90_D9PWD7	N Q E I I A D I L S L T A S L M E L H D	N D E E G R G V A F R R A A A L K T L	
UniRef90_F8EA54	N P D E I V E I L E L T A K L L E I H E	A D A F K I R T Y T S S A A F N L S R F	
UniRef90_UPI00034C59B6	N E D I A A V F D D I A D L L E I D D A	N P F R I R A Y R V A A R T L R A L	
UniRef90_G4MSU5	N P N A R T I E I L Q Q M C D Y Y S Q I	N D H W R T T A Y R R V I N T L R R Q	
UniRef90_Q5WEJ9	K Q A I I Q V L E T I A T A Y M E I K G	N D E E G R G V A F R R A A A L K T L	
UniRef90_UPI0002A4B879	N H N A P L T D A L S L T A S L M E L H D	N D E E G R G V A F R R A A A L K T L	
UniRef90_D7CP45	N Q E I I A D I L S L T A S L M E L H D	N D E E G R G V A F R R A A A L K T L	
UniRef90_UPI000375E1A0	N P E I I A R H F N T L A K L M E L H K	D G D N P F K I R S Y S S A Y N K L R K M	
UniRef90_XOYYZ4	N R Q V A D I L Y D I A D M L E I K G	D G D N P F K I R S Y S S A Y N K L R K M	
UniRef90_D3AVG3	N Y N E H L T S V L V K L Q T K A E A D	G E I I Y K S I A Y R R T A D N I L N L	
UniRef90_UPI00046FD1E2	N S E I V V E Y L L E L T A K L L E I H Q	A D G D N W R Q Y A Y K R A I G I L R N L	
UniRef90_UPI0003660743	N A D V I I E L E E I A V V L L E I K G	A D G D N W R Q Y A Y K R A I G I L R N L	
UniRef90_W4QSH6	N D Q I V D K L S L E E I N R T K R E Q	P F K T R A Y V N G A R T L E T G	
UniRef90_U6ECU9	N K D V I K H L E L I G T Y L L E I K G	P F K T R A Y V N G A R T L E T G	
UniRef90_C1MZJ2	N L N A H I T D K L E D L A E I Y D K V	P F K T R A Y V N G A R T L E T G	
UniRef90_UPI0004408947	C V N Q D I V D K L S L E E I N R T K R E	P F K T R A Y V N G A R T L E T G	
UniRef90_D5C3U4	N T E I I A E I F N T L A D L L E I E G A	P F K T R A Y V N G A R T L E T G	
UniRef90_G4YG24	N L N A H L T D P L E E M M E F L D V E	K D N P F K I R S Y S S A Y N K L R K M	
UniRef90_UPI00033158BA	N A R L S D A L E L L A E A A V F E G S	G E S E G R G L S F S R A A S V L K A L	
UniRef90_UPI0003F64BCC	N H K V A S I L N R V A D Y L L E M G G	V G D F R T K A Y R R R A A H R T I E T L	
UniRef90_UPI0003C76D7C	N E E V E A L L Q E Y A D L I A I S G G	D V G D F R T K A Y R R R A A H R T I E T L	
UniRef90_UPI000350DAE1	N K K F T D A F E I M A E N Y E F K E N E	C L E F L R A A S V L K C L	

	50										60										70										80											
UniRef90_E3DR70	Q	T	K	I	S	E	L	N	E	L	K	E	I	K	G	I	G	S	G	I	A	E	T	I	T	E	L	L	E	N	G	S	I	S	E	M	E	A	I	K		
UniRef90_UPI0003B62325	G	K	S	I	E	R	G	E	D	L	T	Q	L	P	E	I	G	E	D	L	A	K	K	I	K	T	L	V	D	T	G	K	L	P	L	L	E	T	V	E	S	
UniRef90_I4EGB2	P	E	P	V	T	E	L	V	E	L	T	E	I	P	G	I	G	A	G	I	G	A	A	L	E	E	L	V	E	T	G	H	Y	G	A	L	D	Q	L	S		
UniRef90_B4D2N1	S	G	D	L	A	K	A	N	R	L	A	E	I	K	G	V	G	K	A	I	A	D	D	K	L	T	E	L	V	E	T	G	H	L	M	Y	Y	E	N	L		
UniRef90_F4KQ17	D	R	P	L	M	E	A	T	E	I	A	A	I	K	G	V	G	Q	A	I	A	E	K	I	R	E	L	L	D	T	G	K	M	S	T	L	Q	Y				
UniRef90_F6SV89	P	D	P	I	T	N	M	S	Q	L	H	G	L	P	H	I	G	D	H	S	S	R	I	I	Q	E	L	L	E	H	G	V	S	N	E	V	E	T	I	K		
UniRef90_UPI000361A0AB	E	R	A	L	S	E	I	D	D	P	G	E	I	N	G	N	G	K	G	T	A	A	V	I	R	E	L	I	T	T	G	E	A	S	V	L	N	E	L	S		
UniRef90_M7N2F1	N	P	L	H	S	L	Q	E	I	S	A	I	Q	G	I	G	K	S	I	A	A	N	I	Q	E	I	L	E	R	G	S	F	G	L	L	E	E	L	L			
UniRef90_UPI00046248DC	P	E	R	I	R	S	L	K	Q	V	Q	K	I	P	Y	I	G	V	K	I	S	G	L	V	D	E	F	L	D	N	G	H	I	S	E	A	Q	T	I	K		
UniRef90_D7KPB4	P	T	R	I	E	S	V	D	Q	L	K	H	F	P	G	I	G	K	A	M	R	D	H	I	Q	E	I	V	T	T	G	K	L	I	S	K	L	E	H	F	E	R
UniRef90_L9XV95	P	A	P	I	A	D	R	E	A	N	I	I	D	G	V	G	D	A	I	I	S	S	K	V	I	E	Y	V	E	T	G	T	I	E	E	L	D	L	R			
UniRef90_S4Y252	G	E	A	V	A	G	L	V	E	L	T	P	G	I	G	K	D	L	A	G	K	I	V	E	L	L	E	T	G	E	L	P	L	L	K	E	L	R				
UniRef90_A1HML4	D	A	D	L	A	E	L	V	R	L	Q	G	I	K	G	K	T	M	T	Q	H	I	K	E	Y	I	E	T	G	R	V	T	Y	Y	E	E	L	R				
UniRef90_B4S7G4	S	R	D	V	A	D	M	E	D	L	T	R	L	P	G	I	G	R	D	L	S	K	K	I	L	E	I	V	E	T	G	H	R	F	L	D	T	L	E			
UniRef90_F9X0R1	P	T	K	V	M	T	K	E	E	A	L	K	L	P	K	V	G	E	R	L	A	A	K	I	E	E	I	A	V	T	N	R	L	R	R	L	D	N	A			
UniRef90_A1ZGE9	T	E	P	L	M	S	L	K	E	L	Q	E	L	D	G	I	G	K	A	L	A	T	K	I	D	D	N	I	N	Q	T	G	T	F	K	Q	L	E	Y	R		
UniRef90_UPI0002E4A38A	D	R	S	L	E	I	D	D	F	G	S	L	Q	G	V	G	G	K	G	T	K	A	V	I	E	E	F	I	N	G	E	T	E	T	L	K	E	L	R			
UniRef90_A9AKZ1	G	H	D	I	P	S	M	G	E	L	V	R	I	P	S	I	G	P	D	L	A	S	K	L	R	E	I	A	Q	T	G	T	C	E	L	Q	Q	T	L	R		
UniRef90_K7FHL8	P	F	T	I	L	R	M	H	D	L	E	G	L	P	C	M	G	D	E	I	R	A	V	I	E	E	I	D	E	G	E	S	S	R	V	I	K	D	V	L		
UniRef90_UPI000475A6D9	E	E	P	V	K	S	Q	A	E	L	E	G	I	G	G	V	G	K	S	I	A	A	R	I	V	E	I	Q	E	T	G	S	F	T	E	D	Q	L				
UniRef90_UPI00036B1E3E	E	R	T	L	D	E	G	D	P	A	L	L	P	G	I	G	K	G	T	A	E	V	I	E	L	R	D	S	G	R	S	S	L	L	E	E	L	K				
UniRef90_UPI0003F086F4	P	G	P	I	T	A	L	R	Q	L	Q	G	Q	P	H	F	G	E	H	S	S	R	V	V	Q	E	T	L	E	H	G	V	C	E	E	V	E	R	L			
UniRef90_X1YH8	T	E	D	L	S	E	A	G	E	L	T	K	L	P	G	V	G	K	G	T	A	A	K	I	E	E	I	L	R	T	G	R	L	M	Q	H	Q	E	L	R		
UniRef90_UPI0003786C93	Q	K	P	I	T	D	V	K	Q	L	K	G	G	P	I	G	K	T	I	M	E	K	F	N	E	Y	I	T	T	G	Q	L	K	T	L	E	R	A	R			
UniRef90_B0KBK8	E	E	D	I	T	L	D	R	L	K	E	I	K	G	V	G	E	S	I	A	N	K	K	I	T	E	L	G	K	M	E	Y	Y	E	N	L	K					
UniRef90_G7Q6H0	G	E	M	V	A	A	G	R	D	L	T	E	I	P	G	V	G	Q	D	L	A	G	K	M	V	A	I	V	E	T	G	K	L	P	L	A	E	L				
UniRef90_B5JH43	U	E	D	L	V	I	S	E	G	E	L	E	G	I	G	G	V	G	K	S	I	A	R	I	V	E	I	Q	E	T	G	H	F	E	K	L	K					
UniRef90_G3NEP6	P	M	A	V	R	S	L	E	R	T	Q	D	L	P	C	I	G	H	E	T	K	A	V	M	E	V	E	L	R	G	R	S	F	E	V	E	K	L				
UniRef90_M1WF65	N	T	K	V	T	S	E	A	Q	A	M	Q	I	P	G	S	L	Q	A	K	I	Q	E	I	A	T	T	N	K	L	R	L	N	Y	A	E	L					
UniRef90_F2NDQ2	K	D	S	V	E	D	I	Y	N	L	K	A	I	P	G	V	G	E	S	I	A	N	K	K	I	T	E	L	G	K	M	Y	Y	E	N	L	K					
UniRef90_L0DBD1	P	S	D	L	S	E	M	I	R	L	A	E	T	P	G	I	G	T	T	M	F	S	K	I	V	Q	L	A	T	T	G	H	L	P	A	Y	D	D	L	R		
UniRef90_L5LTN3	P	H	K	I	T	K	S	G	A	E	A	K	K	L	P	G	V	G	T	K	I	A	E	K	I	D	F	L	A	T	G	K	L	R	K	I	I	R				
UniRef90_UPI0003F09D33	P	T	R	I	E	S	G	T	R	L	Q	D	L	P	C	I	G	H	E	S	S	K	V	I	V	E	L	R	G	R	S	F	E	V	E	K	L					
UniRef90_W9A7D7	E	R	S	L	A	I	E	D	F	Q	K	I	S	G	S	I	G	K	T	S	S	V	I	E	A	F	V	E	T	G	N	S	E	T	L	A	Q	E	L			
UniRef90_L0JK27	P	S	P	I	A	D	R	V	A	L	E	N	I	D	G	V	G	D	A	I	S	S	K	V	I	V	E	Y	V	E	T	G	E	I	E	E	L	R				
UniRef90_B8D297	S	D	N	I	Q	D	L	A	R	I	R	N	I	P	G	N	V	G	E	I	G	A	R	S	I	K	E	I	M	E	K	G	Y	S	P	E	L	D	R			
UniRef90_H5X3U8	P	A	E	V	G	E	L	E	V	W	K	L	E	D	I	P	G	I	G	S	Q	L	A	R	K	I	R	E	F	D	E	L	T	R	G	S	V	G	E	L		
UniRef90_UPI00035CF07F	P	E	P	I	E	E	V	W	K	L	E	D	I	P	G	I	G	S	Q	L	A	R	K	I	R	E	F	D	E	L	T	R	G	S	V	G	E	L				
UniRef90_UPI00016C46AA	P	G	D	L	K	Q	L	V	A	D	G	K	L	R	G	I	G	E	A	L	S	L	K	I	T	T	L	V	G	K	L	P	Y	E	D	L	R					
UniRef90_N0AWV3	N	R	S	L	L	E	I	P	D	F	T	T	L	T	G	K	G	T	A	S	V	S	I	E	Y	I	Q	T	H	S	T	V	L	K	G	L	R					
UniRef90_K1X1A1	S	V	K	T	R	E	D	R	L	K	E	I	P	G	V	G	E	A	L	T	K	K	I	T	E	L	V	A	I	T	G	H	L	R	D	N	A					
UniRef90_UPI00037D18B0	D	R	P	V	S	E	I	V	E	L	T	E	P	G	I	G	S	G	I	A	R	S	I	C	E	Y	A	T	T	G	R	M	S	R	L	D	S	K				
UniRef90_UPI000255BF2A	P	R	S	M	D	E	I	E	D	V	S	K	L	K	G	G	K	S	T	A	M	V	I	D	E	L	M	K	S	G	R	S	L	V	Q	A	L	E	R			
UniRef90_C7P1K1	U	H	P	V	T	S	Y	Q	E	A	C	K	I	P	G	V	G	K	R	M	A	V	V	E	E	R	R	R	E	R	R	R	R	R	R	R	R	R	R			
UniRef90_F6B415	U	P	A	V	E	G	L	A	Q	V	G	E	I	D	P	G	I	G	D	K	R	E	V	E	E	L	R	E	A	L	R	E	R	R	R	R	R	R				
UniRef90_G2J3Q0	U	H	E	V	A	Q	G	L	P	L	P	K	I	P	G	I	G	A	D	L	G	A	K	I	V	E	I	A	H	T	G	T	C	A	L	L	R					
UniRef90_X1MYU0	S	E	Q	L	V	R	E	D	R	L	K	E	I	P	G	I	G	E	A	L	T	K	K	I	T	E	L	V	T	T	G	H	L	E	Y	Y	E	K				
UniRef90_H1A0G4	H	K	P	V	T	S	Y	Q	E	A	C	K	I	P	G	I	G	K	R	M	A	V	V	E	E	R	R	R	R	R	R	R	R	R	R	R	R	R				
UniRef90_V6JYV6	P	A	D	I	A	K	L	D	E	K	R	E	I	P	G	I	G	S	R	I	A	E	K	I	D	F	L	A	T	G	K	L	P	Y	E	E	L	R				
UniRef90_R7V4H1	P	E	K	I	N	S	G	K	E	A	K	K	L	E	G	V	G	D	K	I	G	K	I	E	E	I	A	S	T	G	N	L	N	Q	L	D	T	K				
UniRef90_U4LGA6	P	Y	P	L	L	T	A	S	A	L	K	L	P	S	I	G	P	S	L	A	S	K	I	E	E	I	A	S	T	G	N	L	N	Q	L	D	T	K				
UniRef90_G0SDS2	T	V	E	I	C	T	A	E	A	K	R	L	K	P	N	I	G	R	S	I	A	D	K	V	I	E	Y	L	E	S	V	E	R	R	R	R	R	R				
UniRef90_UPI000462B655	P	W	T	R	K	I	Q	D	L	K	S	L	P	C	I	G	H	S	R	V																						

UniRef90_E3DR70	A E
UniRef90_UPI0003B62325	A
UniRef90_I4EGB2	S E
UniRef90_B4D2N1	A E
UniRef90_F4KQ17	
UniRef90_F6SV89	
UniRef90_UPI000361A0AB	E
UniRef90_M7N2F1	A
UniRef90_UPI00046248DC	S
UniRef90_D7KPB4	T D
UniRef90_L9XV95	S E
UniRef90_S4Y252	
UniRef90_A1HML4	E
UniRef90_B4S7G4	K N
UniRef90_F9X0R1	A E
UniRef90_A1ZGE9	A
UniRef90_UPI0002E4A38A	K E
UniRef90_A9AKZ1	R
UniRef90_K7HL8	T D
UniRef90_UPI000475A6D9	
UniRef90_UPI00036B1E3E	E
UniRef90_UPI0003F086F4	
UniRef90_X1YH8	E
UniRef90_UPI0003786C93	G D
UniRef90_B0KBK8	A
UniRef90_G7Q6H0	
UniRef90_B5JH43	A
UniRef90_G3NEP6	S D
UniRef90_M1WF65	Q
UniRef90_F2NDQ2	R
UniRef90_L0DBD1	R
UniRef90_L5LTN3	Q D
UniRef90_UPI0003F09D33	
UniRef90_W9A7D7	K E
UniRef90_L0JK27	A E
UniRef90_B8D297	A E
UniRef90_H5X3U8	A
UniRef90_UPI00035CF07F	R E
UniRef90_UPI00016C46AA	A
UniRef90_N0AWV3	E E
UniRef90_K1XIA1	L D
UniRef90_UPI00037D18B0	T
UniRef90_UPI000255BF2A	K E
UniRef90_C7P1K1	E E
UniRef90_F6B415	Q E
UniRef90_G2J3Q0	G E
UniRef90_X1MYU0	A E
UniRef90_H1A0G4	
UniRef90_V6JYV6	A
UniRef90_R7V4H1	A N
UniRef90_U4LGA6	T
UniRef90_G0SDS2	D E
UniRef90_UPI000462B655	Q
UniRef90_UPI00037E741D	R
UniRef90_UPI00037B67F1	E
UniRef90_D9RXS5	K D
UniRef90_A0A023GLT6	S
UniRef90_B4WND8	V E
UniRef90_V6J2U6	Q E
UniRef90_UPI000374C01A	A
UniRef90_I4BTY6	S E
UniRef90_W7TDL3	E D
UniRef90_H6L0C6	A
UniRef90_A0A024G265	A
UniRef90_UPI00037F20FC	E
UniRef90_W7YXX5	A E
UniRef90_UPI00034D21EB	K E
UniRef90_UPI00047BC3A9	E E
UniRef90_I7LLQ2	E E
UniRef90_UPI000369E68A	A N
UniRef90_D9PWD7	G E
UniRef90_F8EA54	A
UniRef90_UPI00034C59B6	S
UniRef90_G4MSU5	N E
UniRef90_Q5WEJ9	
UniRef90_UPI0002A4B879	
UniRef90_D7CP45	E
UniRef90_UPI000375E1A0	A
UniRef90_X0YYZ4	E E
UniRef90_D3AVG3	S D
UniRef90_UPI00046FD1E2	A N
UniRef90_UPI0003660743	A
UniRef90_W4QSH6	N E
UniRef90_U6ECU9	E E
UniRef90_C1MZJ7	R N
UniRef90_UPI0004408947	T E
UniRef90_D5C3U4	Q
UniRef90_G4YG24	K N
UniRef90_UPI00033158BA	R
UniRef90_UPI0003F64BCC	
UniRef90_UPI0003C76D7C	A
UniRef90_UPI000350DAE1	N D

UniRef90\_E4U516  
 UniRef90\_Q5FVA7  
 UniRef90\_E9BYV7  
 UniRef90\_B5HBV3  
 UniRef90\_G3IUT4  
 UniRef90\_UPI0003F129B3  
 UniRef90\_G2PEQ4  
 UniRef90\_Q66HH0  
 UniRef90\_Q0UN18  
 UniRef90\_A9G4Z0  
 UniRef90\_K9FDT5  
 UniRef90\_Q09693  
 UniRef90\_E8SFK2  
 UniRef90\_T1DFN1  
 UniRef90\_F0T832  
 UniRef90\_X0SVE7  
 UniRef90\_G8T913  
 UniRef90\_K1XFW6  
 UniRef90\_UPI000262848A  
 UniRef90\_W2SC18  
 UniRef90\_Q1CZP1  
 UniRef90\_F7VV52  
 UniRef90\_T1BVN9  
 UniRef90\_G7DWL3  
 UniRef90\_UPI00035F5E17  
 UniRef90\_H0WUS0  
 UniRef90\_W4G5N2  
 UniRef90\_R7SJ76  
 UniRef90\_S7ZTX6  
 UniRef90\_T1B5R3  
 UniRef90\_W4LXE7  
 UniRef90\_A7EMR3  
 UniRef90\_M2SXT5  
 UniRef90\_I2GEH6  
 UniRef90\_G9N6W9  
 UniRef90\_UPI00042C81E0  
 UniRef90\_E4NRY3  
 UniRef90\_X0S6L6  
 UniRef90\_A1S247  
 UniRef90\_A0A010RYY6  
 UniRef90\_A7H9W4  
 UniRef90\_R7Y132  
 UniRef90\_V4J3C3  
 UniRef90\_Q0D1E4  
 UniRef90\_W0RSL9  
 UniRef90\_A3CWG2  
 UniRef90\_T0LXV2  
 UniRef90\_S9QPV7  
 UniRef90\_U1QMG5  
 UniRef90\_UPI0003B60ED7  
 UniRef90\_Q0W549  
 UniRef90\_I3KC46  
 UniRef90\_UPI00036FB1F7  
 UniRef90\_I1G678  
 UniRef90\_UPI0003700757  
 UniRef90\_D7E7H2  
 UniRef90\_UPI0003F4AF30  
 UniRef90\_D9QUN9  
 UniRef90\_B4DG75  
 UniRef90\_W4Q235  
 UniRef90\_M3X1D8  
 UniRef90\_M5TBL1  
 UniRef90\_T1ERD2  
 UniRef90\_U1GC78  
 UniRef90\_K9AFW9  
 UniRef90\_X1V6Y8  
 UniRef90\_UPI000441BF32  
 UniRef90\_S8BMP2  
 UniRef90\_O57486  
 UniRef90\_Q6C9C2  
 UniRef90\_V5B5V6  
 UniRef90\_W9YUH1  
 UniRef90\_UPI0004705855  
 UniRef90\_C6Y2R2  
 UniRef90\_K7Q718  
 UniRef90\_Q8TSR8  
 UniRef90\_H2L4T8  
 UniRef90\_D9TTL8  
 UniRef90\_U1QPD6  
 UniRef90\_W4GGX8  
 UniRef90\_T0RL69  
 UniRef90\_X1FB91  
 UniRef90\_C1MKL7  
 UniRef90\_D1AD14  
 UniRef90\_E4ZM8  
 UniRef90\_F8CG39  
 UniRef90\_X0YD83  
 UniRef90\_B0TEW3  
 UniRef90\_I1BPE1  
 UniRef90\_A0A059LKK2  
 UniRef90\_K3WML2  
 UniRef90\_W9DXS4

1                    10                    20                    30                    40

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

50            60            70            80

UniRef90_E4U516	E G E L P E L A G F D R L P G I Q K G G L A G A L A E I V E T G E F G Y L E E L R
UniRef90_Q5FVA7	P F R L Q S V E E V K D L P W C G G H S Q T V I Q E I L E D G V C R E V E T V K
UniRef90_E9BYV7	H K P I E S F A E A L A L P N V G E R L A K K V W E I V S T G H L R R L D D
UniRef90_B5HBV3	P T D V S D A K G L R E I L P G I G E G I A R S I N E Y V M T G R M S R L E S L Q
UniRef90_G3IUT4	T E A V E D L S A L L E I L P C L G D K V K G V I E E I I E D G E S S E A K A V L
UniRef90_UP10003F129B3	P F T I I T M K D T E G I P C L G R S T A D K V V E Y L R T G T M P A V E E A R
UniRef90_G2PEQ4	A A D I F D A K A L R D I P N V G R S V A D K I V E Y L R T G T M P A V E E A R
UniRef90_Q66HH0	P Y P V T S L S Q L H G L P Y F G E H S F R V I Q E L L E H G T C E E V E Q I R
UniRef90_Q0UN18	T T K I V T S K Q A A A L P F I Q G Q R I L A D K I E E I V L T D R L R K L D S T K
UniRef90_A9G4Z0	T D D L V T S K K L T G I K G I P G A L A A Q I A E L Y Q T G R S A Q L E E L R
UniRef90_K9FDT5	E R S V K N I L Q L E E K I P H G Q H L S L S I E E L L Q T G E L L S L K Q L L
UniRef90_Q09693	P L P I D S A E Q E L E K M P G C P K I V H L W K E F A S T G T L K E A E E F Q
UniRef90_E8SFK2	E R T M D Q I D D V T E L K N I G K G V G E V I N T F L E T G D S P T L N A L L K
UniRef90_T1DFN1	G P E L G T R V R L R E E L P P G I G P A I E A K I R E Y L T T G R I A Y L D R L R
UniRef90_F0T832	S E A I E D I R K L Q D L P G I G G K I A G K I I E E I I D T T G S L L K Y L E N L K
UniRef90_X0SVE7	P I D I E T I Y Q L N N I P G V G E G I A K K I E E F L T T G K L G A L E D I L K
UniRef90_G8T913	T H P L A D M P E L V S I K G I G D S V A K K V E L V R T G K L G A L E D I L K
UniRef90_K1XFW6	E E E V V E I Y K I E K I P G V G V S I L A E K I E E Y I K T G R I Q H Y E E L K
UniRef90_UP1000262848A	D R S I A A I D D F T K I K G I G N G T A S V I T E Y Q H E S S E T L S Q L E
UniRef90_W2SC18	D C L V F T K D Q A L P P G I G K S I A A E K I E E I V H K G S L G R I N Q A I
UniRef90_Q1CZP1	P Q P V A E L A G L R K L P P G V G K S I I A A A M A E I T Q T G S L L Q R L E
UniRef90_F7VV52	N T K I I T T A E E A Y R L P P N V G K S R L A E K I I E E I I V T T D S L R R L E Y A Q
UniRef90_T1BVN9	T E E L L K T R K E L D T I P P G V G D A I A E K I Q E Y L L K T T G R I A Y Y D R I
UniRef90_G7DWL3	P H M L Q S G Q E A D T V G T P K I G A L I D E Y L L R T G T L A A E A D R L E
UniRef90_UP100035F5E17	S E D F E S F V R A G K G D L G I G E G I R V K L E E L V L T G R S A Y L E G L K
UniRef90_H0WUS0	P R P V V A L T Q L R G L P H F G E H S F R V V Q E L L E H G V C E E V E R V R
UniRef90_W4G5N2	E D E I T S G E Q A M R V R G I G P H S A A K I D E F L L A T G T V Q E L E D F R
UniRef90_R7SJ76	P H K I I R S L A Q V V K L P P F I G T K I G G L I E Q Y L N T G T I L E A E T I
UniRef90_S7ZTX6	S K K V T S A R Q A L L P P G I G A R L I A D K I E E I V L T D H L R R L D N A H
UniRef90_T1B5R3	T E D V A A R N E L R S I P P G V G D A I I E A K I R E F L I A T G R I D Y L E R L R
UniRef90_W4LXE7	R S E V R Q E G R L E D I P P G V G K I I L T R D I T Q I I E T T G N V R Y H E H L K
UniRef90_A7EMR3	L T L I R T Y D E A I Q I P P K I G E R I I A K K I E G I V L T G R L L R L E N A E
UniRef90_M2SXT5	T V K I I T T A E E A Q A A K I P P S I I G T H L A A K I E E I V L T D R L L R R L
UniRef90_I2GEH6	T A D L L A N L P E L V K L P P G V G K S V A H K I R E I V E T T G H L T D L L D N L L
UniRef90_G9N6W9	S V K I I T T E E E A Y R L L P P S I G R R R L A A Q K I E E I V T T D K L Q R L E C A E
UniRef90_UP100042C81E0	P S P P V T A L S Q L R G L A H F G E H S C O R V V Q E L L E H G V C E E V E R V R
UniRef90_E4NRY3	P H P I I E E L D A V G E I Q G V G D A I S A K I I E F E T G E I I E E L L Q R
UniRef90_X0S6L6	P K P I I Y D V N V L K G Y E G I G S T I L S K F N E Y V T T G T L R K L E E K A K
UniRef90_A1S247	S E D L L R E L V Q A K G M K G I G S G I I A Q C Y E Y V A T T G R I S R L E E S L Q
UniRef90_A0A010RYY6	P H P I I A S P Q E V A R L P P G C Y G A K I A E L W H E W K T G R I P E A D E A Q
UniRef90_A7H9W4	E D A R V I E S G R L T E V P P G I G E A L I A K K I A E L H R T G T L A L L D R L
UniRef90_R7YI32	T S K I I S T A E A A Q R L P P F V G A R L I A A K I E E I V W T N R L S R L L D N A L L
UniRef90_V4J3C3	P G A V E E G L E A V V E R I I D R V V G E A I I A V K I V E Y V E T T G E I I A E L L R
UniRef90_Q0D1E4	S N R I I T T R T Q A L A P P G I G T R L I A D K I E E I V Y T D R L L R R L E N
UniRef90_W0RSL9	R V T V R H L L D L E Q M P P G I G A R L I A R M I Q E L A A T G R I E L L D R L L R
UniRef90_A3CWG2	S F P V A D E E E L T R I I P P G I G D R I I A G Q I R E I I A A T G T F G E I K D L Q
UniRef90_T0LXV2	G E T T L Y S R G E L R T I I D G V G S A I I E K K I I Q F L E T T G E I I S K Y S E M K
UniRef90_S9QPV7	S E D L L G A L I G R L Q E L I P P G I G Q A I I A D K V S E L L T T G R I L A S Y E A L L R
UniRef90_U1QMG5	P E P P I E Q L I A A T G K I I D R V V G G D A I A S K I V E Y I E T T G S I I D E L L R
UniRef90_UP10003B60ED7	P R S P V A A M T R A T E P P G I G G K T L I E E K I V A L V T E T G E I P A L E E K L R
UniRef90_Q0W549	E G D I I E E Y Y R L R D I I P P G V G P S I L G S V I I E E I L L R T G R S G L L E T L K
UniRef90_I3KC46	P W T V Q N L I R V T E D L P C L G E H S M C V I E E I L L Q H G R S F E V I E K L
UniRef90_UP100036FB1F7	P E R V V D I V R A T E I I P P G V G K G I I A F A L V E I I V Q R G S F D R R D E M L
UniRef90_I1G678	P K E I I T T H E E A H S I P P F V G K G R L I A D K I V E L L E H G V C E E V E R V
UniRef90_UP10003700757	G R S I I L S E I I D D F S E I I K G I I G K G V N E V I W E Y L D A G G S S T V L D D L K
UniRef90_D7E7H2	K E D I I N N L H E L L D S I I P P G V G K S F K N K I V D I I L N T G T F S E Y E K I R
UniRef90_UP10003F4AF30	I E E P I I E Q M A Q L E S I Q G V G K G K I I A A K I V E I I N Q N G S F A E I D Q M L
UniRef90_D9QUN9	E T N I I K K I N R L N R L Q D I I E G I G E S I I A V T I I D E I I L Q T G T C S K Y K E L L K
UniRef90_B4DG75	P S P P V T T L S Q L Q G I P H F G E H S S R V V Q E L L E H G V C E E V E R V
UniRef90_W4Q235	E R T L L N E I E N P A S S L N G I G K G T A E V I V L E L K N A G K C T I L L D Q I L Q
UniRef90_M3X1D8	P S R V V T A M S Q L Q G I P H F G E H S C R V I Q E V L A Q G V C E E V E R I
UniRef90_M5TBL1	P T S S V R V L V E L I A L P P S V G N S I I A N L V Q Q Y L Q T G R M S S L L D R L L
UniRef90_T1ERD2	P A K I I S T F E E A K S I I S G V G E K I L A A E K I W E I V E S G K L L R K L D E L S
UniRef90_U1GC78	T D Y I I A T R E Q A I I G I P P G I G E R R L I A S K V V E E I A C T N K L R R L E S T V
UniRef90_K9AFW9	E R T I I E I I D D V T E V T E I I K G I I G K G V G D V L I N D Y M E N G E S E T I N A L L K
UniRef90_X1V6Y8	P E Q P V I V A E D R L L K D D V P P G V G E A I I T K K I I T E V T G K I D Y Y E K L K
UniRef90_UP1000441BF32	P W R V K R I I Q Q L H T V P C V G E H S Q R I I Q E M L I E D G M S A E V E Q V R
UniRef90_S8BMP2	D R Y I I S T Y D D A I I S L S G V G D R I L A K K I V E I V N T D R L L Q R I V E Y A K
UniRef90_O57486	T F T I I A G M A D V D G L P P G F G D H I R A V I E D L I I E D G E S S S K V S E V L
UniRef90_Q6C9C2	P K K I I T T K K E A V K V P P G I I G S S I I G S S K I I Q E I V E T N G L K L L N V T K
UniRef90_V5B5V6	T E P V I E D L L K L L D D L P P G I I G E G I I A R S I I N E Y I V I T G R M S R L L E S L Q
UniRef90_W9YUH1	R R L I I R T K Q E A L I T V R P G I G D R I L A A E K I Q E I V V S I G K I Q R I L D N A E
UniRef90_UP10004705855	E R S I V I T E I D N F E D I I P P N I G K G T A I A I V E Y I S T G S S S L F I S L Q
UniRef90_C6Y2R2	P Y P V I V K T I I E E I S Q I I D G L G K S I I S A K V V W E I L E T G S M T E L E Q I L
UniRef90_K7Q718	G R D I I G A G R S I I D D I P P T I I G A D L I A G K L R E I I A T T G T C A L Q R Q L I R
UniRef90_Q8TSR8	G E D I I E K V V Y E E L I T E I I P P G I I G E A I I A D H I A E Y L E T T G K V K K F E D L K
UniRef90_H2L4T8	S W Q V I V R S S H Q V V H D D I P C L G E T M E E L V E I I L Q Y G R S F E V A K I L
UniRef90_D9TTL8	D D D I I E K L I D R L V A E I I D A V P G D A I I S A K I V E I Y V E T G E I A E L E A V R
UniRef90_U1QPD6	S V A I I E G I L D R V V A E I I D A V P G D A I I S A K I V E I Y V E T G E I A E L E A V R
UniRef90_W4GGX8	P N R V I V T S A H S L I Q P Q H G I N S T G I I A K I I R E I I L E T G T L R K L L E A K K
UniRef90_T0RL69	P A K V I V T S T A A L R P Q Y G L I N A T G I I A K I I R E I I L E T G T L R K L L E A K K
UniRef90_X1FB91	P E E L I H R G G R L I A D I P P G I I G K G M L E E K I D T I I L N T G R I P A H E K L K
UniRef90_C1MKL7	D R V V I D S G K A C T K V I K G I I A E K I D E F L V I S G T M Q R I I L E E L
UniRef90_D1AD14	P G D L I T R I I D V R T L P P D V I G E A I I A K K I V T E A L L Q R G T F R Q I L E E L
UniRef90_E4ZM8Z	S I K I I T T A K Q A I I A L P T I I G H R I L A D K I I E I V L T D C L R K L L D Y T R
UniRef90_F8CG39	P Q P L I V A E G R L E S A V P P G I I G P A L A A E K I I S E L V T T G R I L G Y I E E L R
UniRef90_X0YD83	A E D V I V A D H D R L L A S V P S G I I G K S T A E K I I R E Y L S S G K I Q R R E E L L
UniRef90_B0TEW3	E T P P V I V S A R G Q L A K I I D G I I G K G L I C A E I I E A L L Q A G E S P R I Q R L R
UniRef90_I1BPE1	P R P P I G S I I K E A E K I I G V G V R I R Q K I I Q Q F L I E T G T I I E E A E G L R
UniRef90_A0A059LKK2	P S K I I T A A K E L I N K V I A G V G K S S S L S K I I D E F L K I T G T M S T L L E E Y R
UniRef90_K3WML2	E D K I I T S G K Q A M K L V I G K G I I G K S S A T R I I D E F L E T G T M S T L L E E Y R
UniRef90_W9DXS4	D E E L I Q V L H R L E D I I P P G I I G K I I L K S K I V E M L I E T G T F E A Y E R T M

UniRef90_E4U5I6	
UniRef90_Q5FVA7	N
UniRef90_E9BYV7	
UniRef90_B5HBV3	A
UniRef90_G3IUT4	S
UniRef90_UP10003F129B3	N D
UniRef90_G2PEQ4	A
UniRef90_Q66HH0	
UniRef90_Q0UN18	D D
UniRef90_A9G4Z0	A E
UniRef90_K9FDT5	V D
UniRef90_Q09693	K D
UniRef90_E8SFK2	K E
UniRef90_T1DFN1	A
UniRef90_F0T832	K E
UniRef90_X0SVE7	E
UniRef90_G8T913	
UniRef90_K1XFW6	K
UniRef90_UP1000262848A	N E
UniRef90_W2SC18	S D
UniRef90_Q1CZP1	T E
UniRef90_F7VV52	
UniRef90_T1BVN9	S E
UniRef90_G7DWL3	R
UniRef90_UP100035F5E17	
UniRef90_H0WUS0	
UniRef90_W4G5N2	A
UniRef90_R7SJ76	
UniRef90_S7ZTX6	E
UniRef90_T1B5R3	R E
UniRef90_W4LXE7	S
UniRef90_A7EMR3	A E
UniRef90_M2SXT5	
UniRef90_I2GEH6	A E
UniRef90_G9N6W9	E D
UniRef90_UP100042C81E0	
UniRef90_E4NRY3	A E
UniRef90_X0S6L6	
UniRef90_A1SZ47	G E
UniRef90_A0A010RYY6	S D
UniRef90_A7H9W4	A
UniRef90_R7YI32	A D
UniRef90_V4J3C3	A E
UniRef90_Q0D1E4	
UniRef90_W0RSL9	
UniRef90_A3CWG2	A
UniRef90_T0LXV2	S
UniRef90_S9QPV7	A E
UniRef90_U1QMG5	E
UniRef90_UP10003B60ED7	A
UniRef90_Q0W549	K E
UniRef90_I3KC46	S D
UniRef90_UP100036FB1F7	E
UniRef90_I1G678	K
UniRef90_UP10003700757	N
UniRef90_D7E7H2	Q E
UniRef90_UP10003F4AF30	E
UniRef90_D9QUN9	E E
UniRef90_B4DG75	R
UniRef90_W4Q235	K D
UniRef90_M3X1D8	
UniRef90_M5TBL1	G E
UniRef90_T1ERD2	E
UniRef90_U1GC78	T D
UniRef90_K9AFW9	K E
UniRef90_X1V6Y8	A E
UniRef90_UP1000441BF32	Q
UniRef90_S8BMP2	L D
UniRef90_O57486	N D
UniRef90_Q6C9C2	L D
UniRef90_V5B5V6	T
UniRef90_W9YUH1	A D
UniRef90_UP10004705855	N E
UniRef90_C6Y2R2	A
UniRef90_K7Q718	
UniRef90_Q8TSR8	
UniRef90_H2L4T8	S D
UniRef90_D9TTL8	A
UniRef90_U1QPD6	E E
UniRef90_W4GGX8	S D
UniRef90_T0RL69	A D
UniRef90_X1FB91	A E
UniRef90_C1MKL7	S
UniRef90_D1AD14	R
UniRef90_E4ZMZ8	N D
UniRef90_F8CG39	A
UniRef90_X0YD83	
UniRef90_B0TEW3	E
UniRef90_I1BPE1	
UniRef90_A0A059LKK2	
UniRef90_K3WML2	A
UniRef90_W9DXS4	D E

UniRef90\_Q5FB6D  
 UniRef90\_I0IE93  
 UniRef90\_L0G739  
 UniRef90\_F3ZX85  
 UniRef90\_G9E693  
 UniRef90\_UPI00047B2B4C  
 UniRef90\_S0G6W0  
 UniRef90\_W5U8U3  
 UniRef90\_UPI000468B7D6  
 UniRef90\_H9GAY7  
 UniRef90\_W4QE6Q  
 UniRef90\_UPI00036C4D1B  
 UniRef90\_H3DI66  
 UniRef90\_Q97AE0  
 UniRef90\_D8LNK4  
 UniRef90\_UPI00031545A9  
 UniRef90\_Q0AXY9  
 UniRef90\_C7NMH4  
 UniRef90\_E5SCZ0  
 UniRef90\_UPI00037619DA  
 UniRef90\_O02789  
 UniRef90\_K1ZJ27  
 UniRef90\_UPI0003B7B420  
 UniRef90\_B2B4U9  
 UniRef90\_U6BC58  
 UniRef90\_K8YT97  
 UniRef90\_K0KG88  
 UniRef90\_UPI0001850846  
 UniRef90\_UPI00037BE4B0  
 UniRef90\_UPI0003C275BF  
 UniRef90\_UPI00036917BF  
 UniRef90\_UPI00035FBA8  
 UniRef90\_UPI00035F7416  
 UniRef90\_UPI0003F63853  
 UniRef90\_M0GPY5  
 UniRef90\_X1M066  
 UniRef90\_UPI000388DA2C  
 UniRef90\_UPI00047A0C35  
 UniRef90\_M1RUE5  
 UniRef90\_W5MK82  
 UniRef90\_UPI00016A9044  
 UniRef90\_V4ZX54  
 UniRef90\_G1MPG9  
 UniRef90\_D6GVT7  
 UniRef90\_UPI00047E6A48  
 UniRef90\_UPI00047EAE27  
 UniRef90\_M5E0Z3  
 UniRef90\_C3L4K0  
 UniRef90\_W1QJC1  
 UniRef90\_C7Z1J3  
 UniRef90\_Q1AZH0  
 UniRef90\_W0JDL5  
 UniRef90\_E5EQP7  
 UniRef90\_E5EQP7  
 UniRef90\_E5EQP7  
 UniRef90\_F6D244  
 UniRef90\_UPI0004040C44  
 UniRef90\_B4UIB6  
 UniRef90\_Q02AR9  
 UniRef90\_S8DTS4  
 UniRef90\_X6NMD3  
 UniRef90\_UPI000318C84B  
 UniRef90\_K2AQ90  
 UniRef90\_E0VPG0  
 UniRef90\_R4WAC4  
 UniRef90\_UPI0003760ED3  
 UniRef90\_Q6FKY2  
 UniRef90\_Q5J2Q9  
 UniRef90\_X8JQU6  
 UniRef90\_F0XW85  
 UniRef90\_Q6T421  
 UniRef90\_UPI000333370A  
 UniRef90\_Q245F6  
 UniRef90\_V9D610  
 UniRef90\_R7LLN9  
 UniRef90\_E8QXF4  
 UniRef90\_UPI00037BE849  
 UniRef90\_UPI0003FCF8FB  
 UniRef90\_R7RXJ8  
 UniRef90\_M1XN07  
 UniRef90\_E1Z255  
 UniRef90\_F2J4A6  
 UniRef90\_G4MN08  
 UniRef90\_C7DGN5  
 UniRef90\_UPI0003B44559  
 UniRef90\_UPI00047C13D8  
 UniRef90\_W6MJ18  
 UniRef90\_UPI00047BE89E  
 UniRef90\_F9DV77  
 UniRef90\_F8AE12  
 UniRef90\_V4YJK2  
 UniRef90\_K1PLM1

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

	50	60	70	80
UniRef90_Q5FB6D	P H K I D Q D N E V S K L P G M G G K I F S K V Q E F L E K G S I S E V Q E			
UniRef90_I0IE93	E R D A F S R S E E L V A L P G V G T G T A D R I L E F V E S G A V A D H E E D L K			
UniRef90_L0G739	N I S L E K L D K L Q K I N G I G K S I A E V I V Q L Q E T G T H E Y L E E L L			
UniRef90_F3ZX85	E K D I D E L N E L K D I Q K I N G I G D A I T K K I D E F L E T G L I S R L E E D L K			
UniRef90_G9E693	P Y T I V D G E S L T K V T G I G K S I A K K I D E F L E T G L I S R L E E D L K			
UniRef90_UPI00047B2B4C	G E S V D E L S D L T V Y A G I G T G M S A A I R E I V L T G T L K K L E E E L R Q			
UniRef90_S0G6W0	S R P V P D L I D L T A L P G I G Q D L A D K I T Q I V S Q K T F T E L K K L E E E L R Q			
UniRef90_W5U8U3	P A P L R N I N D T E G L P C L G P E T K A V I Q D I F E C G S S S K V V E E V L L			
UniRef90_UPI000468B7D6	P F A L L K D L D E L D K I E G I G K G L A S K V E D L L Q T G E L Q E L V N E I V L L			
UniRef90_H9GAY7	P F A I V R S N D I E G L P W M G E Q V K G I E D I L L E E G Q S S P K V V E A V L L			
UniRef90_W4QE6Q	Q R T L A E I D N P A T L N G I G K A T A E V I I E L K E A G Q S S L L E Q L L K			
UniRef90_UPI000364C4D1B	E R E V S S E I D D F F L A L P H I G K T T A S V I E E Y L T T G K S E V F D Q L L K			
UniRef90_H3DI66	P R V L S S L E D T H H L P C L G D H A K A I D E L L Q H G R A F D V Q K V L			
UniRef90_Q97AE0	Q E D L L E T I Y E L L S I V P G I G K G I A D K I V E Y I N S G S I Q K Y E D L L K			
UniRef90_D8LNK4	D R T I L R S G S E I R H V H V G E R M V E A V D E I L A T G T L G R L E E E L L K			
UniRef90_UPI00031545A9	E Q E L V V S T G K I G E I R G V G A S L A E K I Q Q L A E T G E L P Q L T E L L K			
UniRef90_Q0AXY9	D E D I H K N G R I G D I P A I G K A L L Q S K I E E M L E K G S C Y E Y Y E R L A R			
UniRef90_C7NMH4	P G D V V D L A E V V Q E E I D R V G E A I A D K I V E Y V E T G A I E E L E D L R			
UniRef90_E5SCZ0	K E P I T S K E M L S E L P G I G K K I A A K I W E L H E E G E I E K V V S E F			
UniRef90_UPI00037619DA	E I D L R E L V K L L S S L T G I G K A L A D K I A E L V N T S Q L G F Y N D L K			
UniRef90_O02789	P F E V V S I L K D T E G L P W G D E V K G I L M E E I E D G E S L E V Q A V L L			
UniRef90_K1ZJ27	A E D L E D I Y K L V N L T G I G E S I A A E K I I E E L I K T G K C K Y Y E N L K			
UniRef90_UPI0003B7B420	E E P V A Q Y A E L L M S I I D G I G D G I A A D I R S V L A R G S F D L R D E L L L			
UniRef90_B2B4U9	P F P F Q T Q N E V A R L P C L G Q K I A L L Y Q E Y K T S G T L K E A E E Y K			
UniRef90_U6BC58	D A D F M A I E D T A M K G I G K G T A A V L E E Y R E T G T S T A L T E L E			
UniRef90_K8YT97	K Q P I T S K D V A I K L T G V G K S V G D K I E E Y V K E G K I Q V L E E Y R			
UniRef90_K0KG88	G D F I S D A N E A L R L L K G I G V S V A Q K I E E I V K T T N T L S S L N E I K			
UniRef90_UPI0001850846	D R S L T T E M E D F T A S G I G K G T A A V D E F I R A V L P			
UniRef90_UPI00037BE4B0	Q E D I N D Y I Q L T D I K G I G V G K S I I A E D I Y T L Y D T G E M P V L E E D F K			
UniRef90_UPI0003C275BF	P F P I V K M K N I E G L P C M G D K V K C V E E I L E E G E S C Q A K E I L			
UniRef90_UPI00036917BF	H A D I S T L D Q L E Q I P N V G K S T A A K I L E Y L S T G K I E T L E E K M R			
UniRef90_UPI00035FBA8	G E S V R S I S E L Q K I E G V G E S I I E S K I D E Y L A T G K I E T L E E N V R			
UniRef90_UPI00035F7416	H A D V S T L D G L R R I P N V G K S I I A D K I V A Y F R T G H I D V V E E L L			
UniRef90_UPI0003F63853	P F K L K D Q D E L L D K I D G I G K S I I A T K I I E I F N T G G L K E L N D L			
UniRef90_M0GPY5	P N P I E D L A D D V Q T I D R V G D A I S S K I V E Y F E T G H I E E L D A L R			
UniRef90_X1M066	S G D L Q D L H K L E E K I P P G L G K G M R E K I S T L L N T G R L P T Y D Q L K			
UniRef90_UPI000388DA2C	P G R L S A L E E E L G P P G I G H E S R R V I D Q V L V E D G V S V E V I E R V			
UniRef90_UPI00047A0C35	D R D I E Q L V K L K E E V K G I G D A L L N R K L T E L V T T G R L E Y Y E S L K			
UniRef90_M1RUE5	D K D I K S V D E L L K E I I H G I G E S S L E K I E E Y L K T T G R I K K H D E F L			
UniRef90_W5MK82	P H A I V S S K D L E E G L P C L G D Q T K A V I D I L L E Y Q G C S K V Q D V L			
UniRef90_UPI00016A9044	D R D V R E L F D D L D E L L D R V G D A I A S K V A E Y L E T G E I E E L E Q L R			
UniRef90_V4ZX54	P E P V G D R G D L D E L L D R V G D A I A S K V A E Y L E T G E I E E L E Q L R			
UniRef90_G1MPG9	P S R V T A L S Q L Q G L P H F G E H S C R V V Q E L L E H G V C E E V E R V			
UniRef90_D6GVT7	S D D I T S I Y K L T Q L E G V G K S I A E S I T E Y I E T G K I K K Y D K L K			
UniRef90_UPI00047E6A48	E T T P L A S A A Q L E R M D G I G K T L A A K I V E L T E T G S F A E L D Q F			
UniRef90_UPI00047EAE27	T T Q P L A S E I K K L Q E I P G I G K S M A A N I Q E I E K T G T L P L R E E L L			
UniRef90_M5E0Z3	A D Q I V S Q L D S L K D I K G I G S G I I A E A I N Q L L Q E G M I E E M E A I L K			
UniRef90_C3L4K0	D K E V M M E M E L L G G Q L Q G I N K G L L V A L I Q E I Q D T G T L Q R L Q E L L			
UniRef90_W1QJC1	D K P L T S A Q D L K Q F G L D R G G I A Q H V E E L Q T G T F S K L L E T L K			
UniRef90_C7Z1J3	P H K L Q N T H E V E R L P G C A K I A L E L W R E W N E T G E L T E V R K A D S			
UniRef90_Q1AZH0	G R P V V A E L D D P R S L P H V G G G T T A R V I K D L A Q N R T P E I L A E L S			
UniRef90_W0JDL5	N E E I Y S K P N P K K I E G V G K D L E E Q K I K E Y I Q T Q K V V A Y L D E L L			
UniRef90_E5EQP7	D Y E E V E S G E S V L H I N G I G K G I A A N K I D E Y Y L E E			
UniRef90_E5EQP7	D Y E E V E S G E S V L H I N G I G K G I A A N K I D E Y Y L E E			
UniRef90_F6D244	D Y E E V E S G E S V L H I N G I G K G I A A N K I D E Y Y L E E			
UniRef90_UPI0004040C44	S R D I Q D V R K I L E E L P G I G K N L S K K I E E I I D T T G S L E Y Y E N L K			
UniRef90_B4UIB6	T E D L L S V V A A I L A I S G V G K S T A N K I E E I R T G N L L Q E F Q E L L			
UniRef90_Q02AR9	S E D V I A E G R L T E L P G I G E A L A K K I A D L H A T T G S T D L L A R L R			
UniRef90_S8DT54	P E R I V V D I L R V T D I P G I G K G L A Q V L I E I T E R G S C E R R D L L L			
UniRef90_X6NMD3	P H R I T S I L A Q V V Q K L P F G Q K K I G T M V E E F I D T T G N I N E A Q T I L L			
UniRef90_UPI000318C84B	N Y K I T S T A E A E Q L P G I G K K I A L K I K E I L L E T G H L K K V			
UniRef90_K2AQ90	P F K L K D V N E L E N I E G I G K S T A N K I V E L L T A G N I A E L D A L			
UniRef90_E0VPG0	A K M I E D N D D L T L L P G I G K D L A G K I K T I V Q T G Q L P L L T Q M E			
UniRef90_R4WAC4	D K E I I K T Y Q E A C S I P G I G Q K K I A A S E I M E V L E S G K I N K L E N L L			
UniRef90_UPI0003760ED3	P G S I V Q D P T V E R V D R V G E A I A A E K I V E Y L E T G E I E E L E T L R			
UniRef90_Q6FKY2	E E D V E D I Y K L L E K I P G V G K N I A E K I E E Y L K T G K I K Y Y Q D L K			
UniRef90_Q5J2Q9	P H K I T S G S Q A R Q L S N I G S S I A K K I Q L L L D T G T L P G L E D P A			
UniRef90_X8JQU6	P A A L R S P E E A L R R L P C L G D N S R A V L E E I C E C G S S S R V V E E I Q			
UniRef90_F0XMS5	P K A L K D A E E V R K L P Y I G P K I Q K L I E Y R E Y S A T G H V V Q E A D D A E			
UniRef90_Q6T421	P H V L S S A A E V V S R L P G C P K I A E L Y R E Y S A T G H V V Q E A D D A E			
UniRef90_UPI000333370A	P Y P I T G M N D L E G L P C I G D Q T R V I I E E L L E E G V C S K V V E S L L			
UniRef90_Q245F6	P F P I I S V K D T E G L I P W L G G K V K C V I E E I I E D G E S S E V K A L L			
UniRef90_V9D610	D F Q I K S V K D V Q K I N G L G E K T K E K I V E I I E T G Q R A Q I L			
UniRef90_R7LLN9	N Q L I R T S Q E A R K I L P G I G E S I A G Q V V E E I V L T G R Y K R L E Y Y A Q			
UniRef90_E8QXF4	P E M V K K G D D L T S L P A I G N D L A Q K I V N D I V N H K E I D L L K R L L E			
UniRef90_UPI00037BE849	A E K I K D G G G K L E E G L P G V G K G I A G A I I A E M V A S G R W A Q L L D E L L			
UniRef90_UPI0003FCF8FB	E E Q L T D T D R N T S I K G L G A S V A A K I I E L I D T G K M K A L D D L L			
UniRef90_R7RXJ8	P T R I T E S Y A E A V V S I I P G I G D A T A K K I Q E I I E T G D L R R L			
UniRef90_M1XN07	T V S V E R L H E A G E I I D D V G E A I A A K T A E Y L E T T G A I A E L E E L R			
UniRef90_E1Z255	P T V I T S A K D L S A V V G K V G S S S L A K I T E F L E T G T L A A L L Q E A			
UniRef90_F2J4A6	D R P V G E I L D L I A L P P G V G K G I A G A I I A E M V A S G R W A Q L L E R L S			
UniRef90_G4MN08	P Y G L T T H I E V V Q R L P G C P G I N E K I A F L Y Q E W K H T G K I K E V E E A T			
UniRef90_C7DGN5	Q E D L G L I Y G L M E L P G I G K G L A Q K I I E E Y L K T G R I R K Y E E M R			
UniRef90_UPI0003B44559	P R E L E A V V Q Q L R A T P P G I G K A I E D K T V E M L E T G R C K Y Y D N L I			
UniRef90_UPI00047C13D8	P T Q L A E M D R N S S I K G I G E S A G K R I I L E I L D T G Q L L A T L N E			
UniRef90_W6MJ18	G K K L K T Y E D A L K L P D V G D G I A R K I I E I N R T G Q L L H Q L D E V R			
UniRef90_UPI00047BE89E	E E D L L K E E N R N L N T V K G I G R A L E E K I I E L V K T G K L E F Y E K L L K			
UniRef90_F9DVT7	T R S L S E M D D I L S I L K G I G K G T G A V I T D L M E N G T S E V V L K E L L E			
UniRef90_E8AE12	T V D V E E L L A K L E R I P G I G K D L A Q K I I E I L E T G T L Q K Y E E E L K			
UniRef90_V4YJK2	T A P I E N L D A L A E I P D G V G D A I A S K V V A E Y F E T G E I A E L L G Q R			
UniRef90_K1PLM1	P T Q I I S S W E E A R A I L P G V G T R I L A D K I W E I A E S G E L R K L N E F N			

UniRef90_Q5FB6D	
UniRef90_I0IE93	E
UniRef90_L0G739	K E
UniRef90_F3ZX85	K E
UniRef90_G9E693	K
UniRef90UPI00047B2B4C	S
UniRef90_S0G6W0	A
UniRef90_W5U8U3	T D
UniRef90UPI000468B7D6	E
UniRef90_H9GAY7	N N
UniRef90_W4QEQQ6	A E
UniRef90UPI00036C4D1B	A E
UniRef90_H3DI66	S D
UniRef90_Q97AE0	K
UniRef90_D8LNK4	S
UniRef90UPI00031545A9	A
UniRef90_Q0AXY9	H E
UniRef90_C7NMH4	A E
UniRef90_E5SCZ0	
UniRef90UPI00037619DA	A E
UniRef90_O02789	N D
UniRef90_K1ZJ27	K
UniRef90UPI0003B7B420	N
UniRef90_B2B4U9	S D
UniRef90_U6BC58	Q E
UniRef90_K8YT97	S
UniRef90_K0KG88	S D
UniRef90UPI0001850846	
UniRef90UPI00037BE4B0	E
UniRef90UPI0003C275BF	N D
UniRef90UPI00036917BF	
UniRef90UPI00035FBA8	
UniRef90UPI00035F7416	A
UniRef90UPI0003F63853	
UniRef90_M0GPY5	D E
UniRef90_X1M066	K E
UniRef90UPI000388DA2C	
UniRef90UPI00047A0C35	A
UniRef90_M1RUE5	Q
UniRef90_W5MK82	C D
UniRef90UPI00016A9044	
UniRef90_V4ZX54	A E
UniRef90_G1MGP9	
UniRef90_D6GVT7	R D
UniRef90UPI00047E6A48	
UniRef90UPI00047EAE27	T
UniRef90_M5E0Z3	A E
UniRef90_C3L4K0	
UniRef90_W1QJC1	Q
UniRef90_C7Z1J3	A D
UniRef90_Q1AZH0	A E
UniRef90_W0JDL5	E
UniRef90_E5EQP7	
UniRef90_E5EQP7	
UniRef90_E5EQP7	
UniRef90_F6D244	K E
UniRef90UPI0004040C44	T
UniRef90_B4UIB6	A
UniRef90_Q02AR9	A
UniRef90_S8DTS4	A
UniRef90_X6NMD3	
UniRef90UPI000318C84B	
UniRef90_K2AQ90	K
UniRef90_E0VPG0	D D
UniRef90_R4WAC4	D E
UniRef90UPI0003760ED3	K
UniRef90_Q6FKY2	T D
UniRef90_Q5J2Q9	N D
UniRef90_X8JQU6	
UniRef90_F0XM85	S D
UniRef90_Q6T421	C D
UniRef90UPI000333370A	N D
UniRef90_Q245F6	
UniRef90_V9D610	D D
UniRef90_R7LLN9	E
UniRef90_E8QXF4	R
UniRef90UPI00037BE849	A D
UniRef90UPI0003FCF8FB	A
UniRef90_R7RXJ8	
UniRef90_M1XN07	E
UniRef90_E1Z255	
UniRef90_F2J4A6	G E
UniRef90_G4MN08	Q D
UniRef90_C7DGN5	K
UniRef90UPI0003B44559	A E
UniRef90UPI00047C13D8	
UniRef90_W6MJ18	N D
UniRef90UPI00047BE89E	A E
UniRef90_F9DVT7	
UniRef90_F8AE12	Q E
UniRef90_V4YJK2	S E
UniRef90_K1PLM1	A D

UniRef90\_A7TER5  
UniRef90\_M0CBM1  
UniRef90\_B7RR75  
UniRef90\_C2F55  
UniRef90\_Q01R88  
UniRef90\_S7Q6S6  
UniRef90\_C7PCF6  
UniRef90\_X0YEM6  
UniRef90\_M0CR13  
UniRef90\_A9AVP5  
UniRef90\_F0SB22  
UniRef90\_A6G592  
UniRef90\_UPI00047C5C5B  
UniRef90\_A6TSY7  
UniRef90\_D5EKE2  
UniRef90\_H8MUG5  
UniRef90\_A0A024TP07  
UniRef90\_V4X599  
UniRef90\_Q46C05  
UniRef90\_J7S252  
UniRef90\_F7XK87  
UniRef90\_W0F614  
UniRef90\_J9JBA6  
UniRef90\_H8ZJN5  
UniRef90\_H8ZJN5  
UniRef90\_H8ZJN5  
UniRef90\_Q3ABT7  
UniRef90\_F7J5W9  
UniRef90\_C5CE73  
UniRef90\_XOS976  
UniRef90\_K0IMN1  
UniRef90\_K2F3I3  
UniRef90\_U2HWH0  
UniRef90\_F4C638  
UniRef90\_Q55ND9  
UniRef90\_W9WJJ6  
UniRef90\_UPI000362A7AE  
UniRef90\_K1XL12  
UniRef90\_L9W6P3  
UniRef90\_I0Z1S5  
UniRef90\_X1PB52  
UniRef90\_M5E6W3  
UniRef90\_SOAAQ1  
UniRef90\_UPI00037F26C2  
UniRef90\_G2QR19  
UniRef90\_UPI00044124D6  
UniRef90\_X1SY54  
UniRef90\_UPI0003C28ACA  
UniRef90\_Q1IP10  
UniRef90\_B1Z2Q2  
UniRef90\_F7PF7  
UniRef90\_A0A024JB5  
UniRef90\_G4TG14  
UniRef90\_R7ZLV8  
UniRef90\_M4QMS7  
UniRef90\_M4QMS7  
UniRef90\_M4QMS7  
UniRef90\_W7IGN4  
UniRef90\_UPI00037F3A67  
UniRef90\_D8PHM2  
UniRef90\_UPI0003B3916B  
UniRef90\_X1FEB7  
UniRef90\_UPI0001E2D907  
UniRef90\_D8J6T8  
UniRef90\_UPI000376A9DA  
UniRef90\_UPI00037731F4  
UniRef90\_X0UJQ6  
UniRef90\_B8GIF4  
UniRef90\_UPI0003774897  
UniRef90\_D7G694  
UniRef90\_D5EFP7  
UniRef90\_M0NHJ8  
UniRef90\_I2EXZ8  
UniRef90\_E4TSH9  
UniRef90\_UPI0003711E6A  
UniRef90\_M3AH18  
UniRef90\_L8G8G3  
UniRef90\_W0J1A7  
UniRef90\_C1E884  
UniRef90\_Q92089  
UniRef90\_U1MZ11  
UniRef90\_T0YFI9  
UniRef90\_M0MEN3  
UniRef90\_G0V7G5  
UniRef90\_U2B2V8  
UniRef90\_UPI00034F73B5  
UniRef90\_UPI0001CB995F  
UniRef90\_M1ZCH1  
UniRef90\_L7UN54  
UniRef90\_E3FCJ3  
UniRef90\_J4IAH9  
UniRef90\_R8B9V0

UniRef90\_A7TER5  
 UniRef90\_M0CBM1  
 UniRef90\_B7RR75  
 UniRef90\_C2FY55  
 UniRef90\_Q01R88  
 UniRef90\_S7Q6S6  
 UniRef90\_C7PCF6  
 UniRef90\_X0YEM6  
 UniRef90\_M0CR13  
 UniRef90\_A9AVP5  
 UniRef90\_F0SB22  
 UniRef90\_A6G592  
 UniRef90\_UP100047C5C5B  
 UniRef90\_A6TSY7  
 UniRef90\_D5KE2  
 UniRef90\_H8MUG5  
 UniRef90\_A0A024TP07  
 UniRef90\_V4X599  
 UniRef90\_Q46C05  
 UniRef90\_J7S252  
 UniRef90\_F7XK87  
 UniRef90\_W0F614  
 UniRef90\_J9JBA6  
 UniRef90\_H8ZJN5  
 UniRef90\_H8ZJN5  
 UniRef90\_H8ZJN5  
 UniRef90\_Q3ABT7  
 UniRef90\_F7J5W9  
 UniRef90\_C5CE73  
 UniRef90\_X0S976  
 UniRef90\_K0IMN1  
 UniRef90\_K2F3I3  
 UniRef90\_U2HWH0  
 UniRef90\_F4C638  
 UniRef90\_Q55ND9  
 UniRef90\_W9WJJ6  
 UniRef90\_UP1000362A7AE  
 UniRef90\_K1XL12  
 UniRef90\_L9W6P3  
 UniRef90\_I0Z1S5  
 UniRef90\_X1PB52  
 UniRef90\_M5E6W3  
 UniRef90\_S0AQQ1  
 UniRef90\_UP100037F26C2  
 UniRef90\_G2QR19  
 UniRef90\_UP100044124D6  
 UniRef90\_X1SY54  
 UniRef90\_UP10003C28ACA  
 UniRef90\_Q1P10  
 UniRef90\_B1Z2Q2  
 UniRef90\_F7PFJ7  
 UniRef90\_A0A024JB5  
 UniRef90\_G4TG14  
 UniRef90\_R7ZLV8  
 UniRef90\_M4QMS7  
 UniRef90\_M4QMS7  
 UniRef90\_M4QMS7  
 UniRef90\_W7IGN4  
 UniRef90\_UP100037F3A67  
 UniRef90\_D8PHM2  
 UniRef90\_UP10003B3916B  
 UniRef90\_X1FEB7  
 UniRef90\_UP10001E2D907  
 UniRef90\_D8J6T8  
 UniRef90\_UP1000376A9DA  
 UniRef90\_UP100037731F4  
 UniRef90\_X0UJQ6  
 UniRef90\_B8GIF4  
 UniRef90\_UP10003774897  
 UniRef90\_D7G694  
 UniRef90\_D5EBP7  
 UniRef90\_M0NHJ8  
 UniRef90\_I2EXZ8  
 UniRef90\_E4TSH9  
 UniRef90\_UP10003711E6A  
 UniRef90\_M3AH18  
 UniRef90\_L8G8G3  
 UniRef90\_W0J1A7  
 UniRef90\_C1E884  
 UniRef90\_Q92089  
 UniRef90\_U1MZ11  
 UniRef90\_T0YFI9  
 UniRef90\_M0MEN3  
 UniRef90\_G0V7G5  
 UniRef90\_U2B2V8  
 UniRef90\_UP100034F73B5  
 UniRef90\_UP10001CB995F  
 UniRef90\_M1ZCH1  
 UniRef90\_L7UN54  
 UniRef90\_E3FCJ3  
 UniRef90\_J4IAH9  
 UniRef90\_R8B9V0

50            60            70            80

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

UniRef90_A7TER5	E
UniRef90_M0CBM1	
UniRef90_B7RR75	
UniRef90_C2FY55	
UniRef90_Q01R88	
UniRef90_S7Q6S6	E
UniRef90_C7PCF6	
UniRef90_X0YEM6	K
UniRef90_M0CR13	A E
UniRef90_A9AVP5	E
UniRef90_F0SB22	
UniRef90_A6G592	R
UniRef90_UP100047C5C5B	D E
UniRef90_A6TSY7	E
UniRef90_D5EKE2	
UniRef90_H8MUG5	A
UniRef90_A0A024TP07	T
UniRef90_V4X599	S
UniRef90_Q46C05	E
UniRef90_J7S252	
UniRef90_F7XK87	K
UniRef90_W0F614	A E
UniRef90_J9JBA6	
UniRef90_H8ZJN5	
UniRef90_H8ZJN5	
UniRef90_H8ZJN5	
UniRef90_Q3ABT7	E E
UniRef90_F7J5W9	N
UniRef90_C5CE73	A
UniRef90_X0S976	E
UniRef90_K0IMN1	A E
UniRef90_K2F3I3	
UniRef90_U2HWH0	A
UniRef90_F4C638	A
UniRef90_Q55ND9	
UniRef90_W9WJJ6	N D
UniRef90_UP1000362A7AE	A
UniRef90_K1XL12	V D
UniRef90_L9W6P3	
UniRef90_I0Z1S5	
UniRef90_X1PB52	K
UniRef90_M5E6W3	A D
UniRef90_S0AQQ1	S E
UniRef90_UP100037F26C2	E
UniRef90_G2QR19	T D
UniRef90_UP100044124D6	E
UniRef90_X1SY54	K
UniRef90_UP10003C28ACA	Q
UniRef90_Q1IP10	E
UniRef90_B1Z2Q2	G D
UniRef90_F7PFJ7	
UniRef90_A0A024JB5	S
UniRef90_G4TG14	D E
UniRef90_R7ZLV8	E
UniRef90_M4QMS7	
UniRef90_M4QMS7	
UniRef90_W7IGN4	L D
UniRef90_UP100037F3A67	N
UniRef90_D8PHM2	T
UniRef90_UP10003B3916B	E E
UniRef90_X1FEB7	E E
UniRef90_UP10001E2D907	K
UniRef90_D8J6T8	
UniRef90_UP1000376A9DA	A
UniRef90_UP100037731F4	E
UniRef90_X0UJQ6	K
UniRef90_B8GIF4	Q
UniRef90_UP10003774897	T E
UniRef90_D7G694	A E
UniRef90_D5EBP7	K E
UniRef90_M0NHJ8	A D
UniRef90_I2EXZ8	A
UniRef90_E4TSH9	A
UniRef90_UP10003711E6A	K E
UniRef90_M3AH18	N D
UniRef90_L8G8G3	K D
UniRef90_W0J1A7	A
UniRef90_C1E884	R
UniRef90_Q92089	C D
UniRef90_U1MZ11	S E
UniRef90_T0YFI9	Q
UniRef90_M0MEN3	
UniRef90_G0V7G5	
UniRef90_U2B2V8	G E
UniRef90_UP100034F73B5	S
UniRef90_UP10001CB995F	E
UniRef90_M1ZCH1	
UniRef90_L7UN54	
UniRef90_E3FCJ3	A E
UniRef90_J4IAH9	A
UniRef90_R8B9V0	S D

1                    10                    20                    30                    40

UniRef90_UPI0004790FAB	N	A	S	I	A	D	N	F	S	L	L	S	K	L	M	D	H	G	D	N	S	F	K	A	K	S	Y	A	□	A	F	N	I	E	K	L				
UniRef90_B2AY49	N	P	N	A	R	T	I	E	V	L	Q	S	M	C	D	Y	Y	T	K	I	N	D	R	W	R	I	T	A	Y	R	A	I	T	T	L	R	Q	Q		
UniRef90_D0LRS9	D	D	V	V	E	H	L	R	E	L	V	Q	L	L	D	E	Q	N	P	Q	S	F	R	A	R	Y	E	S	A	I	Q	G	L	S	S	H				
UniRef90_UPI000371F693	N	I	S	I	L	A	R	L	D	E	T	A	S	L	E	I	D	A	A	D	P	F	R	I	R	S	Y	R	R	A	A	E	A	V	E	Q	Q			
UniRef90_S2YL24	Y	N	F	E	I	A	L	A	L	E	E	L	A	D	L	L	E	F	Q	G	E	D	F	F	K	I	R	A	Y	R	Q	A	A	T	L	A	R	H		
UniRef90_UPI00037BD905	P	N	K	A	F	V	K	L	L	T	E	I	R	T	I	R	Q	L	G	E	D	D	V	G	V	R	A	Y	S	T	S	I	A	S	V	A	A	Y		
UniRef90_A0A016Q8Y9	N	K	D	L	A	E	K	L	N	N	I	A	D	L	L	E	L	E	G	V	K	W	E	P	R	A	Y	T	R	A	T	A	L	T	I	S	S	L		
UniRef90_D2EEB3	N	R	N	K	I	F	T	D	A	L	E	I	L	A	E	N	F	E	F	N	E	N	E	S	A	Y	V	A	F	A	R	A	T	S	L	K	S	L		
UniRef90_Q6T422	N	K	E	V	V	S	M	M	K	E	V	L	A	A	M	D	V	K	N	F	N	V	F	R	V	R	A	Y	S	T	S	I	A	L	D	N	L			
UniRef90_T0S340	N	P	G	I	F	V	D	E	L	K	K	I	R	L	N	R	K	M	V	G	D	Q	I	G	V	R	A	Y	S	T	S	I	A	L	E	T	D			
UniRef90_V5RTG5	P	N	D	Y	V	I	E	K	L	R	V	M	Q	E	Y	Y	E	T	S	R	D	D	K	W	K	P	R	G	Y	R	L	A	A	L	K	K	E			
UniRef90_W7BFW3	N	H	E	I	N	T	V	L	T	E	A	L	S	I	L	A	E	N	A	E	L	N	E	D	G	R	G	I	A	F	R	A	E	A	V	L	K	A	L	
UniRef90_H1VCU7	N	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L		
UniRef90_R4XC16	N	P	N	K	V	L	T	D	A	L	E	V	L	V	E	N	C	E	F	N	D	S	M	G	P	C	S	G	F	R	R	A	A	S	V	L	K	S	L	
UniRef90_G0LG19	N	P	H	I	T	E	A	L	L	E	L	L	E	L	L	E	L	E	L	E	F	K	F	G	G	S	Y	S	K	V	A	K	A	I	R	D	A	L		
UniRef90_E9CAV2	C	P	N	D	K	F	V	E	T	L	K	T	I	R	V	A	R	Q	L	T	G	D	K	I	G	I	R	Y	S	T	S	I	A	T	L	S	A	Y		
UniRef90_H3D7S0	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L	
UniRef90_H0Q370	N	P	N	K	V	L	T	D	A	L	E	V	L	V	E	N	C	E	F	N	D	S	M	G	P	C	S	G	F	R	R	A	A	S	V	L	K	S	L	
UniRef90_W5L524	N	W	N	Q	I	L	T	D	A	L	E	V	L	V	E	N	C	E	F	N	D	S	M	G	P	C	S	G	F	R	R	A	A	S	V	L	K	S	L	
UniRef90_I1FU11	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L	
UniRef90_H8KUE1	N	A	I	L	S	E	L	F	E	M	A	A	H	I	E	A	R	L	D	V	Y	K	P	N	V	Y	R	R	A	E	S	I	R	G	H	N	A	A	Y	
UniRef90_A8PVH5	C	P	N	D	K	F	V	E	T	L	K	T	I	R	V	A	R	Q	L	T	G	D	K	I	G	I	R	Y	S	T	S	I	A	T	L	S	A	Y		
UniRef90_Q3ITL5	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L	
UniRef90_U7PKX4	N	W	N	Q	I	L	T	D	A	L	E	V	L	V	E	N	C	E	F	N	D	S	M	G	P	C	S	G	F	R	R	A	A	S	V	L	K	S	L	
UniRef90_UPI00032ACD14	C	P	N	D	K	F	V	E	T	L	K	T	I	R	V	A	R	Q	L	T	G	D	K	I	G	I	R	Y	S	T	S	I	A	T	L	S	A	Y		
UniRef90_UPI00045603FE	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L	
UniRef90_X1LR13	N	A	I	L	S	E	L	F	E	M	A	A	H	I	E	A	R	L	D	V	Y	K	P	N	V	Y	R	R	A	E	S	I	R	G	H	N	A	A	Y	
UniRef90_V9L4E7	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L	
UniRef90_B9E762	N	W	N	Q	I	L	T	D	A	L	E	V	L	V	E	N	C	E	F	N	D	S	M	G	P	C	S	G	F	R	R	A	A	S	V	L	K	S	L	
UniRef90_UPI00037EC519	C	P	N	D	K	F	V	E	T	L	K	T	I	R	V	A	R	Q	L	T	G	D	K	I	G	I	R	Y	S	T	S	I	A	T	L	S	A	Y		
UniRef90_T1JNH2	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L	
UniRef90_V3ZNY9	N	A	I	L	S	E	L	F	E	M	A	A	H	I	E	A	R	L	D	V	Y	K	P	N	V	Y	R	R	A	E	S	I	R	G	H	N	A	A	Y	
UniRef90_W8UC04	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L	
UniRef90_C1DZP7	N	A	I	L	S	E	L	F	E	M	A	A	H	I	E	A	R	L	D	V	Y	K	P	N	V	Y	R	R	A	E	S	I	R	G	H	N	A	A	Y	
UniRef90_M2MR12	N	W	N	Q	I	L	T	D	A	L	E	V	L	V	E	N	C	E	F	N	D	S	M	G	P	C	S	G	F	R	R	A	A	S	V	L	K	S	L	
UniRef90_M4FUY9	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	R	V	V	G	E	L	N	S	L	
UniRef90_F2UQK2	N	A	I	L	S	E	L	F	E	M	A	A	H	I	E	A	R	L	D	V	Y	K	P	N	V	Y	R	R	A	E	S	I	R	G	H	N	A	A	Y	
UniRef90_G4UFZ9	N	H	A	D	I	A	A	I	F	E	I	A	D	L	L	E	I	E	A	A	N	P	F	R	I	R	Y	R	R	A	E	S	I	R	G	H	N	A	A	Y
UniRef90_W3X447	N	A	E	A	F	D	Q	L	K	K	V	R	T	I	R	A	L	T	G	D	K	V	G	V	R	A	S	S	L	A	A	Y	N	A	A	Y				
UniRef90_U3AAE8	N	A	E	V	A	A	V	L	D	E	Y	A	D	L	M	E	A	Q	G	D	D	V	P	N	V	Y	R	R	A	A	D	N	V	R	D	S	N	A	A	Y
UniRef90_C1F770	N	R	S	I	A	H	L	L	D	E	T	A	D	L	L	E	I	D	S	G	D	F	R	I	R	S	Y	R	R	A	E	A	V	E	Q	Q	N	A	A	Y
UniRef90_UPI0003B64994	N	I	S	A	R	V	L	D	E	T	A	D	L	L	E	I	D	A	D	P	F	R	I	R	S	Y	R	R	A	E	A	V	E	Q	Q	N	A	A	Y	
UniRef90_UPI00036C02F3	N	Y	A	L	D	N	F	S	L	S	K	L	D	I	D	I	H	G	D	S	F	K	A	S	Y	S	S	A	A	T	I	E	K	L	S	A	Y			
UniRef90_R9GTR3	N	P	N	D	F	I	A	L	K	Q	I	K	R	L	E	N	S	M	F	D	K	I	G	I	R	Y	S	T	A	I	T	S	A	Y	N	E	K	L		
UniRef90_D6XBA0	N	P	N	D	F	I	A	L	K	Q	I	K	R	L	E	N	S	M	F	D	K	I	G	I	R	Y	S	T	A	I	T	S	A	Y	N	E	K	L		
UniRef90_F9X556	N	P	N	D	F	I	A	L	K	Q	I	K	R	L	E	N	S	M	F	D	K	I	G	I	R	Y	S	T	A	I	T	S	A	Y	N	E	K	L		
UniRef90_R9XIL2	N	P	N	D	F	I	A	L	K	Q	I	K	R	L	E	N	S	M	F	D	K	I	G	I	R	Y	S	T	A	I	T	S	A	Y	N	E	K	L		
UniRef90_U5H8D6	C	V	N	Q	D	L	V	D	K	P	L	R	E	R	F	L	E	G	E	A	F	R	S	R	A	Y	L	A	R	E	V	G	L	C	N	Q	G	L		
UniRef90_W4JMU9	N	P	N	D	F	I	A	L	K	Q	I	K	R	L	E	N	S	M	F	D	K	I	G	I	R	Y	S	T	A	I	T	S	A	Y	N	E	K	L		
UniRef90_UPI000472BCE1	C	V	N	Q	K	L	A	E	D	L	D	V	M	R	K	W	R	E	L	D	G	E	E	R	S	A	L	S	Y	R	K	V	P	Y	N	A	A	Y		
UniRef90_E8V562	N	V	T	L	A	R	D	E	A	T	A	L	E	I	L	E	L	E	L	K	D	E	N	P	F	K	I	R	Y	Q	N	S	V	R	S	L	E	A	Y	
UniRef90_X1BIK9	N	E	I	E	I	L	K	Q	L	E	Y	Y	N	R	V	K	E	K	A	P	F	K	A	K	I	Y	R	E	A	V	E	Q	Q	N	A	A	Y			
UniRef90_G8DDW8	N	Q	E	L	A	R	I	F	G	I	Y	Y	N	R	V	K	E	K	A	P	F	K	A	K	I	Y	R	E	A	V	E	Q	Q	N</td						

50            60            70            80

UniRef90_UPI0004790FAB	A M E L   E G   P H D K A   L   K G   G D S   L   G K R   V   E Q   L   E T   Q   L   S   T   L   N   E   Y   L
UniRef90_B2AY49	T K K I   T T A E E A Y T   L   P N   I   G S R   I   A R K   K   E E   C   T   T   T   N   N   L   H   R   L   Q   Y   A   N
UniRef90_D0LRS9	G D E I   M S V   R E L   K   K A I   D G   V   G A S T   T   A A K   R   E E   L   L   D   T   G   A   I   D   K   L   E   K   L   R
UniRef90_UPI000371F693	T T Q   I   A T L   K   Q   L   L   A I   P   G   I   G   K   G   M   V   V   N   I   Q   A   L   L   T   T   G   T   L   P   R   E   E   L   L
UniRef90_S2YL24	E R T   M D Q   I   K   D   V   T   E   L   K   N   I   G   K   G   V   G   E   V   I   N   M   F   V   Q   T   G   K   S   P   T   L   E   S   L   K
UniRef90_UPI00037BD905	P   V   P   V   V   E   V   Y   R   Q   K   K   L   P   G   V   G   K   N   I   A   A   K   V   S   E   L   I   E   K   G   Y   M   N   K   L   E   E   L   R
UniRef90_A0A016Q8Y9	P   Y   P   L   K   N   S   Q   E   V   A   R   L   P   G   C   G   D   R   I   A   E   L   W   H   R   W   K   E   T   G   E   S   A   E   V   R   E   A   N
UniRef90_D2EEB3	S   E   D   I   N   K   I   Y   K   E   G   K   L   E   G   V   G   K   S   L   A   N   S   I   E   E   Y   L   Q   N   G   K   I   S   K   Y   E   K   L   K
UniRef90_Q6T422	P   Y   T   I   S   K   M   A   A   L   D   G   L   P   C   F   G   D   Q   T   R   A   I   I   E   E   I   L   E   D   G   V   S   S   K   V   D   D   L   L
UniRef90_T0S340	E   D   K   I   E   S   G   K   A   A   M   K   L   K   G   I   G   K   A   S   A   S   K   I   D   E   F   L   E   H   G   K   I   E   K   L   E   E   Y   R
UniRef90_V5RTG5	T   V   S   I   Y   D   L   W   E   L   K   E   I   P   G   V   G   V   S   I   Y   A   H   L   N   E   L   F   S   T   G   K   V   K   F   E   A   I   K
UniRef90_W7BFW3	N   R   S   L   S   E   L   E   D   I   R   T   L   P   G   I   G   K   A   T   G   D   I   I   E   E   Y   I   E   T   G   K   S   A   D   L   E   A   L   K
UniRef90_H1VCU7	P   Y   A   I   A   T   P   Q   E   V   A   R   L   P   G   C   G   V   K   V   A   E   L   W   H   E   W   K   E   S   G   R   L   C   E   V   D   E   A   Q
UniRef90_R4XC16	K   A   A   V   Q   S   F   A   Q   A   V   K   L   P   S   V   G   E   R   L   A   S   H   I   V   E   I   V   N   S   G   T   M   S   K   I   D   N   I   G
UniRef90_G0LG19	A   D   P   I   E   D   L   D   A   V   E   S   I   N   R   V   G   D   A   I   A   S   K   V   I   E   Y   I   E   T   G   S   I   D   E   L   D   E   L   L
UniRef90_E9CAV2	P   F   R   I   R   S   V   D   E   A   L   R   L   P   F   I   S   G   K   I   A   L   L   I   G   E   Q   L   R   H   G   H   V   K   R   H   L   C
UniRef90_H3D7S0	P   R   A   V   R   K   L   T   E   L   K   G   L   P   C   L   G   E   H   S   L   R   I   K   D   I   L   E   K   G   V   S   S   E   V   E   A   T   K
UniRef90_H0Q370	G   R   D   L   R   D   G   E   D   P   D   S   L   P   G   I   G   A   D   L   A   A   K   I   R   E   I   I   D   T   G   H   C   A   Q   L   D   R   L   H
UniRef90_W5L524	T   T   A   L   S   C   L   Q   D   T   A   G   L   P   C   L   G   E   E   S   K   T   I   E   E   I   I   D   C   G   S   S   S   R   V   I   E   D   I   L
UniRef90_I1FU11	P   K   R   V   T   R   V   E   E   V   R   N   H   R   I   G   K   H   S   I   S   V   I   E   D   I   V   L   H   G   T   S   E   E   V   E   D   I   R
UniRef90_H8KUE1	A   V   K   I   S   T   L   V   P   Q   L   E   K   V   D   G   I   G   K   S   I   A   L   K   V   D   E   L   N   Q   T   G   S   I   E   E   V   T   Q   L   L
UniRef90_A8PVH5	P   Y   P   L   K   A   L   D   Q   L   K   A   I   K   G   I   G   P   K   M   I   T   V   I   Q   Q   F   Y   E   H   G   Y   I   P   E   A   E   I   I   R
UniRef90_Q3ITL5	T   V   A   V   E   T   L   Y   E   E   L   T   E   I   D   D   V   G   D   A   I   A   G   K   T   A   E   Y   I   E   T   G   D   I   E   E   L   A   D   L   R
UniRef90_U7PKX4	P   Y   K   L   S   T   P   R   E   V   S   R   L   P   G   C   P   K   T   A   E   L   F   R   E   F   Q   A   N   G   H   V   R   E   A   E   T   D   E
UniRef90_UPI00032ACD14	P   F   K   V   E   S   A   D   Q   L   K   N   K   P   S   I   G   K   S   M   K   D   H   V   Q   T   I
UniRef90_UPI00045603FE	P   R   S   L   N   A   P   S   Q   A   D   K   I   K   G   V   G   K   K   V   A   L   L   V   H   Q   F   F   T   E   G   R   I   V   E   A   K   I   I   R
UniRef90_X1LR13	P   E   P   L   L   A   T   G   Q   L   A   K   T   P   G   I   G   K   S   S   L   A   K   I   E   E   F   I   K   T   G   M   I
UniRef90_V9L4E7	P   Y   A   V   T   S   V   D   S   L   R   G   F   P   G   I   G   E   H   C   R   K   V   I   E   E   I   L   E   D   G   V   C   Q   E   V   E   S   V
UniRef90_B9762	E   G   D   I   N   A   I   A   D   F   T   Q   L   K   G   V   G   K   G   V   A   E   V   L   E   D   I   R   A   H   H   E   S   S   L   L   K   S   L   K
UniRef90_UPI00037EC519	T   V   P   I   L   H   E   E   D   R   L   T   E   I   P   G   V   G   D   A   I   A   E   I   I   T   K   L   H   R   T   G   A   H   P   S   L   E   K   L   R
UniRef90_T1JNH2	P   F   T   V   S   K   L   S   Q   V   S   K   L   K   N   I   G   K   H   S   L   S   I   I   Q   D   I   L   E   D   G   I   S   N   E   V   E   Q   I   T
UniRef90_V3ZNY9	P   Y   Q   V   S   S   D   L   Y   C   L   K   N   I   K   D   I   G   H   S   S   R   V   I   K   D   I   L   E   D   G   Y   C   Q   E   V   Q   D   I   L
UniRef90_W8UC04	P   R   S   I   S   E   M   E   D   L   T   Q   P   G   I   G   K   E   L   S   Q   K   L   V   I   E   I   A   G   A   G   R   L   H   Q   F   E   E   I   K
UniRef90_C1DZP7	D   Y   A   I   T   S   G   K   A   C   Y   T   C   K   V   K   G   V   G   K   G   L   A   E   K   I   D   E   F   L   K   T   G   T   M   A   R   I   T   E   L   E
UniRef90_M5B5N0	P   Y   A   V   T   R   F   E   D   L   L   N   S   L   P   C   F   G   A   H   S   R   K   I   V   Q   E   I   T   E   D   G   S   S   V   E   V   V   Q   R   V
UniRef90_J9VLT9	P   R   R   I   T   S   G   K   A   E   L   R   Q   G   V   G   E   K   V   A   T   R   I   D   E   F   L   Q   T   G   E   I   A   E   S   Q   E   I   L
UniRef90_UPI00047BD8CB	P   P   D   I   S   G   L   P   G   L   R   K   P   T   V   G   E   A   I   A   K   K   I   L   D   F   N   Q   T   G   T   I   R   Q   V   E   D   L   R
UniRef90_F6ZHV8	I   H   K   I   K   S   G   A   E   A   K   K   L   P   G   V   G   T   K   I   A   E   K   I   D   E   F   L   A   T   G   K   T   R   Q
UniRef90_K2DT19	T   S   S   V   F   D   M   W   Q   L   Q   E   I   P   G   V   G   G   G   L   S   Q   H   I   E   E   L   F   T   T   G   D   V   K   E
UniRef90_UPI000344BFC0	P   E   E   T   P   E   L   K   D   F   A   G   I   P   R   V   G   K   G   I   A   A   E   L   S   E   F   A   R   T   G   S   F   A   P   P   D
UniRef90_K2CG89	T   S   E   I   H   D   L   W   E   L   D   Q   I   P   G   I   G   A   S   L   K   D   H   L   N   E   L   F   K   T   G   Q   V   Q   H   W   E   I   I   K
UniRef90_X6FGG0	S   Q   P   I   I   A   T   G   A   L   T   K   I   P   G   I   G   D   A   I   A   D   I   V   T   K   L   Y   Q   T   G   T   H   P   S   L   E   K   L   R
UniRef90_G0SGH5	P   Y   A   F   K   T   A   Q   E   V   A   R   L   P   G   C   G   A   K   I   A   Q   L   F   Q   E   F   K   D   T   G   Q   I   A   E   A   N   E
UniRef90_F0WG97	Q   V   R   L   S   T   V   K   D   I   Q   G   Q   L   W   W   A   K   G   R   M   Y   S   R   V   A   E   L   L   E   T   G   R   M   E   K   L   E   A   K   R
UniRef90_G4TBJ0	P   N   K   Y   I   T   E   I   E   E   E   K   P   Y   V   G   K   S   T   L   N   R   V   S   E   F   L   G   R   G   F   I   E   E   A   R   H   L   E
UniRef90_M2MR12	P   Y   K   I   V   S   P   R   E   I   M   A   L   P   G   C   D   Q   K   I   A   N   L   F   V   E   W   A   N   T   G   T   I   K
UniRef90_M4FUY9	P   Y   L   L   T   S   P   E   E   V   D   R   L   P   G   C   G   P   K   I   A   L   L   F   Q   E   F   N   R   Q   G   V   V   R   E   A   Q   E   A   E
UniRef90_F2UQK2	K   E   P   I   T   T   Y   E   Q   A   R   R   I   P   K   V   G   N   E   T   A   K   K   I   D   E   I   L   S   T   G   T   L   Q   R   L   E   A   F   D
UniRef90_G4UFZ9	P   Y   L   L   Q   S   A   F   E   V   A   R   L   P   G   C   G   P   K   I   A   V   L   F   R   E   W   N   D   S   G   R   V   E   E   V   D   K   A   A
UniRef90_W3X447	P   Y   V   L   R   G   A   H   E   V   V   S   R   L   P   G   C   G   P   K   I   A   V   L   F   R   E   W   N   D   S   G   R   V   E   E   V   D   K   A   A
UniRef90_U3AAE8	P   E   A   I   E   D   L   E   A   V   V   Q   S   I   E   G   V   G   E   G   I   A   E   H   V   V   D   Y   V   E   T   G   T   F
UniRef90_C1F770	T   V   T   L   L   A   T   K   K   L   Q   E   I   P   G   I   G   K   G   M   A   A   N   I   A   Q   I   E   E   T   T   G   S   F   D   L   R   R   E   L   L
UniRef90_UPI0003B64994	T   T   Q   L   L   D   P   K   Q   L   L   A   I   P   G   I   G   K   G   M   A   A   N   I   V   D   I   N   T   G   S   T   P   L   R   D   E   L   L
UniRef90_UPI00036C02F3	P   V   Q   L   L   S   T   L   S   A   E   K   A   K   G   P   I   G   K   G   M   A   A   N   I   V   D   I   N   T   G   S   T   P   L   R   D   E   L   L
UniRef90_R9GTR3	P   F   S   I   V   K   S   L   Q   E   M   E   G   I   R   A   I   G   K   S   V   A   A   K   V   Q   E   L   I   E   T   G   S   L   K   E   L   D   E   L   L
UniRef90_D6XBA0	P   A   D   V   V   E   A   G   S   L   E   S   L   K   G   P   K   T   A   Q   V   V   R   E   A   L   A   G   G   V   P   G   Y   L   E   K   L   E
UniRef90_F9X556	N   H   K   I   S   N   P   R   E   I   L   A   P   G   C   D   H   K   I   A   N   L   Y   V   E   W   Q   N   T   G   R   I   Q   A   V   E   E   L   L
UniRef90_R9XIL2	P   Y   N   I   Q   T   Y   E   Q   A   R   S   L   P   G   I   G   V   D   G   D   I   A   Q   K   I   A   L   L   A   Q   K   I   A   L   L   A   Q   G   S   V   P   G   L   D
UniRef90_U5H8D6	P   W   K   I   R   T   A   E   Q   A   R   S   L   P   K   V   G   E   K   I   V   T   K   I   E   E   Y   L   R   T   G   E   I
UniRef90_W4JMU9	P   R   K   I   V   S   S   T   R   D   V   Q   K   L   P   Y   I   G   E   K   I   L   L   T   M   V   E   Q   Y   M   T   T   G   Q   L   V   E   V   Q
UniRef90_UPI000472BCE1	P   K   A   V   K   V   S   G   G   D   L   S   E   L   P   G   I   G   K   d   L   A   S   K   V   I   A   D   I   V   E   T   G   H   F   G   L   L   D   T   L   K
UniRef90_E8V562	T   Q   Q   L   A   E   I   A   Q   L   L   A   I   P   G   I   G   K   G   M   A   A   N   V   R   D   L   V   A   T   G   S   M   P   L   R   D   E   L   L
UniRef90_X1BIK9	D   I   D   F   G   K   I   D   S   L   T   K   I   K   G   I   G   Q   H   I   A   E   R   I   K   E   L   L   D   T   G   S   L   K   F   Y   E   D   L   L
UniRef90_G8DDW8	N   G   E   V   V   N   S   A   D   D   I   K   G   L   S   G   I   G   K   A   I   T   D   K   L   T   E   F   I   N   T   G   Q   V   K   N   L   E   K   L   K
UniRef90_X1PJ15	E   K   D   V   K   E   I   Y   K   L   E   E   I   P   G   V   G   K   N   I   A   Q   K   I   E   E   Y   L   K   T   G   K   I   K   Y   Y   E   K
UniRef90_U1R3N4	P   G   A   I   I   E   G   L   D   A   V   T   E   I   D   R   V   G   D   A   I   A   S   K   V   L   Y   V   E   T   G   E   I   E   E   L   A   E   L   R
UniRef90_S3C9E6	P   Y   E   I   H   S   P   S   R   I   S   Q   S   P   G   C   G   P   K   I   E   D   L   Y   R   E   F   Q   S   D   G   H   V   R   E   A   D   D   D   E
UniRef90_L5LFP9	P   C   P   V   T   A   L   S   Q   L   Q   G   L   P   H   F   G   E   H   S   C   Y   R   V   I   Q   E   L   L   E   H   G   V   C   E   E   V   E   R   V   Q
UniRef90_UPI0003813DFE	T   V   P   I   L   S   T   I   A   D   L   L   E   I   P   G   I   G   K   G   M   V   A   N   I   Q   S   I   E   Q   H   G   S   M   P   L   R   D   E   L   L
UniRef90_K1PM26	K   F   P   L   T   S   I   D   Q   L   K   G   A   K   D   V   P   G   K   H   V   Q   K   V   L   D   G   T   S   D   E   V   E   K   V   R
UniRef90_I3UJY7	D   F   K   V   T   T   H   G   E   Q   L   S   H   L   Y   G   I   G   K   S   I   V   R   K   V   N   E   F   L   E   T   G   E   I   K   V   V   K   T   F   T
UniRef90_I3UJY7	D   F   K   V   T   T   H   G   E   Q   L   S   H   L   Y   G   I   G   K   S   I   V   R   K   V   N   E   F   L   E   T   G   E   I   K   V   V   K   T   F   T
UniRef90_A0A023WZX1	S   G   S   V   A   A   L   D   D   P   K   S   L   P   H   V   G   G   T   S   Q   F   I   A   D   L   V   E   G   R   M   P   P   V   L   D   E   L   M
UniRef90_S9VWV7	D   K   P   L   N   T   P   A   D   I   K   A   F   P   G   F   G   S   K   I   L   K   K   A   E   E   I   M   E   T   G   K   L   E   E   L   E   K
UniRef90_E4RTK9	D   E   Q   I   M   N   P   G   K   I   A   Q   I   R   G   Y   G   R   I   I   Q   P   A   I   L   E   I   L   Q   T   G   T   L   Q   E   L   S   H   L   M
UniRef90_UPI000444A099	P   T   K   I   N   S   T   R   D   I   Q   R   L   P   F   V   G   S   K   I   S   S   M   I   E   Q   F   I   D   Q   G   Y   I   S   E   V   L
UniRef90_M7T317	D   K   K   V   V   A   T   A   K   E   A   V   K   L   P   N   I   G   S   S   L   A   E   K   I   E   E   I   V   A   S   D   R   L   K   K   L   D   N   M   K
UniRef90_X0SSP4	P   E   K   I   V   S   G   Q   Q   I   S   H   L   K   G   I   G   P   G   T   I   K   R   I   D   G   R   M   G   G   D   L   E   E   L   S   E
UniRef90_R9T6S0	N   E   K   I   Y   T   S   G   R   V   R   E   I   K   G   I   G   P   S   I   E   S   K   I   A   E   Y   L   E   T   G   G   I   A   A   L   S   N   D   V   R
UniRef90_M3B059	S   Y   E   I   V   S   S   P   Q   E   I   L   R   I   P   G   C   D   A   K   I   A   N   L   W   V   E   W   K   N   N   G   K   I   K   A   V   E   E   A   E
UniRef90_D8SG82	P   Y   K   V   T   S   V   E   Q   I   R   E   M   Y   G   V   G   K   S   L   V   K   M   V   K   E   I   L   G   T   Q   G   Q   K   L   D   N   L   K
UniRef90_I5BZW9	D   A   S   Q   L   S   E   A   E   L   R   E   I   P   G   I   G   K   S   L   A   E   V   I   A   T   L   A   Q   T   G   Q   H   A   I   L   G   E   F   L
UniRef90_C5E495	P   H   E   I   E   S   G   V   Q   A   Q   K   V   S   N   V   G   S   S   I   A   K   K   I   Q   T   L   L   D   T   G   T   L   P
UniRef90_W0JX18	P   E   P   V   E   D   L   E   A   V   V   Q   R   I   D   G   V   G   E   A   I   A   A   K   I   V   E   Y   V   E   T   G
UniRef90_C4NXS6	D   L   P   L   R   T   V   E   D   L   E   R   F   P   G   F   G   S   K   L   L   K   K   A   E   E   I   L   M   T   G   K   L   E   E   L   E   K
UniRef90_N1PTU7	P   Y   K   I   S   H   P   K   E   L   L   R   I   P   G   C   D   E   Q   K   L   V   K   L   W   V   E   W   K   N   S   G   T   I   K   A   V   E   E   L   R
UniRef90_I0AJM4	G   D   K   F   D   K   E   K   R   L   G   E   V   V   K   G   I   Q   S   V   I   Y   E   Y   A   E   K   G   E   S   S   E   L   K   S   L   L
UniRef90_G0QLY3	K   Q   Q   I   Q   S   K   E   D   I   K   K   I   K   G   I   G   D   K   I   K   L   K   I   Q   E   I   L   Q   N   G   T   C   E   K   I   Q   N   Q   L   L
UniRef90_G2X316	P   Y   A   I   S   T   S   P   A   R   L   P   G   C   G   S   K   I   A   E   L   Y   H   Q   W   K   T   T   G   S   L   G   E   I   D   S   S   S   Q
UniRef90_UPI0004413952	P   A   E   F   R   T   I   K   D   V   K   D   V   P   F   V   G   A   K   I   S   S   Q   V   E   E   Y   L   D   H   G   R   I   S   E   A   E   E   L   R
UniRef90_UPI0003F49150	P   R   R   I   R   S   G   K   E   A   M   K   L   A   D   V   G   E   K   V   A   I   R   I   D   E   Y   L   S   T   G   S   V   A   E   S   Q   N   I   L
UniRef90_UPI0003B69ED6	S   F   P   V   V   E   R   H   G   L   P   D   R   T   G   L   S   K   T   A   A   R   V   A   E   M   L   D   T   G   S   F   E   E   L   T   R   L   L

UniRef90_UPI0004790FAB	A
UniRef90_B2AY49	L E
UniRef90_D0LRS9	A
UniRef90_UPI000371F693	Q
UniRef90_S2YL24	A E
UniRef90_UPI00037BD905	R
UniRef90_A0A016Q8Y9	A D
UniRef90_D2EEB3	E
UniRef90_Q6T422	C D
UniRef90_T0S340	A
UniRef90_V5RTG5	K D
UniRef90_W7BFW3	K E
UniRef90_H1VCU7	A D
UniRef90_R4XC16	D D
UniRef90_G0LG19	
UniRef90_E9CAV2	N
UniRef90_H3D7S0	Q
UniRef90_H0Q370	R E
UniRef90_W5L524	S D
UniRef90_I1FU11	Q
UniRef90_H8KUE1	Q
UniRef90_A8PVH5	N D
UniRef90_Q3ITL5	E
UniRef90_U7PXK4	T D
UniRef90_UPI00032ACD14	
UniRef90_UPI00045603FE	R D
UniRef90_X1LR13	
UniRef90_V9L4E7	
UniRef90_B9E762	E
UniRef90_UPI00037EC519	K E
UniRef90_T1JNH2	K D
UniRef90_V3ZNY9	N N
UniRef90_W8UC04	E
UniRef90_C1DZP7	S
UniRef90_M5B5N0	
UniRef90_J9VLT9	E
UniRef90_UPI00047BD8CB	A
UniRef90_F6ZHV8	
UniRef90_K2DT19	
UniRef90_UPI000344BFC0	
UniRef90_K2CG89	K
UniRef90_X6FGG0	E D
UniRef90_G0SGH5	
UniRef90_F0WG97	R N
UniRef90_G4TBJ0	K N
UniRef90_M2MR12	
UniRef90_M4FUY9	S D
UniRef90_F2UQK2	T
UniRef90_G4UFZ9	S D
UniRef90_W3X447	R D
UniRef90_U3AAE8	
UniRef90_C1F770	E
UniRef90_UPI0003B64994	K
UniRef90_UPI00036C02F3	
UniRef90_R9GTR3	A D
UniRef90_D6XBA0	S E
UniRef90_F9X556	S N
UniRef90_R9XIL2	
UniRef90_U5H8D6	
UniRef90_W4JMU9	
UniRef90_UPI000472BCE1	K
UniRef90_E8V562	T
UniRef90_X1BIK9	K
UniRef90_G8DDW8	S E
UniRef90_X1PJI5	
UniRef90_U1R3N4	A E
UniRef90_S3C9E6	T
UniRef90_L5LFP9	R
UniRef90_UPI0003813DFE	T
UniRef90_K1PM26	N D
UniRef90_I3UJY7	T N
UniRef90_I3UJY7	T N
UniRef90_A0A023WZX1	E E
UniRef90_S9VW17	
UniRef90_E4RTK9	E
UniRef90_UPI000444A099	
UniRef90_M7T317	Q E
UniRef90_X0SSP4	
UniRef90_R9T6S0	
UniRef90_M3B059	K D
UniRef90_D8SG82	A
UniRef90_I5BZW9	E
UniRef90_C5E495	
UniRef90_W0JX18	
UniRef90_C4NXS6	
UniRef90_N1PTU7	A D
UniRef90_I0AJM4	E N
UniRef90_G0QLY3	N D
UniRef90_G2X316	Q E
UniRef90_UPI0004413952	A
UniRef90_UPI0003F49150	S
UniRef90_UPI0003B69ED6	A

1                    10                    20                    30                    40

UniRef90_V9F9Z4	N Q V I V N T F A E Y G E Q Q L H R G H T G K G V A H L R A A R A I R D Y			
UniRef90_UP10001745E73	A T V L R N I A L L L D L K G E N P F K T R A Y N T G A E I V E T F			
UniRef90_E1ZG27	N E P V V K A L S E L S R Y E R A L H D D Y F R A L R Y S R A A S A V R A C			
UniRef90_UP10003C19098	N Y N K L F T D A F E V L A A N Y E M N E N K G P Y L G F M R A A S M I K S L			
UniRef90_UP10003101B68	N R Q I A S C L R E A A Q R L V D Q G A N P Y R A G A Y R A G A D T L D G L			
UniRef90_K1L9N1	K S I L R Q L K L I I K L M E L H D E N S F K I R S Y Q S T V N T I D R G			
UniRef90_X1FSB8	L N K K I V K I L Y G I E E L L K I K G V P F K P S A Y H K A A L S L E N L			
UniRef90_I0I8F4	N R D V A A I L A G V A A R L Q I L D A N R F R V I A F Q N A A E S I R N L			
UniRef90_M7WSS0	C V N Q D I V D A L K P L R D W R F A E G S G S P E G I S Y A T A I S V I I A C			
UniRef90_S4RJG9	D A L Q T L A E N A R L G D S D G R A L A F T R A A C V I L K S L			
UniRef90_P25615	N E L I I G A L K R L T K K Y E I E G E K F R A R S Y R L A K Q S M E N C			
UniRef90_G2YW92	S P N D P F I N Q N L K T I L K K R L L D G D P I G V R A Y S T S I A S I A A Y			
UniRef90_D3F2V8	N S E I A A A F D E L G D L Y E L D G A I I H R V V A Y R N A A K V V R D A			
UniRef90_M0L8M7	N D E I A T L L E E F A D L L D A K G V E Y K P R A Y R R A A E N I R D H			
UniRef90_J9IGR6	M N D E I I K Q L E K L Y K Y Y E A Q D D K G R M H G Y R R G L T F L R S Y			
UniRef90_UP100036C9C7F	N K D I I I R L R L T T T L E V H N E N V F K I R G Y Q N A V A T L E R L			
UniRef90_UP10004414183	C P N Q R L I E E L A V I R N A R K L E G E E R S E L S Y S R A I A S I K A Q			
UniRef90_I2H3I1	N E L L I K T L D K L S K I H T I R G D E F R S R G Y K L A K I S V S K Y			
UniRef90_UP10003754C41	N D E I A K K L Q Q L H E L L V I G G Y E E S H A T R Y S R L A Y T I S R H			
UniRef90_UP100047ED1E6	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_B0CVL5	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_G8TJA3	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_UP1000359C27A	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_F4PRR2	S V N Q H I V D H L S Q H V Q H L R S Q G D I N K I P A F K K A I T S L T A Y			
UniRef90_D0MQB7	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_D0MQB7	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_W2EPF2	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_UP100036B83CF	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_UP1000288ECA9	N Q I L V D A L A E Y G E E E L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_M2RMT3	P N G D I V E A L E R I A F L L E R S L A P P Y R V K A F R T A A R V L S A L			
UniRef90_V8NQW9	D A F E I L V E N Y E F N E N K E F C L A F G R A A S I L K C L			
UniRef90_E8W3N2	L N N E I A E Q L D R L F K Y Y Q T L K D K G R M W G Y K R A V T Q V R S I			
UniRef90_J9HWK2	P N Q K F T E A L E F L E K A A E L R G D N S R R A L A F R K A S A A L K A L			
UniRef90_UP100005884D3	N K K F T D A F E I M A E N Y E F K E N E G I F C L E F L R A A S V L K S L			
UniRef90_P36195	V R A L E R I A F L L E R G R A V T Y R V F R T A A R T V A A M			
UniRef90_UP1000477DD82	L L K E L I K Y L H A E R D I W R E Y M Y K K V V S S L K A M			
UniRef90_K3WBD7	I A A L R A V A F Y Y E R E R A D T Y R V K A Y R T A A D R L L A E L			
UniRef90_UP1000369A696	A H V L T R I A A L L E L N G V N R G F K S R A Y A T A A R S V L A L			
UniRef90_W0RGS4	N A Q I H T L E L L A T L L E L H E E N P F K V K V K S Y L T A A Q H L E K V			
UniRef90_UP10003FE3253	N Q A I H T L E L L A T L L E L H E E N P F K V K V K S Y L T A A Q H L E K V			
UniRef90_F8D4G8	N Q A I H T L E L L A T L L E L H E E N P F K V K V K S Y L T A A Q H L E K V			
UniRef90_H3HBW9	N Q A I H T L E L L A T L L E L H E E N P F K V K V K S Y L T A A Q H L E K V			
UniRef90_M2A8Q7	UniRef90_C5E3H7	UniRef90_S3CES3	UniRef90_X1MSM3	UniRef90_Q5Y0L4
UniRef90_UP1000455FC40	C P N Q A L I D E L K I I Q L S R K L E G E E R S M L S Y Q R A I A M K S Y			
UniRef90_H3GBE1	N Q P I V D A L V D Y G D S H L Y S G H R G K G I S H H L R A A Q A I R D A			
UniRef90_H3GBE1	N Q P I V D A L V D Y G D S H L Y S G H R G K G I S H H L R A A Q A I R D A			
UniRef90_L8JIT4	N K S I I R L I R H S V A L M E L H G E S D S K I K A Y N N A L F N L E R E			
UniRef90_Q2RHP0	N N E Q P L V D Q L V Q L G E Y E M R H G K T Q R G L A R L R A A K E I R D S			
UniRef90_H3GBE6	N K S I I R L I R H S V A L M E L H G E S D S K I K A Y N N A L F N L E R E			
UniRef90_Q9HK48	N N E Q P L V D Q L V Q L G E Y E M R H G K T Q R G L A R L R A A K E I R D S			
UniRef90_UP1000443CC2C	M F E E I A Y M I L A D G N E K F E A N A Y L R A A R S L R S I K A L			
UniRef90_X1BX79	F K G S E G R Q L S F C R A S A L K A L			
UniRef90_E6QM59	N Q T L A Q L L E E T A D L L E I E L I D I K G E I F F K T R A Y R I A A Q N I E V L			
UniRef90_UP10003D70015	R E R D M G R A G C Y A R A A S V L K S L			
UniRef90_UP10003317F3C	N H N R I F T D A F D I M A E N F E F R E N E M T C L A F M R A S S V L K S L			
UniRef90_M7Y1Q0	D H I L R Q L K L T I K L M E L H D E N P F K I R S L Q S A V N N I D R G			
UniRef90_R7TPZ3	N L I F T Q A L R I L E R D A V L K G D N N S R A L A F R R G M C T I A S L			
UniRef90_F3NEV7	E A A L D R I A F L L E R S Q A P T Y R V R A F T A A G V L A P L			
UniRef90_C1HB28	P N E A F I N Q N L D K I K K I R E L T L D E I G F V R A Y S T A I A S I A A Y			
UniRef90_E1ZG64	N E P V V Q A L R E L Q K Y E A A L S S Q N H K S L A Y A H A A A V V R T C			
UniRef90_L2TWE7	V Q A L R E T A F W L E R S R A E T H R V K A Y R R A A D V V A E L			
UniRef90_S2EBC6	M E L H D E N T F K I R S Y Q S A V N A I E D V			
UniRef90_A4RVJ2	N A A L C A A L E R L H E A S M L S P E E P M K V N A Y A K A L T S I R A L			
UniRef90_W4G7I7	N Q D V A E A M E E Y A D H E F E R K A G S G A V Y A K I L A R A V V R D K			
UniRef90_G2MJA4	N D E I L A T L L E E M A D L L D A Q D V A Y K P S A Y R R A A E N V R E H			
UniRef90_G0QE00	I A A D E L E K F A D F L R L D G Q D G R A Y A Y E T A A Q V L R			
UniRef90_G8ZQ09	S K N E L L I K A L G R L A K R Y D V K G D R Y R S R G Y K L A K I G V E R Y			
UniRef90_G4ZMT2	N Q L L V D A L V E Y G E E Q L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_G4ZMT2	N Q L L V D A L V E Y G E E Q L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_G4ZMT2	N Q L L V D A L V E Y G E E Q L Y K R H T G R G T A F L R A A R R L R D A			
UniRef90_A0CMJ3	C Q N N E I I E E L E K L L K I Y T N E K D K G R C I A Y R K A I G F L K A L			
UniRef90_G0T0U0	C I N Q A L V D E L K P L R E F R F L Q G T H A K E S I S Y A T A V S C I I G T			
UniRef90_X0Z135	N S E V A R V F Q D I A V L L E L K I E N P F K I R A Y Q K V A R S I E H L			
UniRef90_U5BJT3	K S I I R Q L K I K L M E L H E I N I F K I R S Y Q T A V N T I E R G			
UniRef90_B3DY04	Q T V V S V L E G I A T L L E L K G E N P F K S R A Y T A A R S V I D S L			
UniRef90_L0KXR9	N A E V A K L L Y E M A Y M L E F K G E N V F K I K A Y Q K A A R H E E L			

	50	60	70
UniRef90_V9F9Z4	P C P   I T S G T E A R A A V P   L V G S K M A T Q   V E Q   L S T G K   L E E		
UniRef90_UPI0001745E73	S G D I V   A R N D   L K G   G V   K G   L G D A   L Q Q K   L N E L A S T G K   L E F Y E R   L R		
UniRef90_E1ZG27	A Y K L Q   P N   L R G   G Q L   P F   V G D   V T A S Q   K I D I   L E S G T C   Q A   L E C   F R		
UniRef90_UPI0003C19098	P Y A I S S M K D   L E G   L P   C   L G D Q   T K A   V   E		
UniRef90_K1L9N1	D R N V R A L   F D   L D A   L P   Q   G   L G V A   Q A   A E   L   L   T G R   W R Q   L   E R   L R		
UniRef90_X1FSB8	D   V   M   V K D   M E E L   Q S   I N G   G K   S   I A   E   V   F S   I   G   Q   T G   T H   S   Y   L   E E L		
UniRef90_I0I8F4	E Q D V S   F   I Y E   L E K   I S G   V G K   S   I A   K   I E E   Y   M   K   K   G   R   I   N   Y   Y   E N		
UniRef90_M7WSS0	P Q D I N A   L   D E L   T   S   I P   G   V G G   K   I A   E   A   L   H   N   L   T   T   G   S   D   P   E   F   D   A   L		
UniRef90_S4RJG9	P Y K I R   S   G   E E   A   R   A   L F   Q   V G G   K   I A   L   R   I D   E   F   L   E   T   G   R   V   K   E   A   D   D   L		
UniRef90_P25615	P S P   L   S   S   V   R   D   L   D   G   L P   G   V G   E   H   S   R   A   V   I K   V   L   L   E E   Q   S   C   P   E   V   N   R   V   L		
UniRef90_G2YW92	D F N V R   S   G   E E   A   T   K   L R   N   I P   G   S   I A   K   K   I Q   V   L   L   D   T   G   V   L   P   G   L   N   D		
UniRef90_D3F2V8	P Y P   L   H   S   P   N   E   L   I   R   L P   G   C   D   Q   K   I A   N   L   L   H   Q   F   L   N   T   G   T   T   D   E   V   F   D   F   E		
UniRef90_M0L8M7	S   V   S   V   A   A   L   T   R   V   T   E   L   P   G   I G   A   T   L   E   T   K   L   V   A   L   V   E   T   G   D   I   P   Q   A   A   R   L   R		
UniRef90_J9IGR6	P   G   A   I E   G   L   D   S   I   G   E   I   V   D   G   V G   D   A   I   S   S   K   V   V   E   Y   F   E   T   G		
UniRef90_UPI00036C9C7F	K   D   P   I Y   S   V   E   Q   L   E   S   V   P   Y   L G   N   G   I L   K   K   V   Q   E   L   I   E   E   G   S   K   R   F   E   F   L   S		
UniRef90_UPI0004414183	N   E   P   L   K   N   M   P   Q   E   E   A   I   N   G   I G   K   S   L   A   A   N   I   R   E   M   L   D   T   G   S   F   P   Q   L   R   E   L		
UniRef90_I2H3I1	P   A   E   F   R   T   L   K   D   A   Q   D   V   P   F   V G   A   K   I   S   N   M   I   E   E   F   I   D   H   G   R   I   S   D   A   E   E   L   R		
UniRef90_UPI0003754C41	P   H   K   I   K   S   A   K   E   A   Q   K   I   P   H   I G   A   S   I   A   K   K   I   E   T   L   L   K   T   G   K   L   P   G   L   E   E		
UniRef90_UPI00047ED1E6	P   E   S   I   E   A   L   H   R   I   L   S   A   I   S   G   V   G   E   T   I   A   E   I   G   E   F   I   E   T   G   T   C   N   K   L   E   E   F		
UniRef90_B0CVL5	P   R   S   V   A   G   M   T   R   A   T   E   L   P   G   I G   K   T   L   A   E   K   F   T   A   L   I   F   I   E   T   G   E   I   P   A   L   T   K   L   R		
UniRef90_G8TJA3	D   Y   P   I   H   S   G   K   Q   V   S   A   I   L   H   G   I G   A   G   I   A   N   R   I   N   D   F   L   I   E   E   G   H   L		
UniRef90_UPI000359C27A	K   N   D   I   S   E   Y   D   G   L   H   E   L   K   G   I G   E   S   I   G   E   K   I   E   Y   L   H   T   G   K   I   N   T   F   D   Q   L   K		
UniRef90_F4PRR2	P   F   A   V   Q   D   V   R   Q   L   E   G   L   K   D   V G   G   G   H   V   K   R   V   L   S   D   L   L   D   N   G   S   S   S   E   V   Q   E   I   L		
UniRef90_D0MQB7	P   I   P   F   S   A   R   E   C   E   L   N   G   V   G   P   S   I   S   K   M   I   E   R   F   I   Q   S		
UniRef90_D0MQB7	D   V   A   V   R   S   G   Q   E   A   K   K   L   G   R   I G   D   K   V   A   G   Y   L   D   T   M   L   A   H		
UniRef90_W2EPF2	D   V   A   V   R   S   G   Q   E   A   K   K   L   G   R   I G   D   K   V   A   G   Y   L   D   T   M   L   A   H		
UniRef90_UPI00036B83CF	S   Q   D   I   S   G   L   D   E   L   R   G   I   P   N   V   G   A   S   I   A   A   K   I   D   E   Y   V   H   T   R   A   I   H   Q   L   E   E   L   R		
UniRef90_UPI000288ECA9	D   G   D   I   V   E   R   N   D   L   K   G   I   K   G   V   G   D   A   L   Q   Q   K   L   H   E   L   V   S   T   G   K   L   E   Y   F   E   N   L   R		
UniRef90_M2RMT3	D   H   R   I   E   S   V   E   E   V   R   D   V   K   G   I   G   K   G   I   A   K   R   I   A   L   F   L   S   G   E   Q   Q   E   E   A   E   N		
UniRef90_V8NQW9	S   F   T   V   V   R   V   N   D   I   E   E   G   L   P   W   M   G   K   Q   V   R   E   I   I   E   D   I   L   E   E   G   E   S   S   K   V   K   A   V   L		
UniRef90_E8W3N2	D   A   D   R   V   T   R   G   S   L   E   S   V   R   G   I   G   P   K   T   A   K   V   I   R   E   A   V   G   A   T   P   S   Y   L   E   A   L   E		
UniRef90_J9HWK2	K   E   P   I   Y   S   L   D   Q   L   K   D   V   P   N   I   G   E   G   I   L   K   K   L   R   E   Y   V   A   E   G   S   I   K   R   F   E   F   I   D		
UniRef90_UPI00005884D3	P   E   E   I   K   K   P   E   D   V   E   N   L   Y   D   I   G   A   H   C   K   G   V   I   L   D   I   L   E   N   G   Y   S   A   E   V   E   G   L   K		
UniRef90_P36195	P   F   P   V   T   R   M   K   D   I   Q   P   C   M   G   D   R   V   R   D   V   I   P   G   I   P   N   V   G   A   S   I   A   A   K   I   D   E   Y   V   H   T   R   A   I   H   Q   L   E   E   L   R		
UniRef90_UPI00047DD82	D   E   R   R   V   I   S   V   D   G   S   L   Q   R   V   K   G   I   G   P   R   T   A   E   V   I   R   E   A   V   A   G   G   T   P   G   Y   L   E   R   L   E		
UniRef90_K3WBD7	R   T   R   V   R   S   A   R   D   L   Q   G   L   W   W   A   K   G   R   L   R   E   K   V   V   E   L   L   E   T   G   K   L   A   K   L   E   A   K   K		
UniRef90_UPI000369A696	P   D   E   V   A   A   R   A   A   L   T   D   L   K   G   V   G   R   K   T   A   G   V   V   A   E   V   V   A   T   G   T   S   S   A   V   E   E   L		
UniRef90_W0RGS4	D   T   P   L   L   R   R   A   G   E   L   E   T   T   P   G   L   G   P   A   T   L   A   V   R   L   D   V   L   R   A   T   G   D   S   S   L   L   E   Q   L   Q		
UniRef90_UPI0003FE3253	D   T   P   L   A   S   V   A   E   L   Q   Q   G   I   G   K   A   I   A   E   K   I   A   E   L   C   T   I   G   T   F   K   L   E   E   V   K   K		
UniRef90_F8D4G8	P   R   P   I   A   D   Y   V   D   I   E   D   D   I   D   G   V   G   E   A   I   A   D   K   I   V   E   Y   V   E   T   G   T   L   E   K   L   D   E   Y   R		
UniRef90_H3HBW9	K   D   I   T   C   G   K   D   A   L   K   L   K   G   V   G   K   S   S   A   A   K   I   D   E   F   I   E   T   G   T   L   E   K   L   D   E   Y   R		
UniRef90_M2A8Q7	R   S   P   I   R   E   L   L   E   I   L   V   V   A   L   P   T   I   G   V   S   I   S   G   L   I   E   S   A   I   R   V   V   G   R   I   P   L   L   D   R   L   R		
UniRef90_C5E3H7	G   K   P   I   T   S   E   E   G   A   L   S   P   N   I   G   P   S   I   S   A   S   K   I   K   L   V   L   D   V   G   S   L   P   G   L   Q		
UniRef90_S3CES3	P   H   T   L   T   S   A   L   E   L   L   K   K   L   P   H   C   G   S   R   F   A   A   L   F   Q   E   W   K   E   T   G   M   I   K   E   V   E   D   L   K		
UniRef90_X1MSM3	P   E   Q   L   V   A   E   D   K   L   K   E   V   P   G   V   G   E   A   I   T   K   K   I   T   E   L   V   T   T   G   H   L   G   Y   Y   E   K   L   K		
UniRef90_Q5YOL4	N   T   E   I   C   K   R   K   A   L   L   E   K   E   K   L   P   G   V   G   K   T   I   S   R   V   I   E   A   F   L   G   D   A   K   S   E   R   L   E   K		
UniRef90_G0QBN0	D   S   P   V   E   K   M   D   E   L   Q   S   L   D   N   V   G   N   A   I   V   Q   D   I   S   E   F   T   S   T   G   S   S   S   R   L   Q		
UniRef90_K2A750	P   H   E   L   K   D   V   L   R   E   R   K   I   P   P   G   V   G   P   S   I   L   S   H   L   E   L   F   A   K   G   R   V   K   H   F   E   E   I   M		
UniRef90_A4PCD4	P   F   T   I   I   T   M   R   D   T   E   G   I   P   C   L   E   D   K   V   K   C   I   I   E   E   I   I   E   D   G   E   S   S   E   V   K   A   V   L		
UniRef90_Q010U8	N   F   E   I   T   S   I   N   D   C   D   V   V   P   M   L   K   K   K   I   R   K   Y   V   G   E   I   L   I   N   T   G   K   L   K   A   L   E   E   L   R		
UniRef90_G4ZMT4	D   Q   V   V   T   S   G   D   Q   A   R   R   V   P   L   V   G   R   T   I   A   D   K   I   D   Q   I   L   K   H   G   R   I   D   Q   I   L   K   H   G   R   I		
UniRef90_G4ZMT4	D   Q   V   V   T   S   G   D   Q   A   R   R   V   P   L   V   G   R   T   I   A   D   K   I   D   Q   I   L   K   H   G   R   I   D   Q   I   L   K   H   G   R   I		
UniRef90_L8JTN9	P   G   D   I   L   S   V   Y   L   K   V   R   D   I   P   G   V   G   E   S   L   E   K   D   I   R   E   F   T   S   T   G   T   V   T   R   F   E   N   L		
UniRef90_F5Z1K8	G   D   D   E   R   R   R   H   G   W   Q   S   L   P   G   I   G   P   K   T   A   A   V   I   A   Q   A   W   A   G   G   Q   P   D   T   L   V   R   L   R		
UniRef90_C5K815	G   Y   P   L   D   T   D   A   A   V   E   H   F   S   G   I   G   A   K   T   M   Q   K   I   R   E   F   V   N   T   G   S   V   K   K   A   E		
UniRef90_Q0U373	P   H   K   L   S   H   P   R   E   L   A   Q   L   P   G   C   D   E   K   T   A   V   L   F   V   E   W   K   N   T   G   R   I   Q   A   V   E   D   F   E		
UniRef90_UPI000455FC40	P   H   I   I   T   L   E   N   E   V   E   D   D   L   P   Y   L   G   T   K   L   V   A   M   I   E   E   Y   V   T   L   G   K   I   S   E   A   E   S   I   R		
UniRef90_H3GBE1	K   T   I   V   Q   S   G   Q   Q   A   S   K   I   D   M   V   G   Q   R   I   S   A   K   I   D   Q   I   I   Q   Q   G   H   T   G   R   I   K   R   Y   D   D   L   K		
UniRef90_H3GBE1	K   T   I   V   Q   S   G   Q   Q   A   S   K   I   D   M   V   G   Q   R   I   S   A   K   I   D   Q   I   I   Q   Q   G   H   T   G   R   I   K   R   Y   D   D   L   K		
UniRef90_H3GBE1	K   T   I   V   Q   S   G   Q   Q   A   S   K   I   D   M   V   G   Q   R   I   S   A   K   I   D   Q   I   I   Q   Q   G   H   T   G   R   I   K   R   Y   D   D   L   K		
UniRef90_L8JIT4	T   N   A   L   M   S   C   V   E   L   E   E   I   I   N   G   V   G   K   S   I   A   A   A   I   E   E   I   C   K   T   G   T   S   T   T   I   E   K   L   T		
UniRef90_Q2RHP0	E   E   E   A   A   D   L   Y   A   L   E   E   E   I   P   G   V   G   K   N   L   A   K   K   I   A   E   E   L   L   T   T   G   R   S   T   F   L   D   N   L   R		
UniRef90_H3GBE6	R   M   V   I   T   T   G   Q   A   R   Q   L   D   H   V   G   P   S   V   A   T   K   I   D   Q   I   I   N   E   G   L   V   A   A   L   S   E   Y   E		
UniRef90_Q9HK48	T   E   D   V   E   D   I   Y   N   L   T   S   V   G   E   I   G   K   K   I   A   S   Y   I   E   E   Y   I   I   K   T   G   R   I   K   R   Y   D   D   L   K		
UniRef90_UPI000443CC2C	P   N   R   V   T   A   L   S   Q   L   Q   G   I   P   H   A   H   R   V   I   Q   E   L   L   E   H   G   V   C   E   E   V   E   R   V   V   R		
UniRef90_X1BX79	T   E   D   I   E   R   E   N   R   L   K   N   I   N   G   V   G   E   A   L   S   L   K   I   K   E   L   F   E   T   G   K   I   Q   Y   Y   E   K   L   K		
UniRef90_E6QM59	S   Q   Q   I   E   D   T   A   R   L   L   P   G   I   G   K   G   M   A   A   N   I   Q   S   A   L   R   D   H   S   I   P   L   R   D   E   L   L		
UniRef90_UPI0003D70015	P   C   P   V   A   S   L   S   Q   L   H   G   I   P   Y   F   G   E   H   S   T   R   V   I   E   H   G   T   C   E   E   V   K   Q   V   R		
UniRef90_UPI0003317F3C	P   F   T   I   L   C   I   K   D   I   Q   G   I   P   C   L   G   D   K   V   K   S   I   I   E   E   I   I   E   D   G   E   S   S   E   V   K   A   V   L		
UniRef90_M7Y1Q0	E   I   D   I   K   S   P   Q   E   L   Q   N   L   H   G   I   G   K   S   L   A   D   T   I   V   S   I   L   Q   A   T   G   S   F   P   G   L   D   E   L   L		
UniRef90_R7TPZ3	E   N   P   I   K   R   W   S   D   I   K   G   L   P   H   I   G   K   H   I   E   L   V   V   Q   D   I   L   E   T   G   H   S   E   E   A   E   C   I   Q		
UniRef90_F3NEV7	S   R   D   V   A   E   R   A   R   L   E   R   L   K   G   I   G   P   K   T   A   Q   V   V   R   E   A   L   D   D   G   G   T   P   G   Y   L   E   K   L   E		
UniRef90_C1HB28	P   Y   P   L   K   S   A   T   E   V   V   S   S   L   P   G   C   E   V   K   I   A   T   L   F   S   E   F   N   Q   S   G   T   L   E   S   A   N   Q   D		
UniRef90_E1ZG64	A   Y   R   L   S   P   P   L   Q   P   G   R   L   P   Y   L   A   D   S   T   A   E   E   V   V   S   E   I   L   L   L   T   G   T   C   D   K   L   E   R   F   R		
UniRef90_L2TWE7	S   E   E   I   T   S   G   D   Q   A   K   E   V   V   R   G   I   G   P   K   T   A   T   V   I   R   E   A   L   D   G   V   P   V   Y   L   A   E   L   R		
UniRef90_S2EBC6	S   I   E   N   K   S   P   E   E   L   Q   L   K   I   S   G   V   G   K   S   I   A   E   V   I   F   S   F   Y   S   T   G   T   S   P   Y   L   D   E   L   L		
UniRef90_A4RVJ2	K   Y   E   V   T   S   G   A   K   M   S   K   V   Q   H   V   G   P   S   M   G   A   Q   I   D   F   F   L   K   H   G   V   F   E   R   M   E   Y   Y   E		
UniRef90_W4G7I7	D   E   E   I   T   S   G   D   Q   A   K   E   V   V   R   G   I   G   D   V   S   A   S   K   I   D   E   Y   L   D   T   G   K   I   Q   Q   E   T   E		
UniRef90_G2MJA4	A   D   P   V   E   E   L   A   Q   V   G   E   I   I   N   R   V   G   D   A   I   A   S   K   L   V   E   Y   V   E   T   G   E   I   T   E		
UniRef90_G0QE00	R   R   R   V   I   P   P   D   P   S   Q   L   D   G   I   G   D   S   T   R   T   T   I   A   E   Y   Q   H   S   G   T   I   D   E   L   E   E   L   C		
UniRef90_G8ZQ09	P   F   E   I   L   S   G   E   Q   A   R   E   I   A   S   V   G   S   S   I   A   R   K   I   Q   L   I   D   T   G   G   P   G   L   D   E   A		
UniRef90_G4ZMT2	D   V   A   V   N   N   G   K   E   L   L   K   A   L   G   R   I   G   D   R   V   A   D   R   V   D   K   M   L   A		
UniRef90_G4ZMT2	D   V   A   V   N   N   G   K   E   L   L   K   A   L   G   R   I   G   D   R   V   A   D   R   V   D   K   M   L   A		
UniRef90_G4ZMT2	D   V   A   V   N   N   G   K   E   L   L   K   A   L   G   R   I   G   D   R   V   A   D   R   V   D   K   M   L   A		
UniRef90_A0CMJ3	P   Y   P   I   K   S   S   E   D   L   K   D   M   P   T   I   G   D   K   I   K   K   K   I   L   E   I   M   Q   T   G   K   L   T   K   V   Q   K   L   E		
UniRef90_G0TOU0	P   F   K   I   E   T   V   E   Q   A   A   K   I   P   K   G   E   K   I   T   L   K   I   Q   E   F   L   D   Y   G   F   I   K   E   S   R   Y   A   K		
UniRef90_X0Z135	T   E   Q   L   V   A   E   D   R   L   K   E   V   P   G   V   G   E   V   I   T   K   K   I   T   E   L   V   T		
UniRef90_U5BJT3	E   I   S   I   E   G   L   S   E   L   Q   Q   G   I   N   G   I   G   K   S   I   A   E   V   I   F   S   L   G   T   S   Q   T   H   S   V   L   E   D   L   L		
UniRef90_B3DY04	A   E   E   L   D   D   L   V   A   Q   G   R   L   K   G   I   G   E   G   I   T   Q   L   I   T   T   G   S   L   P   Y   Y   E   E   L   K		
UniRef90_L0KXR9	E   E   D   L   N   V   L   D   D   L   A   H   I   P   G   V   G   E   A   I   E   A   K   I   K   E   M   L   E   T   G   T   F   M   A   Y   E   E   L   R		

UniRef90\_V9F9Z4  
UniRef90\_UPI0001745E73 G E  
UniRef90\_E1ZG27 R  
UniRef90\_UPI0003C19098  
UniRef90\_UPI0003101B68 G D  
UniRef90\_K1L9N1  
UniRef90\_X1FSB8  
UniRef90\_I0I8F4  
UniRef90\_M7WSS0  
UniRef90\_S4RJG9 C D  
UniRef90\_P25615  
UniRef90\_G2YW92 Q N  
UniRef90\_D3F2V8 A  
UniRef90\_M0L8M7  
UniRef90\_J9IGR6 H D  
UniRef90\_UPI00036C9C7F  
UniRef90\_UPI0004414183 A  
UniRef90\_I2H3I1  
UniRef90\_UPI0003754C41  
UniRef90\_UPI00047ED1E6 A  
UniRef90\_B0CVL5  
UniRef90\_G8TJA3 K  
UniRef90\_UPI000359C27A N  
UniRef90\_F4PRR2  
UniRef90\_D0MQB7  
UniRef90\_W2EPF2 A  
UniRef90\_UPI00036B83CF A E  
UniRef90\_UPI000288ECA9 A E  
UniRef90\_M2RMT3  
UniRef90\_V8NQW9 N D  
UniRef90\_E8W3N2 E E  
UniRef90\_J9HWK2 T D  
UniRef90\_UPI00005884D3 R  
UniRef90\_P36195  
UniRef90\_UPI000477DD82 S E  
UniRef90\_K3WBD7  
UniRef90\_UPI000369A696  
UniRef90\_W0RGS4 E D  
UniRef90\_UPI0003FE3253 Q  
UniRef90\_F8D4G8  
UniRef90\_H3HBW9 A  
UniRef90\_M2A8Q7  
UniRef90\_C5E3H7  
UniRef90\_S3CES3 Y D  
UniRef90\_X1MSM3 A E  
UniRef90\_Q5Y0L4  
UniRef90\_G0QBN0  
UniRef90\_K2A750 K  
UniRef90\_A4PCD4 N D  
UniRef90\_Q010U8 A  
UniRef90\_G4ZMT4  
UniRef90\_G4ZMT4  
UniRef90\_L8JTN9  
UniRef90\_F5Z1K8 D E  
UniRef90\_C5K815  
UniRef90\_Q0U373 N D  
UniRef90\_UPI000455FC40 E  
UniRef90\_H3GBE1  
UniRef90\_H3GBE1  
UniRef90\_H3GBE1  
UniRef90\_L8JIT4 G E  
UniRef90\_Q2RHP0 R E  
UniRef90\_H3GBE6 G D  
UniRef90\_Q9HK48  
UniRef90\_UPI000443CC2C  
UniRef90\_X1BX79 K E  
UniRef90\_E6QM59 A  
UniRef90\_UPI0003D70015  
UniRef90\_UPI0003317F3C N D  
UniRef90\_M7Y1Q0 A  
UniRef90\_R7TPZ3 S  
UniRef90\_F3NEV7 A E  
UniRef90\_C1HB28 T D  
UniRef90\_E1ZG64 R D  
UniRef90\_L2TWE7 E N  
UniRef90\_S2EBC6 A  
UniRef90\_A4RVJ2 R  
UniRef90\_W4G7I7  
UniRef90\_G2MJA4  
UniRef90\_G0QE00 D E  
UniRef90\_G8ZQ09  
UniRef90\_G4ZMT2  
UniRef90\_G4ZMT2  
UniRef90\_G4ZMT2  
UniRef90\_A0CMJ3  
UniRef90\_G0T0U0 A N  
UniRef90\_X0Z135  
UniRef90\_U5BJT3 A  
UniRef90\_B3DY04 K E  
UniRef90\_L0KXR9

UniRef90\_W9WHH1  
 UniRef90\_UP10003C86676  
 UniRef90\_S7WWZ2  
 UniRef90\_J7SB20  
 UniRef90\_K0T1C1  
 UniRef90\_Q7T6Y4  
 UniRef90\_D7BDB7  
 UniRef90\_Q1XY0  
 UniRef90\_E9COL4  
 UniRef90\_T1AAN8  
 UniRef90\_W5TN89  
 UniRef90\_I7KBN7  
 UniRef90\_UP1000362F972  
 UniRef90\_M0MIT6  
 UniRef90\_E5A138  
 UniRef90\_W4G7V1  
 UniRef90\_W4G7V1  
 UniRef90\_K2ERF8  
 UniRef90\_A0A024TPD8  
 UniRef90\_A0A024TPD8  
 UniRef90\_K2CY94  
 UniRef90\_A0A024TPC7  
 UniRef90\_A0A024TPC7  
 UniRef90\_A0A024TPC7  
 UniRef90\_G8C1N9  
 UniRef90\_R4KF04  
 UniRef90\_D6TE95  
 UniRef90\_D3SRL3  
 UniRef90\_R7QJC4  
 UniRef90\_S5VRE5  
 UniRef90\_G9NDQ2  
 UniRef90\_W7TK70  
 UniRef90\_K3WG14  
 UniRef90\_K3WG14  
 UniRef90\_K3WG14  
 UniRef90\_K3WG14  
 UniRef90\_H0UYE5  
 UniRef90\_A0A023B1J1  
 UniRef90\_A6E6J2  
 UniRef90\_R9AIP9  
 UniRef90\_M5BJW4  
 UniRef90\_A9VCZ2  
 UniRef90\_F8JSX6  
 UniRef90\_B2WW58  
 UniRef90\_UP100042CB66A  
 UniRef90\_C7Q1J6  
 UniRef90\_C4R5L5  
 UniRef90\_D8Q9V7  
 UniRef90\_S8A5W2  
 UniRef90\_J1RID8  
 UniRef90\_M3AAN1  
 UniRef90\_UP10004096272  
 UniRef90\_F2R8H5  
 UniRef90\_UP100047B61B2  
 UniRef90\_G7E2T5  
 UniRef90\_R1FMP6  
 UniRef90\_F5XM75  
 UniRef90\_UP10004646F8A  
 UniRef90\_L7EZR8  
 UniRef90\_W7IFI9  
 UniRef90\_A4PCE6  
 UniRef90\_U2YRK8  
 UniRef90\_G4HVX5  
 UniRef90\_W4K941  
 UniRef90\_T0RSQ5  
 UniRef90\_UP100047C09BC  
 UniRef90\_W9YS50  
 UniRef90\_C5C0D9  
 UniRef90\_H2AWJ0  
 UniRef90\_X6MW96  
 UniRef90\_D6TNM8  
 UniRef90\_M4BKV4  
 UniRef90\_W0JRK9  
 UniRef90\_UP10004212177  
 UniRef90\_V9F8V9  
 UniRef90\_D0LVD8  
 UniRef90\_E8N7K4  
 UniRef90\_K9F777  
 UniRef90\_W5XCW8  
 UniRef90\_K2EHL7  
 UniRef90\_D7G2F8  
 UniRef90\_UP100032AE4BE  
 UniRef90\_K2S2P8  
 UniRef90\_UP100042C21B4  
 UniRef90\_U5E9P8  
 UniRef90\_B3S8X2  
 UniRef90\_A0A021VLC1  
 UniRef90\_E7QRK7  
 UniRef90\_UP100036D02FB  
 UniRef90\_UP10004420062  
 UniRef90\_A0A059MKE6  
 UniRef90\_UP10004543D5F

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

	50	60	70	80
UniRef90_W9WHH1	P H R I   E H A E E I T R L   P G C   E Q K I   A S L   W R E   W Q E   E R H   Q E   V Q E   L D			
UniRef90_UP10003C86676	P F T I   I S M K D T E G I   P C   L E N K V   K C   L I E E I I   E D G E S S E   V K A V L			
UniRef90_S7WWZ2	G K P L   A E L D E L Q K Q I   P S   G K G I   A E A I   L S I I   A S D S H E   L D N L L			
UniRef90_J7SB20	P F K I   E S G A Q A Q Q L   A N   G P S   L A K K I   Q L   L N V   G S   L P G   L E E			
UniRef90_K0T1C1	D Y E   V T E G K G K T K V   A N   G K G S   A D K   C Y E   F V T T G T I   A K   L E E K R			
UniRef90_Q7T6Y4	D F E I   T D A N D V K G I   P G   G A G T I   K R I   K E I   L E T G K   L H D   L K D			
UniRef90_D7BDB7	E T D L   E T L A   A R N F E G I   P K   G P S   L A P M   L V E   I V Q S   G E F P Y   L A E   L E			
UniRef90_Q1XY0	G T P   V A D L T G F A G I   P K   V G K A   L A A D L   A A F   V T T G T   F A P   L E E A			
UniRef90_E9C0L4	P R R   L T R I   Q D I Q S L   H N   M G Q S S   R A I V   K E I   L D K G R S			
UniRef90_T1AAN8	Q E P   I E D I Y R L   M R L   P G   G K G L   A E K I   A E Y   V D H   G T   G K Y   E E   L K			
UniRef90_W5TN89	P D A   E F F R R R W Q E L   P G   G P K   T A A V I   E Q A   C A G T   V P E R   L A Q   L R			
UniRef90_I7KBN7	S   P   V A G L   D E L T R I   P G   G V R   I A A Q I   Q E I   A G T   G S F R E   L D D   L Q			
UniRef90_UP1000362F972	S K N L   S D I Y K E S G I   E G I   G R G I   A E H   S E   L L E   K G Y F   G E Y K K   L K			
UniRef90_M0MIT6	P E S   V G S L V   D D G K I   E G V   G D A   L A A K I   V E Y V			
UniRef90_E5A138	P Y K L   R H P   R E V A Q L   P G   C   D E K   T A V L   F V   V E   W K N T   G K   Q A   V Q D   Y E			
UniRef90_W4G7V1	D D E I   T S G E   V A M N Y   R D   G P K   T A A M I   D E Y   F E K   G E   I S K			
UniRef90_W4G7V1	D D E I   T S G E   V A M N Y   R D   G P K   T A A M I   D E Y   F E K   G E   I S K			
UniRef90_K2ERF8	S S E L   K D   W D D G K   L P G   G P S   L A E H   L G E   L F K   T G H   S K   H F D S   L M			
UniRef90_A0A024TPD8	T D E I   T S G E   D A M Q Y   R D   G P K   T A A M I   D E Y   F A R   G E   I A K			
UniRef90_A0A024TPD8	T D E I   T S G E   D A M Q Y   R D   G P K   T A A M I   D E Y   F A R   G E   I A K			
UniRef90_K2CY94	T T Q I   K D   L Y K E N K   L P G   G A T   L Q G R   L E E   L F K   T G K   V K   H F E Q   V M			
UniRef90_A0A024TPC7	D   E   V   E S G D   H A M M K   I P G   V   G K K S   A A A   I N E   F L   A T G K   I E			
UniRef90_A0A024TPC7	D   E   V   E S G D   H A M M K   I P G   V   G K K S   A A A   I N E   F L   A T G K   I E			
UniRef90_G8C1N9	D   E   V   E S G D   H A M M K   I P G   V   G K K S   A A A   I N E   F L   A T G K   I E			
UniRef90_R4KF04	Q F A I   K S G   H Q A Q K M   M H   G P S   L S R K I   D   L   L   K E G T   L P G L			
UniRef90_D6TE95	D K P   V A D   L Y E   L K N   V   P G   L   G K N T   I A K I   G E M   L   K N G   E   C   R   L   H   K E   L K			
UniRef90_D3SRL3	S E D   I   L   A R N E E   P T I   P G   V   G E R   L   R T R I   R E   L A Q S   G T M			
UniRef90_R7RQC4	P   V   P   G D R   V A L   D E   I   D   G   V   G   D   A   I   S   A   K   I   V   E   Y   V			
UniRef90_S5VRE5	R Q D   I   T   T   V   D   D   L   T   S   G   K   G   I   G   T   K   L   E   R   K   I   I   E   I   V   K   T   G   R   L   L   Q   A   E   N   V   L			
UniRef90_G9NDQ2	P E E   R   V   S   A   G   T   L   E   S   L   K   G   V   G   P   K   T   A   Q   V   V   R   E   A   L   A   G   G   Y   L   R   K   L   E   E			
UniRef90_W7TK70	P H I   L   L   Q   R   P   Q   E   I   E   R   L   P   G   C   G   P   K   I   A   Q   L   Y   Q   Q   W   T   E   D   G   C   T   D   E   T   R   K   A   K			
UniRef90_K3WG14	P   F   A   I   N   N   L   R   S   L   K   K   K   R   G   I   G   S   S   M   L   K   D   I   G   E   I   L   E   Y   G   R   L   S   R   L   E   A   L   K			
UniRef90_K3WG14	E E V   I   T   S   G   K   Q   A   Q   R   V   G   M   V   G   Q   Q   I   A   K   K   V   D   Q   I   I   H   Q   G   H			
UniRef90_K3WG14	E E V   I   T   S   G   K   Q   A   Q   R   V   G   M   V   G   Q   Q   I   A   K   K   V   D   Q   I   I   H   Q   G   H			
UniRef90_K3WG14	E E V   I   T   S   G   K   Q   A   Q   R   V   G   M   V   G   Q   Q   I   A   K   K   V   D   Q   I   I   H   Q   G   H			
UniRef90_H0UYE5	P F T   I   S   M   K   D   T   E   G   I   P   C   G   D   R   V   K   C   I   E   E   I   I   E   D   G   E   S   S   E   V   N   A   V   L			
UniRef90_A0A023B1J1	P S   S   V   D   L   R   H   D   S   K   I   G   L   A   V   R   R   K   I   D   E   L   L   T   T   G   R   C   Q   K   L   E   Y   L   K			
UniRef90_A6E6J2	P Y A   I   Q   S   L   E   E   I   A   S   L   D   G   L   G   K   S   M   S   A   K   V   W   E   L   L   E   T   G   T   M   N   D   L   Q   Q   V   L			
UniRef90_R9AIP9	P H   R   I   R   R   S   K   D   D   I   R   H   T   K   N   I   G   K   K   I   R   A   K   I   E   E   Y   L   N   Y   G   R   I   S   E   A   E   T   Q			
UniRef90_M5BJW4	P A K   I   K   N   A   G   D   V   R   K   L   P   H   V   G   P   K   I   L   Q   K   L   I   K   T   G   K   I   S   E   A   R   K   A   S			
UniRef90_A9VCZ2	R T   K   I   T   T   D   G   L   E   D   D   P   F   I   G   A   K   T   I   R   K   I   E   D   I   L   E   T   G   T   L   E   R   L   E   H   A   N			
UniRef90_F8JSX6	P A R   R   A   E   R   G   S   L   H   E   E   L   R   G   L   G   P   K   T   A   V   V   A   E   A   L   A   G   G   T   P   G   Y   L   A   R   L   E			
UniRef90_B2WW58	U   D   G   E   A   A   R   R   S   L   E   R   R   L   K   G   V   G   P   K   T   A   G   V   V   R   E   A   L   A   G   G   V   P   G   Y   L   E   R   L   E			
UniRef90_UP100042CB66A	P   S   P   V   T   A   L   S   Q   L   Q   G   P   H   F   G   E   H   S   C   R   V   V   Q			
UniRef90_C7Q1J6	P   A   G   P   I   D   A   D   D   V   Q   E   I   Q   G   V   G   P   V   T   A   E   V   I   A   Q   A   S   T   G   A   V   P   A   Y   L   V   R   L   M			
UniRef90_C4R5L5	P   K   E   I   E   C   Y   R   E   D   A   L   S   I   P   K   I   G   K   S   L   A   D   H   C   V   E   I   I   E   T   R   K   F   G   Q   L   K   R   Q   Q			
UniRef90_D8Q9V7	E   L   T   E   D   R   L   N   D   V   S   K   L   P   H   G   K   K   M   I   A   K   L   E   E   Y   V   E   T   G   D   I   E   E   A			
UniRef90_S8A5W2	P   H   P   I   T   H   I   S   Q   I   R   A   L   P   G   C   D   D   K   I   A   L   W   Y   E   F   Q   H   S   G   Q   L   E   V   L   T   E   I			
UniRef90_J1RID8	P   R   D   E   L   H   Q   R   S   L   G   R   L   K   G   I   G   P   K   T   T   R   V   V   E   E   A   L   A   G   V   R   P   V   Y   L   A   H   L   E			
UniRef90_M3AAN1	P   D   E   V   R   R   R   S   E   A   G   S   L   K   G   I   G   P   K   T   A   A   V   V   V   A   E   A   L   R   G   E   T   P   A   Y   L   E   R   L   E			
UniRef90_UP10004096272	P   T   S   L   K   A   G   V   D   L   S   Q   L   P   G   G   K   R   L   A   G   E   I   A   I   V   A   T   G   K   F   D   L   L   E   R   L   K			
UniRef90_F2R8H5	P   P   G   P   V   D   S   A   R   V   A   R   L   R   G   V   G   P   V   T   A   E   V   I   A   Q   A   S   S   G   A   V   P   S   Y   L   A   R   L   Q			
UniRef90_UP100047B61B2	P   P   P   V   K   S   L   K   E   M   E   E   I   E   G   L   G   K   S   T   A   S   K   V   Y   E   L   I   H   T   N   E   L   K   D   M   E   N   L   L			
UniRef90_G7E2T5	S   V   R   I   D   T   F   D   K   A   F   A   L   K   G   V   G   E   S   N   A   S   K   I   V   E   I   A   R   T   G   N   H   R   R   L			
UniRef90_R1FMP6	P   S   A   V   V   S   G   K   E   A   R   G   I   A   G   I   G   K   G   M   A   E   R   I   E   Q   V   L   E   S   G   H   L   P   E   L   E   E   L   K			
UniRef90_F5XM75	P   D   A   E   R   R   A   R   H   D   W   K   K   P   G   G   P   K   T   A   E   V   I   S   Q   A   C   A   G   R   V   P   D   Y   L   Q   Q   L   R			
UniRef90_UP10004646F8A	P   S   R   D   L   R   G   H   G   G   W   Q   E   L   S   S   G   P   K   T   A   E   V   I   A   Q   A   S   S   G   A   V   P   S   Y   L   A   R   L   Q			
UniRef90_L7EZR8	P   D   E   I   R   Q   R   A   G   L   E   S   L   K   G   G   P   K   T   A   Q   V   V   R   E   A   L   A   G   Q   V   P   A   Y   L   E   K   L   E			
UniRef90_W7IFI9	P   D   L   R   I   D   T   G   T   L   R   N   L   P   G   G   D   T   T   A   T   V   I   T   E   A   A   A   G   G   E   P   A   Y   L   T   R   L			
UniRef90_A4PC6	P   F   T   I   I   S   M   K   D   T   E   G   V   P   C   G   D   N   V   K   E   C   Y   V   E   R   A   G   G   V   P   A   Y   L   A   D   L   R			
UniRef90_U2YRK8	D   D   Q   L   I   D   D   T   T   A   L   R   R   R   P   G   G   E   R   T   L   A   V   I   V   E   A   R   A   G   G   V   P   A   Y   L   V   R   L   M			
UniRef90_G4HVX5	D   E   S   I   R   R   H   G   W   Q   S   L   P   G   I   G   P   K   T   A   K   V   I   A   Q   A   W   A   G   Q   E   P   D   A   L   V   E   R			
UniRef90_W4K941	Q   H   P   I   L   T   G   Q   E   A   A   K   L   K   G   I   G   P   R   I   A   Q   R   I   E   F   F   L   N			
UniRef90_T0RSQ5	P   E   R   L   Q   N   L   G   L   T   L   K   R   L   P   Y   C   G   E   K   I   V   F   L   T   L   Y   S   R   G   D   Y   M   S   E   L   A   E   L   R			
UniRef90_UP100047C09BC	E   D   N   L   M   D   L   S   D   L   S   K   L   I   N   V   G   K   S   I   Q   E   A   I   I   S   L   K   E   T   D   T   F   P   L   L   D   D   L   L			
UniRef90_W9YS50	P   H   P   I   R   H   P   E   E   V   N   R   L   P   G   C   N   E   K   I   A   M   L   W   S   E   W   Y   H   S   G   E			
UniRef90_C5C0D9	T   D   R   Q   R   T   E   A   E   W   T   R   L   P   G   V   G   P   S   T   A   R   V   I   V   Q   A   L   A   G   T   E   P   T   A   L   A   E   A   R			
UniRef90_H2AWJ0	P   F   V   I   E   E   S   G   K   Q   A   Q   E   L   Q   T   I   G   P   S   I   A   K   K   I   Q   T   I   L   D   F   G   T   L   P   G   L			
UniRef90_X6MW96	U   i   R   F   R   I   L   D   E   A   D   L   L   K   T   K   G   F   S   K   K   L   G   A   K   V   L   E   I   I   Q   T   G   Q			
UniRef90_D6TNM8	D   G   D   L   N   Q   L   V   A   E   K   K   L   P   G   L   G   P   T   M   I   K   R   V   E   E   A   V   Q   N   G   K   I   A   F   L   D   E   L   R			
UniRef90_M4BKV4	K   M   V   I   S   S   G   A   Q   A   K   Q   L   L   G   S   V   G   T   A   L   A   T   K   I   D   Q   L   L   N   E   G   L   E   A   A   L   G   E   Y   E			
UniRef90_W0JRK9	P   S   P   I   A   Q   L   E   A   E   N   I   D   G   V   G   D   A   I   S   S   K   I   V   E   Y   V			
UniRef90_UP10004212177	S   R   D   R   A   S   D   G   R   L   K   K   M   K   G   I   G   S   R   S   F   E   V   I   T   Q   T   L   E   G   G   V   P   E   Y   L   A   D   L   R			
UniRef90_V9F8V9	R   F   V   I   T   S   G   A   Q   A   K   K   L   D   H   V   G   P   A   V   A   T   K   V   D   Q   L   L   N   E   G			
UniRef90_D0LVD8	K   R   E   I   A   A   L   F   P   L   E   Q   I   P   G   I   G   P   G   L   S   A   A   L   E   E   M   A   R   T   G   R   L   R   L   L   E   R   L   E			
UniRef90_E8N7K4	S   D   A   E   L   R   D   P   G   L   R   R   R   P   G   I   G   D   S   T   L   A   V   I   Q   Q   A   L   A   G   G   V   P   E   R   L   A   A   L   R			
UniRef90_K9F777	P   H   P   I   Q   R   P   S   E   I   L   A   L   P   G   C   N   A   K   I   A   E   L   F   S   Q   F   Q   H   G   G   C			
UniRef90_W5XCW8	P   E   Q   V   E   D   M   R   R   L   Q   E   I   P   Q   V   G   S   L   I   A   L   Y   I   K   E   I   L   E   T   G   T   S   S   K   Q   K   E			
UniRef90_K2EHL7	T   S   E   L   K   D   L   W   D   L   D   D   I   P   S   I   G   K   S   I   A   E   H   L   N   E   I   F   R   T   G   K   S   T   H   F   E   E   L   M			
UniRef90_D7G2F8	G   V   Q   I   T   N   I   Q   Q   L   K   D   R   G   L   G   D   S   V   M   K   E   L   S   T   F   Y   E   E   G   R   M   H   R   L   D   G   L   E			
UniRef90_UP100032AE4BE	P   F   T   I   V   S   M   K   D   T   E   G   I   P   C   L   E   D   K   V   K			
UniRef90_K2S2P8	P   Y   R   L   S   H   P   K   E   I   L   R   L   P   G   C   D   T   K   L   A   N   L   W   I   E   W   K   N   A   G   T   I   P   A   V   A   A   R			
UniRef90_UP100042C21B4	P   F   T   V   V   R   M   E   D   L   E   G   L   P   C   M   G   G			
UniRef90_U5E9P8	T   E   A   E   Q   A   A   H   S   W   R   E   L   P   G   I   G   P   K   T   A   A   V   I   E   Q   A   W   A   G   T   V   P   D   Y   L   T   E   L   R			
UniRef90_B3S8X2	U   n   R   F   R   I   L   D   E   A   D   L   L   K   T   K   G   F   S   K   K   L   G   A   K   V   L   E   I   I   Q   T   G   Q			
UniRef90_A0A021VLC1	P   E   K   I   E   N   V   D   E   I   S   S   R   H   G   N   H   S   L   R   I   I   G   E   I   L   T   K   G   Y   S   D   E   V   E   Q   I   R			
UniRef90_E7QRK7	D   D   D   A   W   R   G   H   R   W   Q   E   L   P   G   I   G   D   R   T   A   G   V   V   T   T   V   L   A   G   E   E   P   R   V   L   A   D   L   E			
UniRef90_UP100036D02FB	P   E   D   I   E   E   L   D   A   V   G   Q   I   P   Q   V   G   D   S   I   A   S   K   V   I   E   Y			
UniRef90_UP10004420062	S   A   D   L   H   R   L   A   E   L   R   S   I   P   G   G   K   A   I   E   Q   K   I   I   E   M   L   E   T   G   R   C   R   F   Y   D   N   L   I			
UniRef90_A0A059MK6	S   P   E   Q   R   A   R   R   W   T   A   L   G   V   G   P   K   T   A   T   V   I   R   E   A   F   D   G   V   P   A   Y   L   Q   Q   L   R			
UniRef90_UP10004543D5F	S   G   P   L   T   H   P   S   Q   L   E   G   L   P   Y   C   G   A   H   S   C   R   V   I   Q   E   V   L   E   D   G   A   S   Q   E   V   E   G   V   R			

UniRef90_W9WHH1	A E
UniRef90_UP10003C86676	N D
UniRef90_S7WWZ2	K E
UniRef90_J7SB20	
UniRef90_K0T1C1	A
UniRef90_Q7T6Y4	
UniRef90_D7BDB7	S
UniRef90_Q1XY0	
UniRef90_E9COL4	
UniRef90_T1AAN8	K
UniRef90_W5TN89	S
UniRef90_I7KBN7	A
UniRef90_UP1000362F972	K E
UniRef90_M0MIT6	
UniRef90_E5A138	D D
UniRef90_W4G7V1	
UniRef90_W4G7V1	
UniRef90_K2ERF8	K D
UniRef90_A0A024TPD8	
UniRef90_A0A024TPD8	
UniRef90_K2CY94	E
UniRef90_A0A024TPC7	
UniRef90_A0A024TPC7	
UniRef90_A0A024TPC7	
UniRef90_G8C1N9	
UniRef90_R4KF04	Q E
UniRef90_D6TE95	
UniRef90_D3SRL3	
UniRef90_R7QJC4	E N
UniRef90_S5VRE5	
UniRef90_G9NDQ2	T D
UniRef90_W7TK70	A
UniRef90_K3WG14	
UniRef90_K3WG14	
UniRef90_K3WG14	
UniRef90_H0UYE5	N D
UniRef90_A0A023B1J1	R D
UniRef90_A6E6J2	A N
UniRef90_R9AIP9	N
UniRef90_M5BJW4	A
UniRef90_A9VCZ2	T E
UniRef90_F8JSX6	E E
UniRef90_B2WW58	G E
UniRef90_UP100042CB66A	
UniRef90_C7Q1J6	T D
UniRef90_C4R5L5	E
UniRef90_D8Q9V7	
UniRef90_S8A5W2	
UniRef90_J1RID8	E E
UniRef90_M3AAN1	R E
UniRef90_UP10004096272	N
UniRef90_F2R8H5	A E
UniRef90_UP100047B61B2	R
UniRef90_G7E2T5	
UniRef90_R1FMP6	R D
UniRef90_F5XM75	D E
UniRef90_UP10004646F8A	T E
UniRef90_L7EZR8	R E
UniRef90_W7IFI9	
UniRef90_A4PCE6	
UniRef90_U2YRK8	E
UniRef90_G4HVX5	S
UniRef90_W4K941	
UniRef90_T0RSQ5	
UniRef90_UP100047C09BC	S
UniRef90_W9YS50	
UniRef90_C5C0D9	A
UniRef90_H2AWJ0	
UniRef90_X6MW96	
UniRef90_D6TNM8	A E
UniRef90_M4BKV4	G D
UniRef90_W0JRK9	
UniRef90_UP10004212177	E
UniRef90_V9F8V9	
UniRef90_D0LVD8	G E
UniRef90_E8N7K4	E
UniRef90_K9F777	
UniRef90_W5XCW8	
UniRef90_K2EHL7	K D
UniRef90_D7G2F8	A D
UniRef90_UP100032AE4BE	
UniRef90_K2S2P8	A D
UniRef90_UP100042C21B4	
UniRef90_U5E9P8	
UniRef90_B3S8X2	N
UniRef90_A0A021VLC1	A E
UniRef90_E7QRK7	
UniRef90_UP100036D02FB	Q E
UniRef90_UP10004420062	
UniRef90_A0A059MKE6	A E
UniRef90_UP10004543D5F	R

1                    10                    20                    30                    40

UniRef90_G2GJZ0	V Q A L N R I A F L L E R S Q E P T Y R V R A F R T A A R V L A A L			
UniRef90_G9NIX2	P N A A F I E E L K D V R K L R L L Q G D K V G V R A Y S T S I A S L A A Y			
UniRef90_A7EUC8	S P N D D F L T Q L Q S I K L K R T L D G D Q I G V R A Y S T A I A S I A A Y			
UniRef90_V8NA58	P N S T L T D A L E T M A E E A K F G G S E V R S L A F S R A A S V L K A L			
UniRef90_G3NAV1	N H N A V L T D A L S L L A E N A E L S G E D G R G V A F R R A A A A L K A L			
UniRef90_S8AT19	P N E D F I S Q L V K I R R I R E L T L D E I G V R A Y S T S I A A I A A Y			
UniRef90_UPI00038C50F6	H Q L V D A F D V L A E N Y E L R E N E G C S V V F M R A A S V L K S L			
UniRef90_B0D8M6	C K N Q P L L V E L G V L Y R A R E L E G L E V N A Y E R A I A V I K S Y			
UniRef90_UPI000376CF9B	E I S K I L S E M A I F L D M D E V A F K P Q A Y E R A A R S I V E D Q			
UniRef90_W5WIP7	V R A L N Q I A F L L E R A G E S S Y K V Q A F R R A A A K V A D L			
UniRef90_UPI0004417926	C N H E V A L L F G K I A D V L E L K G E N T F R I N S Y R K A A R V I E E L			
UniRef90_D2PXJ7	S P N H D I I E M L K S N R E E E D K K A R N A Y K V R A F D A A I R A I A S L			
UniRef90_Q4RN80	C H N Q D L V N E F A V L Y R H R D L E G W E I R A L S Y E R T I A A L K A Y			
UniRef90_C4JED9	C I N S H I V S C L S Q H I I T L K S R G D V K K I A T Y K K A I N S I T A Y			
UniRef90_A8JD91	V E A L K R I A F L L E R A G E P T Y R V R A F R G A A A T V E A L			
UniRef90_Q1Q353	N L P L V A A F Q E L S E L Y F K E G N R N A G A S Y A K V V S A L K E L			
UniRef90_F8Q066	K A L S G V L K T T A D L L D L L G Q E A F R A N A Y R G A A R S L E A L			
UniRef90_V2XUA2	N Q S L V D Q L V H L G E Y E V T H G Y T Q R G L A R F R A A R E I R N S			
UniRef90_D3BHM0	V E A L D R I A F L L E R S L A P T Y R V R A F R T A S R V L A A L			
UniRef90_W2EKL1	N D E I A T L L E E F A D L L D A K R V E Y K P R S Y R R A A E N I R E Y			
UniRef90_B5Y3H9	K Q V V S V L K G T A D V L E L G E D P F R V K A F A A A A R S F E A L			
UniRef90_UPI00037D9EAB	N Q P V V D K L L R Y G E H Q L H A R N G S K G T S Y L R A A R K L Q L T			
UniRef90_D0MQC6	N Q P V V D K L L R Y G E H Q L H A R N G S K G T S Y L R A A R K L Q L T			
UniRef90_S2Z9D9	N K E L A V I F F R I G D A L E I K G E T G F K V I A Y R K A S R I L E D L			
UniRef90_J3EYV3	N D E V A D R F E E F A D R I E A T G V E Y K P Q S Y R R A A E N I R A H			
UniRef90_K9ZX66	V E A L R E V A F W L E R S R A E T H R V R A F R R A A D V V A G L			
UniRef90_M4BKW2	S A N P H I I E F L L Q Q Q I D F I K S R G A D L K K T S I Y K K A I H S L T L Y			
UniRef90_M4BKW2	A L R R I A F L L E R A Q A A T Y R V K A F R T A A A A V E E M			
UniRef90_UPI0003B3F11F	A F L I T Q L A R A K G F R V D R T Y R A A S M L K A L			
UniRef90_M0M0N7	N Q L I V D R L L T D Y G E S H L T S G H R G T G I S H L R A A R E I R N W			
UniRef90_F6EMV8	N Q L I V D R L L T D Y G E S H L T S G H R G T G I S H L R A A R E I R N W			
UniRef90_F0ZL61	N Q L I V D R L L T D Y G E S H L T S G H R G T G I S H L R A A R E I R N W			
UniRef90_G2NK02	Q G A G E F F R V R A Y Q N A S K T L R S L			
UniRef90_M7B2F2	N Q P L I A E L E T I R N E R R L T G D T Y S E M A Y M R A I S A L K A Y			
UniRef90_UPI0003682EB3	S P N Q S L I I D S L E I I R N E R R L T G D T Y S E M A Y M R A I S A L K A Y			
UniRef90_F0W4T3	N H E A A E V L A G I A R I L E L E G E D A Y R I Y R K A S R S I E A L			
UniRef90_F0W4T3	T I V E E S F			
UniRef90_F0W4T3	V G V L R Q I A L H L E R E G A P T Y R V R A F R R A A S V V E G L			
UniRef90_E6ZL08	V R A L R E V A F W L E R A G E P T Y R V R A F R R A A E A V A S A			
UniRef90_R7SG10	N R P V A A C I L R E A A Q W L V D Q G A N P Y R V A A Y R A A A D T V D A L			
UniRef90_V5EN85	N Q K F T D A F E I L A K D F E F R E N E G I C L A F M R A I S V L K C L			
UniRef90_D1YUN1	N V I I S E A L Q R I A T K S N Q G E P F K R R A Y M M A S A A L L E C			
UniRef90_UPI0003871C2B	V D A L R E V A F W L E R E H A D T Y R V Q A Y R R A A E V L R E H			
UniRef90_H5XF80	N I G V A G K F R D F A D L L D S Q G A D G F R A R A C Y R R A A D V V S R L			
UniRef90_T2RQT7	S P N R D I C K M L E K I A K V L E Q A G G S T L R A H A Y Q C A S S A L K C V			
UniRef90_A0AZP1	C Q N N E I I E E L E K I L K I Y T N E K N K G R C I A Y R K A I G L L K A L			
UniRef90_F6VL88	P N S A F I A Q L T K I R D A R I L I L D D I G V R A Y S S S I A S I A A Y			
UniRef90_UPI0004449A6E	V E A L D R I A F L L E R A G E P T Y R V R A F R T A A A R V E D T			
UniRef90_G8JNB2	N K Q F T D A L E V L E E L Y R D D P N S E A R A L A F R R G S A T L K S L			
UniRef90_V41754	S P N Q P L I A E L E Q I R T E R R L T G D T Y S E M A Y M R A I S A L K A Y			
UniRef90_V9XL84	C L N Q A L A V E L D I K K R S R A L E G E E R S A L S Y S R A I S A I K A Y			
UniRef90_UPI000376FFE0	N D E V A Q I L Q E T A D L L E L T G G N P H R A R A F A R A A R S L Q D L			
UniRef90_R7QIV6	T L N P E M I A C L E E L Q R C S K N T R N N G H Y V L G L R K A I S S L E K Y			
UniRef90_H6R5W9	A Q A L R E I I A F R I L E R A G E P S Y R V R A F R Q A A S V I A K V			
UniRef90_A0D335	V E A L D R I A F L L E R A G E P T Y R V R A F R T A A A R V E D T			
UniRef90_A0A22MP02	M N S N I I E Q F I L L A E Y L N A Q V E N K F R L Q S N K R I L G I I K N I			
UniRef90_H6C2A7	P N Q D F L D A L F K I R L N R I L I S D E I G V R A Y S T S I A S I A A F			
UniRef90_UPI000422D343	A A L E R I A F L L E R D G A P T Y R V R A F R T A V A V L G A L			
UniRef90_H2ZGS8	N Q D L V D A F W V L A D A F K A E P E N A G K G S A Y R K A A Q A F A A C			
UniRef90_I2FLY7	S P N D A F I A Q L T K I R D G R T L T L D D I G V R A Y S T S I A S I A A Y			
UniRef90_K5UUC0	E A L T E I I A F L L E R E R E S S R F K S K A F R T A A D V V A G L			
UniRef90_D5H9V2	V D A L R R I A F L L E R E R A S R Y R A K A F R Q A A A T L Q D L			
UniRef90_D2VBC0	A L R R I A F L L E R A G E P T Y R V R A F R T A A A R V E D T			
UniRef90_M2PY58	A Q A L R E I I A F R I L E R A G E P S Y R V R A F R Q A A S V I A K V			
UniRef90_M2X1G2	V E A L D R I A F L L E R A G E P T Y R V R A F R T A A A R V E D T			
UniRef90_G5CQ56	M N S N I I E Q F I L L A E Y L N A Q V E N K F R L Q S N K R I L G I I K N I			
UniRef90_G1X3Y6	P N Q D F L D A L F K I R L N R I L I S D E I G V R A Y S T S I A S I A A F			
UniRef90_L1KP99	A A L E R I A F L L E R D G A P T Y R V R A F R T A V A V L G A L			
UniRef90_X1PKR0	N Q D L V D A F W V L A D A F K A E P E N A G K G S A Y R K A A Q A F A A C			
UniRef90_R1DUT5	S P N D A F I A Q L T K I R D G R T L T L D D I G V R A Y S T S I A S I A A Y			
UniRef90_W9X5S1	E A L T E I I A F L L E R E R E S S R F K S K A F R T A A D V V A G L			
UniRef90_F6FVY2	V D A L R R I A F L L E R E R A S R Y R A K A F R Q A A A T L Q D L			
UniRef90_UPI0003B4049A	A L R R I A F L L E R A G E P T Y R V R A F R T A A A R V E D T			
UniRef90_W9BKG8	M N S N I I E Q F I L L A E Y L N A Q V E N K F R L Q S N K R I L G I I K N I			
UniRef90_F4R6X8	P N S Q W A D W I V E E A N L A S E K N S R A A D V Y N K A A R A I L R A C			
UniRef90_T5KDN0	V D A L L E I A S L L E R E R A S R Y R A K A F R Q A A A T L Q D L			
UniRef90_R7WSF7	V A A L R E T A F W L E R E R A S R Y R A K A F R Q A A A T L Q D L			
UniRef90_G0J1B5	K T L V G I L K L T A D L L D V L G A D A F R A Q Y R S A A R G L E S V			
UniRef90_UPI0003B57FCA	A L R Q I A F F K D R A R E D P R R V M A Y R N A A D I L E R L			
UniRef90_W8A4L5	N Q K Q L A Q A F K L T G S L L E L H N E N S F K V R S Y T G T A T R L E N L			
UniRef90_UPI0003507482	N Q K Q L A Q A F K L T G S L L E L H N E N S F K V R S Y T G T A T R L E N L			
UniRef90_I4AIG3	L N A Q F I D Q L L K I K K I R E L T L D E V G V R A Y S T S I A S I A A Y			
UniRef90_E4UPZ2	N A P L C Q A L K E L G D L Y M K E G N W N A S N T Y K K A V A A V T E L			
UniRef90_B8CC60	N Q V I V N T F A D Y G E Q Q L H Q G H T G T G V T H L R A A C C A I R D Y			
UniRef90_I0RXT2	N P G P V E A L R E T A F W L E R E R A S R Y R A K A F R Q A A A T L Q D L			
UniRef90_D0MQB6	S P N E R L A K K L D E M H D L Y L G Q T D N P F S V R G Y R R A A A A I R R T			
UniRef90_E97TR4				
UniRef90_UPI0003F492FD				

P E R E V R E R A L E S L K G V G P K T A R V V R E A L A G D V P V Y L A D L E  
 UniRef90\_G2GJZ0  
 UniRef90\_G9NIX2  
 UniRef90\_A7EUC8  
 UniRef90\_V8NA58  
 UniRef90\_G3NAV1  
 UniRef90\_S8AT19  
 UniRef90\_UPI00038C50F6  
 UniRef90\_B0D8M6  
 UniRef90\_UPI000376CF9B  
 UniRef90\_W5WIP7  
 UniRef90\_UPI0004417926  
 UniRef90\_UPI0004776626  
 UniRef90\_D2PXJ7  
 UniRef90\_Q4RN80  
 UniRef90\_C4JED9  
 UniRef90\_A8JD91  
 UniRef90\_Q1Q353  
 UniRef90\_F8Q066  
 UniRef90\_V2XUA2  
 UniRef90\_D3BHMO  
 UniRef90\_W2EKL1  
 UniRef90\_B5Y3H9  
 UniRef90\_UPI00037D9EAB  
 UniRef90\_D0MQC6  
 UniRef90\_S2Z9D9  
 UniRef90\_J3EYV3  
 UniRef90\_K9ZX66  
 UniRef90\_M4BKW2  
 UniRef90\_M4BKW2  
 UniRef90\_UPI0003B3F11F  
 UniRef90\_M0M0N7  
 UniRef90\_F6EMV8  
 UniRef90\_F0ZL61  
 UniRef90\_G2NK02  
 UniRef90\_M7B2F2  
 UniRef90\_UPI000368EB3  
 UniRef90\_F0W4T3  
 UniRef90\_F0W4T3  
 UniRef90\_F0W4T3  
 UniRef90\_J5RIV1  
 UniRef90\_M5RG09  
 UniRef90\_UPI00047C5559  
 UniRef90\_E6ZL08  
 UniRef90\_R7SG10  
 UniRef90\_V5EN85  
 UniRef90\_D1YUN1  
 UniRef90\_UPI0003871C2B  
 UniRef90\_H5XFBO  
 UniRef90\_T2RQT7  
 UniRef90\_A0AZP1  
 UniRef90\_F6VL88  
 UniRef90\_UPI0004449A6E  
 UniRef90\_G8JNB2  
 UniRef90\_V41754  
 UniRef90\_V9XL84  
 UniRef90\_UPI000376FFE0  
 UniRef90\_R7QIV6  
 UniRef90\_H6R5W9  
 UniRef90\_A0D335  
 UniRef90\_A0A022MP02  
 UniRef90\_H6C2A7  
 UniRef90\_UPI000422D343  
 UniRef90\_H2ZGS8  
 UniRef90\_I2FLY7  
 UniRef90\_K5UUC0  
 UniRef90\_D5H9V2  
 UniRef90\_D2VBC0  
 UniRef90\_M2PY58  
 UniRef90\_M2X1G2  
 UniRef90\_G5CQ56  
 UniRef90\_G1X3Y6  
 UniRef90\_L1KP99  
 UniRef90\_X1PKR0  
 UniRef90\_R1DUT5  
 UniRef90\_W9X5S1  
 UniRef90\_F6FVY2  
 UniRef90\_UPI0003B4049A  
 UniRef90\_W9BKG8  
 UniRef90\_F4R6X8  
 UniRef90\_T5KDN0  
 UniRef90\_R7WSF7  
 UniRef90\_G0J1B5  
 UniRef90\_UPI0003B57FCA  
 UniRef90\_W8A4L5  
 UniRef90\_UPI0003507482  
 UniRef90\_I4AIG3  
 UniRef90\_E4UPZ2  
 UniRef90\_B8CC60  
 UniRef90\_I0RXT2  
 UniRef90\_D0MQB6  
 UniRef90\_E97TR4  
 UniRef90\_UPI0003F492FD

P E R E V R E R A L E S L K G V G P K T A R V V R E A L A G D V P V Y L A D L E  
 P F L I Q R P Q E I E R L P G C G G K I E K L Y R E W M A D G  
 P Y V I T S P N E V I R L P G C D Q K I A N L F L Q Y Q N T G T I D E V V E F Q  
 P G K V L R I Q Q L H T V P C I G E H S R R I V Q  
 P L P V T R L T Q L L G G V P C L G G H S L R V I K D V L E S G A S P E V E A L R  
 P Y V I K R P S E I L T L P G C E A K I A N L F A E Y Q Q R G S C N H T D E  
 P F T I S S M K D L E G I P C L E G K V K S I I E E I I E D G E S S E V K A V L  
 P N L I A H E N F E T D I V H L G E K M L F K I R E Y L T T G R I Q E S E T T R  
 N Y K T G G L K K L M E I P G V G Q G I A E H I E D F L K K G T F T E Y E K Y K  
 P E E E L R G Y T L L T R L P G I G T A I A G V I S Q A V R G E E P E Y L T R L  
 E D P I T S G E Q A K D L R G P R I A A R I D Q F L Q  
 P D E L A E H V R V L T L S G I Q A L S T V V T E A A A G G E P N Y L K N L M  
 P A A E V R A R R I L T E L P G I G P K T E A V I V E A M D G A T P A Y L V K L E  
 P R V L L S S L E D T H H P C L G D H A K A L I D L R H P P S T L M E D L L  
 P Y P L Q T P E V L T I P G C E T R I A N W F A E W K Q S G S L E A N Q L D  
 T Q P L Q S P D Q V Q R L G L G A K T A K K L E E I L A T G R L Q R  
 T E D I E A L D K L L T N I P G I G K G T A D K I I E Y I T T G K M S K Y E E V  
 D T P V R T V A E V K Q Q L K G V G P G I S K R I G V F L  
 P K V I T T V D D V V A K I P F I G E K A L F K V K E Y L R I G H I P E A R T I L  
 P L P I F S G K E C E L S G V G P S I S K L I D  
 P E R L T R E G R L S D L K G V G K V T A L V T E A L N G D V P T Y L R R L E  
 S Y E V T E G K G K T K V A N I G K T S A D R I F E F V C T G K M E K L I E K R  
 D T D V G L L V E F A G V S K V V G K S I A A E L A V Y A R T G T F E P L E D A  
 Y V I T S G A Q A K Q K L D H G A A A A T K I D Q L L N E G L A A A L S E Y D  
 P R E R A D D G S L E S L K G V G P K T A Q V V R E A L A G Q M P D Y L R K L E  
 T K P I E D L D A V E E I Q G V G D A I S G K V V E Y  
 E E P F E D V V E F R G V R G I G A T L G A E L R E Y A V S G Q L P S F E  
 D H V I A S G A Q A R E V A L V G P V I A D A I D Q I L E H G C I G K  
 D H V I A S G A Q A R E V A L V G P V I A D A I D Q I L E H G C I G K  
 T E D I E D I K K L Q E I P G I G S G I I A K K I E E Y L N T G H M K K F D E A L  
 P G A I E S L D A V E G I E G V G D A L S S K V V I E Y V  
 S M D Q R A K K Q W T S L P G I G P K T A V I R E S F H G V P E Y L R T L Q  
 P L P I F N G K E C E A L S G F G P T L S S K V V D Q F L K T  
 G D D R V A H G S L E A V R G I G P R T A E V I R E A A S G A T P R Y L E R R L E  
 P G R L G A L E E L G P L P G I G E H S R R V I Q D V L E D G V C A E V E R V K  
 T D E L G A A N S W Q S L P G I G P k t a t v i a q a w a g r e p e v l v e l r  
 D T V V Q S G S A S A R Q I G M V G G R V V A Q K I D Q I L R D G H  
 D T V V Q S G S A S A R Q I G M V G G R V V A Q K I D Q I L R D G H  
 P R R I R S G E E A Q T L V D V G G K V V A N R I D E Y L A T G Q I S E  
 A T P V R N I V G L I E P T I G H S I A N L I E Q Y L R L G R I P L L D R L L R  
 D F D I M E L S D L L T Q I L N G V G K S L V E V I K N L K E T E S F P A L D E L L  
 P F P I P D L G E V E K E K L K G V G K K V F S L I R Q F Y S R G R I V E A K V I R  
 D Y P I E S A Q Q I R R S L V G S G I V K R V D D Y L N Q H K  
 P F R I P D L G E V E R E R L K G V G K K V F S L V R Q F Y S E G R I V E A K V I R  
 Q D D I N E Y Y R L Q E I P G V G R S I S G E L L A E L L E T G R S S L Y E S L K  
 P R G G H A F E P R G V D G V G A K I I A E K I D E F L S T G K L R K L E K I R  
 G R E E L E R R R I L T E L L S G I G K T T A S V I T D A L A G R E P A Y L T E V  
 D D Q R L E S G R L T D L P G V G K T T A K V V E Q A H R G D V P D Y L R R L R  
 D R D I R G V F D L G A L P D I G A G V A Q A I A E L L V I T G R W R Q L D R L R  
 P F T I V R M K D I L E G V P W L G D Q V K S I I E E I I E D G E S S S V K A V L  
 D Y P L K S G K E A E K L R G P K I S A R I D A F I N  
 G H P V R T Y E D A L A P D V G S G I L A T K I A Q L V A N G R I P G L E  
 P D E I I R D R A A L E K L K G I G P K T G K A I R E A L A G R T P A Y L Q S L E  
 K R E E V L R K T D W T D L P G V G K K T T A T V V R E S F D K V P A Y L E Q L R  
 E R P V S E I D G L V V L P A I G R G L A G A I A E I V A T G R W S Q L E R L R  
 P F A L K T P Q D V D S H L G L R V L G A V R E Y L H T G D M H E A S M L E  
 S E D E R A A R R W Q E L A G I G P K T A V I V E Q A Y S G V V P K Y L T E L R  
 P Y P I K S S D D L K D M P T I G D K I K K  
 A A E E V T R R A L E S L N G I G P K T A Q V V R E A L A G G Y L R A L E E E A  
 P Y L I R H A E E I N R L P G C N E K I A M L W N E W Y H G S S I Q T V T D L E  
 P D A R A R A G T L T D L P G V G K V T A L V V A E A L R G G T P V Y L R R L E  
 P Y K I T H V G Q L K N L P Y I I D G H C K K I I T E I L E E G F S D E V E  
 P F R I M R L G E V E V E K L K G V G K K V F S L I K Q F V E E G R I V E A K V I K  
 P R R I T S I R Q V V E S H V G  
 D A P A A D R L R L V E V S G I G D G M A D H I G D I V H G G S F A L R D E L L  
 P K K I Y N G N E A K T L K G I G D K M A Y R I I D K Y L K D N N I  
 K R K R A E A G T L T A L P N I G K A T A A V V E D V L A G R R P A Y F E K L  
 T P E Q R D R Y G W T A L P G I G P K T A V I V A Q A W A G E V P A Y L S E V E  
 D F E I T D P S D L N G I Q G I G D G T K R R I A E I L E T G K L S E L K N  
 P H K I T H I S Q I H A L P G C E G K I G A L W Y E F T H S G R L G V L E E T E  
 S A D E V I A E R S L E S S L K G I G P K T A Q V V R E A L A G Q V P E Y L R K L E  
 U H I F D I N K Q G R L A E P G I G K A I A E K I N E Y L S T G K M K K Y K E V  
 P F T V T D S S K K K K L P N V G K G K S V E K M A A F R A T G S I P K I  
 P Y H I T Q Q A E E I T R L P G C E S K I I A A L W R E W  
 S E D L R D P A R L R R T K G I G P S T F A V V T Q A L E G R V P D Y L A E L R  
 V R R R V A A G T L R D L P G I G P S T S A V I E A V V H G D V P D K L L A D L E  
 T E R L L G Q T N G W Q S L P G V G P K T A K V V I Q A Q A W A G R E P D A L T E L R  
 P H I L N H P K E A K D L N G I G D K I V A I I T R R L L E N I C  
 P D D V R D P T R L R A A K G I G E S T F A V I R Q A Q A G Q V P D Y L V E L R  
 G D D E R A A R R W T Q L A G I G P K T A V I V R E S Y G G V P S Y L A G L R  
 G K P L A N L N E L Q K F P A I G K G I I A E A L L S I Q E A G S H H E L L D K L L  
 D A E L E S L S A F A G V P K V G K G L A S E L L T L V E S G A F P P L E E A S  
 D D R L G N S G D W Q S L P G I G P K T A V I A Q A W S G R E P D A L L A K L R  
 R E P S H P Q V Q R V I G V G A K I I A E K I D E F L S T G K L R K L E K I R  
 N E V A A E L T Q K Q L V D G F S K N M S E K I F S L L E N G S F K E I D E L  
 P Y K L K S P E E V L V I S L P G C E S K I I A A L W R E W  
 A Y E V T A D N G K T K V A N I G K G T A E K M H E F V T K G T I G K I E E K R  
 D D A E R E R R H G W Q S L P G I G P K T A K V I D Q A W S G Q E P D L L A E L R  
 P R A I E S G T E A R A V P L V G S K M A T Q I E Q L L S S G K L E K L L D D V E  
 T D E Q R R A R D W T S L P G V G A K T A V V E Q A V A V G K V P D Y L Q Q L R  
 K T P I T S G A Q A R S L I G I G Q G I A D R I I D E F L T G S K G R E Y

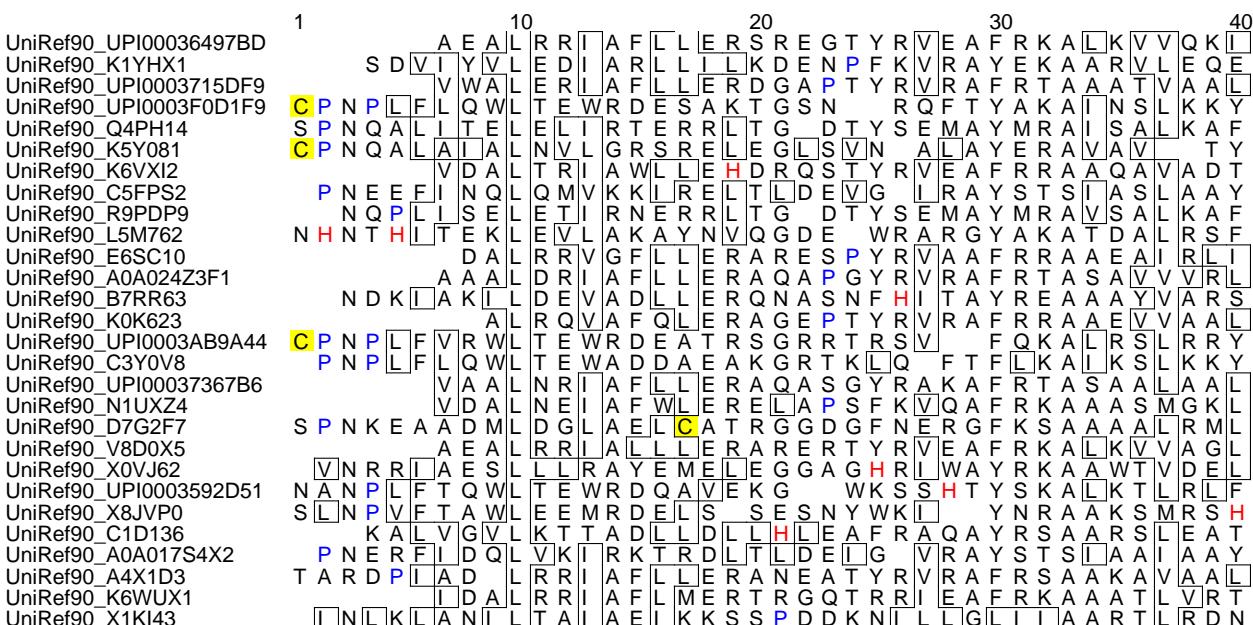
UniRef90_G2GJZ0	A
UniRef90_G9NIX2	
UniRef90_A7EUC8	N N
UniRef90_V8NA58	R
UniRef90_G3NAV1	
UniRef90_S8ATI9	
UniRef90_UPI00038C50F6	N D
UniRef90_B0D8M6	A
UniRef90_UPI000376CF9B	K
UniRef90_W5WIP7	
UniRef90_UPI0004417926	
UniRef90_UPI0004776626	A D
UniRef90_D2PXJ7	Q
UniRef90_Q4RN80	A D
UniRef90_C4JED9	T D
UniRef90_A8JD91	
UniRef90_Q1Q353	
UniRef90_F8Q066	
UniRef90_V2XUA2	T
UniRef90_D3BHM0	
UniRef90_W2EKL1	
UniRef90_B5Y3H9	A D
UniRef90_UPI00037D9EAB	
UniRef90_D0MQC6	G D
UniRef90_S2Z9D9	D E
UniRef90_J3EYV3	
UniRef90_K9ZX66	
UniRef90_M4BKW2	
UniRef90_M4BKW2	
UniRef90_UPI0003B3F11F	S D
UniRef90_M0M0N7	
UniRef90_F6EMV8	E
UniRef90_F0ZL61	
UniRef90_G2NK02	R E
UniRef90_M7B2F2	
UniRef90_UPI0003682EB3	S
UniRef90_F0W4T3	
UniRef90_F0W4T3	
UniRef90_F0W4T3	
UniRef90_J5RIV1	
UniRef90_M5RG09	G E
UniRef90_UPI00047C5559	E
UniRef90_E6ZL08	R D
UniRef90_R7SG10	
UniRef90_V5EN85	R D
UniRef90_D1YUN1	K E
UniRef90_UPI0003871C2B	Q D
UniRef90_H5XFB0	
UniRef90_T2RQT7	S E
UniRef90_A0AZP1	G D
UniRef90_F6VL88	N D
UniRef90_UPI0004449A6E	
UniRef90_G8JNB2	
UniRef90_V41754	E E
UniRef90_V9XL84	E E
UniRef90_UPI000376FFE0	G D
UniRef90_R7QIV6	T D
UniRef90_H6R5W9	A
UniRef90_A0D335	
UniRef90_A0A022MP02	R E
UniRef90_H6C2A7	N D
UniRef90_UPI000422D343	A
UniRef90_H2ZGS8	
UniRef90_I2FLY7	R D
UniRef90_K5UUC0	
UniRef90_D5H9V2	S
UniRef90_D2VBC0	
UniRef90_M2PY58	
UniRef90_M2X1G2	K
UniRef90_G5CQ56	
UniRef90_G1X3Y6	K
UniRef90_L1KP99	Q
UniRef90_X1PKR0	
UniRef90_R1DUT5	
UniRef90_W9X5S1	
UniRef90_F6FVY2	R
UniRef90_UPI0003B4049A	A
UniRef90_W9BKG8	E
UniRef90_F4R6X8	R D
UniRef90_T5KDN0	G D
UniRef90_R7WSF7	R D
UniRef90_G0J1B5	E
UniRef90_UPI0003B57FCA	A
UniRef90_W8A4L5	T
UniRef90_UPI0003507482	Q D
UniRef90_I4AIG3	
UniRef90_E4UPZ2	
UniRef90_B8CC60	A
UniRef90_I0RXT2	S
UniRef90_D0MQB6	K
UniRef90_E9T7R4	
UniRef90_UPI0003F492FD	

1 10 20 30 40

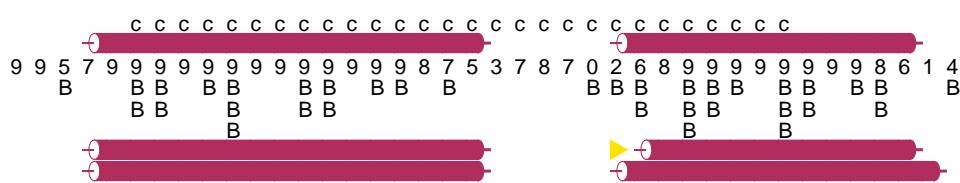
UniRef90_UPI0004409A6B	P N I Q L V R W L T K E M E N E G N V E N G P Y K A R A F Q H A F K A I L D A L
UniRef90_F0MMA6	V A A L N E I A F W L E R G R A A T F K V Q A F R K A A A A I S P L
UniRef90_A0JRX6	V D A L N E I A F W L E R G R A A T F K V Q A F R K A A G I I G A L
UniRef90_UPI00045E21AC	N H N L H I T E K L L E V L A K A Y S V Q G D K W R A L G Y A K A I N A L K S F
UniRef90_UPI0003660564	I E A L R E I A Y W L E R S R A D T H R V K A Y R R A A D V V E S L
UniRef90_L8TQZ9	V A A L N E I A F W L E R G R A A T F K V Q A F R K A A A A I S P L
UniRef90_UPI00042C1954	S R H L T R A A S M L K A L
UniRef90_F8PSZ2	C P N Q G L I K Q L D K I K E A R N L E G E E R S M L S Y A R A I I S V S P F
UniRef90_V5FMF4	P N E K F M E Q L I K I R R A R E L L T L D E I G V R A Y S T S I A A I A A Y
UniRef90_UPI000380AA5C	N K E I V K Q F K L A S S L E L H G A N P F K I R A F G S I V F V L E R M
UniRef90_UPI0002189FF	N Q E V S E Q L Q T H A R E L R A A Q G N L Y R I R A Y R R A A M E V Q R F
UniRef90_A4S8F3	N T K L C Q A L E A I F Q A K T S P E E P M K S A S Y R K A A Q S I R E I
UniRef90_A3HZ68	M E L H E E N S F K V R S Y Q S A L N S L D R G
UniRef90_UPI00041FF86B	K T I L K K L K L A I Q L M E L H D E N P F K I R G Y Q S A L I S L E R M
UniRef90_UPI00040C5F88	K T I L K K I K L T I Q L M E L H D E N T F K I R S Y Q S A L N S L E R G
UniRef90_X1DQ95	N D L V T V I L E H I D Y L L K L K G K R S P Y G Y A A F S I S Q L
UniRef90_UPI0004418BFB	P N P L F T R W L Q E W R D Q A A E R G R P K S Q R A Y E R A L S S L R K Y
UniRef90_D5GCP7	S P N A D F I S L L D T I K L S R V L T S D G V G I R A Y S T A I A T I Q A Y
UniRef90_C0ZV15	E A L R E I A Y W L E R S R A E T H R V K A Y R R A A E V I F A G L
UniRef90_Q4S1X0	E A L S I L L A E N A E L N E E D G R G I A F R R A E A V L K A L
UniRef90_Q0C9B1	P N E G F I E Q L V D A L N E I A F W L E R E L T L D E V G V R A Y S T S I A A I A A Y
UniRef90_UPI000478D10D	V D A L N E I A F W L E R E L T L D E V G V R A Y S T S I A A I A A Y
UniRef90_UPI00036DF1B1	V D Q L K Q I A F L L E R A R A Q T H R V R A F R K A A W A L E K L
UniRef90_D8UB26	I L A E L K R T R D L Y M D R R D Q F R I K A I D R G M G V L A R V
UniRef90_J4UJD1	P N S S F I D E L K S I R T I R L L Q G D K I G V R A Y S T S I A S I A A Y
UniRef90_UPI0003F9F829	N K D F I K I F E K T A Q L M E L L G E N E F Q I R N Y Q N L I F K I N S I
UniRef90_UPI000333F773	N Y N C I F T N A F E E V L A E N C C E F K E N E G S Y V T Y M R A A S V L K S L
UniRef90_M7WL02	C G N P E W A E W V Q E L A D R A E E R G E K S S Q T Y K R A A N A L K S C
UniRef90_U1GC39	P N H R F I S E L S Q K I K L S R I L T L D Q I G V R A Y S T S I A S I A A Y
UniRef90_E9C4L8	N Q D I V D M L H D L A Q Q A S E R G T K N M Y S Y R K A T T S V C R Y
UniRef90_H0QKD3	A D A L N E I I A F W L E R S A A P T F K V V Q A F R K A A G V I S A L
UniRef90_U1Y7Q1	V E A L D E I S F W L E R S L A P T F K V V Q A F R K A A D V V R Q L
UniRef90_G8RNG9	T E N M D P V L L A R Q I L A Y Y K K D R A R E D P P R R V M A Y R N A A D V V E R L
UniRef90_UPI0001925222	C A N P M F L L W L E E W Q K D A E E K G L N S K W T Y S K A I S S I K K Y
UniRef90_UPI0002F391B5	D A L T E I A T L L E R E R S S R Y K S K A F R A A A D A I E G L
UniRef90_UPI0003B6A97B	V A A L E E I I A F L L E R D R A S A F K S K A F R K A A D V V R Q L
UniRef90_UPI000477DDB3	V E A L L D R I A F L L E R S A A P T Y R V K A Y R K A A D I V A G L
UniRef90_UPI000413F89A	V A A L R E I I G Y W L E R A R A D T H R I K A Y R R A A E T L T E L
UniRef90_A0A024UDM9	N E L L V L E M E K I I E Q E A A K G Q V N H K L S S Y Q R A L T T S I R N H
UniRef90_G7EA02	N P L W I R W L E E M R D L A A Q R G N D N S V T N C Y Q N K A I A S L K A C
UniRef90_H8GU59	A R A L L R D I I A F Q L E R A G E P T Y R V R A F R Q A A A V V D R L
UniRef90_UPI00035EEA71	V E A L E R E I I A F L L E R S Q A P T Y R V R A F R T A A G V L G S L
UniRef90_Q9EWR3	N Q E I A N I F Y E I I A D F L L E M E G V Q F K P Y A Y Q K A A I T T L E N L
UniRef90_X1HUY1	V E A L L D R I A F L L E R S R A E T Y R V K A F R T A A A V L E E L
UniRef90_W6JSR4	V G A L E E R I I A F L L E R D S A V T Y R V Q A F R T A A R T V A A L
UniRef90_I2NBC0	V E V L R E I I G F W L E R A R A E T Y R V K A Y R K A A D I V A G L
UniRef90_UPI00036BF38F	P N D S F I I S Q L Q K I K L A R I L T L D A L G V R A Y S T S I A A L A A Y
UniRef90_K0F3X6	D I L L N E I I G L L E L K G E N P F K K A R A Y Y N A A R T I E V L
UniRef90_W2RRL4	I E A L T E I I A G L L E L R D R A S R Y K S K A F R V A A Q T L T G L
UniRef90_F2A077	I D L L A L K Q R V R E S T H L V S N Y A R A I T S V R A H
UniRef90_A0A031FX87	H I V E F L K Q I T N I K N R P G A D I K T T S I Y K K A I R S L N L Y
UniRef90_D0NU17	N R E L V D A L L D S M H R A S V S A R E E P M K V N A Y A K A L T S I R E L
UniRef90_Q551H0	Y N Q F T D A L E I I L E E N A L Y R G D A E A R A L S F R R G S A S L K A L
UniRef90_Q01BG6	C S N Q M L V E Q L L E L I R N R R L T G D T Y A E M A Y M R A I S A L K A Y
UniRef90_F6TYB0	N Q A F M L R F Q D M R D T A R S R G Q T N L V R S Y G K I I R A I T T K Y
UniRef90_M9LV18	N Q R L V D Q L V Q I L G E Y E L H S G H S Q R G I A R M R A A K Q L H D T
UniRef90_C5KC16	C P N P L F L K W L T E L L R D Q A K E K G Q K T Q Y T Y Q K A I Q S L N K Y
UniRef90_K3WG39	P N A E W A G W V Q E V A A D H A A N N G S R S C Y Q R A K A I K N H
UniRef90_H2TXB0	N K E V A R L L R N V A A S Y R I K D E K K F Q L I A Y E N A S D T I E S L
UniRef90_H6QPQ8	N R A L A Q L I F N I A T L L K R Q N A N P Y R V R R Y R E V A R A I L R L
UniRef90_K2C2V5	S L N A E W A G W V Q E V A A D H A A N N G S R S C Y Q R A K A I R L H
UniRef90_A9B5C8	A W A L R E I I A F Q L E R A G E P T Y R V R A F R N A A A T V D K T
UniRef90_C9Z1S8	T P N N A F I N Q L V K I R T I R E L N L D E I G V R A Y S T S I A A I A A Y
UniRef90_E3K9F2	P N E K F I I E L K K I R T L R L L Q G N Q I G V R A Y S T S I A A L S A Y
UniRef90_D8I4T2	P N E A F I A Q L V K I R T V R E L T L D E I G V R A Y S T S I A A L A A Y
UniRef90_Q5B016	A A L L R E I V A Y L Y E R A R E S S H R I G A Y R R A A E T V E R L
UniRef90_E9EUG6	V D A L L R R I A F L L E R S R E E T R R V E A Y R N A A K V L L P L
UniRef90_W4GSC7	P N E A F I A Q L V K I R T V R E L T L D E I G V R A Y S T S I A A L A A Y
UniRef90_A0A010ZQ27	T A A L N E I I A F W L E R E L A P S F K V Q A F R K A A A T I A E L
UniRef90_A1CSU7	N H N L H I T E K L L E V L A K A Y A V Q G D R W R T L G Y S K A I N A L K S F
UniRef90_C7NLL6	N R L I F L K L L E I R K F Y T N K S S N I S K A I S T A I Q S L K C Y
UniRef90_UPI0003B4CA2F	V E A L R E I I A F Y L Y E R S R A E T H R V K A Y R R A A D I V E G L
UniRef90_N0D316	V S A L R E I I A Y Y K E L A R E E S R R A D V V A A V I A A W
UniRef90_UPI00047DB3F5	I D A L N E T A F L L E R E L A P P G F K V K A F R R A A A V I A A W
UniRef90_UPI0004435664	T A N R E I V Q L L K R T L K E E E S R P D N K Y K I V A F A R A I R A I E G L
UniRef90_Q4MXZ6	P N Q G F I E E L T K I K T A R T L T G D R I G V R A Y S K S P T A E R
UniRef90_UPI000374E7AF	V A V L R R I A F L L E R T Q A S P Y R S E A F R G A A G T V E R T
UniRef90_B1MED3	N S K V A D L L S E M A K I N Q D A L R E V Y K A K Q Y A A A A S A I R S L
UniRef90_UPI0003B7A53E	N Q V L T D A L E V L F E N A K Y S E S E G Q S L A F R R A A S V L K S L
UniRef90_E3BCY0	L L D A L R E V A V Y I E W R G S D E H R I K A I D G A L W V L G R L
UniRef90_S7Q4K4	U R R I A F L L E R A N E A T Y R V K A F R R S A A A T V V A A L
UniRef90_I3Z5K8	T A N R E I V Q L L K R T L K E E E S R P D N K Y K I V A F A R A I R A I E G L
UniRef90_Q2HB03	P N Q G F I E E L T K I K T A R T L T G D R I G V R A Y S K S P T A E R
UniRef90_UPI00035EF192	V A V L R R I A F L L E R T Q A S P Y R S E A F R G A A G T V E R T
UniRef90_UPI0003742732	N H N L H I T E K L L E V L A K A Y A V Q G D R W R T L G Y S K A I N A L K S F
UniRef90_UPI00036BF34C	N R L I F L K L L E I R K F Y T N K S S N I S K A I S T A I Q S L K C Y
UniRef90_A4S364	V E A L R E I I A F Y L Y E R S R A E T H R V K A Y R R A A D I V E G L
UniRef90_UPI0003C1319A	I D A L N E T A F L L E R E L A P P G F K V K A F R R A A A V I A A W
UniRef90_E1Z585	T A N R E I V Q L L K R T L K E E E S R P D N K Y K I V A F A R A I R A I E G L
UniRef90_R4LSQ1	N L N A H L T D P L E E M M E F L D V E R D V W R H Y M Y
UniRef90_UPI000382E2F8	N L N A H L T D P L E E M M E F L D V E R D V W R H Y M Y
UniRef90_M4B6V3	N L N A H L T D P L E E M M E F L D V E R D V W R H Y M Y

P Q A I T S G E E A L K V V G V G K G I A R R I D V Y L S Q G  
 UniRef90\_UPI0004409A6B P A E R A R T G R L K S M K G I G D R T Y Q V I R E A V E G G Q V P E Y L A D L R  
 UniRef90\_F0MAA6 D A A R A N G R L K S M K G I G D R T F E V I R Q A V D G G V P D Y L E G L R  
 UniRef90\_A0JRX6 H K P V T S Y Q G F R S L E D I G E T A R S E R R W S A L P G I G A K T S L I I R Q A L S G D V P D F L A E K R  
 UniRef90\_UPI00045E21AC G E T A R S E R R W S A L P G I G D R T Y Q V I Q Q A V A G G V P D Y L A D L R  
 UniRef90\_UPI0003660564 P G R L G A L E E L G P L P G I G E H S R R V I Q D V L E D G V C A E V E R V K  
 UniRef90\_L8TQZ9 P H V I T H K R E I S K L P Y L G E K L L S M V E E F I K T G Q I N E  
 UniRef90\_F8PSZ2 P Y E F R T P L E V L T L P G I D T K I A N L F A E F R E S G T V A A A Q V I D  
 UniRef90\_V5FMF4 E E A L K T L E E L I A L D I K K G M A E K I I E I N H L G S F A E L N E L  
 UniRef90\_UPI000380AA5C D K P L V E I E D L A R T P G I G R H L A I V I S N Y A R T G V W L T Y E Q L  
 UniRef90\_UPI0002E189FF D F E V T S G I A I S K V P N V G P S L G A Q I E F W I K N G Y F E R M E Y Y E  
 UniRef90\_A4S8F3 N D D L M D L S D L Q K I P G I G K S I F E A I I A L K E T D S F P L L D E L L  
 UniRef90\_A3HZ68 D E D I M E L S D D L A K I N G V G K S I I E A I Q S M K A A E T F P L L V Q L L  
 UniRef90\_UPI00041FF86B D A D I M S E D E L S K V P G V G K S I L E A I K S L K E S E S F P Q L D Q L L  
 UniRef90\_UPI00040C5F88 K Q P L T T M K E L Q K I K G V G K T T E N I I L E I L E T G T S A Y Y E K L  
 UniRef90\_X1DQ95 P P L P L R S G R E A R I L L Y F G E K I C R Q L D E Q L E K H R S  
 UniRef90\_UPI0004418BFB P Y P L I S P S E V S L L P G C D G K S S A L F E E Y I T S A V V R E L E K  
 UniRef90\_C0ZV15 S D E Q K E S R R W K A I L T G I G P K T A M I I I A Q S Y D G V P E Y L E E L R  
 UniRef90\_Q4S1X0 P R A V R K L T E L K G L P C L G E H S L R I I K A S G K A A E V E A T K  
 UniRef90\_Q0C9B1 UniRef90\_D5GCP7 P Y E F R R P S E V V L T P G C D A K I A H L L A E Y Q E T R T L A A A K A L T  
 UniRef90\_UPI000478D10D D R D E L V N R R L K K T K G I G S R S F E V I A Q A Q L E G G V P D Y L A N L R  
 UniRef90\_UPI00036DF1B1 S E R R A A A G T L T E L P D V G P V S A K V V T E A L A G E T A G Y L A K L E  
 UniRef90\_D8UB26 S W P L E S P D Q L S Q L R L G R G T A E K V S E I L A T G R F S R N D M F E  
 UniRef90\_J4UJD1 P Y K I Q P K Q E V V S R L P G C G S K I A E L Y Q E W H A T G Q T E E M R E S K  
 UniRef90\_UPI0003F9F829 S Q E V T S E K E L E R L G F S K N H I Q K F E Q I Q A Q G F F E K L Q Q L E  
 UniRef90\_UPI000333F773 P F T I I R M K D T E G I P C L G  
 UniRef90\_M7WL02 P L P F T H P D D A L Q V G V G P K I  
 UniRef90\_U1GC39 P Y L I Q S P L E I M R L P G C D E R I I A T H F S E Y K A T S R S E  
 UniRef90\_E9C4L8 P L P I R S G N E A M L L E H I G A T I A R Q I S S F I A  
 UniRef90\_H0QKD3 P H E V A E R G R L K R T K G I G D T T F N V I R Q A V D G D V P D Y L E K L R  
 UniRef90\_U1Y7Q1 P P R L I A S G R L T S L K G V G N R S A E V I S Q A M E D R V P D Y L A D L R  
 UniRef90\_G8RNG9 S D A E R E R H G W Q A L S G V G P K T A K V I A Q A W S G R E P D V L V E L R  
 UniRef90\_UPI0001925222 P L P L R S G K E A K I L E N I G D G I A K K L D E Y L D S G  
 UniRef90\_UPI0002F391B5 S D E L H D S G T L L R R R K G I G D S S F A V I Q E A L G G A V P A Y L A D L R  
 UniRef90\_UPI0003B6A97B P D E V A A R V Y L R R M P G I G D S S F T V I A E A A A G T V P E R L A S L R  
 UniRef90\_UPI000477DB3 G E E R A A A G S L E S V R P G L G P K T A Q V V R E A L A G Q V P A Y L R R L E  
 UniRef90\_UPI000413F89A S G E Q R A A H D W G T L L A G I G P K T A T I I I Q Q S L A G D V P P Y L A E L R  
 UniRef90\_A0A024UDM9 P E V I Q S S A Q A K S L R G V G N F I A Q K I H A I L  
 UniRef90\_G7EA02 P T P M C S P W E A T A L R D I G T Y K A H E Q R L K D  
 UniRef90\_H8GU59 E A E I E L G D F F G G I P K V G R G L A A E L S A Y A R E G V F G P L E D A  
 UniRef90\_UPI00035EEA71 P E S R V R I A G A L Q A L K G I G K A T A G V I E D A W H D R T P A Y L L A K V  
 UniRef90\_Q9EWR3 T E L L R E R A G S L E E S K L G V V G P K T A Q V A R E A L D G G Y L A K L E D  
 UniRef90\_X1HUY1 E K D V Q D I Y K L E K I P G V G K S I A E  
 UniRef90\_W6JSR4 P D A R H T A G T V Q D D P G I G K A T A G V I G E A L D G E L P A Y L R S L  
 UniRef90\_I2NBC0 A A R T R T R R S L E S V K G I G P K T A G V A M E A L A G D V P E Y L R K L E  
 UniRef90\_UPI00036BF38F D R R L L A D G S L E R V K G I G P R T A Q V I R E A A A G E T P G Y L D R L E  
 UniRef90\_KOF3X6 S A A H Q Q A A H S W R E I P G I G P K T A A V I E Q  
 UniRef90\_W2RRL4 P H E L L S S E T E I L R L P G C N S R I A E L W L E W F D S  
 UniRef90\_F2A077 P D E I E T L D R L K D V K G I G E A L  
 UniRef90\_A0A031FX87 P S E R E D V P R L R S R K G I G D S T F A V I T E A L S G R V P T Y L A E L R  
 UniRef90\_D0NU17 P E P P L R S A A E A K K I R H G N Y M A N Q I H G I L R K R D L L E A D  
 UniRef90\_Q551H0 P L P V F S G K E C L E V N G F G P S L T K K I N D Y L K T  
 UniRef90\_Q01BG6 K Y E V T D G K K M E K V Q H I G A S M G A Q I D H W L K H R V F E R M A Y Y E  
 UniRef90\_F6TYB0 H H K V T H V E Q L A N I P Y V D G H C K K V I K E I L E E G F S D E A E  
 UniRef90\_M9LV18 P F H I P D L A E V E V E K L K G V G K K V F S L V R Q F Y H S T S T Q E A  
 UniRef90\_C5KC16 P M P I T S G W Q A E Q L D G V G S T F A Q V F A Q L I T  
 UniRef90\_K3WG39 V E V I K T S G A Q A K R I D R I G V S A A E K I D V L L A H  
 UniRef90\_H2TXB0 P L P L R S A K E A K I L Q N F G D G I C K I L D E K L Q  
 UniRef90\_H6QPQ8 P I K L N H P R D A L S I L P G I V G P K V V K L I T D R L E  
 UniRef90\_K2C2V5 P E Q L E N L Y K E N K I P N I G K T I K S R L E E L F K K G K V S H F D Y V I  
 UniRef90\_Q5B016 R H S L T E R A L A G K A L G I G A S L T R K I T V L L A A Q G Q L D F Y D D L C  
 UniRef90\_A9B5C8 P M P I T S G W Q A E Q L D G V G S T F A Q V F A Q L I T  
 UniRef90\_C9Z1S8 S A R E L A E R A L E A L K G V G P R T A Q V A R E A L A G G Y L R K L E Q  
 UniRef90\_E3K9F2 N Q P L H H P K Q A L L N G V V G E G I V R L I T A R L Q E  
 UniRef90\_D8I4T2 G A E L I A E N G T L T S L P G I G K A T A G V I E D A L A  
 UniRef90\_Q5B016 P Y E I R R G S Q I L P G C D S K I T A N L F V F E F K E S G T L A A A E A L D  
 UniRef90\_E9EUG6 P H V I Q N I I E R L P G C S T K I A E L Y Q E W L K D G E T K E  
 UniRef90\_W4GSC7 P A S I E T G E Q A K A L R G V G N F I A Q K I N A I L L  
 UniRef90\_A0A010ZQ27 D A D E L S R E A L R K K L P G I G D V T A R C V A E S L A G E E P V Y L R R L E  
 UniRef90\_A1CSU7 P S A I Q R P A E I L T L P G C D A K I A L A L F A E F Q S G T V A A A A A L D  
 UniRef90\_C7NLL6 D D H K F A D H S W Q S L D G I G S S T A G V L R E A V V S G K V P A K V V A A R  
 UniRef90\_UPI0003B4CA2F G E D E V R R R S L L Q E E L P G I G P S T S K V I A Q A V A V G Q V P D K L A D L E  
 UniRef90\_N0D316 A A E R V A A G T L E Q V S G I G P R T A Q V I R E A L A G E V P P G Y L E R L E  
 UniRef90\_UPI00047DB3F5 E T T E E L R V R R L K R M K G I G A R S F E V I T Q A L N G D T P S Y L A D L R  
 UniRef90\_UPI0004435664 P K P V S S Y Q V R E T A H T L N P G I L L S V  
 UniRef90\_Q4MXZ6 P L P I T S I N D L N K I A G I G V R F S K F I Q E  
 UniRef90\_UPI000374E7AF S A E Q R A R R T A E D L A G I G P K T S A I I S Q A V A G Q V P D Y L A E V  
 UniRef90\_B1MED3 S P Q E R E R H G W K S L T G I G P K T A T V A E H A E A W A G K V P A T L E Q L R  
 UniRef90\_UPI0003B7A53E P E E L A S D G R L K A T K G I G S R T F E I I I G E A L E G R V P A Y L A D L R  
 UniRef90\_E3BCY0 D E E T L R A K S L A D V S G I G K T T L A V I T E A L D G R V P P S Y L D Q L E  
 UniRef90\_S7Q4K4 D Y P L A S L K K A K I V R G I G H G I A H R I A V Y L H E G  
 UniRef90\_I3Z5K8 E D E G K N I D E L Q E I G G I G K S I A E V I F S L G T T E S H A Y L E T L L  
 UniRef90\_Q2HB03 L T E V V A R L P G C G S K I A L L F Q E F R E T G Q I R E A R E D E  
 UniRef90\_UPI00035EF192 P E A R V A A G T L K E L K G I G D T T A T V V E E S L A G T V P G Y L R K L A  
 UniRef90\_UPI0003742732 P R A L A K A G A L T D D L P A V V G A R T A E V V D R V L R G A D V P Y L E E L E  
 UniRef90\_UPI00036BF34C P R R A E R A G G L E E V K G L G P K T A A V V R E A L A G E R P A Y L T R L  
 UniRef90\_A4S364 N F E V Q S I D Q V D V I P M L K K K I R K Y V Q E I L T T G K L T A L Q S L R  
 UniRef90\_UPI0003C1319A A F S V T S A G D L E G L P S L G E H S K K I I K  
 UniRef90\_E1Z585 T Y P L E S A C D V E Q Q L G L G P K T T A K L C S I L R T G T C S K L Q E L R  
 UniRef90\_R4LSQ1 P S D E L S R R T L A E L T G V V G D V T A R C I T E S L N G E E P V Y L R R L E  
 UniRef90\_UPI000382E2F8 P A D D L A R H T L T A L V P G I G E A T A G V V I D A V E G R E P A Y L A R V L  
 UniRef90\_M4B6V3 K W V K G R L R D K V T E I L E T G R L A K L D A K K

UniRef90\_UPI0004409A6B  
UniRef90\_F0MAA6 E  
UniRef90\_A0JRX6 Q  
UniRef90\_UPI00045E21AC  
UniRef90\_UPI0003660564 A E  
UniRef90\_L8TQZ9 E  
UniRef90\_UPI00042C1954  
UniRef90\_F8PSZ2  
UniRef90\_V5FMF4 T D  
UniRef90\_UPI000380AA5C  
UniRef90\_UPI0002E189FF  
UniRef90\_A4S8F3 R  
UniRef90\_A3HZ68 E  
UniRef90\_UPI00041FF86B E  
UniRef90\_UPI00040C5F88 E  
UniRef90\_X1DQ95  
UniRef90\_UPI0004418BFB  
UniRef90\_D5GCP7  
UniRef90\_C0ZV15  
UniRef90\_Q4S1X0 Q  
UniRef90\_Q0C9B1 T D  
UniRef90\_UPI000478D10D E  
UniRef90\_UPI00036DF1B1 A E  
UniRef90\_D8UB26 Q D  
UniRef90\_J4UJD1 A D  
UniRef90\_UPI0003F9F829 Q  
UniRef90\_UPI000333F773  
UniRef90\_M7WL02  
UniRef90\_U1GC39  
UniRef90\_E9C4L8  
UniRef90\_H0QKD3 Q  
UniRef90\_U1Y7Q1 E  
UniRef90\_G8RNG9 S  
UniRef90\_UPI0001925222  
UniRef90\_UPI0002F391B5 E  
UniRef90\_UPI0003B6A97B A N  
UniRef90\_UPI000477DDB3 E E  
UniRef90\_UPI000413F89A E  
UniRef90\_A0A024UDM9  
UniRef90\_G7EA02  
UniRef90\_H8GU59  
UniRef90\_UPI00035EAA71  
UniRef90\_Q9EWR3  
UniRef90\_X1HUY1  
UniRef90\_W6JSR4 Q D  
UniRef90\_I2NBC0 E  
UniRef90\_UPI00036BF38F S  
UniRef90\_K0F3X6  
UniRef90\_W2RRRL4  
UniRef90\_F2A077  
UniRef90\_A0A031FX87 E  
UniRef90\_D0NUI7  
UniRef90\_Q551H0  
UniRef90\_Q01BG6 K  
UniRef90\_F6TYB0  
UniRef90\_M9LV18  
UniRef90\_C5KC16  
UniRef90\_K3WG39  
UniRef90\_H2TXB0  
UniRef90\_H6QPQ8  
UniRef90\_K2C2V5 K  
UniRef90\_A9B5C8 A  
UniRef90\_C9Z1S8  
UniRef90\_E3K1F2  
UniRef90\_D8I4T2  
UniRef90\_Q5B016 K D  
UniRef90\_E9EUG6  
UniRef90\_W4GSC7  
UniRef90\_A0A010ZQ27 A  
UniRef90\_A1CSU7 S D  
UniRef90\_C7NLL6 R D  
UniRef90\_UPI0003B4CA2F A  
UniRef90\_N0D316 E E  
UniRef90\_UPI00047DB3F5 E  
UniRef90\_UPI0004435664  
UniRef90\_Q4MZX6  
UniRef90\_UPI000374E7AF  
UniRef90\_B1MED3 A N  
UniRef90\_UPI0003B7A53E E  
UniRef90\_E3BCY0 E  
UniRef90\_S7Q4K4  
UniRef90\_I3Z5K8 E  
UniRef90\_Q2HB03 S D  
UniRef90\_UPI00035EF192 A E  
UniRef90\_UPI0003742732 A  
UniRef90\_UPI00036BF34C  
UniRef90\_A4S364 Q  
UniRef90\_UPI0003C1319A  
UniRef90\_E1Z585  
UniRef90\_R4LSQ1 T  
UniRef90\_UPI000382E2F8 G E  
UniRef90\_M4B6V3 K N



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



		50	60	70	80
UniRef90_UPI00036497BD	P R T R V S G G R	L T E I S G I	G K S T A A V I	T Q A S G G E L	P Y L K S L Q
UniRef90_K1YHX1	S R D I E E L V E L	S A L A G I	G E T L N E K I	T Q L V K T G K L K F Y E D L K	
UniRef90_UPI0003715DF9	R G D R H R T R T L	T E L R G I	G V T T A A V V	H Q S M Q G G V P D Y L A V L E	
UniRef90_UPI0003F0D1F9	P V P L T S G K E A K I	L E G F G D K I	C Y K M L	D K L L D N G I	I P
UniRef90_Q4PH14	P F P I P D R I E V E	V E K L L K G V	G K K V F S L I K	Q F Y A S	
UniRef90_K5Y081	P S V I T R R Q D I	L S P L G V	G S K V R S K I E	E E F I K N G	
UniRef90_K6VX12	D R R C A D M G T L	T A I E R I L G K	S T A A V I A E A V A G D	P G Y L A H L Q	
UniRef90_C5FPS2	P H K L K L P E E V V S L	P G C E N R I A N L F A E W			
UniRef90_R9PDP9	P F P I P D L S E V E	K L K G V	G K K V F S L I K	Q F Y A S	
UniRef90_L5M762	Y K P V T S Y Q K A				
UniRef90_E6SC10	P D D E L R E R A L K Q	I K G I	G D S S A A I I	G Q A L R G V V P A Y L A T L E	
UniRef90_A0A024Z3F1	P E E V A E R A A A G S L	K K G L	G P K T A A V V R E A L A G G V P A Y L R G L E		
UniRef90_B7RR63	A P P L R D I H R S S G L	Q Q G L	Q D S Q A Q A V A K I	L E T	
UniRef90_K0K623	P A T R V A N G T L T D L	N G I	G K S T A G V I L	D A A A G R E P A Y L S R V R	
UniRef90_UPI0003AB9A44	P L P L R S G K E A K I	L Q H F	G D G L C Y K M L	D E R L Q R H R	
UniRef90_C3Y0V8	P L P L Q S G K E A K I	L D F V	G D K I C Y K M L	D D Q E H G P L P E V	
UniRef90_UPI00037367B6	P E G E A A R R A L E	G V K G L	G P K T A A V V R E A L A G Q V P E Y L A G L E		
UniRef90_N1UXZ4	P E D V V A A R G R L L	K S M K G I	G A R T F E V I R Q A I D G E V P E Y L A K L R		
UniRef90_D7G2F7	G T Q I T D I E Q L K	D L R G V	G D G A M K E L T A F L A E G K		
UniRef90_V8D0X5	S D D E A R R R T L T D L	P G I	G K T T A A V I A Q A V S G E V P D Y L K A L Q		
UniRef90_X0VJ62	D E S S L A D I Y G L	T A L A Y I	G S S I A E V I S S L L E		
UniRef90_UPI0003592D51	P L P L E S G K D C R L	L Q N F G D K I C Y K M L	D E K L T E H K L K Q A D E		
UniRef90_X8JVP0	P R R L E H P R E C Y	V K Y V	G P K I Q K L L I E		
UniRef90_C1D136	E T D D V D A L L D F A G V	P K V G R G I	A S E L Q A Y A A S G A F G P L E D A		
UniRef90_A0A017S4X2	P Y H F S R P S Q I	L L L P G C D A K I	L F A E F		
UniRef90_A4X1D3	P T E E L A R I G K L	T G L L S G V	G E V T A R C V A E S L	Q A G E E P V Y L R R L	
UniRef90_K6WUX1	P R D R A T A G T L	T D L P A I	G A S T G K V I A Q A L A G R R P D Y L L D L E		
UniRef90_K1U4J3	P F K K L Y L S S G K I	R E I T G M F E	P A Y K I I F E Y I D T G S L G Y E F I K		

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

UniRef90_UPI00036497BD	E
UniRef90_K1YHX1	A E
UniRef90_UPI0003715DF9	E
UniRef90_UPI0003F0D1F9	
UniRef90_Q4PH14	
UniRef90_K5Y081	
UniRef90_K6VX12	E E
UniRef90_C5FPS2	
UniRef90_R9PDP9	
UniRef90_L5M762	
UniRef90_E6SC10	Q E
UniRef90_A0A024Z3F1	
UniRef90_B7RR63	
UniRef90_K0K623	
UniRef90_UPI0003AB9A44	
UniRef90_C3Y0V8	
UniRef90_UPI00037367B6	R E
UniRef90_N1UXZ4	E
UniRef90_D7G2F7	
UniRef90_V8D0X5	D E
UniRef90_X0VJ62	
UniRef90_UPI0003592D51	
UniRef90_X8JVP0	
UniRef90_C1D136	
UniRef90_A0A017S4X2	
UniRef90_A4X1D3	
UniRef90_K6WUX1	S
UniRef90_X1KI43	S

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