

| QUERY | L | V | N | E | T | E | F | A | K | T | C | V | A | D | E | S | A | E | N | C | D | K | S | L | H | T | L | F | G | D | K | L | C | T | V | A | T | R | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI000454592E | A | A | Q | N | L | G | K | V | G | T | K | CC | V | E | A | Q | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | V | C | V | L | H | E | K | T | | | |
| UniRef90_UPI000454592E | A | A | Q | N | L | G | K | V | G | T | K | CC | V | E | A | Q | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | V | C | V | L | H | E | K | T | | | |
| UniRef90_UPI000454592E | A | A | Q | N | L | G | K | V | G | T | K | CC | V | E | A | Q | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | V | C | V | L | H | E | K | T | | | |
| UniRef90_G3IAL6 | L | A | T | D | L | T | K | V | N | E | E | CC | C | H | G | D | L | L | E | C | A | D | D | R | A | E | L | A | K | Y | M | C | E | N | Q | A | | | | | | |
| UniRef90_G3IAL6 | L | A | T | D | L | T | K | V | N | E | E | CC | C | H | G | D | L | L | E | C | A | D | D | R | A | E | L | A | K | Y | M | C | E | N | Q | A | | | | | | |
| UniRef90_UPI00032AF167 | I | A | R | G | L | G | K | V | G | S | K | CC | K | L | G | E | A | R | C | V | E | D | Y | V | S | V | V | L | N | R | F | C | V | L | H | E | K | T | | | | |
| UniRef90_UPI00032AF167 | I | A | R | G | L | G | K | V | G | S | K | CC | K | L | G | E | A | R | C | V | E | D | Y | V | S | V | V | L | N | R | F | C | V | L | H | E | K | T | | | | |
| UniRef90_UPI00032AF167 | I | A | R | G | L | G | K | V | G | S | K | CC | K | L | G | E | A | R | C | V | E | D | Y | V | S | V | V | L | N | R | F | C | V | L | H | E | K | T | | | | |
| UniRef90_G5B5P2 | A | S | R | N | L | G | K | V | G | T | K | CC | C | A | E | S | K | R | L | P | C | T | E | N | Y | L | A | L | I | L | N | R | L | C | C | V | L | H | E | K | T | |
| UniRef90_G5B5P2 | A | S | R | N | L | G | K | V | G | T | K | CC | C | A | E | S | K | R | L | P | C | T | E | N | Y | L | A | L | I | L | N | R | L | C | C | V | L | H | E | K | T | |
| UniRef90_L5K939 | I | S | K | E | L | A | N | M | G | N | K | CC | C | T | E | S | S | R | M | A | C | A | E | D | Y | L | S | S | L | V | L | N | R | L | C | C | V | L | H | E | K | T |
| UniRef90_L5K939 | I | S | K | E | L | A | N | M | G | N | K | CC | C | T | E | S | S | R | M | A | C | A | E | D | Y | L | S | S | L | V | L | N | R | L | C | C | V | L | H | E | K | T |
| UniRef90_L5K939 | I | S | K | E | L | A | N | M | G | N | K | CC | C | T | E | S | S | R | M | A | C | A | E | D | Y | L | S | S | L | V | L | N | R | L | C | C | V | L | H | E | K | T |
| UniRef90_UPI0003289DFD | I | S | R | K | L | G | R | T | G | S | A | CC | C | K | R | P | E | A | E | S | C | V | E | E | Y | L | T | L | I | L | N | R | L | C | C | V | L | H | E | K | T | |
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| UniRef90_UPI0003289DFD | I | S | R | K | L | G | R | T | G | S | A | CC | C | K | R | P | E | A | E | S | C | V | E | E | Y | L | T | L | I | L | N | R | L | C | C | V | L | H | E | K | T | |
| UniRef90_L9L5M3 | N | T | R | R | M | V | T | A | A | A | T | CC | C | S | E | D | K | Q | S | A | C | I | E | T | A | T | D | L | I | I | G | Q | L | C | C | I | R | H | E | T | T | |
| UniRef90_L9L5M3 | N | T | R | R | M | V | T | A | A | A | T | CC | C | S | E | D | K | Q | S | A | C | I | E | T | A | T | D | L | I | I | G | Q | L | C | C | I | R | H | E | T | T | |
| UniRef90_L9L5M3 | N | T | R | R | M | V | T | A | A | A | T | CC | C | S | E | D | K | Q | S | A | C | I | E | T | A | T | D | L | I | I | G | Q | L | C | C | I | R | H | E | T | T | |
| UniRef90_L9L5M3 | N | T | R | R | M | V | T | A | A | A | T | CC | C | S | E | D | K | Q | S | A | C | I | E | T | A | T | D | L | I | I | G | Q | L | C | C | I | R | H | E | T | T | |
| UniRef90_L9L5M3 | N | T | R | R | M | V | T | A | A | A | T | CC | C | S | E | D | K | Q | S | A | C | I | E | T | A | T | D | L | I | I | G | Q | L | C | C | I | R | H | E | T | T | |
| UniRef90_L9L5M3 | N | T | R | R | M | V | T | A | A | A | T | CC | C | S | E | D | K | Q | S | A | C | I | E | T | A | T | D | L | I | I | G | Q | L | C | C | I | R | H | E | T | T | |
| UniRef90_L9L5M3 | N | T | R | R | M | V | T | A | A | A | T | CC | C | S | E | D | K | Q | S | A | C | I | E | T | A | T | D | L | I | I | G | Q | L | C | C | I | R | H | E | T | T | |
| UniRef90_P49822 | A | A | R | S | L | G | K | V | G | S | K | CC | C | V | E | A | K | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | F | C | V | L | H | E | K | T | | |
| UniRef90_P49822 | A | A | R | S | L | G | K | V | G | S | K | CC | C | V | E | A | K | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | F | C | V | L | H | E | K | T | | |
| UniRef90_P49822 | A | A | R | S | L | G | K | V | G | S | K | CC | C | V | E | A | K | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | F | C | V | L | H | E | K | T | | |
| UniRef90_P49822 | A | A | R | S | L | G | K | V | G | S | K | CC | C | V | E | A | K | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | F | C | V | L | H | E | K | T | | |
| UniRef90_P49822 | A | A | R | S | L | G | K | V | G | S | K | CC | C | V | E | A | K | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | F | C | V | L | H | E | K | T | | |
| UniRef90_P49822 | A | A | R | S | L | G | K | V | G | S | K | CC | C | V | E | A | K | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | F | C | V | L | H | E | K | T | | |
| UniRef90_P49822 | A | A | R | S | L | G | K | V | G | S | K | CC | C | V | E | A | K | R | L | P | C | V | E | D | Y | L | S | A | I | L | N | R | F | C | V | L | H | E | K | T | | |
| UniRef90_UPI0002BCF480 | V | S | R | S | L | G | K | V | G | T | K | CC | C | T | E | S | N | R | M | A | C | A | E | D | F | L | S | V | V | L | N | R | L | C | C | V | L | H | E | K | T | |
| UniRef90_UPI0002BCF480 | V | S | R | S | L | G | K | V | G | T | K | CC | C | T | E | S | N | R | M | A | C | A | E | D | F | L | S | V | V | L | N | R | L | C | C | V | L | H | E | K | T | |
| UniRef90_UPI0002BCF480 | V | S | R | N | L | G | R | V | G | S | K | CC | C | K | N | P | E | S | C | A | E | D | Y | L | S | S | L | V | N | R | L | C | C | V | L | H | E | K | T | | | |
| UniRef90_UPI00033391B3 | I | S | R | K | L | G | S | V | G | S | R | CC | C | K | N | P | E | S | C | A | E | D | Y | L | S | S | L | V | N | R | L | C | C | V | L | H | E | K | T | | | |
| UniRef90_UPI00033391B3 | I | S | R | K | L | G | S | V | G | S | R | CC | C | K | N | P | E | S | C | A | E | D | Y | L | S | S | L | V | N | R | L | C | C | V | L | H | E | K | T | | | |
| UniRef90_UPI00033391B3 | I | S | R | K | L | G | S | V | G | S | R | CC | C | K | N | P | E | S | C | A | E | D | Y | L | S | S | L | V | N | R | L | C | C | V | L | H | E | K | T | | | |
| UniRef90_UPI0003C873D5 | V | A | R | G | L | G | R | V | G | T | K | CC | C | T | E | S | N | R | M | A | C | A | E | D | Y | L | S | S | L | V | N | R | L | C | C | V | L | H | E | K | T | |
| UniRef90_UPI0003C873D5 | V | A | R | G | L | G | R | V | G | T | K | CC | C | T | E | S | N | R | M | A | C | A | E | D | Y | L | S | S | L | V | N | R | L | C | C | V | L | H | E | K | T | |
| UniRef90_UPI000443926B | T | V | R | K | L | G | R | V | G | T | R | CC | C | G | L | P | E | S | R | C | V | E | D | Y | L | S | S | L | V | N | R | L | C | C | V | L | H | E | K | T | | |
| UniRef90_UPI000443926B | T | V | R | K | L | G | R | V | G | T | R | CC | C | G | L | P | E | S | R | C | V | E | D | Y | L | S | S | L | V | N | R | L | C | C | V | L | H | E | K | T | | |
| UniRef90_Q5EG48 | V | S | R | N | L | G | K | V | G | T | K | CC | C | A | E | A | D | R | L | P | C | V | E | D | Y | L | S | S | A | I | L | N | R | L | C | C | V | L | H | E | K | T |
| UniRef90_Q5EG48 | V | S | R | N | L | G | K | V | G | T | K | CC | C | A | E | A | D | R | L | P | C | V | E | D | Y | L | S | S | A | I | L | N | R | L | C | C | V | L | H | E | K | T |
| UniRef90_Q5EG48 | V | S | R | N | L | G | K | V | G | T | K | CC | C | A | E | A | D | R | L | P | C | V | E | D | Y | L | S | S | A | I | L | N | R | L | C | C | V | L | H | E | K | T |
| UniRef90_UPI000331705E | V | S | R | N | L | G | K | V | G | T | K | CC | C | A | E | G | E | R | L | P | C | V | E | D | Y | L | S | S | V | V | L | N | R | L | C | C | V | L | H | D | K | T |
| UniRef90_UPI000331705E | V | S | R | N | L | G | K | V | G | T | K | CC | C | A | E | G | E | R | L | P | C | V | E | D | Y | L | S | S | V | V | L | N | R | L | C | C | V | L | H | D | K | T |
| UniRef90_UPI000331705E | V | S | R | N | L | G | K | V | G | T | K | CC | C | A | E | G | E | R | L | P | C | V | E | D | Y | L | S | S | V | V | L | N | R | L | C | C | V | L | H | D | K | T |
| UniRef90_UPI0003F15DB7 | V | S | R | N | L | G | R | V | G | T | K | CC | C | A | E | T | E | R | M | S | C | A | E | D | Y | L | S | S | V | V | L | N | R | L | C | C | V | L | H | E | K | T |
| UniRef90_UPI0003F15DB7 | V | S | R | N | L | G | R | V | G | T | K | CC | C | A | E | T | E | R | M | S</ | | | | | | | | | | | | | | | | | | | | | | |

| QUERY | E | T | Y | G | E | M | A | D | C | C | A | K | Q | E | P | E | R | N | E | C | F | L | Q | H | K | D | D | N | P | N | L | P | R | L | V | R | P | E | V | D | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|---|---|---|---|
| UniRef90_UPI000454592E | P | V | S | E | Q | V | T | K | C | C | T | G | S | V | V | E | R | R | P | C | F | S | A | L | P | V | D | D | E | T | Y | V | P | K | E | F | K | A | E | T | A | |
| UniRef90_UPI000454592E | P | V | S | E | Q | V | T | K | C | C | T | G | S | V | V | E | R | R | P | C | F | S | A | L | P | V | D | D | E | T | Y | V | P | K | E | F | K | A | E | T | A | |
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| UniRef90_G3IAL6 | S | I | S | S | K | L | Q | A | C | C | D | K | P | V | L | K | K | K | S | H | C | L | A | E | V | E | N | D | P | A | D | L | T | S | L | A | F | V | E | D | K | |
| UniRef90_G3IAL6 | S | I | S | S | K | L | Q | A | C | C | D | K | P | V | L | K | K | K | S | H | C | L | A | E | V | E | N | D | P | A | D | L | T | S | L | A | F | V | E | D | K | |
| UniRef90_UPI00032AF167 | P | V | S | E | G | V | T | K | C | C | T | E | S | L | V | D | R | R | R | A | C | F | S | D | L | T | P | D | N | T | Y | V | P | K | E | F | H | V | E | T | A | |
| UniRef90_UPI00032AF167 | P | V | S | E | G | V | T | K | C | C | T | E | S | L | V | D | R | R | R | A | C | F | S | D | L | T | P | D | N | T | Y | V | P | K | E | F | H | V | E | T | A | |
| UniRef90_UPI00032AF167 | P | V | S | E | G | V | T | K | C | C | T | E | S | L | V | D | R | R | R | A | C | F | S | D | L | T | P | D | N | T | Y | V | P | K | E | F | H | V | E | T | A | |
| UniRef90_G5B5P2 | P | V | S | D | R | V | T | K | C | C | T | E | S | L | V | N | R | R | R | P | C | F | S | A | L | Q | L | D | E | T | Y | V | P | K | Q | F | T | D | E | T | A | |
| UniRef90_G5B5P2 | P | V | S | D | R | V | T | K | C | C | T | E | S | L | V | N | R | R | R | P | C | F | S | A | L | Q | L | D | E | T | Y | V | P | K | Q | F | T | D | E | T | A | |
| UniRef90_L5K939 | P | V | S | D | R | V | T | K | C | C | T | E | S | L | V | N | R | R | R | P | C | F | S | S | L | E | A | D | E | T | Y | V | P | K | E | F | F | T | F | H | A | |
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| UniRef90_L5K939 | P | V | S | D | R | V | T | K | C | C | T | E | S | L | V | N | R | R | R | P | C | F | S | S | L | E | A | D | E | T | Y | V | P | K | E | F | F | T | F | H | A | |
| UniRef90_UPI0003289DFD | P | V | S | E | V | V | T | K | C | C | S | E | S | L | V | N | I | R | P | C | F | S | A | L | P | N | P | K | E | F | X | F | T | F | H | A | | | | | | |
| UniRef90_UPI0003289DFD | P | V | S | E | V | V | T | K | C | C | S | E | S | L | V | N | I | R | P | C | F | S | A | L | P | N | P | K | E | F | X | F | T | F | H | A | | | | | | |
| UniRef90_UPI0003289DFD | P | V | S | E | V | V | T | K | C | C | S | E | S | L | V | N | I | R | P | C | F | S | A | L | P | N | P | K | E | F | X | F | T | F | H | A | | | | | | |
| UniRef90_L9L5M3 | P | I | N | P | G | I | G | Q | C | C | T | S | S | Y | A | N | R | R | P | C | F | S | S | F | V | L | D | P | T | Y | I | P | P | L | F | S | A | D | H | K | | |
| UniRef90_L9L5M3 | P | I | N | P | G | I | G | Q | C | C | T | S | S | Y | A | N | R | R | P | C | F | S | S | F | V | L | D | P | T | Y | I | P | P | L | F | S | A | D | H | K | | |
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| UniRef90_L9L5M3 | P | I | N | P | G | I | G | Q | C | C | T | S | S | Y | A | N | R | R | P | C | F | S | S | F | V | L | D | P | T | Y | I | P | P | L | F | S | A | D | H | K | | |
| UniRef90_L9L5M3 | P | I | N | P | G | I | G | Q | C | C | T | S | S | Y | A | N | R | R | P | C | F | S | S | F | V | L | D | P | T | Y | I | P | P | L | F | S | A | D | H | K | | |
| UniRef90_UPI00042ADE39 | P | V | S | D | Q | V | T | K | C | C | T | G | S | V | V | E | R | R | P | C | F | S | A | L | P | V | D | E | T | Y | V | P | K | E | F | K | A | E | T | A | | |
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| UniRef90_UPI0003346446 | P | V | S | E | K | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | A | L | Q | L | D | P | K | E | F | N | A | E | T | F | T | H | A | | | |
| UniRef90_UPI0003346446 | P | V | S | E | K | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | A | L | Q | L | D | P | K | E | F | N | A | E | T | F | T | H | A | | | |
| UniRef90_S7PWY9 | P | I | N | A | A | V | G | Q | C | C | T | S | S | Y | A | N | R | R | P | C | F | S | S | F | V | V | D | P | P | P | F | S | D | D | K | F | I | F | H | K | | |
| UniRef90_S7PWY9 | P | I | N | A | A | V | G | Q | C | C | T | S | S | Y | A | N | R | R | P | C | F | S | S | F | V | V | D | P | P | P | F | S | D | D | K | F | I | F | H | K | | |
| UniRef90_S7PWY9 | P | I | N | A | A | V | G | Q | C | C | T | S | S | Y | A | N | R | R | P | C | F | S | S | F | V | V | D | P | P | P | F | S | D | D | K | F | I | F | H | K | | |
| UniRef90_S7PWY9 | P | I | N | A | A | V | G | Q | C | C | T | S | S | Y | A | N | R | R | P | C | F | S | S | F | V | V | D | P | P | P | F | S | D | D | K | F | I | F | H | K | | |
| UniRef90_P49822 | P | V | S | E | R | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | G | G | E | V | D | E | T | Y | V | P | K | E | F | F | T | F | H | A | | |
| UniRef90_P49822 | P | V | S | E | R | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | G | G | E | V | D | E | T | Y | V | P | K | E | F | F | T | F | H | A | | |
| UniRef90_P49822 | P | V | S | E | R | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | G | G | E | V | D | E | T | Y | V | P | K | E | F | F | T | F | H | A | | |
| UniRef90_P49822 | P | V | S | E | R | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | G | G | E | V | D | E | T | Y | V | P | K | E | F | F | T | F | H | A | | |
| UniRef90_P49065 | P | V | S | E | K | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | A | L | Q | L | G | P | D | E | T | Y | V | P | K | E | F | F | T | F | H | A |
| UniRef90_P49065 | P | V | S | E | K | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | A | L | Q | L | G | P | D | E | T | Y | V | P | K | E | F | F | T | F | H | A |
| UniRef90_P49065 | P | V | S | E | K | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | A | L | Q | L | G | P | D | E | T | Y | V | P | K | E | F | F | T | F | H | A |
| UniRef90_P49065 | P | V | S | E | K | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | A | L | Q | L | G | P | D | E | T | Y | V | P | K | E | F | F | T | F | H | A |
| UniRef90_UPI0002BCF480 | P | V | S | E | R | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | A | L | T | V | D | P | K | A | F | D | E | K | T | F | T | H | A | | | |
| UniRef90_UPI0002BCF480 | P | V | S | E | R | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | A | L | T | V | D | P | K | A | F | D | E | K | T | F | T | H | A | | | |
| UniRef90_UPI0002BCF480 | P | V | S | E | R | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | A | L | T | V | D | P | K | A | F | D | E | K | T | F | T | H | A | | | |
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| UniRef90_UPI00033391B3 | P | V | S | E | R | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | A | L | Q | V | V | D | E | T | Y | V | P | K | E | F | H | A | E | T | A | |
| UniRef90_UPI00033391B3 | P | V | S | E | R | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | A | L | Q | V | V | D | E | T | Y | V | P | K | E | F | H | A | E | T | A | |
| UniRef90_UPI0003C873D5 | P | V | S | P | R | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | S | L | A | A | D | P | K | E | F | D | D | K | T | F | T | H | A | | | |
| UniRef90_UPI0003C873D5 | P | V | S | P | R | V | T | K | C | C | T | E | S | L | V | N | R | R | P | C | F | S | S | L | A | A | D | P | K | E | F | D | D | K | T | F | T | H | A | | | |
| UniRef90_UPI000443926B | P | V | S | D | K | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | A | E | D | P | K | D | F | S | A | E | T | F | T | F | H | A | | | | |
| UniRef90_UPI000443926B | P | V | S | D | K | V | T | K | C | C | S | E | S | L | V | N | R | R | P | C | F | S | A | E | D | P | K | D | F | S | A | E | T | F | T | F | H</td | | | | | |

| QUERY | M | C | T | A | F | H | D | N | E | E | T | F | L | K | K | Y | L | Y | E | I | A | R | R | H | P | Y | F | Y | A | P | E | L | L | F | F | A | K | R | Y | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI000454592E | D | I | C | T | L | P | E | K | E | K | Q | T | K | K | Q | T | A | L | A | E | L | V | K | H | P | K | A | T | S | D | Q | L | K | T | V | M | G | E | F | |
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| UniRef90_G3IAL6 | E | V | C | K | N | Y | A | E | A | K | D | V | F | L | G | T | F | L | Y | E | Q | A | R | R | H | P | D | Y | S | I | A | L | L | L | R | L | A | K | K | Y |
| UniRef90_G3IAL6 | E | V | C | K | N | Y | A | E | A | K | D | V | F | L | G | T | F | L | Y | E | Q | A | R | R | H | P | D | Y | S | I | A | L | L | L | R | L | A | K | K | Y |
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| UniRef90_G5B5P2 | D | V | C | T | L | P | E | E | E | Q | Q | M | K | Q | M | T | L | A | E | L | V | K | H | P | K | A | T | A | E | Q | M | K | D | I | M | K | N | F | | |
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| UniRef90_G5B5P2 | D | V | C | T | L | P | E | E | E | Q | Q | M | K | Q | M | T | L | A | E | L | V | K | H | P | K | A | T | A | E | Q | M | K | D | I | M | K | N | F | | |
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| UniRef90_L9L5M3 | D | L | C | T | Q | A | M | K | H | D | T | T | I | V | F | A | Q | Y | I | Q | E | V | A | F | E | E | L | Q | V | M | I | N | N | M | V | E | Y | | | |
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| UniRef90_L9L5M3 | D | L | C | T | Q | A | M | K | H | D | T | T | I | V | F | A | Q | Y | I | Q | E | V | A | F | E | E | L | Q | V | M | I | N | N | M | V | E | Y | | | |
| UniRef90_L9L5M3 | D | L | C | T | Q | A | M | K | H | D | T | T | I | V | F | A | Q | Y | I | Q | E | V | A | F | E | E | L | Q | V | M | I | N | N | M | V | E | Y | | | |
| UniRef90_L9L5M3 | D | L | C | T | Q | A | M | K | H | D | T | T | I | V | F | A | Q | Y | I | Q | E | V | A | F | E | E | L | Q | V | M | I | N | N | M | V | E | Y | | | |
| UniRef90_L9L5M3 | D | L | C | T | Q | A | M | K | H | D | T | T | I | V | F | A | Q | Y | I | Q | E | V | A | F | E | E | L | Q | V | M | I | N | N | M | V | E | Y | | | |
| UniRef90_L9L5M3 | D | L | C | T | Q | A | M | K | H | D | T | T | I | V | F | A | Q | Y | I | Q | E | V | A | F | E | E | L | Q | V | M | I | N | N | M | V | E | Y | | | |
| UniRef90_UPI00042ADE39 | D | I | C | T | A | L | P | E | K | E | K | Q | M | K | Q | T | A | L | A | E | L | V | K | H | P | K | A | T | D | E | Q | L | K | T | V | M | G | D | F | |
| UniRef90_UPI00042ADE39 | D | I | C | T | A | L | P | E | K | E | K | Q | M | K | Q | T | A | L | A | E | L | V | K | H | P | K | A | T | D | E | Q | L | K | T | V | M | G | D | F | |
| UniRef90_UPI00042ADE39 | D | I | C | T | A | L | P | E | K | E | K | Q | M | K | Q | T | A | L | A | E | L | V | K | H | P | K | A | T | D | E | Q | L | K | T | V | M | G | D | F | |
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| UniRef90_UPI0003346446 | D | L | C | T | L | P | E | A | E | K | Q | K | K | Q | S | A | L | V | E | L | L | K | H | P | P | Q | A | T | G | D | Q | L | K | T | V | M | G | D | F | |
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| UniRef90_S7PWY9 | D | L | C | T | Q | A | G | V | A | L | Q | T | M | K | Q | F | L | I | N | L | V | K | Q | K | P | Q | I | I | S | E | E | Q | L | E | A | V | I | A | D | F |
| UniRef90_S7PWY9 | D | L | C | T | Q | A | G | V | A | L | Q | T | M | K | Q | F | L | I | N | L | V | K | Q | K | P | Q | I | I | S | E | E | Q | L | E | A | V | I | A | D | F |
| UniRef90_S7PWY9 | D | L | C | T | Q | A | G | V | A | L | Q | T | M | K | Q | F | L | I | N | L | V | K | Q | K | P | Q | I | I | S | E | E | Q | L | E | A | V | I | A | D | F |
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| UniRef90_P49822 | D | L | C | T | L | P | E | A | E | K | Q | V | K | K | Q | T | A | L | V | E | L | L | K | H | P | P | K | A | T | D | E | Q | L | K | T | V | M | G | D | F |
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| UniRef90_P49065 | D | L | C | T | L | P | E | T | E | R | K | I | K | K | Q | T | A | L | V | E | L | V | K | H | P | H | A | T | N | D | Q | L | K | T | V | V | G | E | F | |
| UniRef90_P49065 | D | L | C | T | L | P | E | T | E | R | K | I | K | K | Q | T | A | L | V | E | L | V | K | H | P | H | A | T | N | D | Q | L | K | T | V | V | G | E | F | |
| UniRef90_UPI0002BCF480 | D | L | C | T | L | P | E | N | E | K | Q | K | K | Q | T | A | L | V | E | L | V | K | H | P | P | K | V | T | E | E | Q | L | K | T | V | M | G | D | F | |
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| UniRef90_UPI00033391B3 | D | I | C | T | L | P | E | H | E | K | Q | K | K | Q | T | A | L | A | E | L | V | K | H | P | P | K | A | T | G | D | Q | L | K | T | V | M | E | K | F | |
| UniRef90_UPI00033391B3 | D | I | C | T | L | P | E | H | E | K | Q | K | K | Q | T | A | L | A | E | L | V | K | H | P | P | K | A | T | G | D | Q | L | K | T | V | M | E | K | F | |
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| UniRef90_UPI0003C873D5 | D | L | C | T | S | V | S | E | P | E | K | Q | K | K | Q | T | A | L | A | E | L | V | K | H | P | P | K | A | T | G | D | Q | L | K | T | V | M | E | K | F |
| UniRef90_UPI0003C873D5 | D | L | C | T | S | V | S | E | P | E | K | Q | K | K | Q | T | A | L | A | E | L | V | K | H | P | P | K | A | T | G | D | Q | L | K | T | V | M | E | K | F |
| UniRef90_UPI000443926B | D | L | C | T | L | P | D | T | E | K | Q | I | K | K | Q | T | T | V | L | V | E | L | K | H | P | P | K | A | T | D | D | Q | L | K | T | V | M | G | D | F |
| UniRef90_UPI000443926B | D | L | C | T | L | P | D | T | E | K | Q | I | K | K | Q | T | T | V | L | V | E | L | K | H | P | P | K | A | T | D | D | Q | L | K | T | V | M | G | D | F |
| UniRef90_UPI000443926B | D | L | C | T | L | P | D | T | E | K | Q | I | K | K | Q | T | T | V | L | V | E | L | K | H | P | P | K | A | T | D | D | Q | L | K | T | V | M | G | D | F |
| UniRef90_Q5EG48 | D | L | C | T | L | P | D | K | E | K | Q | I | K | K | Q | | | | | | | | | | | | | | | | | | | | | | | | | |

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

| | 50 | 60 | 70 | 80 |
|------------------------|---|----|----|----|
| UniRef90_S9WI87 | A K E Y E A T L E D C C C A K D D P H A C Y A T V L S L I I N R L C V L H E K T | | | |
| UniRef90_S9WI87 | A K E Y E A T L E D C C C A K D D P H A C Y A T V L S L I I N R L C V L H E K T | | | |
| UniRef90_S9WI87 | A K E Y E A T L E D C C C A K D D P H A C Y A T V L S L I I N R L C V L H E K T | | | |
| UniRef90_S9WI87 | A K E Y E A T L E D C C C A K D D P H A C Y A T V L S L I I N R L C V L H E K T | | | |
| UniRef90_S9WI87 | A K E Y E A T L E D C C C A K D D P H A C Y A T V L S L I I N R L C V L H E K T | | | |
| UniRef90_S9WI87 | A K E Y E A T L E D C C C A K D D P H A C Y A T V L S L I I N R L C V L H E K T | | | |
| UniRef90_UPI00038336C2 | G K K M T A V G T K C C C Q E N K R M P P C A E G Y L S I V I Q E M C C K K Q E T | | | |
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| UniRef90_F7BJP5 | L S Q K L A K V G G S K C C C S D D E K M G C A E G Y L A I V V D K L C C R Q H E K T | | | |
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| UniRef90_F7BJP5 | L S Q K L A K V G G S K C C C S D D E K M G C A E G Y L A I V V D K L C C R Q H E K T | | | |
| UniRef90_UPI000332FFF0 | A A R N L G R V G T K C C C A E G R R L P C V E D Y L A V V L N R L C V L H E K T | | | |
| UniRef90_UPI000332FFF0 | A A R N L G R V G T K C C C A E G R R L P C V E D Y L A V V L N R L C V L H E K T | | | |
| UniRef90_UPI000332FFF0 | A A R N L G R V G T K C C C A E G R R L P C V E D Y L A V V L N R L C V L H E K T | | | |
| UniRef90_UPI0002C64733 | I S R K M G K V G T K C C C S E P Q R L P C S E N Y L S L I L N R L C C V L H E K T | | | |
| UniRef90_UPI0002C64733 | I S R K M G K V G T K C C C S E P Q R L P C S E N Y L S L I L N R L C C V L H E K T | | | |
| UniRef90_UPI0002C64733 | I S R K M G K V G T K C C C S E P Q R L P C S E N Y L S L I L N R L C C V L H E K T | | | |
| UniRef90_H7C013 | L V N E V T E F A K T V A D E S A E N C D K S L H T L F G D K L C T V A T L R | | | |
| UniRef90_UPI00046B8DEE | V S R K L G R V G S Y C C K E V K R M G C A E D Y L S V V L N W L C V S H E K S | | | |
| UniRef90_UPI00046B8DEE | V S R K L G R V G S Y C C K E V K R M G C A E D Y L S V V L N W L C V S H E K S | | | |
| UniRef90_G1NCR2 | I G K K M T A I G T K C C C S E D R R M A C S E G Y L S I V I H D M C C R Q E T | | | |
| UniRef90_G1NCR2 | I G K K M T A I G T K C C C S E D R R M A C S E G Y L S I V I H D M C C R Q E T | | | |
| UniRef90_G1NCR2 | I G K K M T A I G T K C C C S E D R R M A C S E G Y L S I V I H D M C C R Q E T | | | |
| UniRef90_P19121 | I A K G Y E S L L E K C C K T D N P A E C Y A N A Q E Q L N Q H I K E T Q D | | | |
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| UniRef90_P19121 | I A K G Y E S L L E K C C K T D N P A E C Y A N A Q E Q L N Q H I K E T Q D | | | |
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| UniRef90_UP100045D5CBC | U I G K K M T A V G T K C C Q E D K R L P C S E G F L S I V I Q D M C R R Q E T | | | |
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| UniRef90_UP10003871858 | I S K K M A A V G G S K C C C H E T E S R P C S E R H L S V V I Q D M C R R Q E T | | | |
| UniRef90_UP10003891044 | I S K K M A A V G G S K C C C H E T E S R P C S E R H L S V V I Q D M C R R Q E A T | | | |
| UniRef90_UP10003891044 | I S K K M A A V G G S K C C C H E T E S R P C S E R H L S V V I Q D M C R R Q E A T | | | |
| UniRef90_G3SMX8 | V S R K L G R V G G S K C C C A E E A K R M P P C A E D Y L S L V L N R L C V L H E K T | | | |
| UniRef90_G3SMX8 | V S R K L G R V G G S K C C C A E E A K R M P P C A E D Y L S L V L N R L C V L H E K T | | | |
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| UniRef90_UP1000359D012 | L A E D L T Q I L S R C C C E S T S E D C M A K E L L P E H T L K I C C D N L S S | | | |
| UniRef90_UP1000359D012 | L A E D L T Q I L S R C C C E S T S E D C M A K E L L P E H T L K I C C D N L S S | | | |
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| UniRef90_L5LFJ8 | K C C C T E S Q R T A C A E D Y L S V V L N V F C T A H E Q T | | | |
| UniRef90_L5LFJ8 | K C C C T E S Q R T A C A E D Y L S V V L N V F C T A H E Q T | | | |
| UniRef90_L5LFJ8 | K C C C T E S Q R T A C A E D Y L S V V L N V F C T A H E Q T | | | |
| UniRef90_Q8MJ76 | L T R K M A T T G A A C C H E E D R R Q L A C G E G A A D L I I G Q L C C I R H E E M | | | |
| UniRef90_Q8MJ76 | L T R K M A T T G A A C C H E E D R R Q L A C G E G A A D L I I G Q L C C I R H E E M | | | |
| UniRef90_Q8MJ76 | L T R K M A T T G A A C C H E E D R R Q L A C G E G A A D L I I G Q L C C I R H E E M | | | |
| UniRef90_U3K0R0 | I I G K K M T A V G G S K C C C N E E Q K R M P S C S E H Y L S I V I E D M C K R Q E S T | | | |
| UniRef90_U3K0R0 | I I G K K M T A V G G S K C C C N E E Q K R M P S C S E H Y L S I V I E D M C K R Q E S T | | | |
| UniRef90_U3K0R0 | I I G K K M T A V G G S K C C C N E E Q K R M P S C S E H Y L S I V I E D M C K R Q E S T | | | |
| UniRef90_M7B4N9 | F T K E M A A V G A M C C C H E E D K I I F P C A E G Y Y V D L I I L G Q Q I C C R R H Y A R | | | |
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| UniRef90_UP10003291FE8 | F T R K M A A A A V A C C C Q E E D K Q L A C G E G A A D Q I I G Q Q L C C I R H E A T | | | |
| UniRef90_UP10003291FE8 | F T R K M A A A A V A C C C Q E E D K Q L A C G E G A A D Q I I G Q Q L C C I R H E A T | | | |
| UniRef90_UP10002742462 | L A E D V T N I L T K C C C P S S T S E D C M A K E L L P E H T V K V V C C E H L S S | | | |
| UniRef90_UP10002742462 | L A E D V T N I L T K C C C P S S T S E D C M A K E L L P E H T V K V V C C E H L S S | | | |
| UniRef90_G1P5R5 | L A E D V T T I L S K C C C G S T S E D C M A K E L L P E H T V K I C C D N L S S | | | |
| UniRef90_G1P5R5 | L A E D V T T I L S K C C C G S T S E D C M A K E L L P E H T V K I C C D N L S S | | | |
| UniRef90_UP10002C477B8 | V S R K L G R V G T K C C C A E S E R M P P C A A D D F L S V I L N R L C V L H E K T | | | |
| UniRef90_UP10002C477B8 | V S R K L G R V G T K C C C A E S E R M P P C A A D D F L S V I L N R L C V L H E K T | | | |
| UniRef90_UP10002C477B8 | V S R K L G R V G T K C C C A E S E R M P P C A A D D F L S V I L N R L C V L H E K T | | | |
| UniRef90_UP100038EE2E2 | L A N E V I T D F A K A C V A D E S A E K C D K S I H T L F G D K L C A T P T L R | | | |
| UniRef90_K7FXK5 | L V K E V V T L A E K C C A P G A D P D C Y E T E S S A L S A K S C D E N A P Y | | | |
| UniRef90_UP10003C2B46B | L G H R M T A I G V K C C Q E D K R M P P C S E G L L S I L I Q E M C K K Q E T T | | | |
| UniRef90_UP10003C2B46B | L G H R M T A I G V K C C Q E D K R M P P C S E G L L S I L I Q E M C K K Q E T T | | | |
| UniRef90_UP10003C2B46B | L G H R M T A I G V K C C Q E D K R M P P C S E G L L S I L I Q E M C K K Q E T T | | | |
| UniRef90_UP10042BD946 | F T K E M A A V G A M C C C H E E D K I I F P C A E G Y Y V D L I I L G Q Q I C C R R H Y A R | | | |
| UniRef90_UP10042BD946 | F T K E M A A V G A M C C C H E E D K I I F P C A E G Y Y V D L I I L G Q Q I C C R R H Y A R | | | |
| UniRef90_UP10042BD946 | F T K E M A A V G A M C C C H E E D K I I F P C A E G Y Y V D L I I L G Q Q I C C R R H Y A R | | | |
| UniRef90_UP10003F0B0E2 | I T R K M A A T G S T C C C S E D K Q L A C G E N A A D V I I G Q Q L C C I R H E M N | | | |
| UniRef90_UP10003F0B0E2 | I T R K M A A T G S T C C C S E D K Q L A C G E N A A D V I I G Q Q L C C I R H E M N | | | |
| UniRef90_K7FQM8 | F T K Q M A A L G G G K C C C S E D K V F P C A E G H L D L I I L G Q Q I C C R R H Y A S | | | |
| UniRef90_K7FQM8 | F T K Q M A A L G G G K C C C S E D K V F P C A E G H L D L I I L G Q Q I C C R R H Y A S | | | |
| UniRef90_K7FQM8 | F T K Q M A A L G G G K C C C S E D K V F P C A E G H L D L I I L G Q Q I C C R R H Y A S | | | |
| UniRef90_UP10003C82D90 | L A E D V T T I L S K C C C G S A S E D C M A K E L L P E Y T V K I C C D S L S | | | |
| UniRef90_UP10003C82D90 | L A E D V T T I L S K C C C G S A S E D C M A K E L L P E Y T V K I C C D S L S | | | |
| UniRef90_F6XR83 | I T R K M A A T A A T C C C S E D E L L A C G E G G A A D I I I G H L C I R H D T T | | | |
| UniRef90_F6XR83 | I T R K M A A T A A T C C C S E D E L L A C G E G G A A D I I I G H L C I R H D T T | | | |

| | | 130 | 140 | 150 | 160 |
|------------------------|---|---|-----|-----|-----|
| UniRef90_S9WI87 | D L C C S V S E P E K Q I K K Q T A T I F F A Q F V Q E A T Y K E V S K M V R D | | | | |
| UniRef90_S9WI87 | D L C C S V S E P E K Q I K K Q T A T I F F A Q F V Q E A T Y K E V S K M V R D | | | | |
| UniRef90_S9WI87 | D L C C S V S E P E K Q I K K Q T A T I F F A Q F V Q E A T Y K E V S K M V R D | | | | |
| UniRef90_S9WI87 | D L C C S V S E P E K Q I K K Q T A T I F F A Q F V Q E A T Y K E V S K M V R D | | | | |
| UniRef90_S9WI87 | D L C C S V S E P E K Q I K K Q T A T I F F A Q F V Q E A T Y K E V S K M V R D | | | | |
| UniRef90_S9WI87 | D L C C S V S E P E K Q I K K Q T A T I F F A Q F V Q E A T Y K E V S K M V R D | | | | |
| UniRef90_UPI00038336C2 | K L C C T A A P A K R E L E Q M K L L V N L I K R K P Q M T E E Q I K T I A D G F | | | | |
| UniRef90_UPI00038336C2 | K L C C T A A P A K R E L E Q M K L L V N L I K R K P Q M T E E Q I K T I A D G F | | | | |
| UniRef90_UPI00038336C2 | K L C C T A A P A K R E L E Q M K L L V N L I K R K P Q M T E E Q I K T I A D G F | | | | |
| UniRef90_F7BJP5 | D L C C T L P E E E K Q T K K Q T V L A E L V K H K P K I T T Q D Q L K A V I S D F | | | | |
| UniRef90_F7BJP5 | D L C C T L P E E E K Q T K K Q T V L A E L V K H K P K I T T Q D Q L K A V I S D F | | | | |
| UniRef90_F7BJP5 | D L C C T L P E E E K Q T K K Q T V L A E L V K H K P K I T T Q D Q L K A V I S D F | | | | |
| UniRef90_UPI000332FFF0 | N I C C T L P E E E Q R V K K Q T A L V E E L V K H K P K A T E E E Q L K T V M G D F | | | | |
| UniRef90_UPI000332FFF0 | N I C C T L P E E E Q R V K K Q T A L V E E L V K H K P K A T E E E Q L K T V M G D F | | | | |
| UniRef90_UPI000332FFF0 | N I C C T L P E E E Q R V K K Q T A L V E E L V K H K P K A T E E E Q L K T V M G D F | | | | |
| UniRef90_UPI0002C64733 | D I C C T L P D D E K K K I K K Q T A L V E E L V K H K P K A T N E E Q L K A V I E D F | | | | |
| UniRef90_UPI0002C64733 | D I C C T L P D D E K K K I K K Q T A L V E E L V K H K P K A T N E E Q L K A V I E D F | | | | |
| UniRef90_UPI0002C64733 | D I C C T L P D D E K K K I K K Q T A L V E E L V K H K P K A T N E E Q L K A V I E D F | | | | |
| UniRef90_H7C013 | V M C T A F H D N E E T F L K K Y L Y E I A R R H P Y F Y A P E L F F A K R Y | | | | |
| UniRef90_UPI00046B8DEE | D V C A L P E P E Q Q V K K Q T A L V E E L V K H K P K A T E E E Q L K T V M G D F | | | | |
| UniRef90_UPI00046B8DEE | D V C C A L P E P E Q Q V K K Q T A L V E E L V K H K P K A T E E E Q L K T V M G D F | | | | |
| UniRef90_UPI00046B8DEE | D V C C A L P E P E Q Q V K K Q T A L V E E L V K H K P K A T E E E Q L K T V M G D F | | | | |
| UniRef90_G1NCR2 | K L C C S A P A E E R E V G Q M K L L I N L I K R K P Q M T E E E Q I K T I A D G F | | | | |
| UniRef90_G1NCR2 | K L C C S A P A E E R E V G Q M K L L I N L I K R K P Q M T E E E Q I K T I A D G F | | | | |
| UniRef90_G1NCR2 | K L C C S A P A E E R E V G Q M K L L I N L I K R K P Q M T E E E Q I K T I A D G F | | | | |
| UniRef90_P19121 | | F L K S I L I R Y T K K M P Q V P T D L L L E T T G K K M | | | |
| UniRef90_P19121 | | F L K S I L I R Y T K K M P Q V P T D L L L E T T G K K M | | | |
| UniRef90_P19121 | | F L K S I L I R Y T K K M P Q V P T D L L L E T T G K K M | | | |
| UniRef90_P19121 | | F L K S I L I R Y T K K M P Q V P T D L L L E T T G K K M | | | |
| UniRef90_UPI00045D5CBC | E L C C T L P E D Q K Q T K K Q T V L A E L V K H K P K A T D E E Q L K T V T G D F | | | | |
| UniRef90_UPI00045D5CBC | E L C C T L P E D Q K Q T K K Q T V L A E L V K H K P K A T D E E Q L K T V T G D F | | | | |
| UniRef90_UPI00045D5CBC | E L C C T L P E D Q K Q T K K Q T V L A E L V K H K P K A T D E E Q L K T V T G D F | | | | |
| UniRef90_UPI0003871858 | K L C C T A X X X X X X X G Q M K L L V N L I K R K P Q M T E E E Q I K T I A E G F | | | | |
| UniRef90_UPI0003871858 | K L C C T A X X X X X X X G Q M K L L V N L I K R K P Q M T E E E Q I K T I A E G F | | | | |
| UniRef90_UPI0003871858 | K L C C T A X X X X X X X G Q M K L L V N L I K R K P Q M T E E E Q I K T I A E G F | | | | |
| UniRef90_UPI0003891044 | D L C C T A P A E T T Q Q K Q L T T F L V N L I K L K V T I T D E E Q L Q K I F T D F | | | | |
| UniRef90_UPI0003891044 | D L C C T A P A E T T Q Q K Q L T T F L V N L I K L K V T I T D E E Q L Q K I F T D F | | | | |
| UniRef90_UPI0003891044 | D L C C T A P A E T T Q Q K Q L T T F L V N L I K L K V T I T D E E Q L Q K I F T D F | | | | |
| UniRef90_G3SMX8 | D L C C T L P E D Q K Q K Q S V L V E E L V K H K P K A T D E E Q L K T V T G Q F | | | | |
| UniRef90_G3SMX8 | D L C C T L P E D Q K Q K Q S V L V E E L V K H K P K A T D E E Q L K T V T G Q F | | | | |
| UniRef90_G3SMX8 | D L C C T L P E D Q K Q K Q S V L V E E L V K H K P K A T D E E Q L K T V T G Q F | | | | |
| UniRef90_UPI000359D012 | D L C C Q G S T T Q A M D R Y T F E L S R R T P E V F L S K V L E T T | | | | |
| UniRef90_UPI000359D012 | D L C C Q G S T T Q A M D R Y T F E L S R R T P E V F L S K V L E T T | | | | |
| UniRef90_L5LFJ8 | F V C A R A E P E Q Q V M K Q I A L A E L L K H K P K A T E E E Q L K T I M E E F | | | | |
| UniRef90_L5LFJ8 | F V C A R A E P E Q Q V M K Q I A L A E L L K H K P K A T E E E Q L K T I M E E F | | | | |
| UniRef90_L5LFJ8 | F V C A R A E P E Q Q V M K Q I A L A E L L K H K P K A T E E E Q L K T I M E E F | | | | |
| UniRef90_L5LFJ8 | F V C A R A E P E Q Q V M K Q I A L A E L L K H K P K A T E E E Q L K T I M E E F | | | | |
| UniRef90_L5LFJ8 | F V C A R A E P E Q Q V M K Q I A L A E L L K H K P K A T E E E Q L K T I M E E F | | | | |
| UniRef90_L5LFJ8 | F V C A R A E P E Q Q V M K Q I A L A E L L K H K P K A T E E E Q L K T I M E E F | | | | |
| UniRef90_L5LFJ8 | F V C A R A E P E Q Q V M K Q I A L A E L L K H K P K A T E E E Q L K T I M E E F | | | | |
| UniRef90_L5LFJ8 | F V C A R A E P E Q Q V M K Q I A L A E L L K H K P K A T E E E Q L K T I M E E F | | | | |
| UniRef90_Q8MJ76 | D L C Q A Q G V A L L Q T M K Q Q F L I N L V K Q K P Q I T E E E Q L E A V I A D F | | | | |
| UniRef90_Q8MJ76 | D L C Q A Q G V A L L Q T M K Q Q F L I N L V K Q K P Q I T E E E Q L E A V I A D F | | | | |
| UniRef90_Q8MJ76 | D L C Q A Q G V A L L Q T M K Q Q F L I N L V K Q K P Q I T E E E Q L E A V I A D F | | | | |
| UniRef90_U3K0R0 | K M C S A P P A E R E A G Q L K M L I N L I K R K P Q M T E E Q L K T I G E G F | | | | |
| UniRef90_U3K0R0 | K M C S A P P A E R E A G Q L K M L I N L I K R K P Q M T E E Q L K T I G E G F | | | | |
| UniRef90_U3K0R0 | K M C S A P P A E R E A G Q L K M L I N L I K R K P Q M T E E Q L K T I G E G F | | | | |
| UniRef90_M7B4N9 | D L C C | | | | |
| UniRef90_M7B4N9 | D L C C | | | | |
| UniRef90_M7B4N9 | D L C C | | | | |
| UniRef90_M7B4N9 | D L C C | | | | |
| UniRef90_M7B4N9 | D L C C | | | | |
| UniRef90_UPI0003291FE8 | D L C C Q A Q G V E L Q T R K Q E F L I N L V K Q K P Q I T E E E Q L E V V T A D F | | | | |
| UniRef90_UPI0003291FE8 | D L C C Q A Q G V E L Q T R K Q E F L I N L V K Q K P Q I T E E E Q L E V V T A D F | | | | |
| UniRef90_UPI0003291FE8 | D L C C Q A Q G V E L Q T R K Q E F L I N L V K Q K P Q I T E E E Q L E V V T A D F | | | | |
| UniRef90_UPI0002742462 | D V C C D H G N T K A V D Q Y T F E L S R R T P E V F L S K V L E P T | | | | |
| UniRef90_UPI0002742462 | D V C C D H G N T K A V D Q Y T F E L S R R T P E V F L S K V L E P T | | | | |
| UniRef90_G1P5R5 | D V C C G K G N T K A M D R Y T F E L S R R T P E V F L S K I L E P T F | | | | |
| UniRef90_G1P5R5 | D V C C G K G N T K A M D R Y T F E L S R R T P E V F L S K I L E P T F | | | | |
| UniRef90_UPI0002C477B8 | D L C C T L P E D Q K Q T K K Q T V L V E L L K H K P K A T D D K L K T V I G E F | | | | |
| UniRef90_UPI0002C477B8 | D L C C T L P E D Q K Q T K K Q T V L V E L L K H K P K A T D D K L K T V I G E F | | | | |
| UniRef90_UPI0002C477B8 | D L C C T L P E D Q K Q T K K Q T V L V E L L K H K P K A T D D K L K T V I G E F | | | | |
| UniRef90_UPI00038EE2E2 | A M C A S F K E N I E R F I G H Y L Y E V A R R H P Y F Y A P E L Y Y A E K Y Y | | | | |
| UniRef90_K7FXK5 | E L C C E A F K D P Q D F A T T E T L V E L L K H K P K A T D D K L K T V I G E F | | | | |
| UniRef90_UPI0003C2B46B | K L C C S A P E D V K Q K N D Y S L L I N L V K R K P T I T D E E Q L Q K I T A G F | | | | |
| UniRef90_UPI0003C2B46B | K L C C S A P E D V K Q K N D Y S L L I N L V K R K P T I T D E E Q L Q K I T A G F | | | | |
| UniRef90_UPI0003C2B46B | K L C C S A P E D V K Q K N D Y S L L I N L V K R K P T I T D E E Q L Q K I T A G F | | | | |
| UniRef90_UPI00042BD946 | D L C C A T Q E T E T E L L Q K K Q E L L I R V I K Y K P T I T D E E Q L K T I T Y F | | | | |
| UniRef90_UPI00042BD946 | D L C C A T Q E T E T E L L Q K K Q E L L I R V I K Y K P T I T D E E Q L K T I T Y F | | | | |
| UniRef90_UPI00042BD946 | D L C C A T Q E T E T E L L Q K K Q E L L I R V I K Y K P T I T D E E Q L K T I T Y F | | | | |
| UniRef90_UPI0003F0B0E2 | D L C C Q A Q G V A L L Q T M K Q E F L I N L V K Q K P Q I T E E G Q L E T V I A D F | | | | |
| UniRef90_UPI0003F0B0E2 | D L C C Q A Q G V A L L Q T M K Q E F L I N L V K Q K P Q I T E E G Q L E T V I A D F | | | | |
| UniRef90_UPI0003F0B0E2 | D L C C Q A Q G V A L L Q T M K Q E F L I N L V K Q K P Q I T E E G Q L E T V I A D F | | | | |
| UniRef90_K7FQM8 | D L C C A T E E A A L L Q R S K Q K L L I N L V K Y K P T I T E E E Q L K T I I E S F | | | | |
| UniRef90_K7FQM8 | D L C C A T E E A A L L Q R S K Q K L L I N L V K Y K P T I T E E E Q L K T I I E S F | | | | |
| UniRef90_K7FQM8 | D L C C A T E E A A L L Q R S K Q K L L I N L V K Y K P T I T E E E Q L K T I I E S F | | | | |
| UniRef90_UPI0003C82D90 | D V C C D K E N T E V L D Q Y A F E L S R R K T H P E V F L S K I L E P T | | | | |
| UniRef90_UPI0003C82D90 | D V C C D K E N T E V L D Q Y A F E L S R R K T H P E V F L S K I L E P T | | | | |
| UniRef90_F6XRB3 | D L C C Q T E G L A L H T M I Q E F L I N L V K Q K P Q I T E E E Q L G A V T A D F | | | | |
| UniRef90_F6XRB3 | D L C C Q T E G L A L H T M I Q E F L I N L V K Q K P Q I T E E E Q L G A V T A D F | | | | |
| UniRef90_F6XRB3 | D L C C Q T E G L A L H T M I Q E F L I N L V K Q K P Q I T E E E Q L G A V T A D F | | | | |

170 180 190

| | |
|------------------------|---|
| UniRef90_S9WI87 | L T V I E K S T G S E K P T G C L E N Q V S A F L E E I |
| UniRef90_S9WI87 | L T V I E K S T G S E K P T G C L E N Q V S A F L E E I |
| UniRef90_S9WI87 | L T V I E K S T G S E K P T G C L E N Q V S A F L E E I |
| UniRef90_S9WI87 | L T V I E K S T G S E K P T G C L E N Q V S A F L E E I |
| UniRef90_S9WI87 | L T V I E K S T G S E K P T G C L E N Q V S A F L E E I |
| UniRef90_S9WI87 | L T V I E K S T G S E K P T G C L E N Q V S A F L E E I |
| UniRef90_UPI00038336C2 | T A M M D K C C K Q S D I E T C L G E E G A N L I V Q S R A |
| UniRef90_UPI00038336C2 | T A M M D K C C K Q S D I E T C L G E E G A N L I V Q S R A |
| UniRef90_UPI00038336C2 | T A M M D K C C K Q S D I E T C L G E E G A N L I V Q S R A |
| UniRef90_F7BJP5 | T A F V D K C C K A D S Q E G C F A E D G P K L V A S A Q A A L A |
| UniRef90_F7BJP5 | T A F V D K C C K A D S Q E G C F A E D G P K L V A S A Q A A L A |
| UniRef90_F7BJP5 | T A F V D K C C K A D S Q E G C F A E D G P K L V A S A Q A A L A |
| UniRef90_UPI000332FFF0 | S A F L A K C C A A D D K E A C C F A A D G P Q L V A K S Q A A L A |
| UniRef90_UPI000332FFF0 | S A F L A K C C A A D D K E A C C F A A D G P Q L V A K S Q A A L A |
| UniRef90_UPI000332FFF0 | S A F L A K C C A A D D K E A C C F A A D G P Q L V A K S Q A A L A |
| UniRef90_UPI0002C64733 | A A F I I N K C C A A E N K E A C C F A E E G P K L V A K S Q T A L L |
| UniRef90_UPI0002C64733 | A A F I I N K C C A A E N K E A C C F A E E G P K L V A K S Q T A L L |
| UniRef90_UPI0002C64733 | A A F I I N K C C A A E N K E A C C F A E E G P K L V A K S Q T A L L |
| UniRef90_H7C013 | K A A F T E C C Q A |
| UniRef90_UPI00046B8DEE | T A F F Q K C C T A A D K E A C C F A E E G P K L V A S S Q A A L A |
| UniRef90_UPI00046B8DEE | T A F F Q K C C T A A D K E A C C F A E E G P K L V A S S Q A A L A |
| UniRef90_UPI00046B8DEE | T A F F Q K C C T A A D K E A C C F A E E G P K L V A S S Q A A L A |
| UniRef90_G1NCR2 | T A M V D K C C K Q S D I N T C F G E E K K K I R |
| UniRef90_G1NCR2 | T A M V D K C C K Q S D I N T C F G E E K K K I R |
| UniRef90_G1NCR2 | T A M V D K C C K Q S D I N T C F G E E K K K I R |
| UniRef90_P19121 | T T I G T K C C Q |
| UniRef90_P19121 | T T I G T K C C Q |
| UniRef90_P19121 | T T I G T K C C Q |
| UniRef90_P19121 | T T I G T K C C Q |
| UniRef90_UPI00045D5CBC | T A M V E K C C K A D D K E A C C F G V E G P K L |
| UniRef90_UPI00045D5CBC | T A M V E K C C K A D D K E A C C F G V E G P K L |
| UniRef90_UPI00045D5CBC | T A M V E K C C K A D D K E A C C F G V E G P K L |
| UniRef90_UPI0003871858 | T A M V E K C C K Q S D I D T C F G E E G A N L I V Q S R A |
| UniRef90_UPI0003871858 | T A M V E K C C K Q S D I D T C F G E E G A N L I V Q S R A |
| UniRef90_UPI0003871858 | T A M V E K C C K Q S D I D T C F G E E G A N L I V Q S R A |
| UniRef90_UPI0003891044 | T G M V E K C C K A E Q H E A C C F G V E D P K L I A E I K A I |
| UniRef90_UPI0003891044 | T G M V E K C C K A E Q H E A C C F G V E D P K L I A E I K A I |
| UniRef90_UPI0003891044 | T G M V E K C C K A E Q H E A C C F G V E D P K L I A E I K A I |
| UniRef90_G3SMX8 | T G M V E K C C K A A E D K E A C C F A E E G P K L |
| UniRef90_G3SMX8 | T G M V E K C C K A A E D K E A C C F A E E G P K L |
| UniRef90_G3SMX8 | T G M V E K C C K A A E D K E A C C F A E E G P K L |
| UniRef90_UPI000359D012 | L K S L S E C C D A Q D S M A C F S T Q S P I L K K Q L T S F I E R |
| UniRef90_UPI000359D012 | L K S L S E C C D A Q D S M A C F S T Q S P I L K K Q L T S F I E R |
| UniRef90_L5LFJ8 | S A L I R K C C A A A D K Q A C C F A E E P R P F M D R V L |
| UniRef90_L5LFJ8 | S A L I R K C C A A A D K Q A C C F A E E P R P F M D R V L |
| UniRef90_L5LFJ8 | S A L I R K C C A A A D K Q A C C F A E E P R P F M D R V L |
| UniRef90_L5LFJ8 | S A L I R K C C A A A D K Q A C C F A E E P R P F M D R V L |
| UniRef90_L5LFJ8 | S A L I R K C C A A A D K Q A C C F A E E P R P F M D R V L |
| UniRef90_L5LFJ8 | S A L I R K C C A A A D K Q A C C F A E E P R P F M D R V L |
| UniRef90_L5LFJ8 | S A L I R K C C A A A D K Q A C C F A E E P R P F M D R V L |
| UniRef90_L5LFJ8 | S A L I R K C C A A A D K Q A C C F A E E P R P F M D R V L |
| UniRef90_Q8MJ76 | S G L L E K C C Q G Q E Q E V C F A E E G P A L I S K T R A S |
| UniRef90_Q8MJ76 | S G L L E K C C Q G Q E Q E V C F A E E G P A L I S K T R A S |
| UniRef90_Q8MJ76 | S G L L E K C C Q G Q E Q E V C F A E E G P A L I S K T R A S |
| UniRef90_U3K0R0 | T A M M E K C C K Q A D I E L C L G E E G A A L I V Q S R A |
| UniRef90_U3K0R0 | T A M M E K C C K Q A D I E L C L G E E G A A L I V Q S R A |
| UniRef90_U3K0R0 | T A M M E K C C K Q A D I E L C L G E E G A A L I V Q S R A |
| UniRef90_M7B4N9 | |
| UniRef90_UPI0003291FE8 | S G L L E K C C Q D Q G Q E D C F A E E G P K L I S R T R A |
| UniRef90_UPI0003291FE8 | S G L L E K C C Q D Q G Q E D C F A E E G P K L I S R T R A |
| UniRef90_UPI0003291FE8 | S G L L E K C C Q D Q G Q E D C F A E E G P K L I S R T R A |
| UniRef90_UPI002742462 | L K S L G E C C D L E D P A T C L T A K G P Q L E K E L S S F I A K |
| UniRef90_UPI002742462 | L K S L G E C C D L E D P A T C L T A K G P Q L E K E L S S F I A K |
| UniRef90_G1P5R5 | K S L L G E C C D S K D P A V C F D A K V P Q L K A E L S S F I D K |
| UniRef90_G1P5R5 | K S L L G E C C D S K D P A V C F D A K V P Q L K A E L S S F I D K |
| UniRef90_UPI0002C477B8 | T A M V E K C C K A D S P E A C F T L E G P K L V A T S K A A L A |
| UniRef90_UPI0002C477B8 | T A M V E K C C K A D S P E A C F T L E G P K L V A T S K A A L A |
| UniRef90_UPI0002C477B8 | T A M V E K C C K A D S P E A C F T L E G P K L V A T S K A A L A |
| UniRef90_UPI00038EE2E2 | K A V L T E C C E A A D Q A T C L T P K |
| UniRef90_K7FXK5 | L S M V G T C C I S P S P T V C F L K E R L E R K |
| UniRef90_UPI0003C2B46B | S G M V D K C C K A E D H D T C F G E G V C L I E K S R A I |
| UniRef90_UPI0003C2B46B | S G M V D K C C K A E D H D T C F G E G V C L I E K S R A I |
| UniRef90_UPI0003C2B46B | S G M V D K C C K A E D H D T C F G E G V C L I E K S R A I |
| UniRef90_UPI00042BD946 | L G M R E K C C K A E D H E A C F T E E G P K L I A K S Q A L V A Q |
| UniRef90_UPI00042BD946 | L G M R E K C C K A E D H E A C F T E E G P K L I A K S Q A L V A Q |
| UniRef90_UPI00042BD946 | L G M R E K C C K A E D H E A C F T E E G P K L I A K S Q A L V A Q |
| UniRef90_UPI0003F0B0E2 | S N L L E T C C Q A Q E Q D V C F A E E G P K L I S K T R A |
| UniRef90_UPI0003F0B0E2 | S N L L E T C C Q A Q E Q D V C F A E E G P K L I S K T R A |
| UniRef90_UPI0003F0B0E2 | S N L L E T C C Q A Q E Q D V C F A E E G P K L I S K T R A |
| UniRef90_K7FQM8 | I T M R E K C C K A E N H E T C F G E E G V C L I E A S Q A T L A |
| UniRef90_K7FQM8 | I T M R E K C C K A E N H E T C F G E E G P K L I E A S Q A T L A |
| UniRef90_K7FQM8 | I T M R E K C C K A E N H E T C F G E E G P K L I E A S Q A T L A |
| UniRef90_UPI0003C82D90 | L R G L A E C C N S G E S T A C L N E K G P Q L K K E L S S F I E K |
| UniRef90_UPI0003C82D90 | L R G L A E C C N S G E S T A C L N E K G P Q L K K E L S S F I E K |
| UniRef90_F6XR3 | A G M L E K C C Q G Q E Q E V C F A E E G Q Q L I S K S R A |
| UniRef90_F6XR3 | A G M L E K C C Q G Q E Q E V C F A E E G Q Q L I S K S R A |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_F6XRB3 | K | Q | S | C | G | L | F | R | K | L | G | E | Y | Y | L | Q | N | V | F | L | I | A | Y | T | K | K | A | P | Q | L | T | S | S | E | L | V | A |
| UniRef90_F7IGI3 | V | C | S | Q | Y | A | A | Y | G | E | K | K | S | R | L | S | N | L | I | K | L | A | Q | K | V | P | T | A | D | L | E | D | V | L | P | | |
| UniRef90_F7IGI3 | V | C | S | Q | Y | A | A | Y | G | E | K | K | S | R | L | S | N | L | I | K | L | A | Q | K | V | P | T | A | D | L | E | D | V | L | P | | |
| UniRef90_UPI00032ADE0B | V | C | S | Q | Y | A | V | Y | G | M | E | K | K | S | R | R | S | H | L | I | K | L | A | Q | R | V | P | T | A | D | L | K | D | V | L | P | |
| UniRef90_UPI00032ADE0B | V | C | S | Q | H | V | A | Y | G | K | E | K | K | S | R | L | S | H | L | I | K | L | A | Q | K | V | P | T | A | D | L | K | D | V | L | P | |
| UniRef90_UPI00033431CF | L | C | S | Q | H | V | A | Y | G | K | E | K | K | S | R | L | S | H | L | I | K | L | A | Q | K | V | P | T | A | D | L | K | D | V | L | P | |
| UniRef90_UPI00033431CF | L | C | S | Q | H | V | A | Y | G | K | E | K | K | S | R | L | S | H | L | I | K | L | A | Q | K | V | P | T | A | D | L | K | D | V | L | P | |
| UniRef90_D6RB7 | V | C | S | Q | Y | A | A | Y | G | E | K | K | S | R | L | S | N | L | I | K | L | A | Q | K | V | P | T | A | D | L | E | D | V | L | P | | |
| UniRef90_D6RB7 | V | C | S | Q | H | V | A | Y | G | K | E | K | K | S | R | L | S | H | L | I | K | F | A | Q | K | V | P | T | A | D | L | K | E | V | L | P | |
| UniRef90_UPI0004442097 | L | C | S | Q | H | V | A | Y | G | K | E | K | K | S | R | L | S | H | L | I | K | F | A | Q | K | V | P | T | A | D | L | K | E | V | L | P | |
| UniRef90_UPI0004442097 | L | C | S | Q | H | V | A | Y | G | K | E | K | K | S | R | L | S | H | L | I | K | F | A | Q | K | V | P | T | A | D | L | K | E | V | L | P | |
| UniRef90_I3MD87 | V | C | S | Q | Y | A | A | Y | G | K | E | K | K | S | R | L | S | H | L | I | K | L | A | Q | K | V | P | T | A | D | L | E | A | V | L | P | |
| UniRef90_I3MD87 | V | C | S | Q | Y | A | A | Y | G | K | E | K | K | S | R | L | S | H | L | I | K | L | A | Q | K | V | P | T | A | D | L | E | A | V | L | P | |
| UniRef90_P49066 | C | G | L | F | Q | K | L | G | D | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | P | P | E | L | I | A | | | |
| UniRef90_P49066 | C | G | L | F | Q | K | L | G | D | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | P | P | E | L | I | A | | | |
| UniRef90_H0YTL4 | C | E | L | F | K | T | H | G | E | A | D | F | L | K | E | L | L | V | R | T | K | K | M | P | Q | V | S | T | D | T | L | L | E | | | | |
| UniRef90_H0YTL4 | C | E | L | F | K | T | H | G | E | A | D | F | L | K | E | L | L | V | R | T | K | K | M | P | Q | V | S | T | D | T | L | L | E | | | | |
| UniRef90_H0YTL4 | C | E | L | F | K | T | H | G | E | A | D | F | L | K | E | L | L | V | R | T | K | K | M | P | Q | V | S | T | D | T | L | L | E | | | | |
| UniRef90_UPI0003F1A0CF | C | E | R | S | Q | N | L | G | K | E | D | L | K | Y | Y | L | I | K | L | T | K | I | A | P | Q | L | S | T | E | E | L | T | F | | | | |
| UniRef90_UPI0003F1A0CF | C | E | R | S | Q | N | L | G | K | E | D | L | K | Y | Y | L | I | K | L | T | K | I | A | P | Q | L | S | T | E | E | L | T | F | | | | |
| UniRef90_UPI0003F1A0CF | I | C | S | Q | H | V | A | Y | G | K | E | K | S | R | L | S | H | L | I | K | L | A | Q | K | A | R | T | A | I | L | G | D | V | L | P | | |
| UniRef90_UPI0002C46800 | C | D | L | Y | Q | K | S | G | H | Y | Y | F | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_UPI0002C46800 | C | D | L | Y | Q | K | S | G | H | Y | Y | F | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_UPI00032AF587 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_UPI00032AF587 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_UPI00032AF587 | C | D | L | Y | Q | K | S | G | H | Y | Y | F | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_UPI00032AF587 | C | D | L | Y | Q | K | S | G | H | Y | Y | F | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_H0X119 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_H0X119 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_H0X119 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_UPI000333A06E | I | C | S | Q | Y | V | A | Y | G | M | N | K | S | R | L | S | H | L | I | K | L | A | Q | K | A | P | Q | L | T | Q | D | V | L | P | | | |
| UniRef90_UPI000333A06E | I | C | S | Q | Y | V | A | Y | G | M | N | K | S | R | L | S | H | L | I | K | L | A | Q | K | A | P | Q | L | T | Q | D | V | L | P | | | |
| UniRef90_UPI000333D59 | V | C | S | Q | H | A | A | Y | G | R | E | R | S | R | L | S | H | L | I | K | L | A | Q | K | A | P | Q | L | T | A | H | E | D | V | L | P | |
| UniRef90_UPI000333D59 | V | C | S | Q | H | A | A | Y | G | R | E | R | S | R | L | S | H | L | I | K | L | A | Q | K | A | P | Q | L | T | A | H | E | D | V | L | P | |
| UniRef90_UPI0003F08EE3 | I | C | S | Q | H | V | A | Y | G | K | E | K | S | R | L | S | H | L | I | K | L | A | Q | K | A | P | Q | L | T | A | D | L | E | D | V | L | P |
| UniRef90_UPI0003F08EE3 | I | C | S | Q | H | V | A | Y | G | K | E | K | S | R | L | S | H | L | I | K | L | A | Q | K | A | P | Q | L | T | A | D | L | E | D | V | L | P |
| UniRef90_Q3SZ57 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | P | E | L | M | | | | |
| UniRef90_Q3SZ57 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | P | E | L | M | | | | |
| UniRef90_UPI0003314E22 | L | C | S | Q | H | V | A | Y | G | K | E | K | S | R | L | S | H | L | I | K | L | A | Q | K | V | P | T | A | D | L | K | D | V | L | P | | |
| UniRef90_UPI0003314E22 | L | C | S | Q | H | V | A | Y | G | K | E | K | S | R | L | S | H | L | I | K | L | A | Q | K | V | P | T | A | D | L | K | D | V | L | P | | |
| UniRef90_Q3MHN5 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_Q3MHN5 | C | G | L | F | Q | K | L | G | E | Y | Y | L | Q | N | A | F | L | V | A | Y | T | K | K | A | P | Q | L | T | S | A | E | L | M | | | | |
| UniRef90_UPI00038BBC4E | K | Q | T | C | E | V | L | G | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | S | | |
| UniRef90_UPI00038BBC4E | K | Q | T | C | E | V | L | G | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | S | | |
| UniRef90_UPI00038BBC4E | K | Q | T | C | E | V | L | G | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | S | | |
| UniRef90_F7AEI4 | C | K | H | S | Q | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | S | | | | | |
| UniRef90_F7AEI4 | C | K | H | S | Q | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | S | | | | | |
| UniRef90_F7AEI4 | C | K | H | S | Q | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | S | | | | | |
| UniRef90_L5LH53 | K | K | T | C | E | V | L | G | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | |
| UniRef90_L5LH53 | K | K | T | C | E | V | L | G | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | |
| UniRef90_L5LH53 | K | K | T | C | E | V | L | G | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | |
| UniRef90_L5LH53 | K | K | T | C | E | V | L | G | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | |
| UniRef90_UPI0003F153AE | C | D | L | F | Q | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | | | | |
| UniRef90_UPI0003F153AE | C | D | L | F | Q | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | | | | |
| UniRef90_UPI0003F153AE | C | D | L | F | Q | N | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | | | | |
| UniRef90_UPI0003C8CB88 | K | Q | T | C | G | L | F | Q | K | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | |
| UniRef90_UPI0003C8CB88 | K | Q | T | C | G | L | F | Q | K | L | G | E | Y | G | F | Q | N | V | L | D | Y | T | K | K | V | P | Q | V | S | T | P | T | L | V | D | | |
| UniRef90_UPI0003C8CB88 | K | Q | T | C | G | L | F | Q | K | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | 50 | 60 | 70 | 80 |
|------------------------|-----------------------------------|---|-------------------------------|-----------|
| UniRef90_F6XRB3 | I T R K M A A T A A T C C S | S E D E L L A G E G A A D I | I I G H L C L R H D | T T |
| UniRef90_F7IGI3 | V A E D I T N V L S K C C C | S E S T S D D C M A K E L | P L H T V K C E H | L S |
| UniRef90_F7IGI3 | V A E D I T N V L S K C C C | E S T S D D C M A K E L | P L H T V K C E H | D S |
| UniRef90_UPI00032ADE0B | L A E E D I T N I L L S K C C C | E S T S E D C M A T E L | P E H T V K C C D | L S |
| UniRef90_UPI00032ADE0B | L A E E D I T N I L L S K C C C | E S T T E G C M A K E L | P E H T V K C C D | L S |
| UniRef90_UPI00033431CF | L A E E D A T A I L L S K C C C | E S S A S E D C M A K E L | P E H T V K C C D | N |
| UniRef90_UPI00033431CF | L A E E D A T A I L L S K C C C | E S S T S E D C M A K E L | P E H T V K C C D | N |
| UniRef90_D6RB7 | L A E E D I T N I L L S K C C C | E S S A S E D C M A K E L | P E H T V K C C D | N |
| UniRef90_D6RB7 | L A E E D I T N I L L S K C C C | E S S T S E D C M A K E L | P E H T V K C C D | N |
| UniRef90_UPI0004442097 | L A E E G I T I I L L S K C C C | E S S T S E D C M A K E L | P E H T V K C C D | S |
| UniRef90_UPI0004442097 | L A E E G I T I I L L S K C C C | E S S T S E D C M A K E L | P E H T V K C C D | S |
| UniRef90_I3MD87 | L A E E D I T R I I L L S K C C C | E S S T S E D C M A K E L | P E H T V K C C D | N |
| UniRef90_I3MD87 | L A E E D I T R I I L L S K C C C | E S S T S E D C M A K E L | P E H T V K C C D | N |
| UniRef90_P49066 | L T R K M A T A A A T T C C C | S E D D K Q A C G E Q | V A G L I I G Q L R H E | E S S |
| UniRef90_P49066 | L T R K M A T A A A T T C C C | S E D D K Q A C G E Q | V A G L I I G Q L R H E | E S S |
| UniRef90_P49066 | L T R K M A T A A A T T C C C | S E D D K Q A C G E Q | V A G L I I G Q L R H E | E S S |
| UniRef90_H0YTL4 | I G K K M T A V G K K C C C | S E N E N K R M S C S E Y Y | L T V I I E D M C K K Q E S T | T |
| UniRef90_H0YTL4 | I G K K M T A V G K K C C C | S E N E N K R M S C S E Y Y | L T V I I E D M C K K Q E S T | T |
| UniRef90_H0YTL4 | I G K K M T A V G K K C C C | S E N E N K R M S C S E Y Y | L T V I I E D M C K K Q E S T | T |
| UniRef90_UPI0003F1A0CF | L G K E M V T A L T T C C C | T L S E E F A C V D D N L M D L V L | G E L C C G I N E N R R | R |
| UniRef90_UPI0003F1A0CF | L G K E M V T A L T T C C C | T L S E E F A C V D D N L M D L V L | G E L C C G I N E N R R | R |
| UniRef90_UPI0003F1A0CF | L G K E M V T A L T T C C C | T L S E E F A C V D D N L M D L V L | G E L C C G I N E N R R | R |
| UniRef90_UPI0002C46800 | L A E D I T N I L L S K C C C | E S S A S E D C M A K E L | P E Y T V K C C D | N |
| UniRef90_UPI0002C46800 | L A E D I T N I L L S K C C C | E S S A S E D C M A K E L | P E Y T V K C C D | N |
| UniRef90_UPI00032AF587 | F T K K V V T K A A M C C C | H E D K R A C S E T M A D L V L | G Q L R H E A T | A T |
| UniRef90_UPI00032AF587 | F T K K V V T K A A M C C C | H E D K R A C S E T M A D L V L | G Q L R H E A T | A T |
| UniRef90_UPI00045DC9D7 | I T K K M A A T G A T C C C | H E D K Q A C G E G A A D L I I | I G Q L R H E R T | A T |
| UniRef90_UPI00045DC9D7 | I T K K M A A T G A T C C C | H E D K Q A C G E G A A D L I I | I G Q L R H E R T | A T |
| UniRef90_UPI00045DC9D7 | I T K K M A A T G A T C C C | H E D K Q A C G E G A A D L I I | I G Q L R H E R T | A T |
| UniRef90_H0X119 | F T R K M A T A G A T C C C | S E D D K Q A C G E G A A D L I I | G Q L R H D T A | A T |
| UniRef90_H0X119 | F T R K M A T A G A T C C C | S E D D K Q A C G E G A A D L I I | G Q L R H D T A | A T |
| UniRef90_H0X119 | F T R K M A T A G A T C C C | S E D D K Q A C G E G A A D L I I | G Q L R H D T A | A T |
| UniRef90_UPI000333A06E | L A E D I T N L L S K C C C | E S P S E D C M A K E L | P E H T V K C C C | D K L S |
| UniRef90_UPI000333A06E | L A E D I T N L L S K C C C | E S P S E D C M A K E L | P E H T V K C C C | D K L S |
| UniRef90_UPI000331D59 | L A E D I T T V L S L L S C C C | E S S T A E D C M A K K L | L E H T V K C C C | D S L S |
| UniRef90_UPI000331D59 | L A E D I T T V L S L L S C C C | E S S T A E D C M A K K L | L E H T V K C C C | D S L S |
| UniRef90_UPI0003F08EE3 | L A E D V T K V L T N C C C | E S S T S E D C M A K E L | P E H V V K C C C | Q N L S |
| UniRef90_UPI0003F08EE3 | L A E D V T K V L T N C C C | E S S T S E D C M A K E L | P E H V V K C C C | Q N L S |
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| UniRef90_Q3SZ57 | L T R K M A N A G A I I C C C | H E D D K Q A C G E G V A D L I I | I G H R H E E N | N |
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| UniRef90_UPI0003314E22 | L A E D I T R I I L L S K C C C | E S S T S E D C M A K E L | P E H T V K C C N | L S |
| UniRef90_UPI0003314E22 | L A E D I T R I I L L S K C C C | E S S T S E D C M A K E L | P E H T V K C C N | L S |
| UniRef90_Q3MHN5 | L A E D I T T I I L L S K C C C | D S S V S E E D C I K E L | P E Y A V V K C C D | N |
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| UniRef90_UPI00038BBC4E | L G K E M V I A L T T C C C | T L S E E F A C V D D N L A D | L V L G E L C C G I N K N R | R |
| UniRef90_UPI00038BBC4E | L G K E M V I A L T T C C C | T L S E E F A C V D D N L A D | L V L G E L C C G I N K N R | R |
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| UniRef90_F7AEI4 | L G K K M V T V F T T C C C | T L S E E F A C V I E N L V D L V L | G E L C C G I V N E N R | R |
| UniRef90_F7AEI4 | L G K K M V T V F T T C C C | T L S E E F A C V I E N L V D L V L | G E L C C G I V N E N R | R |
| UniRef90_F7AEI4 | L G K K M V T V F T T C C C | T L S E E F A C V I E N L V D L V L | G E L C C G I V N E N R | R |
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| UniRef90_L5LH53 | F S R K F A R A G S E C C C | S E L Q R T A C C S E D Y L | F K V L D R R L C V A H E K S | A H E K S |
| UniRef90_L5LH53 | F S R K F A R A G S E C C C | S E L Q R T A C C S E D Y L | F K V L D R R L C V A H E K S | A H E K S |
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| UniRef90_UPI0003C8CB88 | N T R R M V T A A A T C C C | S E D D K Q S A C I E T A T D L I I I | G Q L R H E T T | T T |
| UniRef90_UPI0003C8CB88 | N T R R M V T A A A T C C C | S E D D K Q S A C I E T A T D L I I I | G Q L R H E T T | T T |
| UniRef90_UPI0003C8CB88 | N T R R M V T A A A T C C C | S E D D K Q S A C I E T A T D L I I I | G Q L R H E T T | T T |
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| UniRef90_UPI0003EC4C24 | F S R K F A R A G S E C C C | S E L Q R T A C C S E D Y L | F K V L D R R L C V A H E K S | A H E K S |
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| UniRef90_I3M260 | L T K K M A N T A A T C C C | S E D D K Q A C G E G A A D L I I I | G H R H E V N N | N |
| UniRef90_I3M260 | L T K K M A N T A A T C C C | S E D D K Q A C G E G A A D L I I I | G H R H E V N N | N |
| UniRef90_H0VTA4 | L A E D I T T I I L L S K C C C | E S T S E D C M A K E L | P E Y T V R V C D N | V N S |
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| UniRef90_K7FTS3 | V S K E E M A D I G S K C C C | Q E P K H S C I E R R L G M V I Q D M C Q R Q E A T | T | A T |
| UniRef90_K7FTS3 | V S K E E M A D I G S K C C C | Q E P K H S C I E R R L G M V I Q D M C Q R Q E A T | T | A T |
| UniRef90_K7FTS3 | V S K E E M A D I G S K C C C | Q E P K H S C I E R R L G M V I Q D M C Q R Q E A T | T | A T |
| UniRef90_R7VX76 | L A E D A A E V F S Q Q C C C | D S V A E D C M Q K K L S E H T T K I C S V L S S R | L S S R | R |
| UniRef90_R7VX76 | L A E D A A E V F S Q Q C C C | D S V A E D C M Q K K L S E H T T K I C S V L S S R | L S S R | R |
| UniRef90_UPI000328A7E1 | L A E D I T E I I L L S K C C C | D S P S E D C L P K E V G E S H S T I I I T H H L L R | H L L L R | R |
| UniRef90_UPI000328A7E1 | L A E D I T E I I L L S K C C C | D S P S E D C L P K E V G E S H S T I I I T H H L L R | H L L L R | R |
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| UniRef90_UPI00046B5A07 | F T R K M A A A G A T C C C | S D D K L L A C G E G A A D L I I L G Q L R H A A T | R H A A T | A T |
| UniRef90_UPI00046B5A07 | F T R K M A A A G A T C C C | S D D K L L A C G E G A A D L I I L G Q L R H A A T | R H A A T | A T |
| UniRef90_UPI000388C6FA | L A E A S A E V F S K C C C | M A E D C M Q K E L S E L T T K I C T K L S S | L S S | R |
| UniRef90_UPI000388C6FA | L A E A S A E V F S K C C C | M A E D C M Q K E L S E L T T K I C T K L S S | L S S | R |
| UniRef90_UPI0003316981 | F T R E M A R A A A C C C | S E D K Q A C G E G A A D L I I G H R H E E A | R H E E A | A T |

90 100 110 120

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|------------------------|---|
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| UniRef90_F7IG13 | T K N S K F E D C C C E K T P M D V F V C I F M P A A Q T P E L P D V E L P T N K |
| UniRef90_F7IG13 | T K N S K F E D C C C E K T P M D V F V C I F M P A A Q T P E L P D V E L P T N K |
| UniRef90_UPI00032ADE0B | T K N S K F E E C C C N K T P M G I F V C Y F M P A A Q P P E L P A V K L P T S K |
| UniRef90_UPI00032ADE0B | T K D S K F K D C C C E K T P M D V F V C I F M P E A Q P P E L P E V E L P T N K |
| UniRef90_UPI00033431CF | T K D S K F K D C C C E K T P M D V F V C I F M P E A Q P P E L P E V E L P T N K |
| UniRef90_UPI00033431CF | T K D S K F K D C C C E K T P M D V F V C I F M P E A Q P P E L P E V E L P T N K |
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| UniRef90_D6RB7J | T K N S K F E D C C C E K T A M D V F V C Y F M P A A Q L P E L P D V E L P T N K |
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| UniRef90_P49066 | P I N P G V G Q C C C T S S Y A N R R P C F S S L V V D P P P F S D D K F I F H K |
| UniRef90_P49066 | P I N P G V G Q C C C T S S Y A N R R P C F S S L V V D P P P F S D D K F I F H K |
| UniRef90_H0YTL4 | P V N D Q V S Q C C C N D L Y S D K R P C F T A M G T D T K Y V P P A F D P T D E |
| UniRef90_H0YTL4 | P V N D Q V S Q C C C N D L Y S D K R P C F T A M G T D T K Y V P P A F D P T D E |
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| UniRef90_UPI0002C46800 | R K N S E F E D C C C E K T P M D I F V C Y F M P A A Q L P E R P A V K L P T N K |
| UniRef90_UPI00032AF587 | P L N P G I G H C C C T S S Y A N R A L C F H K L V L D E T Y V P P P F S A D H K |
| UniRef90_UPI00032AF587 | P L N P G I G H C C C T S S Y A N R A L C F H K L V L D E T Y V P P P F S A D H K |
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| UniRef90_UPI00045DC9D7 | P I N P G V G Q C C C A S S Y A N R R P C F S N L V D P P A F S A A K F L F H K |
| UniRef90_UPI00045DC9D7 | P I N P G V G Q C C C A S S Y A N R R P C F S N L V D P P A F S A A K F L F H K |
| UniRef90_H0X119 | A V N P G V A Q C C C A A S Y A N R R P C F S S L V L D P P A F S G D K F I F H K |
| UniRef90_H0X119 | A V N P G V A Q C C C A A S Y A N R R P C F S S L V L D P P A F S G D K F I F H K |
| UniRef90_H0X119 | A V N P G V A Q C C C A A S Y A N R R P C F S S L V L D P P A F S G D K F I F H K |
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| UniRef90_UPI000331D59 | T K N S K F E D C C C E K T P M D V F V C Y F M P A A Q P P E L P A V D L P T N K |
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| UniRef90_UPI0003F08EE3 | T K N S K F E D C C C E K T P M D I F V C Y F M P A A Q P L T L P P V E L P T N T |
| UniRef90_UPI0003F08EE3 | T K N S K F E D C C C E K T P M D I F V C Y F M P A A Q P L T L P P V E L P T N T |
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| UniRef90_Q3SZ57 | P I N P G V D Q C C C T S S Y S N R R P C F S S L V V D P P P F S D D K F I F H K |
| UniRef90_Q3SZ57 | P I N P G V D Q C C C T S S Y S N R R P C F S S L V V D P P P F S D D K F I F H K |
| UniRef90_UPI0003314E22 | N K N S K F Q D C C C E K T P M D V F V C Y F T P A A Q S P E M P D A Q M P T N K |
| UniRef90_UPI0003314E22 | N K N S K F Q D C C C E K T P M D V F V C Y F T P A A Q S P E M P D A Q M P T N K |
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| UniRef90_UPI00038BBC4E | T I N P A V D H C C C K A N F A R R L C F K E L K G D E P P S S Q G F F T S C V |
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| UniRef90_F7AEI4 | T I N P A V D H C C C K S N F A R R L C F K E T T H K T V P P P F S Q D L F T F H P |
| UniRef90_F7AEI4 | T I N P A V D H C C C K S N F A R R L C F K E T T H K T V P P P F S Q D L F T F H P |
| UniRef90_F7AEI4 | T I N P A V D H C C C K S N F A R R L C F K E T T H K T V P P P F S Q D L F T F H P |
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| UniRef90_L5LH53 | P V S D R V T K C C C T G S L V N R P S C F S A L E V D P K E L L S A E T F T F H A |
| UniRef90_L5LH53 | P V S D R V T K C C C T G S L V N R P S C F S A L E V D P K E L L S A E T F T F H A |
| UniRef90_L5LH53 | P V S D R V T K C C C T G S L V N R P S C F S A L E V D P K E L L S A E T F T F H A |
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| UniRef90_UPI0003F153AE | P I N P G V G Q C C C S S S Y A N R R P C F S N L L I D P P E F S A A K F H F Q K |
| UniRef90_UPI0003F153AE | P I N P G V G Q C C C S S S Y A N R R P C F S N L L I D P P E F S A A K F H F Q K |
| UniRef90_UPI0003C8CB88 | P I N P G I G Q C C C T S S Y A N R R P C F S S F V L D P T Y I P P L F S A D H K |
| UniRef90_UPI0003C8CB88 | P I N P G I G Q C C C T S S Y A N R R P C F S S F V L D P T Y I P P L F S A D H K |
| UniRef90_UPI0003C8CB88 | P I N P G I G Q C C C T S S Y A N R R P C F S S F V L D P T Y I P P L F S A D H K |
| UniRef90_UPI0002C429D3 | P I N T G V G H C C C G D S Y A R R K P C F D D L P A D E T Y V S P S V P C D N E |
| UniRef90_UPI0002C429D3 | P I N T G V G H C C C G D S Y A R R K P C F D D L P A D E T Y V S P S V P C D N E |
| UniRef90_UPI0002C429D3 | P I N T G V G H C C C G D S Y A R R K P C F D D L P A D E T Y V S P S V P C D N E |
| UniRef90_UPI0003EC4C24 | P V S D R V T K C C C T G S L V N R P S C F S A L E V D P K E L L S A E T F T F H A |
| UniRef90_UPI0003EC4C24 | P V S D R V T K C C C T G S L V N R P S C F S A L E V D P K E L L S A E T F T F H A |
| UniRef90_UPI0003EC4C24 | P V S D R V T K C C C T G S L V N R P S C F S A L E V D P K E L L S A E T F T F H A |
| UniRef90_UPI0003EC4C24 | P V S D R V T K C C C T G S L V N R P S C F S A L E V D P K E L L S A E T F T F H A |
| UniRef90_I3M260 | P V N P S V G H C C C N S S Y A N R R P C F S S L V I D E T Y V P P P F S A D H K |
| UniRef90_I3M260 | P V N P S V G H C C C N S S Y A N R R P C F S S L V I D E T Y V P P P F S A D H K |
| UniRef90_I3M260 | P V N P S V G H C C C N S S Y A N R R P C F S S L V I D E T Y V P P P F S A D H K |
| UniRef90_H0VTA4 | K K N S K F E E C C C R E E T P G I F T C V Y F M P A P Q K L Q A V E L P T N T |
| UniRef90_H0VTA4 | K K N S K F E E C C C R E E T P G I F T C V Y F M P A P Q K L Q A V E L P T N T |
| UniRef90_K7FTS3 | P V N E K V A H C C C N D A Y E N R R P C F T K L G A D E S Y N S T K F E P A H E |
| UniRef90_K7FTS3 | P V N E K V A H C C C N D A Y E N R R P C F T K L G A D E S Y N S T K F E P A H E |
| UniRef90_K7FTS3 | P V N E K V A H C C C N D A Y E N R R P C F T K L G A D E S Y N S T K F E P A H E |
| UniRef90_R7VX76 | A Q D Q R L A D C C G K N I I N Y F C I S A L Q P A P P R L P E P P K P T N K |
| UniRef90_R7VX76 | A Q D Q R L A D C C G K N I I N Y F C I S A L Q P A P P R L P E P P K P T N K |
| UniRef90_UPI000328A7E1 | R H S S Q L L F T C I V F S I N P H K Y P N E I L F I Y L |
| UniRef90_UPI000328A7E1 | R H S S Q L L F T C I V F S I N P H K Y P N E I L F I Y L |
| UniRef90_UPI0003292077 | S S S K I T Q C C A Q P G F R G E C I I N S E N D D K S L S S R F T E D Q |
| UniRef90_UPI0003292077 | S S S K I T Q C C A Q P G F R G E C I I N S E N D D K S L S S R F T E D Q |
| UniRef90_UPI0001DECA08 | S S S K I S P C C A L P V P F R G E C I I S E N D D K P D L S F M P F T E D R |
| UniRef90_UPI0001DECA08 | S S S K I S P C C A L P V P F R G E C I I S E N D D K P D L S F M P F T E D R |
| UniRef90_UPI00046B5A07 | P V N P G V G Q C C C T S S Y A N R R P C F S S L V V D P P S F S A D K F I F H K |
| UniRef90_UPI00046B5A07 | P V N P G V G Q C C C T S S Y A N R R P C F S S L V V D P P S F S A D K F I F H K |
| UniRef90_UPI00046B5A07 | P V N P G V G Q C C C T S S Y A N R R P C F S S L V V D P P S F S A D K F I F H K |
| UniRef90_UPI000388C6FA | S K D E K F S D C C K K N L L K N Y L C I Y S K P P K P Q L P E I Q S P T D E |
| UniRef90_UPI000388C6FA | S K D E K F S D C C K K N L L K N Y L C I Y S K P P K P Q L P E I Q S P T D E |
| UniRef90_UPI0003316981 | P I N A R V G H C S S S Y A N R R P C F S N L V M D E A Y V P P P F S A D H T |

| | | 130 | 140 | 150 | 160 |
|------------------------|---|---|-----|-----|-----|
| UniRef90_F6XRB3 | D L C Q T E G L A L H T M I Q E F L L I N L V K Q K P Q I T E E Q L G A V T A D F | | | | |
| UniRef90_F7IGI3 | D V C C D S G N T K A L D K Y T F E L S R R T R L P E V F L S K V L D P T | | | | |
| UniRef90_F7IGI3 | D V C C D S G N T K A L D K Y T F E L S R R T R L P E V F L S K V L D P T | | | | |
| UniRef90_UPI00032ADE0B | D V C C D S T N T N V M D Q Y T F E L G R R T Q I P E V F L S K V L E P T | | | | |
| UniRef90_UPI00032ADE0B | D V C C D S T N T N V M D Q Y T F E L G R R T Q I P E V F L S K V L E P T | | | | |
| UniRef90_UPI00033431CF | D V C C S K H S T K V M D Q Y A F E L S R R T P E V F L S K I L V P T | | | | |
| UniRef90_UPI00033431CF | D V C C S K H S T K V M D Q Y A F E L S R R T P E V F L S K I L V P T | | | | |
| UniRef90_D6RB7 | D V C C | | | | |
| UniRef90_D6RB7 | D V C C | | | | |
| UniRef90_UPI0004442097 | D V C C G K A H A R A L D Q Y A Y E V S R R T T Q L P E V F L L S K I L E P T | | | | |
| UniRef90_UPI0004442097 | D V C C G K A H A R A L D Q Y A Y E V S R R T T Q L P E V F L L S K I L E P T | | | | |
| UniRef90_I3MD87 | D V C C D A K N T K A M D Q Y A F E L S R R T P E V F L S K I L T L T | | | | |
| UniRef90_I3MD87 | D V C C D A K N T K A M D Q Y A F E L S R R T P E V F L S K I L T L T | | | | |
| UniRef90_P49066 | D L C C Q A Q G V A L L Q T M K Q Q F L I N L V K Q K P Q I T E E Q L E A V I A D F | | | | |
| UniRef90_P49066 | D L C C Q A Q G V A L L Q T M K Q Q F L I N L V K Q K P Q I T E E Q L E A V I A D F | | | | |
| UniRef90_HOYTL4 | K M C K A P P A E R E A G E L K L L V N L V K R K P Q M T E E Q L K K I T E G F | | | | |
| UniRef90_HOYTL4 | K M C K A P P A E R E A G E L K L L V N L V K R K P Q M T E E Q L K K I T E G F | | | | |
| UniRef90_HOYTL4 | K M C K A P P A E R E A G E L K L L V N L V K R K P Q M T E E Q L K K I T E G F | | | | |
| UniRef90_UPI0003F1A0CF | D L C C Q A H K E E L Q R Q K K D R F L V N V V V K L K P E E L P D V E L R S L L T D F | | | | |
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| UniRef90_UPI00045DC9D7 | D L C C Q A Q G V A L Q M M M K Q E F L I N L V K Q K L Q I K E E E Q L E A V I A D F | | | | |
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| UniRef90_UPI00045DC9D7 | D L C C Q A Q G V A L Q M M M K Q E F L I N L V K Q K L Q I K E E E Q L E A V I A D F | | | | |
| UniRef90_H0X19 | D L C C Q A Q G I A L Q T T K Q E F L I N L V K Q K P Q I T E E Q L E A V I A D F | | | | |
| UniRef90_H0X19 | D L C C Q A Q G I A L Q T T K Q E F L I N L V K Q K P Q I T E E Q L E A V I A D F | | | | |
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| UniRef90_UPI000331D59 | D L C C S P G S S K A V D R Y T F E L S R R T P E V F L S K A L E S T | | | | |
| UniRef90_UPI000331D59 | D L C C S P G S S K A V D R Y T F E L S R R T P E V F L S K A L E S T | | | | |
| UniRef90_UPI0003F08EE3 | D V C C D K A N T N V R E K Y I F E L S R R T T H P E V F L L S K V L E S T | | | | |
| UniRef90_UPI0003F08EE3 | D V C C D K A N T N V R E K Y I F E L S R R T T H P E V F L L S K V L E S T | | | | |
| UniRef90_Q3SZ57 | D L C C Q V Q G V P L Q T M K Q Q F L I N L V K Q K P Q I T E E Q L E T V V A D F | | | | |
| UniRef90_Q3SZ57 | D L C C Q V Q G V P L Q T M K Q Q F L I N L V K Q K P Q I T E E Q L E T V V A D F | | | | |
| UniRef90_Q3SZ57 | D L C C Q V Q G V P L Q T M K Q Q F L I N L V K Q K P Q I T E E Q L E T V V A D F | | | | |
| UniRef90_UPI0003314E22 | I I C C G K G S T K A M D Q Y A F E L S R K T H P E V F L L S K I L E P T | | | | |
| UniRef90_UPI0003314E22 | I I C C G K G S T K A M D Q Y A F E L S R K T H P E V F L L S K I L E P T | | | | |
| UniRef90_Q3MH5 | UniRef90_Q3MH5 | D V C C D E G N T K V L D Q Y I F E L S R K T Q P E V F L L T K I L E S T | | | |
| UniRef90_Q3MH5 | D V C C D E G N T K V L D Q Y I F E L S R K T Q P E V F L L T K I L E S T | | | | |
| UniRef90_UPI00038BBC4E | D W C Q A Q N E E L Q R R K K D R F L V N L V K L K P G L T Y E E L Q S S L F T S F | | | | |
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| UniRef90_F7AEI4 | D M C Q S Q N E E L Q Q K K T D R F L V N I V K L K Y E V A N E E L Q S S L L T N F | | | | |
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| UniRef90_L5LH53 | D V C C D T L P E P E Q Q | | | | |
| UniRef90_L5LH53 | D V C C D T L P E P E Q Q | | | | |
| UniRef90_L5LH53 | D V C C D T L P E P E Q Q | | | | |
| UniRef90_L5LH53 | D V C C D T L P E P E Q Q | | | | |
| UniRef90_UPI0003F153AE | D L C C Q A P G V A L Q T M K Q E F L T N L V K Q K P Q I T E E Q L L E I V I T D F | | | | |
| UniRef90_UPI0003F153AE | D L C C Q A P G V A L Q T M K Q E F L T N L V K Q K P Q I T E E Q L L E I V I T D F | | | | |
| UniRef90_UPI0003F153AE | D L C C Q A P G V A L Q T M K Q E F L T N L V K Q K P Q I T E E Q L L E I V I T D F | | | | |
| UniRef90_UPI0003C8CB88 | D L C C Q A Q G V A L Q T M K H E F L I N L V K Q K P Q I T D E E Q L G A V T A D F | | | | |
| UniRef90_UPI0003C8CB88 | D L C C Q A Q G V A L Q T M K H E F L I N L V K Q K P Q I T D E E Q L G A V T A D F | | | | |
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| UniRef90_UPI0002C429D3 | D L C C K A Q E E Q L Q T E K Q K L L S N L V K Q N P R A A E T Q L Q S I V R D F | | | | |
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| UniRef90_UPI0003EC4C24 | D V C C D T L P E P E Q Q | | | | |
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| UniRef90_I3M260 | D L C C Q P Q G V A L Q T M K Q E F L T N L V K Q K P Q I T E E Q L L E A V I A D F | | | | |
| UniRef90_I3M260 | D L C C Q P Q G V A L Q T M K Q E F L T N L V K Q K P Q I T E E Q L L E A V I A D F | | | | |
| UniRef90_H0VTA4 | E V C C G Q K S T K A L D Q Y T F E L S R R T P I P E V F L L S K I L E P T | | | | |
| UniRef90_H0VTA4 | E V C C G Q K S T K A L D Q Y T F E L S R R T P I P E V F L L S K I L E P T | | | | |
| UniRef90_K7FTS3 | D L C C T A P V E T Q R M K K L T M L V N L I K L K T T A A D E Q L Q K V I T D F | | | | |
| UniRef90_K7FTS3 | D L C C T A P V E T Q R M K K L T M L V N L I K L K T T A A D E Q L Q K V I T D F | | | | |
| UniRef90_K7FTS3 | D L C C T A P V E T Q R M K K L T M L V N L I K L K T T A A D E Q L Q K V I T D F | | | | |
| UniRef90_R7VX76 | Q L C C G E D G A R P E V R P R Y Y L F E L G R R H T S V P D I F L G K L Y D A S T | | | | |
| UniRef90_R7VX76 | Q L C C G E D G A R P E V R P R Y Y L F E L G R R H T S V P D I F L G K L Y D A S T | | | | |
| UniRef90_R7VX76 | Q L C C G E D G A R P E V R P R Y Y L F E L G R R H T S V P D I F L G K L Y D A S T | | | | |
| UniRef90_UPI000328A7E1 | Q L K L E S H Y F F S G R Y A F Q L S R S S H P E V F L L S K I L D P T | | | | |
| UniRef90_UPI000328A7E1 | Q L K L E S H Y F F S G R Y A F Q L S R S S H P E V F L L S K I L D P T | | | | |
| UniRef90_UPI000328A7E1 | Q L K L E S H Y F F S G R Y A F Q L S R S S H P E V F L L S K I L D P T | | | | |
| UniRef90_UPI0003292077 | F V C C K Q F T D K Q E D F L Q E F I I Y E Y T R S H D V A V P V I L R V E M E Y | | | | |
| UniRef90_UPI0003292077 | F V C C K Q F T D K Q E D F L Q E F I I Y E Y T R S H D V A V P V I L R V E M E Y | | | | |
| UniRef90_UPI0001DECA08 | S V C C K Q F S N E P D D L L | | | | |
| UniRef90_UPI0001DECA08 | S V C C K Q F S N E P D D L L | | | | |
| UniRef90_UPI0001DECA08 | D L C C Q A Q G V A L Q T M K Q E F L I N L V K Q K P Q I T E E Q L L E A V I A D F | | | | |
| UniRef90_UPI0001DECA08 | D L C C Q A Q G V A L Q T M K Q E F L I N L V K Q K P Q I T E E Q L L E A V I A D F | | | | |
| UniRef90_UPI0001DECA08 | D L C C Q A Q G V A L Q T M K Q E F L I N L V K Q K P Q I T E E Q L L E A V I A D F | | | | |
| UniRef90_UPI00046B5A07 | D L C C Q A Q G V A L Q T M K Q E F L I N L V K Q K P Q I T E E Q L L E A V I A D F | | | | |
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| UniRef90_UPI00046B5A07 | D L C C Q A Q G V A L Q T M K Q E F L I N L V K Q K P Q I T E E Q L L E A V I A D F | | | | |
| UniRef90_UPI000388C6FA | Q L C C T N D G S H P M D L F T F E I A R R Q T N P E V F L L S K V Y D A T | | | | |
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| UniRef90_UPI000388C6FA | Q L C C T N D G S H P M D L F T F E I A R R Q T N P E V F L L S K V Y D A T | | | | |
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| UniRef90_UPI000321C024 | D L C C Q A Q V A L Q T K K O E F L I N L V K Q K P Q I T E E Q L L E A V I A D F | | | | |

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UniRef90_UPI0003ACA39B UniRef90_F6YY93 H V K N H C D L R Q K F N H K V A K A V E L V L L T K K Q P K A N F S E I I A K
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UniRef90_UPI000443D134 UniRef90_UPI000443D134 C G L F Q K L L G K Y Y L Q N A F L V A Y T K K A P Q L T P L E E L M T
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UniRef90_UPI0003C26E2C UniRef90_F1NVF3 C S R L T A Y G K D K M K F S Y L T M L A Q K I P S A S F E D L S P P
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| UniRef90_UPI00042A9C0E | D L C Q A Q G I A L Q T M K Q E L L V K Q K P R M T E E Q H E A V T A D F |
| UniRef90_UPI0003340CB1 | D L C Q A Q G A A L Q E M K Q E L L V K Q K V Q I T E E Q L E A V I S D F |
| UniRef90_UPI0003340CB1 | D L C Q A Q G A A L Q E M K Q E L L V K Q K V Q I T E E Q L E A V I S D F |
| UniRef90_UPI0003340CB1 | D L C Q A Q G A A L Q E M K Q E L L V K Q K V Q I T E E Q L E A V I S D F |
| UniRef90_W5PXZ3 | S V C K Q F T D K Q D F F L Q R F L Y E Y S R R H P E L A V P V I L R V D T V Y |
| UniRef90_W5PXZ3 | S V C K Q F T D K Q D F F L Q R F L Y E Y S R R H P E L A V P V I L R V D T V Y |
| UniRef90_UPI00042A947C | D W C Q A H D E D L Q N R R K H R F M V N L V K W M P E I T D E E R R R C L F T K F |
| UniRef90_UPI00042A947C | D W C Q A H D E D L Q N R R K H R F M V N L V K W M P E I T D E E R R R C L F T K F |
| UniRef90_UPI00042A947C | D W C Q A H D E D L Q N R R K H R F M V N L V K W M P E I T D E E R R R C L F T K F |
| UniRef90_UPI000392EC5D | Q L C S S E D G P R H V K R Y L F E L V Q E Y P S I P D A F F G K I Y D A S |
| UniRef90_UPI000392EC5D | Q L C S S E D G P R H V K R Y L F E L V Q E Y P S I P D A F F G K I Y D A S |
| UniRef90_UPI000392EC5D | Q L C S S E D G P R H V K R Y L F E L V Q E Y P S I P D A F F G K I Y D A S |
| UniRef90_G3W8R0 | E I C S T E N N K A L D R Y M Y E Q S R R K P N I P E V F V T K L H G L M |
| UniRef90_G3W8R0 | E I C S T E N N K A L D R Y M Y E Q S R R K P N I P E V F V T K L H G L M |
| UniRef90_UPI0003C461A8 | D L C Q A Q E E E I Q I E K Q K L L S N L V K Q R P Y A T E M Q F Q P I I V D F |
| UniRef90_UPI0003C461A8 | D L C Q A Q E E E I Q I E K Q K L L S N L V K Q R P Y A T E M Q F Q P I I V D F |
| UniRef90_UPI0003C461A8 | D L C Q A Q E E E I Q I E K Q K L L S N L V K Q R P Y A T E M Q F Q P I I V D F |
| UniRef90_UPI00032AF46C | D W C Q T Q D E E L Q R K K D R F L V N L V K L K P E L A N Q E V Q S L F I N F |
| UniRef90_UPI00032AF46C | D W C Q T Q D E E L Q R K K D R F L V N L V K L K P E L A N Q E V Q S L F I N F |
| UniRef90_UPI00032AF46C | D W C Q T Q D E E L Q R K K D R F L V N L V K L K P E L A N Q E V Q S L F I N F |
| UniRef90_G3WRB2 | S L C Q E M E L Q R K R RE L I V N L V R Q R K P V L E T Q Q V M Q M F S D F |
| UniRef90_G3WRB2 | S L C Q E M E L Q R K R RE L I V N L V R Q R K P V L E T Q Q V M Q M F S D F |

| | | 170 | 180 | 190 |
|------------------------|---|-----|-----|-----|
| UniRef90_UPI0003316981 | S A L L E K C C R S E K Q D V C F A E E G P K L I S K T R A | | | |
| UniRef90_UPI0003316981 | S A L L E K C C R S E K Q D V C F A E E G P K L I S K T R A | | | |
| UniRef90_H0VRQ1 | I T G V K K C C T A P E P E A C F H E | | | |
| UniRef90_H0VRQ1 | I T G V K K C C T A P E P E A C F H E | | | |
| UniRef90_H0VRQ1 | I T G V K K C C T A P E P E A C F H E | | | |
| UniRef90_UPI0003ACA39B | T Q L V E M C C Q A E K N E K C F Q E E L L | | | |
| UniRef90_UPI0003ACA39B | T Q L V E M C C Q A E K N E K C F Q E E L L | | | |
| UniRef90_UPI0003ACA39B | T Q L V E M C C Q A E K N E K C F Q E E L L | | | |
| UniRef90_F6YY93 | | | | |
| UniRef90_F6YY93 | | | | |
| UniRef90_M3YCX1 | A H V V E K C C P A E T R E M C F R E E G S K L I E K C Q S | | | |
| UniRef90_M3YCX1 | A H V V E K C C P A E T R E M C F R E E G S K L I E K C Q S | | | |
| UniRef90_M3YCX1 | A H V V E K C C P A E T R E M C F R E E G S K L I E K C Q S | | | |
| UniRef90_UPI0001CE229B | T D T L E K C C C N A K G P E A C F N Q E M T T F L E Y Y I | | | |
| UniRef90_UPI0001CE229B | T D T L E K C C C N A K G P E A C F N Q E M T T F L E Y Y I | | | |
| UniRef90_UPI0001CE229B | T D T L E K C C C N A K G P E A C F N Q E M T T F L E Y Y I | | | |
| UniRef90_UPI000443D134 | S A L M D K C C K G E V H E A C F T E E G P K L I S K T R A | | | |
| UniRef90_UPI000443D134 | S A L M D K C C K G E V H E A C F T E E G P K L I S K T R A | | | |
| UniRef90_UPI000443D134 | S A L M D K C C K G E V H E A C F T E E G P K L I S K T R A | | | |
| UniRef90_G5B5P1 | S G F L E K C C C H H Q E Q E A C F A E E | | | |
| UniRef90_G5B5P1 | S G F L E K C C C H H Q E Q E A C F A E E | | | |
| UniRef90_G5B5P1 | S G F L E K C C C H H Q E Q E A C F A E E | | | |
| UniRef90_UPI00038EC3B0 | L K G L N E C C D S E D D S S A C F T D K G S Q L K K K L F S F I K K | | | |
| UniRef90_UPI00038EC3B0 | L K G L N E C C D S E D D S S A C F T D K G S Q L K K K L F S F I K K | | | |
| UniRef90_UPI0003C26E2C | K E M V D K C C K K E D H D T C F G E E G G N L I V E S R A I I | | | |
| UniRef90_UPI0003C26E2C | K E M V D K C C K K E D H D T C F G E E G G N L I V E S R A I I | | | |
| UniRef90_UPI0003C26E2C | K E M V D K C C K K E D H D T C F G E E G G N L I V E S R A I I | | | |
| UniRef90_F1NVF3 | E N V I K E C C S A K D A S S C L D G K R Q Q M G T E L P A F L E K | | | |
| UniRef90_F1NVF3 | E N V I K E C C S A K D A S S C L D G K R Q Q M G T E L P A F L E K | | | |
| UniRef90_UPI0003C80693 | T K V V A T C C K A E G P A A C F S E E E G P K L I A A K S Q A | | | |
| UniRef90_UPI0003C80693 | T K V V A T C C K A E G P A A C F S E E E G P K L I A A K S Q A | | | |
| UniRef90_UPI0003C80693 | T K V V A T C C K A E G P A A C F S E E E G P K L I A A K S Q A | | | |
| UniRef90_O89020 | T A A R E E C S E V Q E P E S C F S P E | | | |
| UniRef90_O89020 | T A A R E E C S E V Q E P E S C F S P E | | | |
| UniRef90_O89020 | T A A R E E C S E V Q E P E S C F S P E | | | |
| UniRef90_UPI0003C2B072 | K K V M D E C C C R A V D V T G C L N N K K R Q G K K E V S Q F L E K | | | |
| UniRef90_UPI0003C2B072 | K K V M D E C C C R A V D V T G C L N N K K R Q G K K E V S Q F L E K | | | |
| UniRef90_UPI00038BF043 | S G F L E K C C Q A Q E R D V C F A E E E G P K L I S R T R A | | | |
| UniRef90_UPI00038BF043 | S G F L E K C C Q A Q E R D V C F A E E E G P K L I I S R T R A | | | |
| UniRef90_UPI00038BF043 | S G F L E K C C Q A Q E R D V C F A E E E G P K L I I S R T R A | | | |
| UniRef90_F1RUM1 | T N V V V K C C Q A E G P E A C F E E E E G P K L I A A K S Q A | | | |
| UniRef90_F1RUM1 | T N V V V K C C Q A E G P E A C F E E E E G P K L I A A K S Q A | | | |
| UniRef90_F1RUM1 | T N V V V K C C Q A E G P E A C F E E E E G P K L I A A K S Q A | | | |
| UniRef90_A1YZ84 | E H A L K S C C K E S D V G A C L D G K E T G I R E K V K I S V K C O | | | |
| UniRef90_UPI0003C266D4 | S G M V D K C C K A A D H D T C F G E E G A N L I I K S R A | | | |
| UniRef90_UPI0003C266D4 | S G M V D K C C K A A D H D T C F G E E G A N L I I K S R A | | | |
| UniRef90_UPI00045DB29C | T H L V E M C C Q A E K N E M C F Q K K C L L S T E Y I Q | | | |
| UniRef90_UPI00045DB29C | T H L V E M C C Q A E K N E M C F Q K K C L L S T E Y I Q | | | |
| UniRef90_UPI00045DB29C | T H L V E M C C Q A E K N E M C F Q K K C L L S T E Y I Q | | | |
| UniRef90_F7G172 | T R A V S G C C S G E D P H T C L G V V R S Q M K R E M V V Y L A K | | | |
| UniRef90_F7G172 | T R A V S G C C S G E D P H T C L G V V R S Q M K R E M V V Y L A K | | | |
| UniRef90_G1Q092 | T R A V S G C C S G E D P H T C L G V V R S Q M K R E M V V Y L A K | | | |
| UniRef90_G1Q092 | T R A V S G C C S G E D P H T C L G V V R S Q M K R E M V V Y L A K | | | |
| UniRef90_UPI0003334AB5 | S S F L E K C C Q A Q E Q E A C F A E E E G P K L | | | |
| UniRef90_UPI0003334AB5 | S S F L E K C C Q A Q E Q E A C F A E E E G P K L | | | |
| UniRef90_UPI0003334AB5 | S S F L E K C C Q A Q E Q E A C F A E E E G P K L | | | |
| UniRef90_UPI0003345201 | S A L L E K C C Q G K A Q E V E V C F A E E E G P K M I S K T R A | | | |
| UniRef90_UPI0003345201 | S A L L E K C C Q G K A Q E V E V C F A E E E G P K M I S K T R A | | | |
| UniRef90_UPI0003345201 | S A L L E K C C Q G K A Q E V E V C F A E E E G P K M I S K T R A | | | |
| UniRef90_UPI0004404F3 | A H L V E M C C Q A E K S E I C L Q E E E G S K L I K K C Q S | | | |
| UniRef90_UPI0004404F3 | A H L V E M C C Q A E K S E I C L Q E E E G S K L I K K C Q S | | | |
| UniRef90_UPI0004404F3 | A H L V E M C C Q A E K S E I C L Q E E E G S K L I K K C Q S | | | |
| UniRef90_UPI0003831FF0 | E N V R E E C C F F K D A S A C L D S K R Q R M G K E L P P F L E K | | | |
| UniRef90_UPI0003831FF0 | E N V R E E C C F F K D A S A C L D S K R Q R M G K E L P P F L E K | | | |
| UniRef90_L5KB87 | S A L L E K C C Q G H E Q E V V C F A E E E G P K L I S K T R A | | | |
| UniRef90_L5KB87 | S A L L E K C C Q G H E Q E V V C F A E E E G P K L I I S K T R A | | | |
| UniRef90_L5KB87 | S A L L E K C C Q G H E Q E V V C F A E E E G P K L I I S K T R A | | | |
| UniRef90_UPI00042A9C0E | S S F L E K C C Q S Q Q Q E E V C F A E E E G P K L I S R T R A | | | |
| UniRef90_UPI00042A9C0E | S S F L E K C C Q S Q Q Q E E V C F A E E E G P K L I I S R T R A | | | |
| UniRef90_UPI00042A9C0E | S S F L E K C C Q S Q Q Q E E V C F A E E E G P K L I I S R T R A | | | |
| UniRef90_UPI0003340CB1 | S G F L E K C C Q H Q E Q E A C F A E E E G P K L I I S K T R T | | | |
| UniRef90_UPI0003340CB1 | S G F L E K C C Q H Q E Q E A C F A E E E G P K L I I S K T R T | | | |
| UniRef90_UPI0003340CB1 | S G F L E K C C Q H Q E Q E A C F A E E E G P K L I I S K T R T | | | |
| UniRef90_W5PXZ3 | Q S L L G K C C K L E N P L E C Y S H G E G I F Q R V V R E S H E R | | | |
| UniRef90_W5PXZ3 | Q S L L G K C C K L E N P L E C Y S H G E G I F Q R V V R E S H E R | | | |
| UniRef90_UPI00042A947C | T A A G E T C S E A R E P E A C F R P E G S K S G N E S Q A A N X K | | | |
| UniRef90_UPI00042A947C | T A A G E T C S E A R E P E A C F R P E G S K S G N E S Q A A N X K | | | |
| UniRef90_UPI00042A947C | T A A G E T C S E A R E P E A C F R P E G S K S G N E S Q A A N X K | | | |
| UniRef90_UPI000392EC5D | K K V R G E C C S A K D S A A C L D S K R Q Q M G E E L P P F L E K | | | |
| UniRef90_UPI000392EC5D | K K V R G E C C S A K D S A A C L D S K R Q Q M G E E L P P F L E K | | | |
| UniRef90_G3W8R0 | F K V M S D C C K S V E P E A C L R S Q R P L A R N E | | | |
| UniRef90_G3W8R0 | F K V M S D C C K S V E P E A C L R S Q R P L A R N E | | | |
| UniRef90_UPI0003C461A8 | T Q L V K M C C Q A E K R E T C F Q E E E S K L I E K C R S | | | |
| UniRef90_UPI0003C461A8 | T Q L V K M C C Q A E K R E T C F Q E E E S K L I E K C R S | | | |
| UniRef90_UPI0003C461A8 | T Q L V K M C C Q A E K R E T C F Q E E E S K L I E K C R S | | | |
| UniRef90_UPI00032AF46C | T D T L E S C C K A P E E A C F N Q E E E S K L I E K C R S | | | |
| UniRef90_UPI00032AF46C | T D T L E S C C K A P E E A C F N Q E E E S K L I E K C R S | | | |
| UniRef90_UPI00032AF46C | T D T L E S C C K A P E E A C F N Q E E E S K L I E K C R S | | | |
| UniRef90_G3WRB2 | P T L I N C C K T E E R E S C F K E E H S K L Y N K I E A | | | |
| UniRef90_G3WRB2 | P T L I N C C K T E E R E S C F K E E H S K L Y N K I E A | | | |

1 10 20 30 40

UniRef90_G3WRB2
UniRef90_I6QYV2
UniRef90_I6QYV2
UniRef90_I6QYV2
UniRef90_UPI000359314E
UniRef90_UPI000359314E
UniRef90_UPI000359314E
UniRef90_UPI00045D688C
UniRef90_UPI00045D688C
UniRef90_UPI00045D688C
UniRef90_UPI0003C8F91B
UniRef90_UPI0003C8F91B
UniRef90_UPI0003C8F91B
UniRef90_UPI0003443CD1
UniRef90_UPI0003443CD1
UniRef90_UPI0003443CD1
UniRef90_UPI0003443CD1
UniRef90_UPI00046B2D43
UniRef90_UPI00046B2D43
UniRef90_UPI00046B2D43
UniRef90_G3WQV0
UniRef90_G3WQV0
UniRef90_G3WQV0
UniRef90_H9GH08
UniRef90_H9GH08
UniRef90_H9GH08
UniRef90_I3MJG0
UniRef90_I3MJG0
UniRef90_I3MJG0
UniRef90_F6VJ37
UniRef90_F6VJ37
UniRef90_UPI0004548528
UniRef90_UPI0004548528
UniRef90_UPI0004548528
UniRef90_UPI0002C44CBC
UniRef90_UPI0002C44CBC
UniRef90_UPI0002C44CBC
UniRef90_UPI00022F5FA1
UniRef90_UPI00022F5FA1
UniRef90_UPI00022F5FA1
UniRef90_P02772
UniRef90_P02772
UniRef90_P02772
UniRef90_F7F9M8
UniRef90_F7F9M8
UniRef90_P36953
UniRef90_P36953
UniRef90_UPI00045DE9F3
UniRef90_UPI00045DE9F3
UniRef90_UPI00045DE9F3
UniRef90_UPI000395D78D
UniRef90_UPI000395D78D
UniRef90_G1TZC1
UniRef90_G1TZC1
UniRef90_G1TZC1
UniRef90_L5LGU8
UniRef90_L5LGU8
UniRef90_UPI00046C24BD
UniRef90_UPI00046C24BD
UniRef90_UPI00046C24BD
UniRef90_G1KNL0
UniRef90_G1KNL0
UniRef90_G1P5R0
UniRef90_G1P5R0
UniRef90_G1P5R0
UniRef90_F7B3I5
UniRef90_F7B3I5
UniRef90_F7B3I5
UniRef90_G1TBD0
UniRef90_G1TBD0
UniRef90_G1TBD0
UniRef90_UPI00038C0565
UniRef90_UPI00038C0565
UniRef90_UPI00038C0565
UniRef90_F7AX94
UniRef90_F7AX94
UniRef90_F7AX94
UniRef90_G1P311
UniRef90_G1P311
UniRef90_G1P311
UniRef90_I6QYS3
UniRef90_I6QYS3
UniRef90_I6QYS3
UniRef90_UPI00046BB86A
UniRef90_UPI00046BB86A
UniRef90_UPI00046BB86A
UniRef90_UPI0003F10DB1
UniRef90_UPI0003F10DB1
UniRef90_UPI0003F10DB1
UniRef90_UPI0003F10DB1
UniRef90_UPI0003F10DB1

The figure displays a multiple sequence alignment of 130 protein homologs from UniRef90. The sequences are arranged in three columns: 130, 140, and 150. Each sequence is represented by a vertical bar composed of colored boxes, where each box corresponds to a single amino acid residue. The colors used in the alignment are: black, red, blue, green, yellow, purple, brown, and grey. A legend at the top right provides a key for these colors. The alignment shows significant conservation of certain amino acids across the different homologs, particularly in the first few columns. There are also several instances of mutations, such as the presence of a red 'H' (Histidine) in some positions and a blue 'D' (Aspartic acid) in others. The alignment is highly conserved, with many positions showing identical residues across all sequences.

170 180 190

| | |
|------------------------|---|
| UniRef90_G3WRB2 | P T L I N C C K T E R E S C F K E E H S K L Y N K I E A |
| UniRef90_I6QYV2 | L G M V E K C C K A E H H A E C C F A A E G P L L I T K C E G |
| UniRef90_I6QYV2 | L G M V E K C C K A E H H A E C C F A A E G P L L I T K C E G |
| UniRef90_I6QYV2 | L G M V E K C C K A E H H A E C C F A A E G P L L I T K C E G |
| UniRef90_UPI000359314E | T A V G E K C C E E V Q E P E T C C F R P E |
| UniRef90_UPI000359314E | T A V G E K C C E E V Q E P E T C C F R P E |
| UniRef90_UPI000359314E | T A V G E K C C E E V Q E P E T C C F R P E |
| UniRef90_UPI00045D688C | T N V M E Q C C K T D G P E S C C F S E E G P K L E A K S Q A A S |
| UniRef90_UPI00045D688C | T N V M E Q C C K T D G P E S C C F S E E G P K L E A K S Q A A S |
| UniRef90_UPI00045D688C | T N V M E Q C C K T D G P E S C C F S E E G P K L E A K S Q A A S |
| UniRef90_UPI0003C8F91B | T A A V E K C C K A Q E P E A C C F N E E V S K L |
| UniRef90_UPI0003C8F91B | T A A V E K C C K A Q E P E A C C F N E E V S K L |
| UniRef90_UPI0003C8F91B | T A A V E K C C K A Q E P E A C C F N E E V S K L |
| UniRef90_UPI0003443CD1 | V T A L A T C C T L S S E E F A C C V D N L M D L V L G E L |
| UniRef90_UPI0003443CD1 | V T A L A T C C T L S S E E F A C C V D N L M D L V L G E L |
| UniRef90_UPI0003443CD1 | V T A L A T C C T L S S E E F A C C V D N L M D L V L G E L |
| UniRef90_UPI00046B2D43 | T L V V E K C C K A E G P E A C C F N E E G P K I |
| UniRef90_UPI00046B2D43 | T L V V E K C C K A E G P E A C C F N E E G P K I |
| UniRef90_UPI00046B2D43 | T L V V E K C C K A E G P E A C C F N E E G P K I |
| UniRef90_G3WQV0 | T G L L E K C C K G K E E A C C F E E E G P K L S K T Q E |
| UniRef90_G3WQV0 | T G L L E K C C K G K E E A C C F E E E G P K L S K T Q E |
| UniRef90_G3WQV0 | T G L L E K C C K G K E E A C C F E E E G P K L S K T Q E |
| UniRef90_H9GH08 | V T M V T K C C A V E N H V E C C L T E E R P K M I E H K T |
| UniRef90_H9GH08 | V T M V T K C C A V E N H V E C C L T E E R P K M I E H K T |
| UniRef90_H9GH08 | V T M V T K C C A V E N H V E C C L T E E R P K M I E H K T |
| UniRef90_I3MJG0 | V A F L D K C C K A D D K D T C F S Q E G P K F V A A S Q A A L A |
| UniRef90_I3MJG0 | V A F L D K C C K A D D K D T C F S Q E G P K F V A A S Q A A L A |
| UniRef90_I3MJG0 | V A F L D K C C K A D D K D T C F S Q E G P K F V A A S Q A A L A |
| UniRef90_F6VJ37 | V E A L S Q C C K N E K P Q A C C L N S R K P L A R S E I I P F L A K |
| UniRef90_F6VJ37 | V E A L S Q C C K N E K P Q A C C L N S R K P L A R S E I I P F L A K |
| UniRef90_UPI0004548528 | S G F L E K C C Q D Q E Q E D C C F A K E G P K L S R T R A |
| UniRef90_UPI0004548528 | S G F L E K C C Q D Q E Q E D C C F A K E G P K L S R T R A |
| UniRef90_UPI0004548528 | S G F L E K C C Q D Q E Q E D C C F A K E G P K L S R T R A |
| UniRef90_UPI0002C44CBC | T N M V E K C C K A E G P E A C C F S E E G P K L E A K S Q A A S |
| UniRef90_UPI0002C44CBC | T N M V E K C C K A E G P E A C C F S E E G P K L E A K S Q A A S |
| UniRef90_UPI0002C44CBC | T N M V E K C C K A E G P E A C C F S E E G P K L E A K S Q A A S |
| UniRef90_UPI00022F5FA1 | I I A A G E K C D Q V E P E T C C F R P E A S N I G N E S E A A N K K |
| UniRef90_UPI00022F5FA1 | I I A A G E K C D Q V E P E T C C F R P E A S N I G N E S E A A N K K |
| UniRef90_UPI00022F5FA1 | I I A A G E K C D Q V E P E T C C F R P E A S N I G N E S E A A N K K |
| UniRef90_P02772 | Q E I L E K C S Q S G N L P G C C |
| UniRef90_P02772 | Q E I L E K C S Q S G N L P G C C |
| UniRef90_P02772 | Q E I L E K C S Q S G N L P G C C |
| UniRef90_F7F9M8 | K E V L S E C C K A V E P Q A C L K S Q R P L A R S E I T S F L A K |
| UniRef90_F7F9M8 | K E V L S E C C K A V E P Q A C L K S Q R P L A R S E I T S F L A K |
| UniRef90_P36953 | T A A G E E C G N I Q K P E A C C F S P E |
| UniRef90_P36953 | T A A G E E C G N I Q K P E A C C F S P E |
| UniRef90_P36953 | T A A G E E C G N I Q K P E A C C F S P E |
| UniRef90_UPI00045DE9F3 | T N V I E Q C C K A E G P E A C C F K E E |
| UniRef90_UPI00045DE9F3 | T N V I E Q C C K A E G P E A C C F K E E |
| UniRef90_UPI00045DE9F3 | T N V I E Q C C K A E G P E A C C F K E E |
| UniRef90_UPI000395D78D | G K L L R G E C C S S K D P S A C W D K R Q R I A E E L F P F L A K |
| UniRef90_UPI000395D78D | G K L L R G E C C S S K D P S A C W D K R Q R I A E E L F P F L A K |
| UniRef90_G1TZC1 | T H L L V Q V C C R T E K S E I C F Q E E G S K L L E E E C Q S |
| UniRef90_G1TZC1 | T H L L V Q V C C R T E K S E I C F Q E E G S K L L E E E C Q S |
| UniRef90_G1TZC1 | T H L L V Q V C C R T E K S E I C F Q E E G S K L L E E E C Q S |
| UniRef90_L5LGU8 | K T L L G E C C D S K D P A V C F D A K V P Q L K E E L L S S S F D K |
| UniRef90_L5LGU8 | K T L L G E C C D S K D P A V C F D A K V P Q L K E E L L S S S F D K |
| UniRef90_UPI00046C24BD | L G M R E K C C K A E D H E A C C F G G E E G P K L A E S Q A Q L A |
| UniRef90_UPI00046C24BD | L G M R E K C C K A E D H E A C C F G G E E G P K L A E S Q A Q L A |
| UniRef90_UPI00046C24BD | L G M R E K C C K A E D H E A C C F G G E E G P K L A E S Q A Q L A |
| UniRef90_G1KNL0 | Q K F V N A C C S D P D F N A C C F N Q N K R L E S S E E T L E I L S K |
| UniRef90_G1KNL0 | Q K F V N A C C S D P D F N A C C F N Q N K R L E S S E E T L E I L S K |
| UniRef90_G1P5R0 | S A F F F Q K C C A A A D D K E A C C F A E E E G P K L V A S S Q A V L A |
| UniRef90_G1P5R0 | S A F F F Q K C C A A A D D K E A C C F A E E E G P K L V A S S Q A V L A |
| UniRef90_G1P5R0 | S A F F F Q K C C A A A D D K E A C C F A E E E G P K L V A S S Q A V L A |
| UniRef90_F7B3I5 | S N V V E K C C K A E G P E A C C F S E E E |
| UniRef90_F7B3I5 | S N V V E K C C K A E G P E A C C F S E E E |
| UniRef90_F7B3I5 | S N V V E K C C K A E G P E A C C F S E E E |
| UniRef90_G1TBD0 | S G M L L E K C C H G Q E R E A C C F A Q E E G P K L S K T R A |
| UniRef90_G1TBD0 | S G M L L E K C C H G Q E R E A C C F A Q E E G P K L S K T R A |
| UniRef90_G1TBD0 | S G M L L E K C C H G Q E R E A C C F A Q E E G P K L S K T R A |
| UniRef90_UPI00038C0565 | T H L L V E M C C H A E E E S D M C C F Q K E E G S K L I E K C Q S F |
| UniRef90_UPI00038C0565 | T H L L V E M C C H A E E E S D M C C F Q K E E G S K L I E K C Q S F |
| UniRef90_UPI00038C0565 | T H L L V E M C C H A E E E S D M C C F Q K E E G S K L I E K C Q S F |
| UniRef90_F7AX94 | S K M T D C C E V E E K E T C C F K E E H S K L Y N K I E T |
| UniRef90_F7AX94 | S K M T D C C E V E E K E T C C F K E E H S K L Y N K I E T |
| UniRef90_F7AX94 | S K M T D C C E V E E K E T C C F K E E H S K L Y N K I E T |
| UniRef90_G1P311 | T N L L V D K C C K A E G P E A C C F N E E E |
| UniRef90_G1P311 | T N L L V D K C C K A E G P E A C C F N E E E |
| UniRef90_G1P311 | T N L L V D K C C K A E G P E A C C F N E E E |
| UniRef90_I6QYS3 | L G M X D X C C K A E H H M E C C F G V E G P K L T K C E G |
| UniRef90_I6QYS3 | L G M X D X C C K A E H H M E C C F G V E G P K L T K C E G |
| UniRef90_I6QYS3 | L G M X D X C C K A E H H M E C C F G V E G P K L T K C E G |
| UniRef90_UPI00046BB86A | S A L I Q K C C A A D D K E A C C F A D E G P K L V A S C Q A I L A |
| UniRef90_UPI00046BB86A | S A L I Q K C C A A D D K E A C C F A D E G P K L V A S C Q A I L A |
| UniRef90_UPI00046BB86A | S A L I Q K C C A A D D K E A C C F A D E G P K L V A S C Q A I L A |
| UniRef90_UPI0003F10DB1 | UniRef90_UPI0003F10DB1 |

The sequence logo displays the conservation of amino acids at specific positions across a large dataset of UniRef90 entries. The x-axis represents the position (1, 10, 20, 30, 40) and the y-axis lists UniRef90 entries. The color scale indicates the frequency of each amino acid at that position: red for high conservation, yellow for intermediate conservation, and blue for low conservation.

| Position | UniRef90 Entry | Conservation Pattern |
|----------|------------------------|----------------------|
| 1 | UniRef90_UPI0003F10DB1 | Red (H) |
| 1 | UniRef90_UPI000333CD07 | Yellow (C) |
| 1 | UniRef90_UPI000333CD07 | Yellow (C) |
| 1 | UniRef90_UPI000333CD07 | Yellow (C) |
| 1 | UniRef90_UPI000383E3D4 | Yellow (C) |
| 1 | UniRef90_UPI000383E3D4 | Yellow (C) |
| 1 | UniRef90_UPI000383E3D4 | Yellow (C) |
| 10 | UniRef90_F6VJ19 | Yellow (C) |
| 10 | UniRef90_F6VJ19 | Yellow (C) |
| 10 | UniRef90_F6VJ19 | Yellow (C) |
| 10 | UniRef90_UPI0004406612 | Yellow (H) |
| 10 | UniRef90_UPI0004406612 | Yellow (H) |
| 10 | UniRef90_UPI0004406612 | Yellow (H) |
| 10 | UniRef90_UPI0003832D0F | Yellow (C) |
| 10 | UniRef90_UPI0003832D0F | Yellow (C) |
| 10 | UniRef90_UPI0003832D0F | Yellow (C) |
| 10 | UniRef90_UPI000442282A | Yellow (A) |
| 10 | UniRef90_UPI000442282A | Yellow (A) |
| 10 | UniRef90_UPI00038BD6A7 | Yellow (C) |
| 10 | UniRef90_UPI00038BD6A7 | Yellow (C) |
| 10 | UniRef90_UPI00038BD6A7 | Yellow (C) |
| 20 | UniRef90_Q5CZZ1 | Yellow (A) |
| 20 | UniRef90_Q5CZZ1 | Yellow (A) |
| 20 | UniRef90_Q5CZZ1 | Yellow (A) |
| 20 | UniRef90_UPI0003AF1BB7 | Yellow (C) |
| 20 | UniRef90_UPI0003AF1BB7 | Yellow (C) |
| 20 | UniRef90_UPI0003AF1BB7 | Yellow (C) |
| 20 | UniRef90_E1BV96 | Yellow (C) |
| 20 | UniRef90_E1BV96 | Yellow (C) |
| 20 | UniRef90_E1BV96 | Yellow (C) |
| 20 | UniRef90_UP100034F41F6 | Yellow (C) |
| 20 | UniRef90_UP100034F41F6 | Yellow (C) |
| 20 | UniRef90_UP100034F41F6 | Yellow (C) |
| 30 | UniRef90_I6R7F9 | Yellow (C) |
| 30 | UniRef90_I6R7F9 | Yellow (C) |
| 30 | UniRef90_I6R7F9 | Yellow (C) |
| 30 | UniRef90_Q3T478 | Yellow (E) |
| 30 | UniRef90_Q3T478 | Yellow (E) |
| 30 | UniRef90_Q3T478 | Yellow (E) |
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| 30 | UniRef90_UP10003D0F610 | Yellow (E) |
| 30 | UniRef90_UP10003D0F610 | Yellow (E) |
| 40 | UniRef90_P08759 | Yellow (A) |
| 40 | UniRef90_P08759 | Yellow (A) |
| 40 | UniRef90_P08759 | Yellow (A) |
| 1 | UniRef90_D2I058 | Yellow (A) |
| 1 | UniRef90_D2I058 | Yellow (A) |
| 1 | UniRef90_D2I058 | Yellow (A) |
| 1 | UniRef90_UP10003D72307 | Yellow (H) |
| 1 | UniRef90_UP10003D72307 | Yellow (C) |
| 1 | UniRef90_L5K9K2 | Yellow (C) |
| 1 | UniRef90_L5K9K2 | Yellow (C) |
| 1 | UniRef90_L5K9K2 | Yellow (C) |
| 1 | UniRef90_Q5FW02 | Yellow (L) |
| 1 | UniRef90_Q5FW02 | Yellow (L) |
| 1 | UniRef90_H3A4E6 | Yellow (C) |
| 1 | UniRef90_H3A4E6 | Yellow (C) |
| 1 | UniRef90_H3A4E6 | Yellow (C) |
| 1 | UniRef90_G3UIJ9 | Yellow (C) |
| 1 | UniRef90_G3UIJ9 | Yellow (C) |
| 1 | UniRef90_G3UIJ9 | Yellow (C) |
| 1 | UniRef90_F8VQ07 | Yellow (C) |
| 1 | UniRef90_F8VQ07 | Yellow (C) |
| 1 | UniRef90_F8VQ07 | Yellow (C) |
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| 1 | UniRef90_UP100046B8D40 | Yellow (Q) |
| 1 | UniRef90_UP100046B8D40 | Yellow (Q) |
| 1 | UniRef90_F1QM90 | Yellow (K) |
| 1 | UniRef90_Q6DGV8 | Yellow (K) |
| 1 | UniRef90_Q6DGV8 | Yellow (K) |
| 1 | UniRef90_W5KYJ2 | Yellow (K) |
| 1 | UniRef90_W5KYJ2 | Yellow (K) |
| 1 | UniRef90_C9JKR2 | Yellow (C) |
| 1 | UniRef90_C9JKR2 | Yellow (C) |
| 1 | UniRef90_P02773 | Yellow (C) |
| 1 | UniRef90_P02773 | Yellow (C) |
| 1 | UniRef90_P02773 | Yellow (C) |
| 1 | UniRef90_UP100035946A8 | Yellow (E) |
| 1 | UniRef90_UP100035946A8 | Yellow (E) |
| 1 | UniRef90_UP100035946A8 | Yellow (E) |
| 1 | UniRef90_S7N713 | Yellow (E) |
| 1 | UniRef90_S7N713 | Yellow (E) |
| 1 | UniRef90_S7N713 | Yellow (E) |
| 1 | UniRef90_G3T7Q0 | Yellow (C) |
| 1 | UniRef90_G3T7Q0 | Yellow (C) |
| 1 | UniRef90_G3T7Q0 | Yellow (C) |
| 1 | UniRef90_Q5M885 | Yellow (H) |
| 1 | UniRef90_Q5M885 | Yellow (H) |
| 1 | UniRef90_UP1000350C331 | Yellow (H) |

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 UniRef90_UPI000333CD07 T V K H | S S T D G G G C C E G D A V G C I H T R S M A V N H C T N Q D S I
 UniRef90_UPI000333CD07 T V K H | S S T D G G G C C E G D A V G C I H T R S M A V N H C T N Q D S I
 UniRef90_UPI000333CD07 T V K H | S S T D G G G C C E G D A V G C I H T R S M A V N H C T N Q D S I
 UniRef90_UPI000383E3D4 L T K N M A A A A T K C C C N Q E H Q F V C M E D S A K L I L G A L C R R H E A E
 UniRef90_UPI000383E3D4 L T K N M A A A A T K C C C N Q E H Q F V C M E D S A K L I L G A L C R R H E A E
 UniRef90_UPI000383E3D4 L T K N M A A A A T K C C C N Q E H Q F V C M E D S A K L I L G A L C R R H E A E
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 UniRef90_UPI0004406612 F T K N M A A A A T K C C C N D E Q F A C M E N S A K L I L G A L C R R H E A E
 UniRef90_UPI0003832D0F F T K Q M T T I G S K C C C Q D K L L P C A E E N V L D L V L G E I C R R H L R D
 UniRef90_UPI0003832D0F F T K Q M T T I G S K C C C Q D K L L P C A E E N V L D L V L G E I C R R H L R D
 UniRef90_UPI000442282A L A E E A S E I L S K C C C S S L E E N C I Q N E V K I H I A N C N T V C C
 UniRef90_UPI000442282A L A E E A S E I L S K C C C S S L E E N C I Q N E V K I H I A N C N T V C C
 UniRef90_UPI00038BD6A7 L S E G M M A A L T T C C C T L S E E F S C V D D L A E L V L G D L C C G V N E N R
 UniRef90_UPI00038BD6A7 L S E G M M A A L T T C C C T L S E E F S C V D D L A E L V L G D L C C G V N E N R
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 UniRef90_D21058 L A V D I K N L H Q T C C C E G D V V A C V L G R S Q I M N Y T C S K H S I L
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 UniRef90_UPI0003D72307 L T M D V K N L H E T C C C E G N T L V C A L G R R Q L M N Y T C S S N Q A I L
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 UniRef90_H3A4E6 L S K Q L T A V G V K C C C K K D H P M P C T E E Y I I S K I I I G M V C E N E D L S
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 UniRef90_UP100046B8D40 F S R N I | G R V G R D C C C K E S Q K T A C Y E D Y V F K V L N R L C M G H E K S F
 UniRef90_UP100046B8D40 F S R N I | G R V G R D C C C K E S Q K T A C Y E D Y V F K V L N R L C M G H E K S F
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 UniRef90_Q6DGv8 L S S R T H S G L E K C C C L R P Q P E C I I I E E I S S V H N V L C D E S K P T
 UniRef90_W5KYJ2 V S S K H F Q S G L E K C C C L P Q P E C V I I E E F T S F Q K I L C K K E S I L G
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130 140 150 160

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| UniRef90_D21058 | R S Q E M F R E S H E R V K H H C L H E Y T K K A P Q L S A Q E L V T F T K N M F | | | |
| UniRef90_D21058 | R S Q E M F R E S H E R V K H H C L H E Y T K K A P Q L S A Q E L V T F T K N M F | | | |
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| UniRef90_Q5FW02 | E L C C K K G K G K N Q E I V K Y T L E R A R R N T K L P L L F I N K L Y D S F F | | | |
| UniRef90_H3A4E6 | D V C T A S P E E I S K R K S Y F L T K L V K W K P T I N D E Q L K K T I K V F F | | | |
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| UniRef90_H3A4E6 | D V C T A S P E E I S K R K S Y F L T K L V K W K P T I N D E Q L K K T I K V F F | | | |
| UniRef90_UP10003F0D80A | D L C C Q A Q N G V L Q E K K N R F L V D L V K L N P Q H T D Q E L R L L T H F F | | | |
| UniRef90_UP10003F0D80A | D L C C Q A Q N G V L Q E K K N R F L V D L V K L N P Q H T D Q E L R L L T H F F | | | |
| UniRef90_UP10003F0D80A | D L C C Q A Q N G V L Q E K K N R F L V D L V K L N P Q H T D Q E L R L L T H F F | | | |
| UniRef90_G3UIJ9 | D L C C Q A Q G V A V L Q S M K Q E F L I N L V K Q K L Q I T E E Q L E A V I A D F F | | | |
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| UniRef90_Q6DGV8 | Q L C C D G A Q P H G I D R Y L F L I G V K H A T I S L P V L A T I F D R I F F | | | |
| UniRef90_W5KYJ2 | Q L C C E K N Q P N N T D R Y L F Q I G V K H A S V S L P V L T T I Q E E I F F | | | |
| UniRef90_W5KYJ2 | Q L C C E K N Q P N N T D R Y L F Q I G V K H A S V S L P V L T T I Q E E I F F | | | |
| UniRef90_C9JKR2 | D I C C T L S E K E R Q I K K Q T A L V E L V K H P K A T K E Q L K A V M D D F F | | | |
| UniRef90_C9JKR2 | D I C C T L S E K E R Q I K K Q T A L V E L V K H P K A T K E Q L K A V M D D F F | | | |
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170

180

190

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 E N L L D D C C K K E N P S D C Y S H A E E K F N E T T E K S L K
 A H L V E T C C Q A E K S E T C C F Q E E G S K L I E K C Q
 A H L V E T C C Q A E K S E T C C F Q E E G S K L I E K C Q
 A H L V E T C C Q A E K S E T C C F Q E E G S K L I E K C Q
 T G L L E N C C K G K Q Q E A C F A E E G P K L I A K T Q E
 T G L L E N C C K G K Q Q E A C F A E E G P k l i A k t q e
 T G L L E N C C K G K Q Q E A C F A E E G P k l i A k t q e
 A H L V E M C C Q A E K S E I C L Q E E G S K L I K K C Q S
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 T T M R E E Q C C G G G N P Q A C F A K E E
 T T M R E E Q C C G G G N P Q A C F A K E E
 T T M R E E Q C C G G G N P Q A C F A K E E
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 Q A A A S D C C G Q A D P H S C F A E K N S Q T I A P L Q P L I A K
 S A T R E K C S D V Q E P E A C F R S E G S N I |
 S A T R E K C S D V Q E P E A C F R S E G S N I |
 L K M V Q K C C T A D E H Q G C F D T E K K P L I E H C Q K
 L K M V Q K C C T A D E H Q G C F D T E K K P L I E H C Q K
 L K M V Q K C C T A D E H Q G C F D T E K K P L I E H C Q K
 T N V V V K C C Q A E G P E A C F E E E G P K L A A K S Q A
 T N V V V K C C Q A E G P E A C F E E E G P k l a a k s q a
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 T A M R E E Q C C K E E N R E A C F A K E G P E L I K
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 T K M R E K C C A A E D H Q A C F N A E E P I L i E H C K Q L A A
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 T T F R E K C C K V D N H N A C F A E E G P N L I T Q G K A I
 T T F R E K C C K V D N H N A C F A E E G P N L i T Q G K A I
 T T F R E K C C K V D N H N A C F A E E G P N L i T Q G K A I
 L K M V Q K C C T A D E H Q P C F D T E K P V L i E H C Q K
 L K M V Q K C C T A D E H Q P C F D T E K P V L i E H C Q K
 L K M V Q K C C T A D E H Q P C F D T E K P V L i E H C Q K
 A A A A T K C C
 A A A A T K C C
 A A A A T K C C
 K R V L E K C C K L E N S L E C H Q P
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 S G L L E T C C Q G Q E Q E V C C L A E E G P k l I S K T R A
 S G L L E T C C Q G Q E Q E V C C L A E E G P k l I S K T R A
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 V Q L V E K C C G A Q R R D V C F Q E E E G P Q L I T K L L E A S S S Q
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 S A F V Q K C C A A D D K E A C F A E E G P k l V A S S Q A A L A
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 R S T V S A C C S A A D S T V C L K E K E S K L L E K
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 A A F V E K C C K A D D K E T C F A E E G K K L |
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 UniRef90_UPI00035946A8 M Q L V E M C C H A E T R E M C F Q E E E G L Q L I R R C Q
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Sequence logo showing the conservation of amino acids at each position of a protein sequence alignment. The x-axis indicates positions 1, 10, 20, 30, and 40. The y-axis lists UniProt entries. A vertical yellow bar highlights the first 10 positions.

Legend:

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

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

50 60 70 80

| | |
|------------------------|---|
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| UniRef90_F7FAY5 | L G K K M A A S A N R C C C R D E L Q S A C L E D Q A K L F L G D D L C R R H G G K |
| UniRef90_Q8UW06 | I T K T L T N I G Q K C C C K E D Q Q M P C S E G G L G M V F A Q I C Q N Q K T P |
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| UniRef90_Q91134 | L T E K V G K V A E K C C C N L D S N V S C A L E N T D K V M G S I C K Y H N K H |
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| UniRef90_UPI000333ECA6 | Q S H E I S N I P N L P C C A D L A K Y T C E N Q E T I |
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| UniRef90_F7B1W2 | H V E R K T N D A A H C C M D E K Q T A C I E R S A N L L Y G Q I C G F F A N R |
| UniRef90_F7B1W2 | H V E R K T N D A A H C C M D E K Q T A C I E R S A N L L Y G Q I C G F F A N R |
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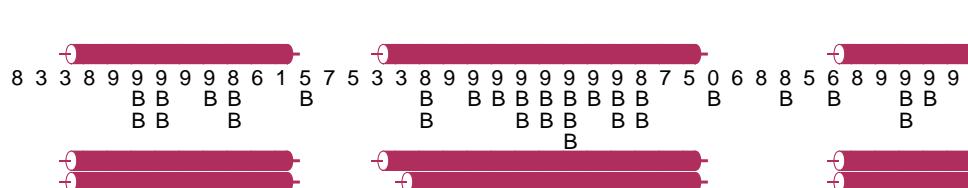
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 L K M I A S C C N A K N T N I F L G E R L Q L K
 L K M I A S C C N A K N T N I F L G E R L Q L K
 S N V V E T C C K A E G P E T C F N E E G P K L A A K S R A



This figure displays a sequence alignment of UniRef90 entries, focusing on three specific positions: 50, 60, and 70. The alignment is color-coded to highlight conservation and divergence. Positions 50, 60, and 70 are highlighted in yellow. The UniRef90 identifier for each entry is listed on the left, followed by the sequence. A legend at the bottom right indicates the color key for amino acids: black (conservative), red (hydrophobic), blue (polar), green (acidic), and orange (basic).

| UniRef90 Identifier | Sequence Position 50 | Sequence Position 60 | Sequence Position 70 |
|------------------------|---|-----------------------------------|----------------------|
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| UniRef90_UPI0002C64266 | L G Q E K A A A L T T C C T L S E E F A C V D N L V D L V L G E L C G I N E N R | | |
| UniRef90_Q9YGH6 | L T G R M A K I G V Y C C G D N K K Q P C A E E K L L D I L L G E M C E R E K K T | | |
| UniRef90_Q9YGH6 | L T G R M A K I G V Y C C G D N K K Q P C A E E K L L D I L L G E M C E R E K K T | | |
| UniRef90_Q9YGH6 | L T G R M A K I G V Y C C G D N K K Q P C A E E K L L D I L L G E M C E R E K K T | | |
| UniRef90_P21847 | L A G R M T K V A V Y C C A E N K Q T C A E E K L L D I L L G E M C E K E K H | | |
| UniRef90_P21847 | L A G R M T K V A V Y C C A E N K Q T C A E E K L L D I L L G E M C E K E K H | | |
| UniRef90_UPI0003C11130 | F A R D Y K A F A A Q C C S E E F T S D C F Q E E T D V L F Q R F C A T | | |
| UniRef90_UPI0003C11130 | F A R D Y K A F A A Q C C S E E F T S D C F Q E E T D V L F Q R F C A T | | |
| UniRef90_S7N7H2 | | S H M T T F L E H I C D N Q G M V | |
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| UniRef90_Q8JIA8 | Y A E Q L R T V A N K C C G D E K K L I C G E I Y T D F V L G N I C L H H Q K H | | |
| UniRef90_Q8JIA8 | Y A E Q L R T V A N K C C G D E K K L I C G E I Y T D F V L G N I C L H H Q K H | | |
| UniRef90_V8ND09 | L T K K V A K T A E K C C N L D S V S C A L E N T D K V I G S I C S Y H D E | | |
| UniRef90_V8ND09 | L T K K V A K T A E K C C N L D S V S C A L E N T D K V I G S I C S Y H D E | | |
| UniRef90_V8ND09 | L T K K V A K T A E K C C N L D S V S C A L E N T D K V I G S I C S Y H D E | | |
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| UniRef90_L5LI30 | F S R K L A R A G S E C C K E S Q R T A C S D D H L F K I L N K L L C V A H E K S S | | |
| UniRef90_L5LI30 | F S R K L A R A G S E C C K E S Q R T A C S D D H L F K I L N K L L C V A H E K S S | | |
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| UniRef90_G3IMS6 | | M S V F L D E I C H E K E L L S | |
| UniRef90_G3IMS6 | | M S V F L D E I C H E K E L L S | |
| UniRef90_O42279 | F A H R Y T H H A I R C C A H Q A H C L L D E N L H L F S S L C C S D L S Y Y L | | |
| UniRef90_O42279 | F A H R Y T H H A I R C C A H Q A H C L L D E N L H L F S S L C C S D L S Y Y L | | |
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| UniRef90_A9UHN1 | L T X K M V G I A S T C C S E D K W S A S G E G A D L F I G H L C I R H E A N | | |
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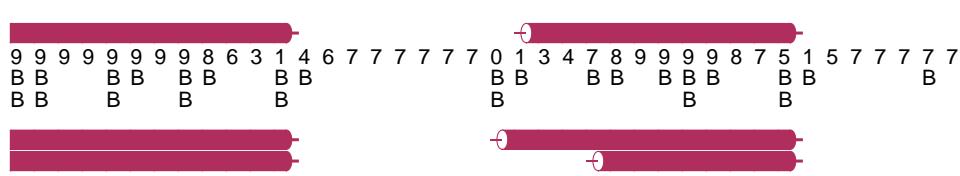
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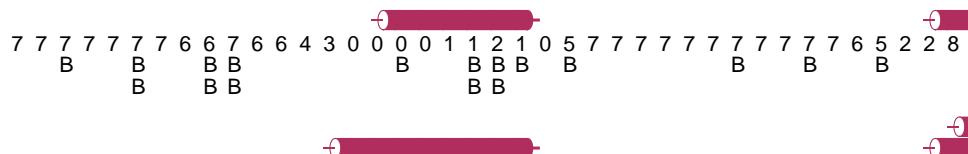
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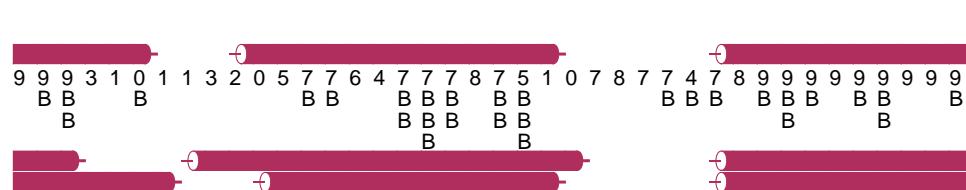
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 UniRef90_UPI0002C64266 S I N P A V D H C C K T D F A F R R P C F E G L E A D P P S T S Q G L F T F H T
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 UniRef90_Q9YGH6 F I N D N V H H C C V D S Y A N R R P C F T K L G P Y A N Y E A P V W D
 UniRef90_Q9YGH6 F I N D N V H H C C V D S Y A N R R P C F T K L G P Y A N Y E A P V W D
 UniRef90_P21847 F V N D N V R H C C V D S Y A N R R K C F T D L Q R Y P N Y V A P K W D
 UniRef90_P21847 F V N D N V R H C C V D S Y A N R R K C F T D L Q R Y P N Y V A P K W D
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 UniRef90_UPI0003C11130 P V T P L Y E T C C K K E K S D M A E C I G E M A I T S G D M P A L A I S A P E
 UniRef90_S7N7H2 D K H V F S D C C C V N N T A R H K C F L L N K D D A N Y R E L Q I P N L E
 UniRef90_UPI0003EA9ED6 P K H P E I C Q C C C S N N Y A F R R E C F S S I E V D E G Y V P A P C A P E H E
 UniRef90_Q8JIA8 P I N P R I C Q C C C S N N Y A F R R E C F S S I E V D E G Y V P A P C A P E H E
 UniRef90_Q8JIA8 F T N K Q V C H C C C D S S F I S R W E C I S N L G P D P S Y V P P P F K P K P E
 UniRef90_V8ND09 F T N K Q V C H C C C D S S F I S R W E C I S N L G P D P S Y V P P P F K P K P E
 UniRef90_V8ND09 F T N K Q V C H C C C D S S F I S R W E C I S N L G P D P S Y V P P P F K P K P E
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