

QUERY UniRef90\_C3ZV7 UniRef90\_B0XGP5 UniRef90\_UPI00038E9AC5 UniRef90\_UPI000387092C UniRef90\_UPI0003D6F09D UniRef90\_UPI0002742CC9 UniRef90\_H3DA48 UniRef90\_UPI000440E070 UniRef90\_E0VSE7 UniRef90\_H3AZ49 UniRef90\_G5C6C4 UniRef90\_UPI0003DE9FD8 UniRef90\_UPI0003AF8982 UniRef90\_UPI00045DCC64 UniRef90\_UPI00034FD69F UniRef90\_H0VM00 UniRef90\_K7G886 UniRef90\_H9KZA3 UniRef90\_V9K8N1 UniRef90\_G7YQD0 UniRef90\_H2U816 UniRef90\_UPI00032AD4AA UniRef90\_N6UKX4 UniRef90\_UPI000240D088 UniRef90\_V9KEU5 UniRef90\_UPI0003319505 UniRef90\_UPI0003C157C0 UniRef90\_H2M0W7 UniRef90\_T11JU2 UniRef90\_W8B265 UniRef90\_G3NWN1 UniRef90\_E3MLY6 UniRef90\_UPI0002B4B08D UniRef90\_UPI0001A62394 UniRef90\_UPI0002A4C365 UniRef90\_UPI0003598CB5 UniRef90\_UPI000443F230 UniRef90\_W5KYR4 UniRef90\_Q4RY30 UniRef90\_A7UR26 UniRef90\_L9JGL6 UniRef90\_UPI0003EBDFCC UniRef90\_H2SLF1 UniRef90\_W5KZ30 UniRef90\_UPI0004544B5A UniRef90\_UPI00033375F9 UniRef90\_U6J940 UniRef90\_B4MKU8 UniRef90\_V8NES5 UniRef90\_UPI00034FC0F0 UniRef90\_L9L2V0 UniRef90\_U6IMG4 UniRef90\_L9L698 UniRef90\_UPI000440E6BC UniRef90\_W5LN11 UniRef90\_Q4S903 UniRef90\_K7H5Q2 UniRef90\_F7C8Z2 UniRef90\_UPI0003B30824 UniRef90\_W5N214 UniRef90\_F6ZIS0 UniRef90\_M3ZJ19 UniRef90\_E9FX7 UniRef90\_H2TKZ0 UniRef90\_UPI0004435A37 UniRef90\_UPI0004545ED6 UniRef90\_W5MQS0 UniRef90\_B3EWZ3 UniRef90\_UPI000258DF98 UniRef90\_Q4RJ20 UniRef90\_T11HT4 UniRef90\_G1KK42 UniRef90\_A7SQN1 UniRef90\_H2UY13 UniRef90\_UPI000441C54C UniRef90\_UPI0001CE2E55 UniRef90\_M7AHE3 UniRef90\_UPI00035A26BC UniRef90\_A4III2 UniRef90\_C3YBD5 UniRef90\_UPI000457550A UniRef90\_UPI000440EC7C UniRef90\_I3KK45 UniRef90\_G3T753 UniRef90\_UPI0002653AE7 UniRef90\_F7B411 UniRef90\_K1QEL9 UniRef90\_H2ZL24 UniRef90\_I3KA91 UniRef90\_C3Z1P8 UniRef90\_B4IXY5

1 10 20 30 40

Q D G G W S H W S P W S S C S V T C G D G G V I T R R L R L C N S P S P Q M N G K G P  
UniRef90\_C3ZV7 D G G W S D W S P W S A C S V T C G D G G V I T R R L R L C N S P S P Q M N G K G P  
UniRef90\_B0XGP5 D G G W T P W T K W T P C S S E T C G G F G G R T L F R S W R S C C V I N N P A P E H G G G A E  
UniRef90\_UPI00038E9AC5 D G G W T Q W G P W G E C S S R T C G G G G T Q F F R S Y R K D P A Q P R Q N G G G K Y  
UniRef90\_UPI000387092C Q D G H W G A W S K F G S A C S S R T C G G T G G V K Y R R T R M R Q C C D N P H P A F N G G G R T  
UniRef90\_UPI0003D6F09D G V W N A W Q P W S A C S S K S C G G K G S Q T F R T M R L C C D N N P P A P A N G G G A H  
UniRef90\_UPI0002742CC9 G K W A T W A S W S I C S S V S C G G G G V R H R T R T R D C C D N S D P P A P Q H G G G S K  
UniRef90\_H3DA48 D G G W G A W G A W R R C S S R T C G G G G V E F S H R F E C C T D P E S P Q N N G G G K Y  
UniRef90\_UPI000440E070 D G N W G L W Q P W G E C S S A S C G G S G E Q S K S V R V R Q C C D N S P S P S N K G K P  
UniRef90\_E0VSE7 D G N W G E W S P W S D C T R T C G G L G V S S S V R V R Q C C D N K P L P S H K G K D  
UniRef90\_H3AZ49 D G N W G P W Q A W R K C S A S C G G G G E Q S T R S R L R L C C N S P T P S N G G G R S  
UniRef90\_G5C6C4 G G F S P W S A W R P C S S V T C G G T G T Q K R S R L C C N N P L P A N G G K P  
UniRef90\_UPI0003DE9FD8 D G G W G E W S W S E C S S R T C G A G V S I V E R K C C D H P E P A H S G K F  
UniRef90\_UPI0003AF8982 D G A W G P W T P W G D C S S R T C G G G G V S S S S R H C C D S P R P T G G G K Y  
UniRef90\_UPI00045DCC64 D G K W S E W S W E E C S T R S C G R G G N Q T R T R T D C C D N T P L V A Q N G G G K P  
UniRef90\_UPI00034FD69F D G S W G S W G P W G E C S S R T C G G G G V R F S Y R T D C C D N D P L V A Q N G G G K Y  
UniRef90\_H0VM00 Q D G G W S P W S T F G S C S S R S C G G G G V R S R T R S D C C D N P P P A Y G G G R S  
UniRef90\_K7G886 D G N W S E W S W E E C S S E S C G G G G N K T R T R T C C S S P S P A Q H G G Q P  
UniRef90\_H9KZA3 D G E W S W L P W G P C S E S C G G K G T Q T R L R L C C S S P S P A Y G G G S H  
UniRef90\_V9K8N1 Q D G S W G S W T K F G T C S S R T C G G G G V R F T R T R R Q C C S N P Q P A Y G G G R D  
UniRef90\_G7YQD0 N G A W G N W S P W S H C S S K S C G G G G Q R T R T R R Q C C D N P P P A F G G G E  
UniRef90\_H2U816 D G S W G S W S K F G S C S S R T C G G G G L R S R S R R Q C C D N N P P P A Y G G G R D  
UniRef90\_UPI00032AD4AA M H G N W S P W S A W G A C S S R T C G N G G Q M R R Y R T Q C C D N P R P S H G G G R A  
UniRef90\_N6UKX4 Q H G G W S E W S L W G P C S S V S C G G V G V Q Y R Y R N Q C C D N P K P S F G G K D  
UniRef90\_UPI000240D088 D G K W A P W G S W S A C S S R T C G G G G S S Q R T R R C C S D P A P Q F G G H R  
UniRef90\_V9KEU5 N G N W G V W G P W G T C S S R T C G G G G V Q Y S F R H C C D R P V P K N G G G K Y  
UniRef90\_UPI0003319505 G Q W S A W S K W T E C S S R T C G G G G V R Q E R H C C N S P R P K N Y G G G R F  
UniRef90\_UPI0003C157C0 G G W G S W Q A W S E C S S A S C G G G G D R M R R C C N N P L P A N G G G R L  
UniRef90\_H2M0W7 D G N W G S W Q P W G Q C S S V S C G G G G E R T R L R L C C N N P A P S Y G G G R Q  
UniRef90\_T11JU2 N G R W S D W S P W D E C S S V T C G G G G F H M S R R R R E C C N N P A P Q N G G G R E  
UniRef90\_W8B265 G R W G A W S A F T P C S S L T C G G G G V Q E S R L R L C C N N P L P K N G G G K Y  
UniRef90\_G3NWN1 G N W G S W L P W S P C S E T C G G K G V Q K A L R L C C N S P P P A F D G G P Q  
UniRef90\_E3MLY6 N G N W G P W S P W D A C T V T C G G G G L Q K R S R L C C D N N P E P R N G G K Y  
UniRef90\_UPI0002B4B08D N G G W G T W S P W S H C S H S C G G G G Q R R R T R L C C D N P V P A Y G G G E D  
UniRef90\_UPI0001A62394 Q D G A W G P W A F D S C S S R T C G G A G V S F S T R R R Q C C D S P L P A N G G R T  
UniRef90\_UPI0002A4C365 D G Q W G Q W E W T S C S R T C G A G V S L S Q R Q C C N H P P S N G G G R Y  
UniRef90\_UPI0003598CB5 G G Y S S W G E W S P C S S T C G Q G F Q E R N R L C C N N P A P A N G G G R A  
UniRef90\_UPI000443F230 Q D G A W G A W T K Y G S C S S R S C G G T G V R F F A Q R L C C N S P A P S N G G Q D  
UniRef90\_W5KYR4 G S W S W G P W G S C S S R T C G G G L L Q F A Q R L C C N N P P P R N N G R Y  
UniRef90\_Q4RY30 D G G W T A W S S W T G C S E P C G F G R S L R M R S C C S N P V P R H G G L P  
UniRef90\_A7UR26 D D G W S P W S E W T S C S S V T C G N G I Q S S R G R S C C D S L N N R  
UniRef90\_L9JGL6 G G W G A W S L W G K C S S R T C G G G V S S L R R Q C C D S P A P A N G G K Y  
UniRef90\_UPI0003EBDFCC G G F S E W A E W G L C S V S C G G G A Q K R L R Q C C N K P L P A N G G R R  
UniRef90\_H2SLF1 S W V P W S W S K C S A P C G G G L Q S S R V R T C C E N  
UniRef90\_W5KZ30 D G S W G T H S W S H C S V S C G G G E R V R K R C C D N P V P S K S G R S  
UniRef90\_UPI0004544B5A N G A W S A W T S W S Q C S R D C S R G G T R S R K R V C C N N P E P K Y G G L P  
UniRef90\_UPI00033375F9 N G S W G Q W A W S H C S S K S C G G G T R R R R T R Q C C D N S P P R F G G A P  
UniRef90\_U6J940 G G W G E W S E W T P C S T N C G G T R N R Y R F C C D S P P P R Y G A K F  
UniRef90\_B4MKU8 G F S Q W L G W Q P C S S V T C G P G V Q K R L R L C C D S P F P A N G G G R S  
UniRef90\_V8NES5 D G E W G P W G P Y S S C S S R T C G G G L K S T T R L C C N R P E P R N G G K Y  
UniRef90\_UPI00034FC0F0 R E G A W S H W S P W S S C S S V T C G V G N I T R T R L C C N S P V P Q L G G R N  
UniRef90\_L9L2V0 N G G W S A W E E W G A C S S R S C G G G T Q F S R R E C C T S P E P Q N G G E P  
UniRef90\_U6IMG4 S W S E W S D W S E C D P S C G G V V R A R Q C C L L L F P V G S Q  
UniRef90\_L9L698 D G S W S C W S W S K C S S V T C G G H Y I R T R T C C S N P P P A Y G G D I  
UniRef90\_UPI000440E6BC S W S D W S E W S H C D S A G V Q V R L R H C C D V L F P T G N Q  
UniRef90\_W5LN11 D G R W G K W G F G S C S R T C G G G V Q L S R R E C C D N N P V P S N G G K Y  
UniRef90\_Q4S903 D G Q W G E W R T W G E C S S R T C G G G V Q K A L R R D C C D N P K P R N G G K Y  
UniRef90\_K7H5Q2 G W S P W S E W T E C S S V T C G S G T Q Q R G R S C C D A T S S  
UniRef90\_F7C8Z2 G A W S C W S P W S Q C S S V G C G S G H Y Q R T R S C C S P A P A N G G D I  
UniRef90\_UPI0003B30824 D G G W T E W S K W S A C C G A D C T M W R R E C C T Q P V P A N G G K D  
UniRef90\_W5N214 G G W S V W A P W E E C S S V S C G G Q G T R S R S R G C C N N P P A Q Y G G T P  
UniRef90\_F6ZIS0 N G N W G Q W S W G R C S S K T C G G G Q M R R Y R T C C D N P R P S H G G G R A  
UniRef90\_M3ZJ19 D G E W G E W G P W S D C T R T C G A G L A S S A R L C C D N P A P A H G G K Y  
UniRef90\_E9FX7 W S A W S A W E R C T V A C G G G I Q S S R R T C C E N  
UniRef90\_H2TKZ0 D G G W A G W A W S G C S S R S C G V G V Q S S E R Q C C N N P T P K Y G G K Y  
UniRef90\_UPI0004435A37 G G W G A W S P W S H C S S R T C G A G A Q S S S E R Q C C N N P E P K F G G K Y  
UniRef90\_UPI0004545ED6 G L W S D W S P W S G C S S R S C G G G R Q Y Q S R T C C T N P R P M Y G G K F  
UniRef90\_W5MQS0 D G G W S A W S G L S R C T R A C G G G R K V A E R E C C S N P P P A N G G R D  
UniRef90\_B3EWZ3 G G W G K W G P A G S C S S R T C G G G K V A E R E C C D N P P A N G G R Y  
UniRef90\_UPI000258DF98 D G N W S E W S A W E E C S S R T C G Q G N R T R V R T C C T D P P A R H G G R L  
UniRef90\_Q4RJ20 D G R W T W S W S T P D C C G R H H R R R S C C E N P S P A N G G R F  
UniRef90\_T11HT4 W T G W G T W E R C T A Q C G G G T Q A R H R R C C E N  
UniRef90\_G1KK42 N G G W G A W G P Y G A C S S R T C G G G V R H R S R K C C D S P S P Q L G G K P  
UniRef90\_A7SQN1 D G G W G P W S W A T C S S V T C G G G V K T R T R E C C N S P R P Q Y G G R R  
UniRef90\_H2UY13 D G S W G K W A P Y G Q C S S R T C G G G V Q L A K R Q C C N N P P A N E G K Y  
UniRef90\_UPI000441C54C R N G G W T P W T S W S P C S S T S C G T G F Q V R Q R C C S N P T P R H G G R V  
UniRef90\_UPI0001CE2E55 N G G W S F W G A W S S C S R D E L G F R I R K R T C C T N P E P K N G G L L  
UniRef90\_M7AHE3 D G Q W T R W A W S S C S L D C L R V R R R R V C C A D P V P S E G G L L  
UniRef90\_UPI00035A26BC N G G W S S W A D W S P C S S T T C G R G W Q K R S R S C C T N P T P L N G G S F  
UniRef90\_A4III2 D G G W T D W G W S A C S M T E V G E Q T R D R T C C T N P A P A H G G A D  
UniRef90\_C3YBD5 D G S W G A W S W A E C T R T S A G I Q S A E R H C C N N P T P K Y G G R Y  
UniRef90\_UPI000457550A G G F S N W E E W G P C S S V T C G Q G T Q E R L R L C C N N P A P A N G G P P  
UniRef90\_UPI000440EC7C C G G G G H Y Q R T R S C C N S P A P S N G G D I  
UniRef90\_I3KK45 G H W S D W S P W S P C S S R T C G G G V S R R R D R S C C T N P K P S H G G K F  
UniRef90\_G3T753 G Q W S E W E P F S D C S S R T C G G G I R R K R R H C C N S P T P S F G G Y H  
UniRef90\_UPI0002653AE7 N G G W G P W S P W D V C S A T C G G G L Q Q R K R L C C N N P K P Q F G G K D  
UniRef90\_F7B411 D G G W S W A W S T C T V S C G G G T Q T R L R T C C S D P A P L N G G A E  
UniRef90\_K1QEL9 D G N W G E W S R F G D C S R R C G G G I K S A H R E C C D S P K P Q Y G G R Y  
UniRef90\_H2ZL24 D G N W G E W S R F G D C S R D C C S R G L R S R S R T C C S N P E P R Y G G Q T  
UniRef90\_I3KA91 G G W S A W G A W S S C N G F C C T G R E Q R S R T C C S N P A P Q N G G A A  
UniRef90\_C3Z1P8 D G G W S S W S P W S E C E Q H E D S N C L C R Q R N C C N N P Q P Q H G G S S  
UniRef90\_B4IXY5

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QUERY                  | C | E | G | E | A | R | E | T | K | A | C | K | K | D |
| UniRef90_C3ZV7         | C | D | G | D | A | E | E | T | Q | E | C |   |   |   |
| UniRef90_B0XGP5        | C | K | G | S | E | S | E | I | K | I | C | K | E |   |
| UniRef90_UPI00038E9AC5 | C | L | G | Q | R | A | K | Y | Q | S | C | N | T | E |
| UniRef90_UPI000387092C | C | V | G | P | S | Y | E | F | Q | L | C | N | T | Q |
| UniRef90_UPI0003D6F09D | C | S | G | A | E | T | Q | M | Q | V | C | N | E | S |
| UniRef90_UPI0002742CC9 | C | E | G | S | D | I | Q | S | D | F | C | N | S | D |
| UniRef90_H3DA48        | C | E | G | Q | R | V | Q | Y | R | S | C | N | T | Q |
| UniRef90_UPI000440E070 | C | P | G | D | S | T | Q | L | S | K | C | N |   |   |
| UniRef90_E0VSE7        | C | V | G | E | R | K | R | Y | K | I | C | A | T |   |
| UniRef90_H3AZ49        | C | P | G | D | A | S | Q | V | S | R | C | N | I | Q |
| UniRef90_G5C6C4        | C | Q | G | L | D | S | E | M | R | N | C | Q |   |   |
| UniRef90_UPI0003DE9FD8 | C | L | G | E | R | R | R | Y | K | I | C | N | T | E |
| UniRef90_UPI0003AF8982 | C | L | G | E | R | R | R | H | R | S | C | N | T | E |
| UniRef90_UPI00045DCC64 | C | E | G | N | A | V | E | I | T | M | C | N |   |   |
| UniRef90_UPI00034FD69F | C | K | G | Q | R | A | M | Y | E | S | C | N | I | Q |
| UniRef90_H0VM00        | C | S | G | P | L | F | E | Y | Q | I | C | N | S | E |
| UniRef90_K7G886        | C | D | G | N | A | V | E | S | I | M | C | N |   |   |
| UniRef90_H9KZA3        | C | R | G | P | D | V | Q | R | Q | V | C | S |   |   |
| UniRef90_V9K8N1        | C | P | G | L | N | H | E | Y | Q | V | C | N | S | D |
| UniRef90_G7YQD0        | C | P | A | T | G | M | E | V | S | E | C | Q | N | N |
| UniRef90_H2U8I6        | C | P | G | S | F | D | Y | Q | M | C | N | T | E |   |
| UniRef90_UPI00032AD4AA | C | G | G | P | D | S | Q | V | Q | R | C | N | A | N |
| UniRef90_N6UKX4        | C | E | G | S | N | E | D | Y | R | L | C | N |   |   |
| UniRef90_UPI000240D088 | C | E | G | N | N | I | Q | V | D | F | C | N | S | D |
| UniRef90_V9KEU5        | C | E | G | K | R | V | Q | Y | K | S | C | N | T |   |
| UniRef90_UPI0003319505 | C | P | G | L | S | R | L | Y | Q | L | C | N | T | Q |
| UniRef90_UPI0003C157C0 | C | P | G | E | R | W | E | R | E | N | C | N | K | Q |
| UniRef90_H2M0W7        | C | P | G | D | S | S | L | L | S | R | C | N | T | Q |
| UniRef90_T1IJU2        | C | L | G | C | P | V | E | Y | R | S | C | N | T | Q |
| UniRef90_W8B265        | C | S | G | S | R | K | K | Y | R | S | C | N | T |   |
| UniRef90_G3NWN1        | C | E | S | T | D | T | Q | T | Q | V | C | K | E |   |
| UniRef90_E3MLY6        | C | V | G | Q | R | E | R | Y | R | S | C | N | T | Q |
| UniRef90_UPI0002B4B08D | C | V | G | E | A | R | G | T | Q | V | C | N | K | Q |
| UniRef90_UPI0001A62394 | C | P | P | T | S | T | E | T | S | E | C | Q | S | E |
| UniRef90_UPI0002A4C365 | C | F | G | N | S | Y | E | F | Q | L | C | N | Q | E |
| UniRef90_UPI0003598CB5 | C | T | G | E | R | K | R | Y | R | L | C | N | T | D |
| UniRef90_UPI000443F230 | C | G | G | P | S | T | D | S | R | K | C | Q | T |   |
| UniRef90_W5KYR4        | C | P | G | V | N | Y | D | F | Q | L | C | N | T | D |
| UniRef90_Q4RY30        | C | T | G | K | R | A | I | Y | R | S | C | N |   |   |
| UniRef90_A7UR26        | C | D | G | A | E | S | E | V | K | A | C | K | V | Q |
| UniRef90_L9JGL6        | C | E | G | S | S | V | Q | T | R | T | C | H | I | Q |
| UniRef90_UPI0003EBDFCC | C | L | G | E | R | K | R | Y | R | S | C | N | T | D |
| UniRef90_H2SLF1        | C | A | G | S | D | T | E | I | R | T | C | Q |   |   |
| UniRef90_W5KZ30        | C | S | G | C | P | L | E | Y | K | A | C | N | L | E |
| UniRef90_UPI0004544B5A | C | P | G | D | A | T | Q | V | S | R | C | N | T | Q |
| UniRef90_UPI00033375F9 | C | L | G | P | A | L | E | Y | Q | E | C | N |   |   |
| UniRef90_U6J940        | C | Q | G | G | D | S | E | T | T | E | C | Q | E | N |
| UniRef90_B4MKU8        | C | E | G | P | S | V | Q | T | E | K | C |   |   |   |
| UniRef90_V8NES5        | C | M | E | P | D | Y | E | I | R | S | C | Q | S |   |
| UniRef90_UPI00034FC0F0 | C | V | G | R | R | M | K | F | R | S | C | N | T | D |
| UniRef90_L9L2V0        | C | K | G | G | R | E | T | K | A | C |   |   |   |   |
| UniRef90_U6IMG4        | C | L | G | T | N | V | R | I | R | S | C | N | V | Q |
| UniRef90_L9L698        | C | S | G | N | T | T | E | S | R | P | C |   |   |   |
| UniRef90_UPI000440E6BC | C | L | G | L | H | T | E | E | A | L | C | N | T | Q |
| UniRef90_W5LN11        | C | A | G | N | S | S | E | S | R | A | C |   |   |   |
| UniRef90_Q4S903        | C | Q | G | V | R | V | K | Y | R | S | C | N | L | N |
| UniRef90_K7H5Q2        | C | V | G | Q | R | E | R | Y | R | S | C | N | T | Q |
| UniRef90_F7C8Z2        | C | E | G | S | S | I | Q | T | R | T | C | N |   |   |
| UniRef90_UPI0003B30824 | C | L | G | L | H | T | E | E | A | L | C | N | T |   |
| UniRef90_W5N214        | C | Q | G | L | D | L | Q | S | Q | N | C | T | S | E |
| UniRef90_F6ZIS0        | C | S | G | L | D | N | E | R | L | T | C |   |   |   |
| UniRef90_M3ZJ19        | C | G | G | A | D | S | Q | M | Q | K | C | S | T |   |
| UniRef90_E9FQX7        | C | V | G | E | R | R | R | Y | R | V | C | N | L | D |
| UniRef90_H2TKZ0        | C | P | G |   |   |   |   |   |   |   |   |   |   |   |
| UniRef90_UPI0004435A37 | C | V | G | E | R | K | R | F | R | L | C | S | I | Q |
| UniRef90_UPI0004545ED6 | C | T | G | E | R | K | R | Y | R | L | C | N |   |   |
| UniRef90_W5MQS0        | C | E | G | S | S | R | A | Y | K | L | C | N | T |   |
| UniRef90_B3EWZ3        | C | V | G | V | R | S | L | S | F | T | C | N | T | Q |
| UniRef90_UPI000258DF98 | C | M | G | E | R | K | R | L | T | A | C | N | T |   |
| UniRef90_Q4RJ20        | C | E | G | K | P | V | E | V | I | L | C | S |   |   |
| UniRef90_T1IHT4        | C | P | G | P | H | L | A | T | L | N | C |   |   |   |
| UniRef90_G1KK42        | C | P | G | C | N | I | E | Y | Q | A | C | N | T |   |
| UniRef90_A7SQN1        | C | E | G | K | P | L | E | W | V | I | C | N | Q | Q |
| UniRef90_H2UY13        | C | L | G | K | A | A | D | S | D | S | C | N |   |   |
| UniRef90_UPI000441C54C | C | E | G | V | R | V | K | Y | R | S | C | G | L | D |
| UniRef90_UPI0001CE2E55 | C | V | G | Q | N | R | E | E | R | Y | C | N | E |   |
| UniRef90_M7AHE3        | C | V | G | S | A | M | E | Y | Q | D | C | N |   |   |
| UniRef90_UPI00035A26BC | C | L | G | V | D | R | E | S | E | T | C | S | R | D |
| UniRef90_A4III2        | C | E | G | Q | N | I | Q | K | T | A | C | T | T |   |
| UniRef90_C3YBD5        | C | D | G | L | A | Q | E | T | Q | A | C | D | T |   |
| UniRef90_UPI000457550A | C | L | G | E | R | K | R | F | R | I | C | N |   |   |
| UniRef90_UPI000440EC7C | C | E | G | P | N | V | D | F | R | K | C | Q |   |   |
| UniRef90_I3KK45        | C | L | G | L | H | T | E | E | A | L | C | N | T |   |
| UniRef90_G3T753        | C | E | G | S | T | R | T | L | K | L | C | N | S | Q |
| UniRef90_UPI0002653AE7 | C | Q | G | E | D | T | E | I | E | T | C | N |   |   |
| UniRef90_F7B411        | C | V | G | D | A | T | G | S | Q | T | C | N | K | Q |
| UniRef90_K1QEL9        | C | E | G | Q | G | T | E | S | Q | N | C | N | S | Q |
| UniRef90_H2ZL24        | C | T | G | K | R | K | K | F | R | P | C | N | Y | Q |
| UniRef90_I3KA91        | C | L | G | P | A | Q | E | Y | Q | E | C | N |   |   |
| UniRef90_C3Z1P8        | C | Q | G | D | A | S | E | D | R | E | C | D | T |   |
| UniRef90_B4IXY5        | C | E | G | L | S | T | Q | V | T | N | C |   |   |   |

UniRef90\_UPI0003DF5345 1 R N G G W S G W T S W S K C S R T C G V G V Q C R T R K E C C N K P P A Y G G K Y 40  
UniRef90\_UPI00034477DC D G S W S P W S K W S A C S G L D C G R G F K V W R R S R E T C C N D P A P R N G G G E E  
UniRef90\_E4XJ18 D G N W G R W S E W S C S R S C C S G A G V Q S A R S G R E C C S N Q P T P A G G D G L E E  
UniRef90\_U3JRA5 G G W S P W S P W G P C S S R S Q C C G E G G N Q A R E R E C C S N S P A P R K Y G D G R F  
UniRef90\_M4A7T6 D G G W D E W S E W T A C S S R S Q C C S R S Q C C E G G N Q A R E R E C C S N S P A P R H R G G K T  
UniRef90\_C3YIK1 Q V G G W S P W S T C C S R S E G G G N Q A R E R E C C S N S P A P R H R G G G R A E  
UniRef90\_V5H0R7 D G D W S E W G E W S Q C C S R S V P C C G G G V Q L R E R E C C S N S P R P Q S N G G K G A E F  
UniRef90\_H2MJY3 G G Q W S A W S Q W S D C C S R T C C G G G G V M Y R E R E C C S N S P R P Q S N G G K G F  
UniRef90\_A7S971 N G G W S A Y S W S A C C S T K S C C G G G T Q T R E R E C C S N S P A P S N G G R D  
UniRef90\_UPI0002240481 D G A W T E W S K W S A C S T E C C G G G T T H W R S R E C C S N S P A P Q N G G R D  
UniRef90\_UPI0002A479DD G W S P W S E W T H C S T T C G R G G Q Q R S G R S C C S N S P M P S  
UniRef90\_UPI00035A1C67 D G G W A R W A P Y G P C S R S C C G G G V Q L A R R R E C C S N S P A P A N G G S Y  
UniRef90\_UPI00021A56FD D G W S W S W S E W T Q C C S R T C C G G G G R Q S A R R R E C C S N S P A P Q N G G R D  
UniRef90\_E7FEP0 Q D G G F S D W S T W Q A C N H D D G G T C Q C R S R A C C C D H P R P Q Q C G G L K  
UniRef90\_UPI0003C8F67C D G R W S P W S A C C T V T A G A G I K E R S R V C C C D N S P E P K H R G G K A Y  
UniRef90\_H3BWG9 D G G W S W S E W S T C C S R T C C G A G V Q R A H R D C C C D N S P V P K H R G G K Y  
UniRef90\_UPI0002654FF1 G N W T D W A R W P D C S I S C C G T G I K H R T R T C C S N S P P P Q Y G G G A G  
UniRef90\_UPI0002654FF1 G N W T D W A R W P D C S I S C C G T G I K H R T R T C C S N S P P P Q Y G G G A G  
UniRef90\_H2S6U9 N G G W S T W T W S S C C S A V C C G R G W Q K R S R S C C S N S P P P L N G G S  
UniRef90\_UPI0002654FD2 D G N Y S W G S W S D C C S I N C C G G G V M Y R Y R A C C C D N S P E P Q Y G G  
UniRef90\_UPI0002654FD2 D G N Y S W G S W S D C C S I N C C G G G V M Y R Y R A C C C D N S P E P Q Y G G  
UniRef90\_G1KRX5 N G G W S T W S E W S L C C S N R C C G R G W Q K R S R T C C C D N S P A P L N G G S V  
UniRef90\_H2M1Y1 G W T P W S S W T K C S T A C C G G G V H S R V R T C C C E N P E K Y K G R N S  
UniRef90\_G5AUL4 D G G W S D W A W S V C C S R S C C G G V Q S T R E R W C C C T Q P E P K Y K G R F S  
UniRef90\_G3W440 G W A T W G S W S K C C S S N C C G G V H S R H R T C C C E N P E K Y K G R N S  
UniRef90\_Q4SJP4 D G G W S E W S K W S A C G A D C S G G G V H S R S R T R E C C C T Q P S P G T G G K D  
UniRef90\_H2LQD8 S W T S W S S W T H C S A E C C G G G V H S R S R T R E C C C E N P S P G T G G K D  
UniRef90\_H2LQD7 Q D G G F G P W A P W Q P C C N Q D E G G G F W C R S R S C C C D E P V A K C G G L E  
UniRef90\_UPI0003EA893B G A W S G W S E F S Q C C S R T C C G G G V R S R R R R S C C C N N P R P A F G G R S  
UniRef90\_Q9VTT0 D G G W G P W G E W S E C C S A Q C C G G F R M R R R S C C C N D P A P L N G G G M E  
UniRef90\_UPI000332F579 R N G A W T P W S P W A Q C C S T S C C G G F Q V R R Q R S C C C S N P A P R H G G R I  
UniRef90\_W4Y854 D G H W N A W S G W S E C C S Y S C C G R G T Q Y R T R Q C C C D N P R P Q Y G G G R D  
UniRef90\_UPI00042C329D G H W S W G P A S P C C S R S C C G G V V T R R R R C C C N N P P A F G G H A  
UniRef90\_B3EWY9 D G G F T E W S P F G P C C S T S C C G P G I Q V R F R R N C C C T N P P P L N N G S D  
UniRef90\_S9XZQ1 Q D G G F G P W S P W Q P C C E H L D G G S C L C R A R A T C C D S P R P H C G G R D  
UniRef90\_UPI0003F0C9BE N G N W A N W G V W S E C S K S C C G E G V T F R D R T C C C T D P S P Q G N G T Q  
UniRef90\_C3YC75 S D W G Q W T S C T Q T C C G R G W Q R R T R S C C C T N P A P L N G G V F  
UniRef90\_M3ZTY0 G G W S S W T E W S E C N A R C C G R G W Q R R T R S C C C T N P A P L N G G V F  
UniRef90\_Q4S758 V T C C C G A G V I T R R L C C C N S P T P Q F G G K S  
UniRef90\_V9K856 N G N W S P W S P W S S C T A T C C G S G L H Q R T R S C C C N S P V P K F G G K K  
UniRef90\_G1FAE7 D G G W V E W S K W S T C G P D C G T H W R S R E C C C S N P A P V N G G K D  
UniRef90\_UPI0003AFF2B9 G W S P W S E W G A C C T E D G G V Q S R D R S C C C E E L A P P V N G G P S A  
UniRef90\_H2SGL8 N G G W S T W T E W S V C C S R C C R G F F Q K R T R S C C C T N P A P A H G G G A D  
UniRef90\_C3YH52 D G G W S D W G P W S G C S V T C C G G G T E T R D R S C C C T N P A P A H G G G A D  
UniRef90\_H2VB02 N G N W G P W S P W D T C C S R T C C G G G V Q L R K R C C C N D N P P K H G G K E  
UniRef90\_H2THU4 G A W S S W S G F S P C S R T C C G G G I S H R T R K C C C T N P P P A F G G S D  
UniRef90\_W4Y5L6 D G D W G A W S S W D N C S V T C C G G G V H Y R N R T C C C T N P A P K Y G G S D  
UniRef90\_UPI0003C2962F G H W S S W N P F T S C C S R S C C G G V A M R N R F C C C N N P P A F G G Q Q  
UniRef90\_UPI00035A1A07 N G G W T N W S G W T S C C S V T C C G T G D Q A M R N Y R S C C C T N P P A H G G S D  
UniRef90\_UPI0003C4D72C N G G W S S W T E W S N C N V R C C G R G W Q K R S R T C C C T N P A P L N G G G A F  
UniRef90\_F1NLK5 D G N W G V W S E W S V C C S P E C C G E H L R V R E C C C A P A P R N G G K Y  
UniRef90\_T1HCT4 E D G G W G P W Q K H S E C S R T C C G G G T K Q S L R H C C C N P P P S N G G K Y  
UniRef90\_F7ACV2 D G K W S A W G S W T S C S R S C C L S C C G G G L R Q R T R A C C C S N P A P Q Y G G H K  
UniRef90\_B3RQE3 D G A W S E W S W A S C C N K T C C D N M V T T R K R E C C C N N P T P Q Y G G R D  
UniRef90\_B3MAF5 Q H G G W T E W S A W S P C S Q T C C G V A V K L R R R R C C C N G N P R P A F G G R T  
UniRef90\_UPI0002B45A6A N G Y W S E W S E W T E C S A T C C D G G V R S R R R T C C C N S P S K S I G A Y  
UniRef90\_UPI0003F0625A N G Q W S E W S E W S E C S H T C C H G T Q S Q R W R R C C C D N P A P D L D G K E  
UniRef90\_UPI0002B47EEF D G K W S E W S K Y T K C C S K D C C N G G I Q K R Y R F C C C S N P A P K N G G N K  
UniRef90\_UPI0002B4A29A D G E W G S W G N Y S E C N T T C C G Y G Y Q L R T R D C C C N N P S T V G S G T P  
UniRef90\_F4X3E8 G Q W G E W G R Y G E C S R T C C G G G V K R K Y R E C C C D N P A P N N G G N Y  
UniRef90\_K1RDR5 R E G G W S Q W G V T G C T R T C C G R G I N Y R K R K C C C D N P A P I N L D G  
UniRef90\_UPI0002652E0C D G G W S D W A E F S Q C C S R S C C G T G V R V R K R K C C C N D P T P V Y G G L A  
UniRef90\_V8NC79 Q D G G W G T W T K F G S C C S R S C C G T G V R F R T R Q C C C N N P M P I N G G Q D  
UniRef90\_UPI0002B42A35 D G G W S V W S D Y S L W S S C C G L A T R T R V K T C C C T N P V P V F G G K S  
UniRef90\_UPI0002B42A35 D G G W S V W S D Y S L W S S C C G L A T R T R V K T C C C T N P V P V F G G K S  
UniRef90\_K7J4Q6 D G Q W G K W S D Y G N C S R T C C G G G T K K K T R E C C C N N P A P K N G G N Y  
UniRef90\_W4XTJ1 D G A W G E W E T F T Q C C S R T C C G T G V T Y R Q R H C C C N N P A P R S G G K A  
UniRef90\_E0VPJ5 R D G Q W S E W S P W G E C C S S P C C G G G F K M R R R R C C C E N P P D G G Q D  
UniRef90\_B0WZU2 G E W G C W S D W S P C S V T C C G L G T R T R S R Q C C C L S M S G N V I G N D  
UniRef90\_N6U0L0 G G W S D W S A W S A C S A T C G T A V K T R S R F R T C C C T N P A P A F G G R V  
UniRef90\_F4WTG6 G G W G E W G P M G P C S R T C C G G G L K Y S E R E C C C D R P P P E N R G R Y  
UniRef90\_UPI0003593F19 N G G W G L W R A Y G P C C S R T C C G G G V K M K Y R E C C C K N P V P E N G G R Y  
UniRef90\_G3T7L9 D G S W G S W S H F G T C C S R T C C G G G L K T S V R E C C C N R P P N N G G K Y  
UniRef90\_UPI0003F16831 G A W S C W T S W S T C S A S C C G G G H Y Q R T R S C C C T S P A P S P G G E D  
UniRef90\_UPI0003AFE2C3 D G N W G L W S P W S A C C S T T C C G E G N I T R V R L C C C N N P P P Q K G G K G  
UniRef90\_S4RT26 N G G W S L W T E W S P C N S K C C G R G T Q K R T R S C C C T N P A P L N G G A V  
UniRef90\_M7B113 D G M W S P W A S W T P C P T S C C G L G V V S R S R S C C C N N P A P E H G G K N  
UniRef90\_UPI000329C1D9 D G W S C W T D W S P C S V T C C G M G L R R R R R C C C L G G H D R M E  
UniRef90\_K1RUV3 D G A W S Q W G S W G T C S V S C C G G G K R S R A R S C C C S N P T P A N G G K E  
UniRef90\_F1RC26 G W S P W S E W T M C S V S C C G R G I Q Q R G R S C C C D R P P Q N G G A E  
UniRef90\_UPI0003F07E9A D G G W S D W T V Q T D C S V A C C G G G I E E R L R A C C C D N P A P A N G G V  
UniRef90\_H2YTM2 N G G F S L W R A W G A C S T T C C G A G L Q V R H R A C C C D N P A P A N G G R D  
UniRef90\_C3Y808 D G D Y S E W L P W E P C T Q L L E S G G C M C R S R S C C C D N P A P R C G G K P  
UniRef90\_B7P318 S W S E W G A W S E C S A Q C C G G G F Q W R R R C C C H S P K P R D Y G G G  
UniRef90\_UPI000383DD0B G V W E W S P W S L C C S F T C C G R G Q R T R R S C C C T P P Q Y G G R P  
UniRef90\_E4YBW4 D G G W S Q W S N W S P C S S T C K G G T T S S N R L C C C N N P P P Q N G G A E  
UniRef90\_H0VKX9 N G N W N C W S T W S S C S G G G V K T R Y R Q C C C N N P P P Q G G G S P  
UniRef90\_G3NFT0 D G A W D E W T P W S L C S S T C C G R G Y R D R T R C C C K Q P Q N G G G E P  
UniRef90\_Q68FL1 N G Q W N Q W G H W S G C S K S C C D G G W E R R M R T C C C Q G A A V T G G Q  
UniRef90\_UPI000350415A D G S W S P W A P W S S C S R S C C G G G T T S T H R F C C C S R P T P R N G G R F  
UniRef90\_UPI0003C14B73 N C G W S S W S S W G D C L G P C C G Q S V Q W S F R S P N N P T K H G N G K Q  
UniRef90\_UPI0003C14B73 N C G W S S W S S W G D C L G P C C G Q S V Q W S F R S P N N P T K H G N G K Q

UniRef90\_UPI0003DF5345 C S G P S D D C R V C  
 UniRef90\_UPI00034477DC C R G A D L D T R N C T S D  
 UniRef90\_E4XJ18 C S G M D S Q R K D C H N E  
 UniRef90\_U3JRA5 C G E R R R F R I C S  
 UniRef90\_M4A7T6 C E G S G K A T E N C C  
 UniRef90\_C3YIK1 C P T L R Q S R A C N L Q  
 UniRef90\_V5H0R7 C Q G P S R E Q R D C N  
 UniRef90\_H2MJY3 C P G S G R L N Q L C N P Q  
 UniRef90\_A7S971 C W G D S K K T R K C  
 UniRef90\_UPI0002240481 C G G L L L D S K N C  
 UniRef90\_UPI0002A479DD C S G P S L Q T R S C  
 UniRef90\_UPI00035A1C67 C Q G L R V K Y R S C S L E  
 UniRef90\_UPI00021A56FD C S G E V T Q L Q D C N T E  
 UniRef90\_E7FEP0 C V I G A N I E V A N C S R R N  
 UniRef90\_UPI0003C8F67C C V I G D V T E R Q M C N R  
 UniRef90\_H3BWG9 C L G E R R R R Y K V C S  
 UniRef90\_UPI0002654FF1 C T N P T E E F R A C  
 UniRef90\_UPI0002654FF1 C T N P T E E F R A C  
 UniRef90\_H2S6U9 C E G Q N I Q K S V C  
 UniRef90\_UPI0002654FD2  
 UniRef90\_UPI0002654FD2

UniRef90\_G1KRX5 C D G Q S L Q K L V C T T  
 UniRef90\_H2M1Y1 C P G  
 UniRef90\_G5AUL4 C V I G E R R R V R L C S L Q  
 UniRef90\_G3W440 C P G C S V E Y K T C N P E  
 UniRef90\_Q4SJP4 C Q G L D L Q S L N C N T S E  
 UniRef90\_H2LQD8 C P G C A T E F K V C N L E  
 UniRef90\_H2LQD7 C K G P T I Q V A N C S R N  
 UniRef90\_UPI0003EA893B C E G R D V E A G L C N T Q  
 UniRef90\_Q9VTT0 C P G C R L D Y E E C N M Q  
 UniRef90\_UPI000332F579 C V I G K S R E E R F C N E N  
 UniRef90\_W4Y854 C S G K G E G V R L C N T Q  
 UniRef90\_UPI00042C329D C V I G A D L Q A K M C N S Q  
 UniRef90\_B3EWY9 C V G P R N E T R P C N  
 UniRef90\_S9XZQ1 C L G P A I H I A N C S R N  
 UniRef90\_UPI0003F0C9BE C Q G M G T E I E Q C Y Q Q  
 UniRef90\_C3YC75 C R G D I R D I Q L C N I Q  
 UniRef90\_M3ZTY0 C E G P P V I Q R V T C T T  
 UniRef90\_Q4S758 C T G E G R Q T E K C Q  
 UniRef90\_V9K856 C L G D A K V S E I C N K D  
 UniRef90\_G1FAE7 C H G S P L Q S Q N C S  
 UniRef90\_UPI0003AFF2B9 C S G N S S Q S R P C  
 UniRef90\_H2SGL8 C D G Q A I Q K L T C T T  
 UniRef90\_C3YH52 C V I G Q D Q E A Q D C D T  
 UniRef90\_H2VB02 C V I G D A K D I Q A C N  
 UniRef90\_H2THU4 C E G A D V E A E L C H Q Q  
 UniRef90\_W4Y5L6 C S G A S S E V I Q S C S N N  
 UniRef90\_UPI0003C2962F C L G E D L Q A E M C N T Q  
 UniRef90\_UPI00035A1A07 C S G V D T Q T R S C D T  
 UniRef90\_UPI0003C4D72C C E G M S V I Q K I T C  
 UniRef90\_F1NLK5 C E G L S Q E S E N C  
 UniRef90\_T1HCT4 C V I G L R I R Y R S C N T E  
 UniRef90\_F7ACV2 C E G N E H E N E M C N A D  
 UniRef90\_B3RQE3 C S G D Y L E Q K S C  
 UniRef90\_B3MAF5 C V I G S E Q S E M Y C  
 UniRef90\_UPI0002B45A6A C D G N K E E V I E P C N E E  
 UniRef90\_UPI0003F0625A C H G Q R Y A H R E C N E  
 UniRef90\_UPI0002B47EEF C N G D S S S E Q T C N  
 UniRef90\_UPI0002B4A29A C Q G V I Q K D E K P C N  
 UniRef90\_F4X3E8 C I G E R V K Y R S C G T  
 UniRef90\_K1RDR5 C A G E A Y E A K I C N T Q  
 UniRef90\_UPI0002652E0C C E G Q G R E V I Q L C N  
 UniRef90\_V8NC79 C A G I N F E Y Q L C N L D  
 UniRef90\_UPI0002B42A35 C E G S D T  
 UniRef90\_UPI0002B42A35 C E G S D T  
 UniRef90\_K7J4Q6 C V I G E R V M Y D S C N T  
 UniRef90\_W4XTJ1 C E G P M F I M K T C N E N  
 UniRef90\_E0VPJ5 C P G C H L E Y E P C N T Q  
 UniRef90\_B0WZU2 C E G Q S T Q Y D T C E  
 UniRef90\_N6U0L0 C V I G Q D R T E A F C T E N  
 UniRef90\_F4WTG6 C I G E R R K L F T C N T  
 UniRef90\_UPI0003593F19 C L G P R V R Y K S C N  
 UniRef90\_G3T7L9 C V G R R R M K F K S C N T E  
 UniRef90\_UPI0003F16831 C L G L H T E E A L C A T Q  
 UniRef90\_UPI0003AFE2C3 C T G S A M E T Q P C N  
 UniRef90\_S4RT26 C N G Q G T Q K I P C S T  
 UniRef90\_M7B113 C T G H G Y E E G S C  
 UniRef90\_UPI000329C1D9 C A G K A I E E E K C  
 UniRef90\_K1RUV3 C I G A L S D L G D C N P Q  
 UniRef90\_F1RC26 C D G T S V I Q T R D C Y T Q  
 UniRef90\_UPI0003F07E9A C T G S S T Q W F E C E  
 UniRef90\_H2YTM2 C T G S A V E S K N C Q Q  
 UniRef90\_C3Y808 C V I E P A T Q V I S N C  
 UniRef90\_B7P318 C E S D Y R A C N T  
 UniRef90\_UPI000383DD0B C E G P E T H H K P C N  
 UniRef90\_E4YBW4 C S G T S S K H R F C N S D  
 UniRef90\_H0VKX9 C R G P A S E T V P C  
 UniRef90\_G3NFT0 C R G P T R Q T K F C N  
 UniRef90\_Q68FL1 C E G T G E E V R R C S E Q  
 UniRef90\_UPI000350415A C R G E R L R F R S C N  
 UniRef90\_UPI0003C14B73 C R G I Y R K A R R C Q T N  
 UniRef90\_UPI0003C14B73 C R G L Y R K A R R C Q T N

UniRef90\_K1QUJ2 N G N W S A W T P W S D C T A K C N G G L Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_W4XRG1 G G W S A Y G S F S L N T S E D C N G G L Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00039419A4 N G G W S V W G Q W A W P C C S Q H W D G G S G L Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_S4RH13 D G G P G P W S A W E P C C Q H W D G G S G L Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_H2UU25 D G Q W Q E W S S W S D C S V T C A N G S G L Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_I3KUI6 D G R W H E W S S W S G C S K T C C G G S G L Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_I3JME3 D G K W Q T W S L W S G C S K T C C G G S G L Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0004574978 D G K W Q K W T S W E S C S T K T C D G G G K Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003F18B01 D G K W N C W S E W S C S S G G G K Q T R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_B3LF40 D G Q W S V W T P W G D C S V T C G G L G R K L Q F R L C C 30 P L P Q R D G G Q S D 40  
UniRef90\_K1RAK1 G G W A S W Q V I D F C S A R C G G L G R K L Q F R L C C 30 P L P Q R D G G Q S D 40  
UniRef90\_G3H594 D G D W S P W G T W S M C S R T C C G G T G R R R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0002B49666 D G S W S H W S A F T K C S K G C D G G F Q Q R Y R F C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI000441DF3E G L W T P W A P W S R C S V P C D S G V Q T R N R T S C C 30 P L P Q R D G G Q S D 40  
UniRef90\_E4XNJ2 D G G W S N W S K W S C S A K C D S G V Q T R N R T S C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003C28E31 N G G W S C W T P W S P C V R G E H S R T R R Q C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0002035361 D G K W Q A W G V W G S C T T T C G G G T Q R R D R V C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00046B27CA D G R W Q A W A P W G S C S V T C C G G G T Q R R R R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_F7GRY4 G G W K L W L W G E C T R D C C G G G L Q T R T R T C C 30 P L P Q R D G G Q S D 40  
UniRef90\_K1Q6Z0 D G S W S A W G A W G H C S V T C G G G T K E R H R T A C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003944AAB G S W S P W S M W S E C D G C T G S S T R T R A C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003944AAB G S W S P W S M W S E C D G C T G S S T R T R A C C 30 P L P Q R D G G Q S D 40  
UniRef90\_C3YC48 N G G W S E W S Q W S A T A T C G N S T R S R Q R L C C 30 P L P Q R D G G Q S D 40  
UniRef90\_H2UU22 N G Q W N P W G P W S C S K S C C G G W Q T R R A R V C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00042AC774 N G A W G E W S P W T A C S E S C G L G L R R R R R S C C 30 P L P Q R D G G Q S D 40  
UniRef90\_H9IY03 D G S W S C W S W T P C S R R L Q T R D R A C C 30 P L P Q R D G G Q S D 40  
UniRef90\_F6R5H7 G G W T N W A A W S Q C S V T Q G S G F R V R R R C C 30 P L P Q R D G G Q S D 40  
UniRef90\_A7RHU3 G Q W G Q W S L W G P C S R T C D G G T R V R R R L C C 30 P L P Q R D G G Q S D 40  
UniRef90\_C3XRY3 G G W S T W E A W S P C T A D C C K G Q Y R R R N C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI000258DB57 D G R W S T W S W S A C T A V C C S R V R R R R C C 30 P L P Q R D G G Q S D 40  
UniRef90\_E2BBU3 D G A W G K W Q R D G S C S V T C G G L G K Q A L R R K C C 30 P L P Q R D G G Q S D 40  
UniRef90\_H3A977 Q D G G L S P W G P W S C S L S C C G G G K T R T R S C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003EA8E25 N G G W G A W S W S R C S R T C C G S G V A Y A V R K C C 30 P L P Q R D G G Q S D 40  
UniRef90\_E9J0T3 C Q V S I W S A W S P C S A S C G G G I S E Q S R H L L D P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003C2A6CC C Q V S I W S A W S P C S A S C G G G I S E Q S R H L L D P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003C2A6CC C H W S A W S W S P C D V T C G L G L S E Q R Y R S P V I 30 P L P Q R D G G Q S D 40  
UniRef90\_I3JZ32 G G W T S W T S W G D C N R D C G G G L Q T R T R T C L L S 30 P L P Q R D G G Q S D 40  
UniRef90\_F7C604 G G W N S W A W G D C T K D C G G G L Q T R T R T C C K 30 P L P Q R D G G Q S D 40  
UniRef90\_U3IPR0 W S A W S A W E R C T A P C C G G G V L Q S R R R T C E N 30 P L P Q R D G G Q S D 40  
UniRef90\_G3NDU7 M N C S W T G W G P W S S C S R S C C G V G Q Q Q R L R A Y H P P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003D08674 M N C S W T G W G P W S S C S R S C C G V G Q Q Q R L R A Y H P P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003D08674 D G N W N E W S W S T C S A S C C G Q G R Q Q R T R E C N G 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003AE6824 D G G F S P W S P W G P C S L T C C G G N M T R H R D C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI000462541E N G G W A N W S W G A C S V T C C G G P G T H T R S T C 30 P L P Q R D G G Q S D 40  
UniRef90\_K1QPQ9 N C G W S S W S H W G D C L G P C C G Q S I Q W S F R S P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI000203D63A D C G W S S W T Q W S A C S R T C D V G I R R T R T R E C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI000203D63A G Q W S C W T D W S E C S A S C C G Q S I Q W S F R S P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003B75B20 C G W S A W S P W G E C L G P C C G Q S I Q W S F R S P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00034FB0CC C G W S A W S P W G E C L G P C C G Q S I Q W S F R S P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00034FB0CC C G W S A W S P W G E C L G P C C G Q S I Q W S F R S P 30 P L P Q R D G G Q S D 40  
UniRef90\_H9GNM8 W G A W S P W G P C S V S C C G G G E Q V R Y H R C H R P 30 P L P Q R D G G Q S D 40  
UniRef90\_H9GNM8 G T W G A W E P W S P C S H T C C G T G T Q R R R R R H C H 30 P L P Q R D G G Q S D 40  
UniRef90\_W5MQB1 G T W G A W E P W S P C S H T C C G T G T Q R R R R R H C H 30 P L P Q R D G G Q S D 40  
UniRef90\_W5MQB1 W N L W S L W G D C T R D C C G G L Q T R K R T C L A L P 30 P L P Q R D G G Q S D 40  
UniRef90\_G3VVS8 C G W S S W S E W G D C L G P C C G Q S V Q W S F R S P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0002A4A912 C G W S S W S E W G D C L G P C C G Q S V Q W S F R S P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0002A4A912 D G N W S Q W S P W S S C N A T C G D G I T V R T R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_B3LF41 R D G S W S P W Q P W S A C S Q K C G G V H A R T R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0002B8D4CB D G R W S C W S W S A C R A G T Q M E T R T R T C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00034F3160 D G R L S W S G W E R C S R T C G G R M T R T R T C C 30 P L P Q R D G G Q S D 40  
UniRef90\_S4R6S8 N G G W S S W K P W S A C S V T C C G T G S K T S T R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_K1PZK5 D G G W S S W S P W A P C D R A C C G G G R S L R V R A C 30 P L P Q R D G G Q S D 40  
UniRef90\_S4R6T3 M N G G W S A W G Q F T P C G K S C C G G G L Q V R F R S C 30 P L P Q R D G G Q S D 40  
UniRef90\_K1PWN7 D D R T C C G G G R S I R S R T C T S P P P K N G G K E 30 P L P Q R D G G Q S D 40  
UniRef90\_F6SSQ4 C D R T C C G G G R S I R S R T C T S P P P K N G G K E 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0002B48424 G G L S M W T E W S E C S R P C G N G E R F K Q R Y C C 30 P L P Q R D G G Q S D 40  
UniRef90\_W5KYX5 G S W G L W S A W S E C D A C A G S V Q V Q K R E C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00026534F5 E Y S F S S C S R T C G T G V Q V Q S R T C C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00042AB453 D G K W G P W N A W S L C S K T C D T G W Q V R R F M C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0002B4CFB1 N G G W S D W G P Y S C N A S C C G Y G V F R T R A C C 30 P L P Q R D G G Q S D 40  
UniRef90\_H2TR43 E W T E W G P C S Q T C C G G V Q Q R E V V C L D A Y G H P 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0002B4C858 G T W S S W G A W S A C S A C C D S G V S Q Q R E R N C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0004409D2A C D W S A W S W T S C D S S C G L G I Q Q R F R S S L M 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0004409D2A C D W S A W S W T S C D S S C G L G I Q Q R F R S S L M 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI000273CA00 D G G W S P W G P W S V C N A C T G E S S R S R E C C S H 30 P L P Q R D G G Q S D 40  
UniRef90\_K1QKR2 D G N F S D W G A W T M C S V T C C G G T R M R S R T C 30 P L P Q R D G G Q S D 40  
UniRef90\_S7NCY9 G V W E E W G S W S L C S R S C C G R G R S R M R T C 30 P L P Q R D G G Q S D 40  
UniRef90\_Q2PC93 D G P W T P W T P W S E C S A S C C G P G R Q R R Y R F C 30 P L P Q R D G G Q S D 40  
UniRef90\_Q2PC93 D G P W T P W T P W S E C S A S C C G P G R Q R R Y R F C 30 P L P Q R D G G Q S D 40  
UniRef90\_M3ZSZ0 C Q W S A W S A W S P C D V T C G V G L Q Q R Y R S V 30 P L P Q R D G G Q S D 40  
UniRef90\_M3ZSZ0 C Q W S A W S A W S P C D V T C G V G L Q Q R Y R S V 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003EBC70B D C Q W S T W S Q W S P C S A S C G A G Q Q S S R A F 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI000223EC26 D G R W T C W S P W S P C V Q G R K S R S R A C C 30 P L P Q R D G G Q S D 40  
UniRef90\_G3VV75 G G W T P W G P W G A C S V S C G G E Q L R S R S C A R 30 P L P Q R D G G Q S D 40  
UniRef90\_R7V9A7 D G G W S E W S N W T E C S T C C G L A T K V R F R V C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI0003C18069 G Q W L E W G P W G P C S T S C A N G T Q Q R S R V C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00044349D D G G W G Q W G A W T E C S V P C C G G Q Q S R S R T C 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00044349D D G G W G Q W G A W T E C S V P C C G G Q Q S R S R T C 30 P L P Q R D G G Q S D 40  
UniRef90\_S4R6U1 G Q W G A W S W S P C D V R C C G G M R V R Q R T C S A 30 P L P Q R D G G Q S D 40  
UniRef90\_UPI00038C1359 G M W S S W G P W E K C S V S C G G G E Q L R S R H C A 30 P L P Q R D G G Q S D 40

UniRef90\_K1QUJ2 C A G N I N E W R M C N N E  
UniRef90\_W4XRG1 C P D S E V D V S Y C S  
UniRef90\_UPI00039419A4 C E G I V E E G R P C N S R Q  
UniRef90\_S4RH13 C P G P S V Q V A N C S R  
UniRef90\_H2UU25 C R G H W A E S R E C H  
UniRef90\_I3KUI6 C P G D S R E H K R C N E  
UniRef90\_I3JME3 C P G E R E E V R S C N E  
UniRef90\_UPI0004574978 C D G S W E E Y R L C N E  
UniRef90\_UPI0003F18B01 C L G P D S E R R N C  
UniRef90\_B3LF40 C L G P H R E D Q V C  
UniRef90\_K1RAK1 C L G N E V E T S L C  
UniRef90\_G3H594 C Q G A S V E H A A C E  
UniRef90\_UPI0002B49666 C I G E S S E E V L C N S E  
UniRef90\_UPI000441DF3E C S G P L T I Q T R D C N T Q  
UniRef90\_E4XNJ2 C S G I G I E E I P C Q  
UniRef90\_UPI0003C28E31 C E G E S I E T S F C A E E  
UniRef90\_UPI0002035361 C Q G P K E E Y R Q C N  
UniRef90\_UPI00046B27CA C H G P Q D E Y R Q C G S Q  
UniRef90\_F7GRY4 C E G V L E E G R Q C N R E  
UniRef90\_K1Q6Z0 C V G S N K N S H N C N  
UniRef90\_UPI0003944AAB C L G E G R Q S R P C S E N  
UniRef90\_UPI0003944AAB C L G E G R Q S R P C S E N  
UniRef90\_C3YC48 C T G V S L E T E A C  
UniRef90\_H2UU22 C D G T G E E V R K C S D Q  
UniRef90\_UPI00042AC774 C S G P L R E Q R L C N  
UniRef90\_H9IY03 C K G Q H D E L E M C E  
UniRef90\_F6R5H7 C E G T N T D T R N C  
UniRef90\_A7RHU3 C I G N S E E V D S C S  
UniRef90\_C3XRY3 C Q G Q P A D V D H C N T E  
UniRef90\_UPI000258DB57 C N D S A F E V K S C  
UniRef90\_E2BBU3 C Q G K D V I V E S C V T D  
UniRef90\_H3A977 C E G D F S T F A I C N T D  
UniRef90\_UPI0003EA8E25 C E G P R H E I T F C Q T  
UniRef90\_E9J0T3 C M G D R K R H K I C A T N  
UniRef90\_UPI0003C2A6CC C P G Q L L R H R P C N T  
UniRef90\_UPI0003C2A6CC C P G Q L L R H R P C N T  
UniRef90\_I3JZ32 C P G D S S E A Q R C S S  
UniRef90\_F7C604 C E G V L E E G R L C N R  
UniRef90\_U3IPR0 C E G V L E E G R L C N R  
UniRef90\_G3NDU7 C P G C G Q E Y Q S C N T  
UniRef90\_UPI0003D08674 C E G T L S E R R F C N L Q  
UniRef90\_UPI0003D08674 C E G L L S E R R F C N L Q  
UniRef90\_UPI0003AE6824 C Q G H W V I E T R D C  
UniRef90\_UPI000462541E C L G P R T D I K Y C Q  
UniRef90\_K1QPQ9 C A G S S T S S Q A C Q  
UniRef90\_UPI000203D63A C R G I Y R K A R R C Q T E  
UniRef90\_UPI000203D63A C R G I Y R K A R R C Q T E  
UniRef90\_UPI0003B75B20 C K G E R V G V D T C S V E  
UniRef90\_A0A026WC50 C S G P R L V R E A C E  
UniRef90\_UPI00034FB0CC C R G I Y R K A R R C Q T E  
UniRef90\_UPI00034FB0CC C R G I Y R K A R R C Q T E  
UniRef90\_H9GNM8 C P G P A A Q S K T C N T  
UniRef90\_H9GNM8 C P G P A A Q S K T C N T  
UniRef90\_W5MQB1 C R G E D T Q R Q Q C  
UniRef90\_W5MQB1 C R G E D T Q R Q Q C  
UniRef90\_G3WVS8 C E G V L E E G R L C N R  
UniRef90\_UPI0002A4A912 C R G I H R K A R R C Q T  
UniRef90\_UPI0002A4A912 C R G I H R K A R R C Q T  
UniRef90\_B3LF41 C E G D A L E M E G C N T D  
UniRef90\_UPI0002B8D4CB C P G V I C S E T K V C N  
UniRef90\_UPI00034F3160 C P G L R V I Q T Q A C  
UniRef90\_S4R6S8 C T G P T M D I K Y C H T  
UniRef90\_K1PZK5 C S G K T R K Y K R C S T N  
UniRef90\_S4R6T3 C P G D K Y Q V T V C N T Q  
UniRef90\_K1PWN7 C Y G N S L I Q T A S C N  
UniRef90\_F6SSQ4 C P G E K Y H V R I C N  
UniRef90\_F6SSQ4 C P G E K Y H V R I C N  
UniRef90\_UPI0002B48424 C T E P T E I S E V C  
UniRef90\_W5KYX5 C L G E H I Q S R G C H D N  
UniRef90\_UPI00026534F5 C V G E S Q I Y M L C N Q E  
UniRef90\_UPI00042AB453 C E G T G E E V K P C S E  
UniRef90\_UPI0002B4CFB1 C Y G P Q I D L R P C  
UniRef90\_H2TR43 C P E E L R A S R S C A T Q  
UniRef90\_UPI0002B4C858 C I G D S V I Q K I V C  
UniRef90\_UPI0004409D2A C V G D S T E A R Q C  
UniRef90\_UPI0004409D2A C V G D S T E A R Q C  
UniRef90\_UPI000273CA00 C P G R Y R E S Q P C Q D N  
UniRef90\_K1QKR2 C S D E S G Q S E N C N  
UniRef90\_S7NCY9 C E G P E L Q T K L C S  
UniRef90\_Q2PC93 C A E P Q P Q E R P C A R Q  
UniRef90\_Q2PC93 C A E P Q P Q E R P C A R Q  
UniRef90\_M3ZSZ0 C S G D A S E S R R C S S  
UniRef90\_M3ZSZ0 C S G D A S E S R R C S S  
UniRef90\_UPI0003EBC70B C E G P N L R T T T C  
UniRef90\_UPI000223EC26 C V I G E A L E S Q P C E D Q  
UniRef90\_G3VV75 C L G P A L Q S R I C Q T Q  
UniRef90\_R7V9A7 C S G S D N E T V N C E  
UniRef90\_UPI0003C18069 C A G A L T D T R E C  
UniRef90\_UPI000444349D C H G V S R Q S K M C N T Q  
UniRef90\_UPI000444349D C H G V S R Q S K M C N T Q  
UniRef90\_S4R6U1 C A G D G V I Q P E R C N  
UniRef90\_UPI00038C1359 C P G L A R Q S R T C H N Q

UniRef90\_UPI00044351BB 1 C G W S A W S S W G P C D H S C G P G T R A T R F R S P 30 N P A A S S G G A 40  
UniRef90\_K1QX39 N G G W S S Y T T W S A C C S R T Q N E G G L Q Q V Y R S K E R S T C C N N P A A P Q N N G G G L P  
UniRef90\_A7RET2 D G K W S Q W T T W S D C C S Q T Q V G G G N L Q Q Y R S R E R S T C C N N P A A P Q N N G G G L P  
UniRef90\_W4XBE3 D G N W T E W T A W S V C C S Q T Q V G G G N L Q Q Y R S R E R S T C C N N P A A P Q N N G G G L P  
UniRef90\_UPI0002B4C200 D G E W C S W E S W S T C C S R S C G L G N L N R V R Q C C C N P A A P Q N N G G G L P  
UniRef90\_K1PPW7 D G Q W A D W A Q W T A C C S R S V T C C N N G N S R S R E R S T C C N N P A A P Q N N G G G L P  
UniRef90\_H2LGR4 G G W C E W S E W T A C C S R T C C G G A E S V S S R Y R S T C C C N P A A P Q N N G G G L P  
UniRef90\_UPI0002742CE9 R D A G W G L W T A W S T C C S A P C D G G G T Q T R R G R R C C S G P A P A G N S T Y  
UniRef90\_G3N7U1 D K G W G L W N P W T P C C S V T C C G G G V R T R R Q R R C C S S P S P E G K G N Y S A  
UniRef90\_UPI0003B629EF D G Y W S E W S S W S Q C C S E N C G Q K F R T R R S C C C S N S P Q P T S G G Q L  
UniRef90\_UPI000161D99B R D G G W S P W A P W S T C C S R S C G T G L Q Q R R R F R E V C C C N S P R A N D V L R H  
UniRef90\_UPI00046C080B D G G W S G W G R W S P C C S Q C C G G G L Q Y R F R E V C C C N P P P Q N G G R G  
UniRef90\_V8NCX8 Q K A H W T E W T D W S T C C S A T C G E G E G E Q I R T R T T C C Q D A T P D D D V  
UniRef90\_C3Z1N0 Q K A H W T E W T D W S T C C S A T C G E G E G E Q I R T R T T C C Q D A T P D D D V  
UniRef90\_C3Z1N0 G A W S S W G P W E P C C S Q T C G G P G T Q A R S R H C C C S P S S L P V L Q N  
UniRef90\_UPI00042AA325 G W G P W Q P W S Q C C S A T C G D G V R E R R R R V C C L T S F P S R P S  
UniRef90\_UPI0003334814 G S F G P W G M W S L C C S R S C G G G G T R T R T R Q C C V L P T L A P G G L S  
UniRef90\_UPI0003D7091F G S F G P W G M W S L C C S R S C G G G G T R T R T R Q C C V L P T L A P G G L S  
UniRef90\_UPI000252B324 N G M W S S W T W S S C C T S S C G G G T Q L R N R M C C N N P S P N G N G T S  
UniRef90\_UPI0002B4C056 D G A W S P W S E W T S C C P E S C G G G S L V H R Y R T R N M P P A F Y G G A L  
UniRef90\_HOVSR4 C G W S P W T P W S L C C S R S C D V G L Q R R R F R T G T A P P A F Y G G A E  
UniRef90\_V3ZGC3 D G N W G E W S D F S D C C S T T C D G G G T Q N R R T R L C C D D P E P S N D G G A T  
UniRef90\_K1PX19 D G S W G T W G P W A S C C S K T C G G G G K Q H R R E R A K C D S P A H G G T N  
UniRef90\_UPI00045E1CF5 E D G A W S L W G S W S P C C D V C C G S G M K T R A R M C C T N P A P S Q G G K D  
UniRef90\_K1QCZ8 D G H W S D W M R W S P C C S S T C G S G M K T R A R M C C T N P A P S Q G G K D  
UniRef90\_F1NEP2 C T W S N W T A W S T C C S H S D V G M R R R Y R V A P I M P P L A G G G P P  
UniRef90\_F1QSL8 D G G W T P W S V W S S C P V S C G K S K Q I R T R A C C I N P P P R N N G S H  
UniRef90\_F6PIE3 G G W A E W S Y W S A A S D S C T H W R S R A D C C T Q P A P R N G G P Q  
UniRef90\_UPI000350D0A8 G S W C P W S E W T A C C S Q X R G Q V R T R S R A A C P A P A Q H G G A L  
UniRef90\_UPI0003C85E99 G A W D E W S P W S L C C S T C G R G F R D R T R T C X X X X F G G N P  
UniRef90\_W4Y4E5 D G G W T E F E E F S P C C S S T C G T G V Q Y R S R S C C C T N P T T Q W G G A P  
UniRef90\_L8IY93 E D G A W T S W S R W S P C C S E P C G G V T A R R H R E C C H S P P Q N G G R T  
UniRef90\_UPI00034FC6FA G A W S S W N P W E P C C S Q T C G V R A R R H R C C S P P P L V L Q R  
UniRef90\_K7H081 D G D W S A W N E W S H C M G N G V G T R T R V R A C C V S P P A S H G G Q P  
UniRef90\_H3AZK1 Y G P W S E W S E C C S A T C C G G G H M T R N R S C C C E D A P L F E G K M  
UniRef90\_T1IJ50 D G G W G Y W S A W S K C C S K S C G G G V S N Q H R R K C C D S P E P T Y G G R D  
UniRef90\_K1Q576 E D G H W G V W M M W E A C C P V M G G G G V H K R H R K C C D S P E P T Y G G R D  
UniRef90\_B2GUP2 D G N W G S W G D W S E C C S R T C D D E G T R H R N R C C S D P A P L L E G D Y  
UniRef90\_UPI0002BD16D5 W S S W G S W S P C C S R T C G G G V S F R E R S C C C Y S Q R P R D G G S G  
UniRef90\_I3NBPO G T W S P W S P W G P C C S Q T C G G L G V Q S R S R S C C C S P S G L V L Q H  
UniRef90\_UPI0003F0E5F0 W S P W T P W G D C C S V T C C G G V Q R R S R D C C E N P I T G V I S D K  
UniRef90\_I3N7P1 G S W T L W S L W S D C P V S C G G G N Q V R T R A C C V V P D P H H R E P L  
UniRef90\_UPI0004544E80 D G A W S P W G P W S S C C D A C L G G Q S L R R S R V C C S H P P T A D G G R P  
UniRef90\_G6DG65 G W G P W E A W G A C C A V C G G Q Q Q R T R V C C R R P S P S L P V L W H  
UniRef90\_UPI0003C01ADF G A W G P W S P W E L C C S R T C C G P G V Q G R S R R C C C S P P S L P V L W H  
UniRef90\_F4W964 Q T G Q W S L W P W H A C C T R P C N G G E R T R K R C C C D S P S P K K G G V E  
UniRef90\_UPI00042C029B D G G W S C W T A W S H C V Q G E R T R T R Q C C N N P A P G P G G R P  
UniRef90\_U1M3R6 N G G W A E W S S W T D C S A P C G F A F Q S R H R L C C C N K P K P V A R G E P  
UniRef90\_UPI0003ACB0D1 G A W T L W S P W S D C L V S C C G G G N Q V R T R V C C M A L A S R L E P R H  
UniRef90\_UPI0003ACB0D1 G A W T L W S P W S D C L V S C C G G G N Q V R T R V C C M A L A S R L E P R H  
UniRef90\_G5ECS8 G C W T N W D E W S S C S Q S C G G G R R Y R I R K C C L D D K  
UniRef90\_F6R5F4 D G R W S C W T Q C C S G G K R Q R T R E C C N N P A P K N G G A W  
UniRef90\_W4WV88 G G W T A W S A W S A C C S Q T C G F A M K T R R R T C C C N N P A P A F G G R V  
UniRef90\_UPI00035A1AAB D G G W G T W S A Y G A C C S V T C G T G K T R S R L C C C D R P A P A H L G A D  
UniRef90\_K1PN99 D G L W A S W S W S C T V E C G G G T Q D R F R T C C T N P A P Q Y G G A D  
UniRef90\_C3ZGX0 G G W G E W E D W T A C D A E C D G G T Q S R A Y C C E N P Y P V F G H G  
UniRef90\_UPI0003440EAE C G W S P W T P W S V C C S R S C D V G L R R R F R A G T A P P A A F G G A A  
UniRef90\_UPI0003440EAE C G W S P W T P W S V C C S R S C D V G L R R R F R A G T A P P A A F G G A A  
UniRef90\_T1EVQ0 W S P W S A W S R C C S A T C G V G N R K R T R T Q T L S G L N S L P  
UniRef90\_P11680 G G W S E W G P W G P C C S V T C S K G T Q I R Q R V C C C D N P A P K C G G H  
UniRef90\_Q9ESP7 N G M W C A W K E W S E C C S P C G G G V K K S K Q R E C C D C P Y P Q Y G G Q V  
UniRef90\_UPI0002B48B88 G G W S A W S E W S M C C S R P C N G G V M Q Q T R R C C V S P P K G S G N P  
UniRef90\_UPI0003C3AB49 D G G L S D W S E W S G C C G I T C G E G I S E A R E R T C C T N P I I P E G T G F D  
UniRef90\_A3E0P7 D G G Y G P W S F S S Q C S F T C G E G I S A R E R T C C T N P I I P E G T G F D  
UniRef90\_UPI0002B4AE78 D G G Y G P W S F S S Q C S F T C G E G I S A R E R T C C T N P I I P E G T G F D  
UniRef90\_UPI0002B4AE78 D G G Y G P W S F S S Q C S F T C G E G I S A R E R T C C T N P I I P E G T G F D  
UniRef90\_K1QZA1 D G G W S T W S G Y G S C S K T C G T G T Q S R S R T C C T N P A P A Y N G L S  
UniRef90\_T1J9R7 N G G W Q W S P F G P C A S S C S E G I M L S T R T C D N P H P E H S G K P  
UniRef90\_A7SYQ3 D G H W G R W T A W S A C C S K T C G D G T Q T R T R V C C C D D P A P K N G G S A  
UniRef90\_L5K110 G A W T L W A P W S D C P V S C C G G G T Q A R T R V C C T A S P P H H T V P E D  
UniRef90\_D1LXD5 D G E W S L W S E W G E C D K T C G S G R T T R S R E C C C D D P A P K N D G E D  
UniRef90\_UPI0003836A5A D G H W S C W S S W S P C C D A T L K K H R S R T C C C S N P A P Q R G G K P  
UniRef90\_E4YW21 D G A W S S F S P W S E C C S T S C G L G Q Q S R I R F C C L N R K N E G K P  
UniRef90\_UPI00032B0968 G A W T P W T P W S N C P V S C G G A D Q V R S R S C C T A L T P G P H G T P  
UniRef90\_C3ZJX2 D G G W S D W G A W S D C C S V T C G V G T Q T R D R T C C C T N P A P A N G G A D  
UniRef90\_UPI0003C8312C G G W S N W S W T S C C S V T C S R G T R T R H R A C C D Q P V P A S C G G G  
UniRef90\_C3YMN2 D G S W S D W S P W S A C C N V T C G I G T R S R V R V C C D E P A S K G G K E  
UniRef90\_H3B3T5 W S S W L A W S P C C S R T C G G G A A V R T R R C C I T R N P L G E S  
UniRef90\_UPI0002C579BE G G W C P X S E W T A C C S Q P C R G G Q T R T R S R A C C A C P A P Q H G G T P  
UniRef90\_UPI0003F0EE96 W G P W A P W S T C L V P D G G G I R T R S R S C C F G T P R Q A S E  
UniRef90\_C3ZXC0 N G S W S A W G P W T G C D V T C G A G S Q T R T R L C C C D N P A P S N G G L F  
UniRef90\_P98167 G V W G Q W A W S A C C S A P C N G G V Q T R T R G R R C C S A S A P G D P G  
UniRef90\_C3ZHC1 D G G W S N W G P W S G C C S V T C G V G T R T R S R P C C T N P A P V N G G A N  
UniRef90\_UPI000359BAC8 Q D G G W S K W Q G W S A C C S A A C G T G R R S R F R L C C C D R P Y P S G G E P  
UniRef90\_UPI0002B44BF0 D G N W S E F G N W S E C C S K S C G G G T Q I R Q R T C C N N P A P K N N G L Y  
UniRef90\_C3Z3K9 G N W G A W S T W T T C C S A S C G T G F T A R Q R E C C N N P A P S N N G K F  
UniRef90\_G1L7A7 D G A W S P W G L W S P C C D P C L G Q S H R S R E C C I W P P T P E G G R P  
UniRef90\_G1L7A7 D G A W S P W G L W S P C C D P C L G Q S H R S R E C C I W P P T P E G G R P  
UniRef90\_UPI0003346F89 D G A W S T W G P W G P C C S R S C G G P G R R L R R S C C P S P T P E G G R P  
UniRef90\_G1KY87 W G S W G E W G E C C S R S C G G G V S I R V R R C C Y S Q R T D G G S S

UniRef90\_UPI00044351BB C E G N G Q E V Q T C H T D  
UniRef90\_K1QX39 C L G E S T K T R S C M T  
UniRef90\_A7RET2 C E G E T M E R Q E C N K Q  
UniRef90\_W4XBE3 C S G D D V Q W Q N C S T N  
UniRef90\_UPI0002B4C200 C F G P H Q E F  
UniRef90\_K1PPW7 C V G D P T E V E A C S  
UniRef90\_H2LGR4 C P G E  
UniRef90\_UPI0002742CE9 C Q G P H S Q T R D C N A Q  
UniRef90\_G3N7U1 C E G L G T A F T A C C N T D  
UniRef90\_UPI0003B629EF C L G P E E K E S C C E  
UniRef90\_UPI000161D99B C S G R D L D T R N C S Q  
UniRef90\_UPI00046C080B C H G E E T Q A Q Q C  
UniRef90\_V8NCX8 C A G G G E Q Q R P C Q  
UniRef90\_C3Z1N0 C A G Q D T E T K P C N  
UniRef90\_C3Z1N0 C A G Q D T E L K P C N  
UniRef90\_UPI00042AA325 C P G P Q H Q S Q A C F T E  
UniRef90\_UPI0003334814 C P G V S S E T S L C S L E  
UniRef90\_UPI0003D7091F C R G P L Q D L E Y C  
UniRef90\_UPI0003D7091F C R G P L Q D L E Y C  
UniRef90\_UPI000252B324 C F G S A S E L R Q C F T  
UniRef90\_UPI0002B4C056 C P G N A S E S  
UniRef90\_H0VSR4 C Q G P D M E A E F C S L Q  
UniRef90\_V3ZGC3 C S P G S E T R S C N  
UniRef90\_K1PX19 C T G N L M Q L D D C N T  
UniRef90\_UPI00045E1CF5 C P G A H R Q S R P C Q  
UniRef90\_K1QCZ8 C V G S P Y E M Q Q C  
UniRef90\_F1NEP2 C Q G P S M E L E F C S L Q  
UniRef90\_F1QSL8 C T G P E R D T R D C H S  
UniRef90\_F6PIE3 C Q G P D M E T R N C T S E  
UniRef90\_UPI000350D0A8 C P G E A R Q R E A C  
UniRef90\_UPI0003C85E99 C E G P E K Q T K F C N  
UniRef90\_W4Y4E5 C V G D S H I Y K L C N E Q  
UniRef90\_L8IY93 C P P S T R E T R P C P Q D  
UniRef90\_UPI00034FC6FA C P G P E H Q S Q A C  
UniRef90\_K7H081 C F G R S S E L M E C Q S  
UniRef90\_H3AZK1 C A G E A V Q M K E C S T  
UniRef90\_T1IJ50 C T G H S K K S V S C N K N  
UniRef90\_K1Q576 C T G D S S E K R L C N N Q  
UniRef90\_B2GUP2 C E G K R V Q Y R S C N I Q  
UniRef90\_W4XPT9 C E G N K T E Y G A C G S Q  
UniRef90\_UPI0002BD16D5 C V G P S R S H R S C R T E  
UniRef90\_I3NBPO C P G P A N Q S Q A C F T  
UniRef90\_UPI0003F0E5F0 C D G L D L E S K P C N P D  
UniRef90\_I3N7P1 C Q G P D T Q T Q P C G Q Q  
UniRef90\_UPI0004544E80 C P G G H Q Q S R P C  
UniRef90\_G6DG65 C T G T A D M L R P C N T  
UniRef90\_UPI0003C01ADF C P G P E R Q T Q A C  
UniRef90\_F4W964 C P G C D F Q L E C N  
UniRef90\_UPI00042C029B C Q G D S L E K S H C S Q  
UniRef90\_U1M3R6 C Y G L A Y M T S L C R T D  
UniRef90\_UPI0003ACB0D1 C L G P D T Q T Q H C  
UniRef90\_UPI0003ACB0D1 C L G P D T Q T Q H C  
UniRef90\_G5ECS8 C D G D D L E K E S C N T Q  
UniRef90\_F6R5F4 C L G K S L Q S E P C  
UniRef90\_W4WV88 C V G H D H D D L M C  
UniRef90\_UPI00035A1AAB C P G I N A E D D N C  
UniRef90\_K1PN99 C V D V N N S T Q D C N T Q  
UniRef90\_C3ZGX0 C E G D R V E L R T C N T Q  
UniRef90\_UPI0003440EAE C Q G P N M E A E F C S  
UniRef90\_UPI0003440EAE C Q G P N M E A E F C S  
UniRef90\_T1EVQ0 C L N E S N D T K P C N Q  
UniRef90\_P11680 C P G E A Q Q S Q A C D T Q  
UniRef90\_Q9ESP7 C E G R R T P F R S C N T  
UniRef90\_UPI0002B48B88 C K G Q S A E E A D C  
UniRef90\_UPI0003C3AB49 C N G E R M R Y R L C N T Q  
UniRef90\_A3E0P7 C E G M L S E T R A C S  
UniRef90\_UPI0002B4AE78 C E G P S T E T K S C  
UniRef90\_UPI0002B4AE78 C E G P S T E T K S C  
UniRef90\_K1QZA1 C S G S A T S S Q N C N T  
UniRef90\_T1J9R7 C K G K H H R Y K L C H  
UniRef90\_A7SYQ3 C V G D S S Q T Q A C  
UniRef90\_L5K110 C L G P D T Q S Q R C  
UniRef90\_D1LXD5 C E G V K T E T K E C N P E  
UniRef90\_UPI0003836A5A C P G L E K Q V E E C  
UniRef90\_E4YW21 C E D S S E E Q R T C N A E  
UniRef90\_UPI00032B0968 C S G P S T Q T Q R C G Q Q  
UniRef90\_C3ZJX2 C V G P A E D T Q A C  
UniRef90\_UPI0003C8312C C L G E A K E S A C D T  
UniRef90\_C3YMN2 C A G E E T K N Q T C D T  
UniRef90\_H3B3T5 C H G D Q R Q Y K A C N R Q  
UniRef90\_UPI0002C579BE C P G K A  
UniRef90\_UPI0003F0EE96 C Q G P H S Q T Q D C N T Q  
UniRef90\_C3ZXC0 C S G A A Q D F Q S C C  
UniRef90\_P98167 C Q G P H S Q T R D C N T Q  
UniRef90\_C3ZHC1 C V G E A Q Q T E S C S T  
UniRef90\_UPI000359BAC8 C L G P R V Q M T S C  
UniRef90\_UPI0002B44BF0 C F G P E R E V R N C S  
UniRef90\_C3Z3K9 C E G S A T E G V Q C N  
UniRef90\_G1L7A7 C P G G Y R Q S R P C Q D N  
UniRef90\_G1L7A7 C P G G Y R Q S R P C Q D N  
UniRef90\_UPI0003346F89 C P G R P L E T Q K C  
UniRef90\_G1KY87 C I G P T R S Y R S C N I Q



UniRef90\_UPI000441B394 C L G S T Q S Y R S C N L Q  
UniRef90\_K1R9J0 C R G A N H Q S Q K C N  
UniRef90\_Q1PFZ8 C S G A S R E T Q R C G T  
UniRef90\_UPI00046BD5D1 C V G P T R R R H R F C H L E  
UniRef90\_UPI00038EA78D C P G  
UniRef90\_UPI00038EA78D C P G  
UniRef90\_L5K3F4 C G E A S E S R Q C G D E  
UniRef90\_V9KUM3 C E G Q G T S E K P C N T  
UniRef90\_Q2MCN4 C V G S G T F V Q V C N V E  
UniRef90\_Q2MCN4 C V G S G T F V Q V C N V E  
UniRef90\_Q2MCN4 C V G S G T F V Q V C N V E  
UniRef90\_Q2MCN4 C V G S G T F V Q V C N V E  
UniRef90\_Q2MCN4 C V G S G T F V Q V C N V E  
UniRef90\_UPI0002C4755A C P G P E H Q S Q A C  
UniRef90\_P10643 C V G E T T E S T Q C  
UniRef90\_M1G8R8 C L G S S S Q T Q R C  
UniRef90\_D2XNK8 C P G S D I Q Y R A C  
UniRef90\_UPI000359BC10 C E G D L T Q T E E C G Q Q  
UniRef90\_G3USS2 C M G P L L Q T R D C N S Q  
UniRef90\_K1QUP4 C V G S T S S S Q S C N T  
UniRef90\_H3AZK0 C R G K K Y Q V K L C N  
UniRef90\_UPI00042BB30F C E G N R Q E L Q A C H V E  
UniRef90\_UPI0003DEC403 C N G C D T Q T E E C N T  
UniRef90\_M4APU9 C D G P N K Q E E P C  
UniRef90\_UPI00046B52C4 C D G D N T R S H I C N  
UniRef90\_UPI0002B49B84 C Q G P S R E E R K C N E  
UniRef90\_UPI0003333E6 C E G E K Q Q E E D C  
UniRef90\_H2UB60 C S G H S R E E D P C H  
UniRef90\_UPI0002B43EC7 C V G P T E D T A F C C  
UniRef90\_UPI0002B43EC7 C V G P T E D T A F C C  
UniRef90\_UPI0002B43EC7 C V G P T E D T A F C C  
UniRef90\_C3XPN0 C D G P S V I E Q G T C  
UniRef90\_D3XFH1 C E G P A T F T E A C N S E  
UniRef90\_K1Q3V0 C G I D L D E S R S C Q  
UniRef90\_W4WAQ7 C L G P S Q Q K M D C N S  
UniRef90\_L7LQT9 C E G S D K R V I Q I C  
UniRef90\_K7FYW4 C E G V R V K Y R S C S L D  
UniRef90\_UPI000333935E C P G P W A Q T K S C N  
UniRef90\_UPI000333935E C P G P W A Q T K S C N  
UniRef90\_H2KSW2 C Q G I D T Q Q V P C E  
UniRef90\_UPI00032A22C5 C K G P H Q E S R E C  
UniRef90\_B5X0R1 C N G E V R E T T G C N D D  
UniRef90\_H2LJR8 C T G K R A I Y R S C N  
UniRef90\_B3RNY1 C K G D D I S T E V C N  
UniRef90\_UPI0003C268A6 C E G P A A Q T K P C N  
UniRef90\_UPI0003C8E76D C V G D A V R T H I C N T  
UniRef90\_UPI0002B4B806 C V G V S V I E E K A C N T Q  
UniRef90\_K1QV32 C P G D S S K T A P C N T N  
UniRef90\_R7UG58 C Y G F A D E S V E C N T E  
UniRef90\_K1P6Y6 C N G S S M E M T N C S  
UniRef90\_K1P6Y6 C N G S S M E M T N C S  
UniRef90\_W5MMN5 C E G D S Q E E E C  
UniRef90\_P98060 C S G E P V I E T Q I C N T Q  
UniRef90\_W4YQF0 C G R G I A A Q H K S C Q L N  
UniRef90\_UPI00046B3E92 C P H S T R Q T K P C P Q D  
UniRef90\_UPI00046B3E92 C P H S T R Q T K P C P Q D  
UniRef90\_UPI000359C998 C P G E G D E L E A C N T  
UniRef90\_UPI00045715DA C T G T F E E N L A C  
UniRef90\_UPI0003292991 C P G L A H E Q R A C  
UniRef90\_D3XFH2 C T G P S S S T R A C N Q  
UniRef90\_W4ZBG5 C  
UniRef90\_F7CIH0 C P G R E T E T E P C D T E  
UniRef90\_W5K3J9 C V G P S K S Y K T C N T Q  
UniRef90\_K1QXU4 C P G S L K E F K R C  
UniRef90\_UPI00034F7CB7 C R G Q E T E T R E C S  
UniRef90\_V9L0S5 C P G D P T Q S D H C  
UniRef90\_K1S1M8 C S G S H F E S K L C  
UniRef90\_G1K961 C V G L S K H Y Q L C Q Q Q  
UniRef90\_UPI0003504D89 C I G D Q R Q Y R L C Q L Q  
UniRef90\_UPI0003C27309 C V G Q S K H Y Q L C Q Q Q  
UniRef90\_C3ZYD4 C Q G T Q T  
UniRef90\_W5MQR4 C L G K A S Q T V S C  
UniRef90\_E0VKW1 C Q G L S V M K D E C S  
UniRef90\_A7SZ33 C S G R P V I E S S S C N T N  
UniRef90\_A7SKI9 C K G D E T E T K A C G T  
UniRef90\_Q2A131 C E G L D T M T A C  
UniRef90\_G6DCF2 C Q G Q S V I Q  
UniRef90\_UPI0004548584 C P G G E R Q A Q E C  
UniRef90\_UPI000359F23F C Q G H S I Q Y Q S C N M E  
UniRef90\_H9KUU6 C P P L K E T K W C  
UniRef90\_H2YGT5 C E G D D T E T S T C N T Q  
UniRef90\_UPI0003C145BD C E G K N I R Y K T C N T E  
UniRef90\_UPI0004421ED7 C P G D H R Q S C P C Q  
UniRef90\_C3YLL1 C  
UniRef90\_UPI00022C9042 C P G P L T Q R V E C N  
UniRef90\_X5IIG7 C S G A E E E I T P C S T E  
UniRef90\_H3AIU7 C Q G P R V I E Y K V C E  
UniRef90\_H3AN67 C S G P L R E S R V C N S  
UniRef90\_UPI00032A1011 C V G S P K K Y Q L C S K Q  
UniRef90\_UPI0002653D6D C L G E S S K T I Q C  
UniRef90\_W4Y244 C F G D S Q E K R T C S E  
UniRef90\_UPI0003C181D2 C E G A S V I E I A N C S

UniRef90\_H3CEQ2  
UniRef90\_UPI0002062A10  
UniRef90\_F0VK69  
UniRef90\_UPI0002B4D526  
UniRef90\_M7CCB2  
UniRef90\_A7SG42  
UniRef90\_UPI00034F6619  
UniRef90\_H2USH5  
UniRef90\_UPI000203A5CB  
UniRef90\_W4Z5V5  
UniRef90\_A7RHC4  
UniRef90\_W5KIN5  
UniRef90\_B7QC16  
UniRef90\_K1PYZ9  
UniRef90\_K1PYZ9  
UniRef90\_C3Y638  
UniRef90\_UPI0003C3A1C5  
UniRef90\_UPI0003C8E934  
UniRef90\_UPI0003DEC67  
UniRef90\_R7US58  
UniRef90\_V4YW89  
UniRef90\_F6WCC4  
UniRef90\_UPI00034FE438  
UniRef90\_B4JQ02  
UniRef90\_U6GHJ1  
UniRef90\_G3VX18  
UniRef90\_H9GJM4  
UniRef90\_G3Q1C7  
UniRef90\_A7S9H7  
UniRef90\_UPI00039563BC  
UniRef90\_G3VN66  
UniRef90\_J0DPD1  
UniRef90\_A0A034V8Q7  
UniRef90\_E4Y073  
UniRef90\_Q7PZ75  
UniRef90\_U6L9G0  
UniRef90\_K7HW98  
UniRef90\_A7RLL1  
UniRef90\_Q7SYA0  
UniRef90\_UPI00034F773E  
UniRef90\_B6ACH2  
UniRef90\_UPI0003F068D9  
UniRef90\_I3JG84  
UniRef90\_A0A034UZH0  
UniRef90\_UPI000359434D  
UniRef90\_V4A9L1  
UniRef90\_B0WIC8  
UniRef90\_A7RLL0  
UniRef90\_UPI0002B417C0  
UniRef90\_UPI0003EC2F91  
UniRef90\_C3XS89  
UniRef90\_UPI0003DE8BB8  
UniRef90\_A8XPQ5  
UniRef90\_UPI00034FB1B1  
UniRef90\_Q868Z9-2  
UniRef90\_K7H8G9  
UniRef90\_K1P6L3  
UniRef90\_B4R2Q3  
UniRef90\_UPI00021A6A8A  
UniRef90\_E4Z312  
UniRef90\_R7TJU8  
UniRef90\_V4ABG1  
UniRef90\_H3BYR4  
UniRef90\_E1FK33  
UniRef90\_UPI0003B697A9  
UniRef90\_UPI0002B8D51E  
UniRef90\_A0A044SPT6  
UniRef90\_T1F6R8  
UniRef90\_T1F6R8  
UniRef90\_O44228  
UniRef90\_A8XBY6  
UniRef90\_Q19204  
UniRef90\_E9C139  
UniRef90\_U6G7T2  
UniRef90\_UPI0002233871  
UniRef90\_E1GDB3  
UniRef90\_Q17FH5  
UniRef90\_U6MU46  
UniRef90\_K1Q5S6  
UniRef90\_UPI0003AFDE9C  
UniRef90\_F1M9K2  
UniRef90\_E9GZI6  
UniRef90\_R7U8F6  
UniRef90\_Q18206  
UniRef90\_UPI0003F0A81D  
UniRef90\_K7J257  
UniRef90\_UPI0003F0D497  
UniRef90\_K1QQY8  
UniRef90\_B7P5D4  
UniRef90\_W2TCP3  
UniRef90\_UPI0003318EB2  
UniRef90\_A7S9H5

UniRef90\_H3CEQ2 C V G P D K S Y R L C N I Q  
UniRef90\_UPI0002062A10 T G S S K R Y Y S C N I Q  
UniRef90\_F0VK69 C P P L V D V N P C A L E  
UniRef90\_UPI0002B4D526 C V G S S K E T K M C S  
UniRef90\_M7CCB2 C P G H S S E S L P C D T N  
UniRef90\_A7SG42 C S G K P L Q V Y R C N  
UniRef90\_UPI00034F6619 C R G Q A S Q S  
UniRef90\_H2USH5 C R R P E I Q T K L C N  
UniRef90\_UPI000203A5CB C K G A H A D A R E P C H  
UniRef90\_W4Z5V5 C P G E S S E K S P C E E  
UniRef90\_A7RHC4 C S G A S T E T G S C Q T Q  
UniRef90\_W5KIN5  
UniRef90\_B7QCI6 C D A T F F E R R Y C  
UniRef90\_K1PYZ9 C T G P E N E N Q E C F T  
UniRef90\_K1PYZ9 C T G P E N E N Q E C F T  
UniRef90\_C3Y638 C V G H G D E T Q S C N E  
UniRef90\_UPI0003C3A1C5 C S G P Q I E T Q T V N T E  
UniRef90\_UPI0003C8E934 C T G T S K R Y Q L C G V Q  
UniRef90\_UPI0003DECD67 C H D S A L E T K N C  
UniRef90\_R7US58 C Q G R S V E T L V C S S  
UniRef90\_V4YW89 C P S L T E D E V C N  
UniRef90\_F6WCC4 C V G P S E E Q R P C  
UniRef90\_UPI00034FE438 C S G P L R E T R T C N  
UniRef90\_B4JQ02 C V G L S K R Y Q L C N  
UniRef90\_U6GHJ1 C G P T R E E A S C  
UniRef90\_G3VX18 C A G G A T R D G L C N T  
UniRef90\_H9GJM4 C F G R P S E V Q K C  
UniRef90\_G3Q1C7 C S G L Q L E Q K P C E  
UniRef90\_A7S9H7 C P G S D R Q I M P C S  
UniRef90\_UPI00039563BC C E  
UniRef90\_G3VN66 C G G P S E E Q K P C S  
UniRef90\_J0DPD1 C S G A S S E K S Q C S  
UniRef90\_A0A034V8Q7 C P K R K V K V R S C  
UniRef90\_E4Y073 C Q G M P M A Y E P C N Q D  
UniRef90\_Q7PZ75 C P P R I V K R R K C  
UniRef90\_U6L9G0 C E S L E E F E P C  
UniRef90\_K7HW98 C K G E E E M T R H C  
UniRef90\_A7RLL1 C T G P T M E L K L C N R  
UniRef90\_Q7SYA0 C H G S Q T K T I P C E  
UniRef90\_UPI00034F773E C E G R N I R Y R T C S  
UniRef90\_B6ACH2 C G H L R E F Q S C N E  
UniRef90\_UPI0003F068D9 C H G K S E H I S S C  
UniRef90\_I3JG84 C S G P K L D G K A C N  
UniRef90\_A0A034UZH0 C K G G N R K Y F S C N T Q  
UniRef90\_UPI000359434D C P G P S F E T G T R Q Q  
UniRef90\_V4A9L1 C K G E N I Q Y A T C N  
UniRef90\_B0WIC8 C K G D A V R Y K I C N M Q  
UniRef90\_A7RLL0 C T G P H S Q T I K C D L Q  
UniRef90\_UPI0002B417C0 C Y G A N T E A A D C  
UniRef90\_UPI0003EC2F91 C T G T A K K Y H L C N T  
UniRef90\_C3XS9 C P G D S V E V K V C S S  
UniRef90\_UPI0003DE8BB8 C S T A E T E E K A C Q  
UniRef90\_A8XPQ5 C E G S E D E T E I C N S D  
UniRef90\_UPI00034FB1B1 C T G T S K R Y Q L C K V Q  
UniRef90\_Q868Z9-2 C S G G S R R Y F S C N T Q  
UniRef90\_K7H8G9 C D G S A H E R R S C N  
UniRef90\_K1P6L3 C S S E A S E N R A C N  
UniRef90\_B4R2Q3 C P T L Q Q K R S C Q  
UniRef90\_UPI00021A6A8A C S G A S R R F F S C N I Q  
UniRef90\_E4Z312 C P G K S E E K E A C  
UniRef90\_R7TUJ8 C T G N A N Q N D F C  
UniRef90\_V4ABG1 C T G P L V E T K P C N E Q  
UniRef90\_H3BYR4 C S G E S T E T S D C D E D Q  
UniRef90\_E1FK33 C S G K I Q E F S T C N L Q  
UniRef90\_UPI0003B697A9 C E G S S K S F L T C N T  
UniRef90\_UPI0002B8D51E C S G F S S H K K A C N T Q  
UniRef90\_A0A044SPT6 C I G E S V E K K V C K Q  
UniRef90\_T1F6R8 C M G D K E E S A P C  
UniRef90\_T1F6R8 C M G D K E E S A P C  
UniRef90\_O44228 C K D F P S E V K F C  
UniRef90\_A8XBY6 C E G A S E E K V L C N Q Q  
UniRef90\_Q19204 C P E K N I E V R S C  
UniRef90\_E9C139 C L T A T S E A L A C N T Q  
UniRef90\_U6G7T2 C P E L L E T R E C N T  
UniRef90\_UPI0002233871 C N G P R K Q Y R L C E  
UniRef90\_E1GDB3 C T G D A R E E R T C R E Q  
UniRef90\_Q17FH5 C P S K Q I K R R K C N  
UniRef90\_U6MU46 C P K L E E T R Q G C N A N  
UniRef90\_K1Q5S6 C P S S E V M W C  
UniRef90\_UPI0003AFDE9C C R G L H R K A R R C Q T E  
UniRef90\_F1M9K2 C W G D S H E Y R V C Q  
UniRef90\_E9GZI6 C P S L A E K K R S C N R  
UniRef90\_R7U8F6 C E G S N V S Y R I C N Q  
UniRef90\_Q18206 C E G R R Q E F G T C N  
UniRef90\_UPI0003F0A81D C E G Y S V D Y R R C N Q  
UniRef90\_K7J257 C T G A R K R F F S C N I Q  
UniRef90\_UPI0003F0D497 C I G D V E Q T L A C N E E  
UniRef90\_K1QQY8 C Q G N K R E R S A C N  
UniRef90\_B7P5D4  
UniRef90\_W2TCP3 C S G S T L R A I V C N  
UniRef90\_UPI0003318EB2 C R E A T E E G R L C  
UniRef90\_A7S9H5 C S G P E T Q T E R C

UniRef90\_UPI00021A498A 1 WS S WGS WS V C S T T C Q G G F Q Y R T R R C V N G T H R D C S S M 40  
UniRef90\_UPI0003F07587 D G G W S D P I E L S N T R P C G G G N H L M E R S C C T Q P P P A N G G G A G  
UniRef90\_J9E9V3 G G W R D W S A W S L C S V S C G R G L R R R W R L C C D S P I P Q N G G N L  
UniRef90\_F6WCN7 W S K W T P W S L C S A S C G E G A R I R Q R F C C I R K R V I Q  
UniRef90\_S4RB46 R N S A W D A W G A W S E C C S R T C C G G G A S Y S L R R R C C L D K G N  
UniRef90\_V8P3M9 R D S L W D A W S W S E C C S R T C C G G G A S Y S L R R R C C L S S K A K  
UniRef90\_E4Y7Q2 L W S V W S W S E C F E T E C G P S L S T K S R V C L G A P F G S D E  
UniRef90\_R7VA40 G V W S S Y G P Y S E C S L R C D Y G I Q S R R R V C C E R F G S D E  
UniRef90\_E4YTC7 W G E W S N W S D C C S K S C G E G G V S E R T R K C F G H Y K N  
UniRef90\_UPI000398F9D0 D C R L S P W S A W S Q C C S Q T C G A G G Q M V R V R S V V L Q A A G E G R A  
UniRef90\_C3YMQ2 D G G W S D W V D G A C C S V T C G G G M Y T R T R D C N N P A P A N G G G A E  
UniRef90\_UPI00034FC9C6 D C V V S S W S W S E C C D T T C G G S G S M V R T R R I V I Q A P A H G G R H  
UniRef90\_S4RUG1 D C E V S D W A W G F C C S R T C G I G V K R S T R F V I Q T P A N G G R P  
UniRef90\_E4XA80 S W S N W A N W T T C S K S C G E G V S V R R R Q C S  
UniRef90\_UPI0002B44805 G G L Q F S H R H C D S P K P R H G G S Y  
UniRef90\_UPI0000522B88 S S W G P W A K C S K T C G G K A I R S R Y I K R N S A H G G T R  
UniRef90\_UPI00022F4B03 G E W T P W G S W S R C C S L S C P R G V L L H S D H P V S C R L P G E E P  
UniRef90\_J9F350 Q K G S W S E W T S W N Q C C S V T C D I G S Q A R Y R R C C F S S H N S L S F S  
UniRef90\_A8PRP7 Q W T A W G S W E V C C S V T C G G V G Q Q I R R R C C I  
UniRef90\_E4WUK6 G W G D W S E W T Q C D S S C G E G K S H R T R E C C S D K T E N P N V  
UniRef90\_UPI0003AF5C1B C G V E K W C S R G H C R S L A E L G V T R R R R C C D N P R S P A F G G R A  
UniRef90\_A7SM14 N C E V G S W T S W S H C N Q A C G Q H G T Q R R M R T K T K S E C G G K  
UniRef90\_A0A016VDB7 D S H W T E W G P W A D C C F C G K Q V R T R R C I T Y S S A M S S G  
UniRef90\_F6U7M2 N C Q L S D W S P W S E C C T H T C G L T G K M I R R R T I I Q P F Q G D G R P  
UniRef90\_UPI000440D1D6 R D C V S E F S P W T I C C S K T C G M G L Q N R V R S I L A P P L F G G S A  
UniRef90\_F7EHA6 D G S W S C W S A W S L C L S G S R R R V R N R V C N N P A P S G G G L K  
UniRef90\_UPI00046B8631 D C E L T E W S Q W S E C C N K S C G K G H M I R T R M I Q M E P Q F G G A P  
UniRef90\_A0A016VN07 Q W S E W G P F G Q C T A S C G G G Q H M R Q R Q C N H G C S C  
UniRef90\_U3K694 S P W S K W S E C S A K C G T G V Q K R T R S C L A E R L W G V H  
UniRef90\_J9HSG8 G G W S E W T V G D C N S G C S R G F Q Q R T R R C C N N P K V N T D E G E  
UniRef90\_G1K9K2 E W S T W S T C S R T C N T G I S S R Q R R C S G S V H D G D G E  
UniRef90\_H0UXG7 N C Q L S A W T A W T E C S Q T C G Q G G R M S R T R F T I M P T Q G E G R P  
UniRef90\_UPI0003500C8E N C Q L S E W S P W S K C S K D C L A G K M I R N R S T V I Q P S Q G D G R P  
UniRef90\_F1Q775 E E G I W G Q W S D W S L C P A Q C D E A T Q H R S R C Q S N S K Q  
UniRef90\_H3FVL0 G P W T E W T Q C T V S C G V G E M T R N R K C I G D G P C E R G  
UniRef90\_F6UYW4 Q D C I V S E Y S W S E C S R T C G N G L K H R T R Y V I T L A Q F G G S A  
UniRef90\_A0A016TXQ7 W A E W R E W S T C T D T C G S G T M Q R F R A C Q K S R P E C F  
UniRef90\_UPI00033345E0 G V W G A W G P W S A C S R S C G G V M E Q T R P C C L P S S Y R A R G G P  
UniRef90\_E4WV7F G W A D W T A W T Q C C S S T C G N G E Q L R T R A C P D G E T  
UniRef90\_UPI00034F2616 G T W G T W G P W S A C S R S C G G V M N K P G H A F Q P I T S K E A S R  
UniRef90\_UPI000161D6F1 S W S I W E A W S T C S V S C G N G H R H R T R I C C I G D S K N  
UniRef90\_E4YDU9 W S G W S E W G A C C S T S C G D G F R R K Q R S C L G A N L L N D D A D  
UniRef90\_H2YTT2 D G Q W N S W S W S R C C S R S C G A G I T S S E R H C D K P V P R H G S Y  
UniRef90\_W8BSI0 S D W S E W S C S A T C G A G V I V R T R H Y L N P R A K K K  
UniRef90\_G9E6E6 E W S D W S E C S T E C G P G T I S R T L K I C I E K P Q N G G K M  
UniRef90\_UPI0002738BD4 G V Q S S E R Q C S N P T P K Y G G K Y  
UniRef90\_E4WVR9 W N D W T T W S R C S S S C G G G V S T R M R N C D T D E N I E I N  
UniRef90\_Q8T398 T Q W S E W S D C A F C G R S T S F R T R E C R S P F S D N A G H V  
UniRef90\_U6MQE5 G E W T D F S A C S R T C G G G T Q E R K R E P W L D N A Q H G G R T  
UniRef90\_H2W9L0 W S E W E D W G Q C S V T C G S G V A I R Q R T C L G G V F G D H L  
UniRef90\_F1KVZ4 C H W S D W L P W N N C D R P C G G G H M L R E R I C Q K T F G G C M  
UniRef90\_M4V509 G S W G A W S T C S K P C G S G T Q A R T F T I T P A A N G G A  
UniRef90\_UPI00021A6ACD Q Q G G W S E W K T G S C K S G C S T G A Q T R R Y C D R P M P K N T E T G  
UniRef90\_H2Y1T3 G S W S G W S N S G T C T V T C G G G T Q Q Q I R T C N G G T A G A G G  
UniRef90\_H3DSH2 W S G W S E W G C S E A C G A G R Q T R T R T C Y G R E Q S V G G D  
UniRef90\_V8PDQ8 R D C V V S E F S A W S E C C S K H C G K S I Q H R T R F I I A P P L Y G G S K  
UniRef90\_W7ACM4 Y T D W G E W S Q C S M E C D H N V Q Q R E R K C T N Q S G E C  
UniRef90\_UPI00016T3W0 R D C A V S S W G P W E G C D G T C G I G V Q Q R T R Y V R Q K A E R G G K  
UniRef90\_E4WZE3 W Q T W G E W S Q C S A T C S G G E R S R D R A C K N G S W G Q L G C N  
UniRef90\_F2UB27 G E W S E W S P C S V T C G D G G M Q F R S R R I N T I P N V T C P H  
UniRef90\_W5NGB2 D G E G D W S W S A C C S V T C G N G N Q K R T R S C G Y A  
UniRef90\_X1WYM5 G E W S P W S P W T P C S T S C G L G V T K Q T R Q C C I R K P  
UniRef90\_H2XUJ1 W S P W G W G E C S K S C G K G T Q W R L R S C L K A E A  
UniRef90\_H2S536 D C V M S D W T E W S E C N K S C G K G H T I R T R T V T L E P Q F G G D P  
UniRef90\_T1FB46 N G G W S M W G P W S S P S I T C S L G T V T R S R L C N N P I P V G D G M Y  
UniRef90\_S4RYA5 W G P W S A W S P C S L S C G G G V T L R S R R C A S R N M L L N S P  
UniRef90\_B4JW56 C Q L S N W G S W S P C S V T C G E G Y Q T R R Q R Q Y L N P N A E L K  
UniRef90\_UPI0003C46BE2 G V W G S W G P W S A C C S R S C G G V M E Q T R P C C L  
UniRef90\_C3ZYD3 W T V W T N C S M T C G G G V Q V R T R T C N S P A P A H G G Q P  
UniRef90\_W5K6N7 D C L L S D W S H W S E C S H S C G A Q S H M V R S R L V L Q Q D G E G G R P  
UniRef90\_B4N848 G W D W S D F T L C S V T C G K G V I Q R F R R C L L D N P  
UniRef90\_B4KTM8 C E M T Q W S E W S P C S K T C G R G I S T R R D Y H N P Q A K P R C Q S  
UniRef90\_W5LR66 D C K L S E W S N W S R C S K S C G S G V K V R S K W L R E K P Y N G G R P  
UniRef90\_Q96K7 Q W G A W G W S S C S A T C G G G T M T R S R V C N N G C S T C Q  
UniRef90\_UPI0000222168 G V W H D W S D W S A C C S C T C G D G A K S R R R E C S T N N  
UniRef90\_UPI0002035913 Q D C I V A E F A P W T E C C S K T C G S G L Q H R T R H V V A P P Q F G G S A  
UniRef90\_E4X7W2 W N S W S D W S G C C S Q T C N G G L S R R S R Y C R N G S G  
UniRef90\_E5SY21 S W T P W S W T H C S R T C G A G L Q S R F R S C  
UniRef90\_S9YBD0 E W S P W S P C C S G S C G G G S Q R R T R P C G Y A  
UniRef90\_UPI0003BD6ED6 S E W S P W A E C C S H S C G S Q G Q S V R S R R I L Q D A Q E E G R P  
UniRef90\_U6IOX1 G N W G Q W S P W S A C C S P A C G N K K I R Y R D R V R G C L H G D T  
UniRef90\_B4GDP1 C Q L S N W S E W S P C S K T C G R G I S T R T R D Y Y N P Q A R P  
UniRef90\_V4BAW2 G W S K W S D W T G C S V T C G T G Q K Q R T R K C L N S K D S K D  
UniRef90\_G1N4E8 G E W S M W S T C S R T C N T G I S S R Q R K C P G L G V E G E  
UniRef90\_H3B5Z1 D C E V S L W S W G L C R G R C G R G G T S R T R Y V H L N P A N S G A P  
UniRef90\_E7FFY5 G V W A P W S E W V E C S Q S C G V G V A E R R Q C M P P P

UniRef90\_UPI00021A498A G A S S E N Q L C N  
UniRef90\_UPI0003F07587 C E G D A L F L A S C N E  
UniRef90\_J9E9V3 C C R G S F V J E S L N C N  
UniRef90\_F6WCN7 C H G T A T Q H K H C  
UniRef90\_S4RB46 C E G R N L R Y K S C S N N  
UniRef90\_V8P3M9  
UniRef90\_E4Y7Q2 C P G L S E K I K P C E S  
UniRef90\_R7VA40 C C T G P A S E I K V C N  
UniRef90\_E4YTC7 C C N G Q K R Q T K M C N R  
UniRef90\_UPI000398F9D0 C P Q Q L S Q H R S C  
UniRef90\_C3YMQ2 C E G D R T E T V E C N E D  
UniRef90\_UPI00034FC9C6 C C P S L V I Q R R A C Q E  
UniRef90\_S4RUG1 C P E L H M E E S C  
UniRef90\_E4XA80 C P G S S M S N R K C S  
UniRef90\_UPI0002B44805 C E G Q R T K Y Q S C H T E  
UniRef90\_UPI0000522B88 C P T L H Q T R P C Y T Q  
UniRef90\_UPI00022F4B03 C C W G D S H E Y R V C Q Q  
UniRef90\_J9F350 C C P E N S M E T R Q C N  
UniRef90\_A8PRP7 C C V I E E T L E K K A C K Q  
UniRef90\_E4WUK6 C I G E K N E S R D C S  
UniRef90\_UPI0003AF5C1B C V I G S D L Q A E M C N T Q  
UniRef90\_A7SM14 C C S F V L V E M R S C N R  
UniRef90\_A0A016VDB7 C C Q G N S Y E S R S C  
UniRef90\_F6U7M2 C C P A L I E Q F K P C  
UniRef90\_UPI000440D1D6 C C P N L T E F R T C Q  
UniRef90\_F7EHA6 C I G D S I E S Q Q C E  
UniRef90\_UPI00046B8631 C C P E T V I Q R K K C  
UniRef90\_A0A016VN07 C C V I G P S T E I Q A C N T  
UniRef90\_U3K694 C N E A T E E G R L C  
UniRef90\_J9HSG8 C C D G S A Y D V M V C D D E  
UniRef90\_G1K9K2 C H G T R I Q Y K L C E  
UniRef90\_H0UXG7 C C P T E L I Q Q K P C  
UniRef90\_UPI0003500C8E C C P S Q M E Q S K P C  
UniRef90\_F1Q775 C S G K S V I E A R S C H  
UniRef90\_H3FVL0 C G P T E E R L L C N Q Q  
UniRef90\_F6UYW4 C C P N L T E Y Q T C Q S  
UniRef90\_A0A016TXQ7 C E G S A F E K V V C N Q E  
UniRef90\_UPI00033345E0 R P S S P V I Q  
UniRef90\_E4WVVF7 C C P G T G E Q R Q R C S N Q  
UniRef90\_UPI00034F2616 C P P A S S T Q  
UniRef90\_UPI000161D6F1 C C T G D P E E H E V C  
UniRef90\_E4YDU9 C C P G L P Y K E E S C  
UniRef90\_H2YTT2 C C L G E R K R Y R T C N  
UniRef90\_W8BSI0 C C Q K V S R E T Q P C E  
UniRef90\_G9E6E6 C C P P L T E T S P C  
UniRef90\_UPI0002738BD4 C C V I G E R K R F R L C S I Q  
UniRef90\_E4WVR9 C A G N S L E S K A C  
UniRef90\_Q8T398 C C G G V D R E S R R C  
UniRef90\_U6MQE5 C C P D G P T S V R E C N T Q  
UniRef90\_H2W9L0 C C P G P K T E Q R V C  
UniRef90\_F1KVZ4 C C P G P D R E F H Q C N M Q  
UniRef90\_M4V509 C C S A T N T E S Q A C N T  
UniRef90\_UPI00021A6ACD C C Q G L H Y D V V L C K D D  
UniRef90\_H2Y1T3 C C P G S S T Q T I A C N Q Q  
UniRef90\_H3DSH2 C C P G P S E E R E V C N R N  
UniRef90\_V8PDQ8 C C P N L T E S R V C E  
UniRef90\_W7ACM4 C F K G E L K E T R P C  
UniRef90\_A0A016T3W0 C C P P L K E M R T C Y T Q  
UniRef90\_E4WZE3 C S E D E K S Q T E A C N T  
UniRef90\_F2UB27 C L Q G E L Q Q T Q P C  
UniRef90\_W5NGB2 C T A T E S R T C  
UniRef90\_X1WYM5  
UniRef90\_H2XUJ1 C C S D V S T N G R L C N T Q  
UniRef90\_H2S536 C C S E T I Q R K K C  
UniRef90\_T1FB46 C C V I G S D T D S K T V H V E  
UniRef90\_S4RYA5 C C G G P D  
UniRef90\_B4JW56 C C Q S E L Q E T R Q C  
UniRef90\_UPI0003C46BE2  
UniRef90\_C3ZYD3 C C T E T L F D T K Y C H T  
UniRef90\_W5K6N7 C C P S Q L S Q T R P C  
UniRef90\_B4N848  
UniRef90\_B4KTM8 C V V R P L E E T R P C S  
UniRef90\_W5LR66 C C P  
UniRef90\_Q966K7 C C V I G A A A E S Q A C N A Q  
UniRef90\_UPI0000222168 C C Q G P D F E T E P C N  
UniRef90\_UPI0002035913 C C P N L T E F Q V C Q S  
UniRef90\_E4X7W2 C C P G D K Y D E K V C Q T D  
UniRef90\_E5SY21  
UniRef90\_S9YBD0 C C T A T E S R A C  
UniRef90\_UPI0003BD6ED6 C C P N Q L I Q T K P C  
UniRef90\_U6IOX1 C C R G R R R Q V I E A C P E N  
UniRef90\_B4GDP1 C C L T P L E E T R Q C  
UniRef90\_V4BAW2 C C K G N D K Q T E T C S  
UniRef90\_G1N4E8 C C H G P V M Q Y R L C E  
UniRef90\_H3B5Z1 C C P N L E E S T E C R P E  
UniRef90\_E7FFY5



jnet  
conf  
sol25  
sol5  
sol0  
jhmm  
jpssm

7 7 7 7 5 1 1 1 0 1 6 8 9 9  
B B

