

| QUERY | 1 | 10 | 20 | 30 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_K9LGW8 | G | K | V | K | V | G | I | N | G | F | G | R | I | G | R | L | V | T | R | A | S | A | F | D | T | R | N | K | D | I | V | V | A | I | N | D | D | P | F | I | L | D | L | H | | | | |
| UniRef90_F7GB03 | | | V | K | V | G | I | N | G | F | G | R | I | | | G | R | L | V | F | R | V | A | S | F | T | T | T | K | D | I | V | V | A | I | N | D | D | P | F | I | L | D | L | N | D | | |
| UniRef90_N1ZEC1 | | | V | K | V | G | I | N | G | F | G | R | I | | | G | R | L | V | F | R | A | S | L | F | T | T | T | K | D | I | V | V | A | I | N | D | D | P | F | I | L | D | L | N | D | | |
| UniRef90_Q8VXD9 | | K | A | K | I | G | I | N | G | F | G | R | I | | | G | R | L | V | L | R | I | A | L | S | R | K | D | I | V | V | A | I | N | D | D | P | F | I | L | D | L | A | D | | | | |
| UniRef90_Q37264 | | R | T | K | I | G | I | N | G | F | G | R | I | | | G | R | L | V | L | R | A | S | L | S | R | K | D | I | V | V | A | I | N | D | D | P | F | I | L | D | L | A | K | | | | |
| UniRef90_E9INY0 | | | | K | I | G | I | N | G | F | G | R | I | | | G | R | L | V | L | R | A | S | L | S | R | K | D | I | V | V | A | I | N | D | D | P | F | I | L | D | L | A | K | | | | |
| UniRef90_V7I3G4 | S | E | V | R | V | G | V | N | G | F | G | R | I | | | G | R | L | V | F | R | A | A | L | E | N | P | E | V | T | V | V | A | I | N | D | D | P | F | I | L | D | L | D | | | | |
| UniRef90_R9TFU3 | | | K | I | G | I | N | G | F | G | R | I | | | | G | R | L | V | L | R | A | A | L | E | K | G | A | T | V | V | A | I | N | D | D | P | F | I | L | D | L | P | | | | | |
| UniRef90_Q9P8C0 | | | V | K | V | G | I | N | G | F | G | R | I | | | | G | R | I | V | F | R | A | A | L | E | H | N | D | V | E | V | A | I | N | D | D | P | F | I | L | D | L | P | | | | |
| UniRef90_S9RMP8 | | | | V | K | V | G | I | N | G | F | G | R | I | | | | G | R | I | V | L | R | N | A | L | Q | A | K | S | V | Q | E | V | A | I | N | D | D | P | F | I | L | D | L | E | | |
| UniRef90_A0A024JNM3 | | | V | K | V | G | I | N | G | F | G | R | I | | | | G | R | I | V | L | R | N | A | L | K | E | K | S | N | V | Q | E | V | A | I | N | D | D | P | F | I | L | D | L | E | | |
| UniRef90_P48812 | S | K | P | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | L | R | A | A | V | E | K | D | T | V | V | A | I | N | D | D | P | F | I | L | D | L | A | T | D | | | |
| UniRef90_R7F5N7 | | | I | K | V | G | F | N | G | F | G | R | I | | | | G | K | L | A | F | Q | A | A | L | E | K | G | D | E | D | V | V | A | I | N | D | D | P | F | I | L | D | L | A | D | | |
| UniRef90_A8PVV0 | | | I | V | N | V | G | I | N | G | F | G | R | I | | | | G | R | I | V | F | R | N | S | L | N | H | N | K | D | T | V | V | A | I | N | D | D | P | F | I | L | D | L | A | D | |
| UniRef90_Q9C136 | | | I | V | N | V | G | I | N | G | F | G | R | I | | | | G | R | I | V | L | R | A | T | E | S | N | K | D | V | Q | V | V | A | I | N | D | D | P | F | I | L | D | L | P | | |
| UniRef90_Q9UVC0 | | | I | T | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | L | R | I | A | L | S | R | K | D | I | Q | I | V | A | I | N | D | D | P | F | I | L | D | L | A | P | E | |
| UniRef90_UPI0003766271 | A | T | V | K | A | N | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | F | R | A | A | L | E | H | P | D | I | V | V | A | I | N | D | D | P | F | I | L | D | L | P | | |
| UniRef90_P04970 | S | E | L | T | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | L | R | A | A | V | E | K | D | T | V | V | A | I | N | D | D | P | F | I | L | D | L | T | I | N | | | |
| UniRef90_M7B9B3 | | | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | F | R | A | A | Q | E | R | N | D | V | Q | I | V | A | I | N | D | D | P | F | I | L | D | L | D | E | | |
| UniRef90_E4T480 | | | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | M | R | V | S | L | E | R | N | D | V | V | V | A | I | N | D | D | P | F | I | L | D | L | D | V | E | | |
| UniRef90_R6UG66 | | | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | M | R | V | S | L | E | R | N | D | V | V | V | A | I | N | D | D | P | F | I | L | D | L | D | V | E | | |
| UniRef90_H9U0F9 | K | | I | K | I | G | I | N | G | F | G | R | I | | | | G | R | L | V | A | R | V | A | L | Q | R | D | D | V | E | L | V | A | I | N | D | D | P | F | I | L | D | L | T | T | D | |
| UniRef90_E4T9S8 | S | T | I | K | V | G | I | N | G | F | G | R | I | | | | G | S | L | V | F | R | N | A | M | M | E | R | D | N | I | V | V | A | I | N | D | D | P | F | I | L | D | L | N | A | E | |
| UniRef90_Q75712 | | | V | K | V | A | I | N | G | F | G | R | I | | | | G | R | L | V | M | R | V | I | A | L | S | R | A | N | V | E | V | A | I | N | D | D | P | F | I | L | D | L | T | V | D | |
| UniRef90_UPI000200171D | | | I | R | V | G | I | N | G | F | G | R | I | | | | G | R | L | A | F | R | A | V | S | L | P | D | V | E | V | V | G | I | N | D | D | P | F | I | L | D | L | V | E | | | |
| UniRef90_R5HY74 | | | K | V | K | I | G | I | N | G | F | G | R | I | | | | G | R | M | V | F | R | A | A | I | D | K | F | S | D | D | I | V | V | G | I | N | D | D | P | F | I | L | D | L | P | E |
| UniRef90_G0U6Y0 | | | | I | K | I | G | I | N | G | F | G | R | I | | | | G | R | V | V | F | R | A | A | Q | H | R | N | D | I | E | V | V | G | I | N | D | D | P | F | I | L | D | L | D | A | E |
| UniRef90_A0A058ZEN3 | | | V | K | I | G | I | N | G | F | G | R | I | | | | G | R | M | V | L | R | A | S | L | N | R | K | D | I | E | V | V | A | I | N | D | D | P | F | I | L | D | L | D | P | E | |
| UniRef90_G1ELY2 | | | V | K | I | G | I | N | G | F | G | R | I | | | | G | R | I | V | L | R | N | A | L | E | H | G | D | C | E | V | V | A | I | N | D | D | P | F | I | L | D | L | P | D | | |
| UniRef90_I0YYL7 | | | V | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | F | R | A | A | Q | A | H | P | D | M | E | V | V | A | I | N | D | D | P | F | I | L | D | L | I | A | | |
| UniRef90_B4VKU1 | A | P | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | F | R | A | G | L | E | N | P | I | E | F | C | C | I | N | D | D | P | F | I | L | D | L | P | P | E | | |
| UniRef90_K8GRK3 | | | V | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | T | R | I | A | M | D | Y | P | E | V | E | I | V | G | V | I | N | D | D | P | F | I | L | D | L | P | S | D |
| UniRef90_S3AGT6 | | | V | K | V | G | I | N | G | F | G | R | I | | | | G | R | N | V | F | R | A | A | L | N | N | A | E | V | E | I | V | A | I | N | D | D | P | F | I | L | D | L | D | V | S | |
| UniRef90_K3WLI8 | Q | V | A | I | G | I | N | G | F | G | R | I | | | | G | R | L | V | A | R | A | A | I | E | N | P | K | T | K | V | V | A | I | N | D | D | P | F | I | L | D | L | D | V | L | | |
| UniRef90_K8EL70 | | | I | K | I | G | I | N | G | F | G | R | I | | | | G | R | L | V | A | R | A | A | L | E | R | S | D | I | V | V | A | I | N | D | D | P | F | I | L | D | L | D | E | A | E | |
| UniRef90_A3QVX2 | A | P | I | K | I | G | I | N | G | F | G | R | I | | | | G | R | L | V | W | R | A | T | L | N | R | D | D | V | E | V | A | I | N | D | D | P | F | I | L | D | L | D | V | P | | |
| UniRef90_UPI0002556152 | | | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | F | V | F | R | A | S | T | L | R | D | D | I | E | V | V | G | I | N | D | D | P | F | I | L | D | L | C | D | P | E |
| UniRef90_UPI000225AE6A | | | V | K | V | G | I | N | G | F | G | R | I | | | | G | R | N | V | F | R | Q | A | L | K | R | N | D | D | V | E | V | A | I | N | D | D | P | F | I | L | D | L | T | D | A | N |
| UniRef90_E6TRD1 | | | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | V | V | F | R | Q | A | L | N | N | P | D | E | V | V | A | I | N | D | D | P | F | I | L | D | L | T | D | A | N | |
| UniRef90_Q2YC26 | | | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | M | V | F | R | A | A | V | Q | N | F | P | D | I | E | V | A | I | N | D | D | P | F | I | L | D | L | P | D | | |
| UniRef90_Q8AXB5 | | | | | | | | | | | | | | | | | G | R | L | V | T | R | A | V | V | N | S | G | K | Q | T | I | V | A | I | N | D | D | P | F | I | L | D | L | D | E | | |
| UniRef90_A0A059LPF9 | | | K | V | K | L | G | I | N | G | F | G | R | I | | | | G | R | L | V | A | R | A | A | L | L | R | D | D | V | E | V | A | I | N | D | D | P | F | I | L | D | L | H | E | | |
| UniRef90_K1Q350 | P | | L | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | L | R | A | A | L | D | K | G | V | D | V | V | A | I | N | D | D | P | F | I | L | D | L | D | P | E | | |
| UniRef90_R6CHI1 | | | I | K | I | G | I | N | G | F | G | R | I | | | | G | R | L | V | F | R | A | A | M | A | Q | P | G | D | F | E | V | V | A | I | N | D | D | P | F | I | L | D | L | G | L | |
| UniRef90_W7YHE4 | S | K | I | K | I | G | I | N | G | F | G | R | I | | | | G | R | F | V | F | R | Q | A | I | A | K | G | T | I | E | V | V | A | I | N | D | D | P | F | I | L | D | L | D | V | D | |
| UniRef90_UPI0003B6061F | | | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | F | V | F | R | A | A | V | E | R | S | D | I | E | V | V | A | I | N | D | D | P | F | I | L | D | L | D | V | E | |
| UniRef90_U6I118 | S | K | P | K | V | G | I | N | G | F | G | R | I | | | | G | R | L | V | F | R | A | A | I | C | K | G | T | I | E | V | V | A | I | N | D | D | P | F | I | L | D | L | T | D | E | |
| UniRef90_UPI0004108C82 | | | I | K | V | G | I | N | G | F | G | R | I | | | | G | R | N | V | F | R | A | A | L | G | R | E | D | I | E | V | V | A | I | N | D | D | P | F | I | L | D | L | T | D | A | K |
| UniRef90_M7PGV1 | | | K | I | R | V | G | I | N | G | F | G | R | I | | | | G | R | I | F | L | R | I | S | S | Q | A | S | N | I | E | V | V | A | I | N | D | D | P | F | I | L | D | L | K | L | |
| UniRef90_R6AVR4 | | | | K | I | G | I | N | G | F | G | R | I | | | | G | R | L | V | F | R | A | A | A | A | D | P | D | V</ | | | | | | | | | | | | | | | | | | |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QUERY | Y | M | V | Y | M | F | Q | Y | D | S | T | H | G | K | F | H | G | T | V | K | A | E | D | G | K | L | V | I | D | G | K | A | I | T | I | F | Q | E | R | D | | | | |
| UniRef90_K9LGW8 | Y | M | V | Y | L | A | K | Y | D | S | T | H | G | R | F | N | G | T | V | K | A | E | N | G | K | L | V | V | N | G | K | R | E | I | T | V | F | A | C | R | D | | | |
| UniRef90_F7GB03 | C | M | A | Y | M | L | K | F | D | S | T | H | G | R | F | N | G | T | V | K | P | E | N | G | K | L | N | V | N | G | K | R | E | I | T | V | F | A | C | R | D | | | |
| UniRef90_N1ZEC1 | Y | M | V | Y | M | L | K | Y | D | S | T | H | G | R | F | N | G | T | V | K | G | T | K | D | G | E | K | L | V | V | N | G | K | R | E | I | T | V | F | A | C | R | D | |
| UniRef90_Q8VXD9 | Y | V | R | Y | L | F | K | Y | D | S | T | H | G | V | Y | P | G | E | V | E | I | D | D | N | T | T | L | S | V | D | G | H | K | R | I | T | V | F | G | S | K | R | D | |
| UniRef90_Q37264 | Y | M | A | Y | M | F | K | Y | D | S | T | H | G | V | Y | K | G | E | S | L | K | I | D | D | N | T | T | L | S | V | D | G | H | K | R | I | T | V | F | N | S | K | R | D |
| UniRef90_E9INY0 | Y | M | V | Y | M | F | K | Y | D | S | T | H | G | K | F | K | G | E | V | I | K | A | E | D | N | G | L | V | V | N | G | N | K | I | T | V | F | N | S | K | R | D | | |
| UniRef90_V7I3G4 | Y | M | V | Y | M | L | K | Y | D | S | T | H | G | Q | F | K | G | E | V | E | T | E | T | N | S | L | V | V | N | G | E | K | I | V | K | V | F | A | E | K | R | D | | |
| UniRef90_R9TFU3 | Y | M | V | Y | M | F | K | Y | D | S | T | H | G | K | F | K | G | E | V | K | E | D | G | N | F | L | Y | V | N | G | N | K | I | T | V | F | N | E | K | R | D | | | |
| UniRef90_Q9P8C0 | Y | A | A | Y | M | L | K | Y | D | S | T | H | G | Q | F | K | G | E | V | I | K | V | E | D | L | T | I | N | G | K | T | I | R | F | Y | T | E | K | R | D | | | | |
| UniRef90_S9RMP8 | Y | M | A | Y | M | F | K | Y | D | S | T | H | G | R | Y | N | G | E | V | S | I | K | D | D | K | L | V | I | D | G | Q | A | I | T | V | F | N | E | K | R | D | | | |
| UniRef90_A0A024JNM3 | Y | A | A | Y | M | F | K | Y | D | S | T | H | G | R | Y | E | G | S | V | T | A | E | E | G | K | L | I | I | D | G | K | H | I | S | V | F | G | N | E | R | D | | | |
| UniRef90_P48812 | Y | M | V | Y | M | F | K | Y | D | S | T | H | G | R | F | K | G | S | V | S | A | E | E | G | K | L | I | I | T | N | H | I | S | V | F | H | N | E | K | R | D | | | |
| UniRef90_R7F5N7 | Y | M | A | Y | M | V | K | Y | D | T | M | H | G | R | F | N | G | T | I | E | S | K | E | N | V | L | V | V | N | G | K | R | E | I | S | V | Y | N | E | M | D | | | |
| UniRef90_A8PVV0 | Y | M | V | Y | M | L | K | Y | D | S | T | H | G | R | F | D | G | S | V | S | A | R | D | G | K | L | V | V | N | G | R | S | I | H | V | F | A | E | K | R | D | | | |
| UniRef90_Q9C136 | Y | M | V | Y | M | L | K | Y | D | T | V | H | G | R | F | D | G | S | V | E | A | K | D | G | K | L | V | V | N | G | H | A | I | A | V | S | A | E | R | D | | | | |
| UniRef90_Q9UVC0 | Y | A | S | Y | M | F | K | Y | D | S | T | H | G | R | Y | S | G | E | V | S | H | E | G | E | N | I | V | I | D | G | K | R | I | R | V | Y | Q | E | R | D | | | | |
| UniRef90_UPI0003766271 | N | L | A | Y | L | L | K | Y | D | S | T | H | G | V | Y | P | G | K | V | Q | A | K | P | D | G | I | V | M | N | D | R | F | I | P | C | F | A | M | R | N | D | | | |
| UniRef90_P04970 | Y | M | V | Y | L | F | K | Y | D | S | T | H | G | Q | F | K | G | T | V | T | Y | D | G | D | F | L | I | V | Q | K | H | K | I | R | V | F | N | E | K | R | D | | | |
| UniRef90_M7B9B3 | Y | M | V | Y | M | F | K | Y | D | S | T | H | G | R | Y | S | G | E | V | K | A | E | D | G | K | L | V | V | D | G | S | E | I | S | V | F | Q | C | M | K | R | D | | |
| UniRef90_E4T480 | Y | L | I | Y | M | L | Q | Y | D | T | V | H | G | Q | F | K | G | T | A | E | N | K | G | G | K | L | F | V | N | G | K | E | I | V | A | F | F | A | E | K | R | D | | |
| UniRef90_P6UG66 | Y | M | K | Y | M | L | T | Y | D | T | I | H | G | K | Y | N | A | D | I | K | V | E | G | N | D | L | V | I | N | G | K | I | V | K | V | F | N | C | M | E | R | D | | |
| UniRef90_H9U0F9 | Y | M | T | Y | M | F | K | Y | D | T | V | H | G | A | W | K | H | H | E | V | K | D | S | K | T | L | L | F | G | E | K | P | V | A | V | F | G | I | R | N | D | | | |
| UniRef90_E4T9S8 | Y | M | A | Y | M | L | K | Y | D | S | T | H | G | K | F | D | G | S | V | S | V | E | G | N | D | L | V | I | D | G | K | R | I | R | V | T | A | E | K | R | D | | | |
| UniRef90_Q757I2 | Y | A | A | Y | M | F | K | Y | D | S | T | H | G | K | Y | A | G | D | V | Q | Y | E | G | N | T | L | V | I | D | G | K | R | I | K | V | F | Q | E | R | D | | | | |
| UniRef90_UPI000200171D | Y | L | A | Y | M | L | R | Y | D | S | T | H | G | R | F | Q | G | D | V | R | V | E | N | G | Q | L | V | V | N | G | K | A | I | R | I | T | A | E | R | D | | | | |
| UniRef90_R5HY74 | Y | L | A | Y | M | L | K | Y | D | S | T | H | G | H | F | S | G | T | V | S | V | E | N | G | N | L | I | V | N | G | Q | K | I | R | L | T | A | E | M | D | | | | |
| UniRef90_G0U6Y0 | Y | M | A | Y | M | L | K | Y | D | S | T | H | G | R | F | D | S | T | V | E | V | E | K | D | G | A | L | V | V | N | G | K | K | I | R | V | T | C | E | R | D | | | |
| UniRef90_A0A058ZEN3 | Y | L | V | Y | L | T | K | Y | D | S | T | H | G | I | F | K | G | D | I | S | H | D | G | S | D | L | I | V | N | G | K | H | I | R | F | H | S | C | R | S | R | D | | |
| UniRef90_K1ELY2 | Y | M | V | Y | M | F | K | Y | D | S | T | H | G | R | F | K | G | N | I | S | H | G | K | D | K | N | G | H | D | D | R | S | K | I | R | I | F | N | Q | R | D | | | |
| UniRef90_I0YYL7 | Y | A | K | Y | M | L | K | Y | D | S | T | H | G | R | F | E | G | D | I | T | G | A | E | D | E | F | I | V | K | G | R | K | I | V | T | V | F | Q | S | M | K | R | D | |
| UniRef90_B4VKU1 | S | I | A | Y | L | L | K | Y | D | S | T | H | G | R | F | N | G | T | V | E | A | K | P | D | A | I | V | V | N | D | K | V | I | P | C | V | S | I | K | N | D | | | |
| UniRef90_K8GRK3 | N | L | A | Y | L | F | K | Y | D | S | T | H | G | M | F | K | G | T | V | E | A | K | P | E | G | I | V | I | N | G | R | L | I | P | C | H | A | E | K | R | D | | | |
| UniRef90_S3AGT6 | T | L | A | H | L | L | K | Y | D | T | T | H | G | R | L | N | A | T | V | E | A | G | E | G | E | L | K | V | N | G | R | K | I | S | I | K | V | F | A | E | R | D | | |
| UniRef90_K3WLI8 | Y | M | V | Y | L | F | K | Y | D | S | T | H | G | K | Y | P | G | T | V | E | H | K | D | G | N | L | V | V | D | G | Q | E | I | R | V | F | S | A | R | N | D | | | |
| UniRef90_K8EL70 | Y | L | A | Y | M | F | K | Y | D | S | T | H | G | N | L | K | C | P | V | I | N | D | D | G | E | L | I | N | G | K | K | C | V | K | L | F | T | E | R | D | | | | |
| UniRef90_A3QVX2 | Y | M | V | Y | M | A | K | Y | D | S | T | H | G | N | L | K | T | H | D | V | Q | Q | D | G | K | L | M | V | N | G | K | I | S | I | T | I | F | G | K | M | D | | | |
| UniRef90_UPI0002556152 | Y | L | A | Y | M | L | K | Y | D | S | T | H | G | K | F | E | G | T | V | E | A | K | D | G | N | L | I | V | N | G | K | T | I | R | V | T | A | E | R | D | | | | |
| UniRef90_UPI000225AE6A | M | L | A | H | L | L | K | Y | D | S | T | H | G | V | L | Q | E | E | V | S | V | N | G | S | N | I | V | V | G | D | K | E | I | K | V | L | A | E | R | D | | | | |
| UniRef90_E6TRD1 | T | L | A | H | L | L | K | Y | D | S | T | H | G | K | L | D | A | T | V | E | S | V | S | G | D | N | I | V | V | G | D | K | E | I | K | V | T | A | E | R | D | | | |
| UniRef90_Q2YC26 | Y | L | A | Y | M | L | Q | H | D | S | T | H | G | R | F | K | G | D | V | S | I | E | D | S | T | L | I | V | N | G | K | R | I | T | R | L | T | A | I | K | D | | | |
| UniRef90_Q8AXB5 | Y | M | V | Y | M | F | K | Y | D | S | T | H | G | R | F | K | G | T | V | K | S | E | N | G | K | L | V | I | N | G | Q | P | I | V | H | G | F | Q | E | R | D | | | |
| UniRef90_A0A059LPF9 | Y | A | A | Y | M | L | K | Y | D | S | T | H | G | Q | F | K | G | E | V | T | H | W | E | K | G | I | V | V | N | G | K | E | I | V | H | G | F | M | C | M | K | | | |
| UniRef90_K1Q350 | Y | M | V | Y | M | F | K | Y | D | S | T | H | G | V | F | N | G | E | I | K | I | D | G | G | K | L | V | I | N | G | K | A | M | S | V | Y | C | E | R | D | | | | |
| UniRef90_R6CHI1 | Y | M | V | Y | M | T | K | Y | D | S | M | H | G | Q | F | N | G | T | L | E | V | K | D | G | K | F | V | V | N | G | S | H | A | I | N | V | Y | D | C | K | R | D | | |
| UniRef90_W7YHE4 | Y | M | A | Y | M | L | K | Y | D | S | T | H | G | I | F | N | G | T | V | D | V | K | D | G | K | L | V | V | N | G | S | E | I | R | V | T | A | E | R | N | D | | | |
| UniRef90_UPI0003B6061F | Y | M | A | Y | M | L | K | Y | D | S | T | H | G | R | F | N | G | T | V | E | V | K | D | G | N | L | I | V | N | G | K | T | V | R | V | T | A | E | R | N | D | | | |
| UniRef90_U6I118 | Y | M | V | Y | M | F | K | Y | D | S | T | H | G | P | F | I | G | E | V | K | E | K | D | G | K | L | V | I | N | G | H | A | I | S | V | Y | K | E | L | N | D | | | |
| UniRef90_UPI0004108C82 | T | L | A | M | L | L | K | Y | D | S | T | H | G | R | L | D | A | D | V | Q | A | D | G | D | A | L | V | V | N | G | R | R | I | T | V | L | A | E | R | D | | | | |
| UniRef90_M7PGV1 | Y | M | E | Y | L | F | K | Y | D | T | V | H | G | Q | F | Q | G | E | V | S | T | R | D | G | L | S | V | N | G | K | T | I | R | V | F | S | E | R | D | | | | | |
| UniRef90_R6AVR4 | Y | M | A | Y | M | L | R | Y | D | T | V | H | G | R | F | D | G | E | I | K | V | E | N | G | K | L | V | V | N | G | E | A | I | S | V | Y | N | C | M | D | | | | |
| UniRef90_B1GZE8 | Y | M | A | Y | M | L | K | Y | D | S | T | H | G | T | F | K | G | T | V | E | V | K | N | G | N | L | I | V | N | G | N | T | I | R | V | T | A | E | K | N | D | | | |
| UniRef90_A3XJ91 | H | L | A | Y | L | L | K | Y | D | S | T | H | G | N | F | D | G | T | V | E | V | K | D | G | N | L | V | V | D | G | K | T | V | R | I | T | A | E | R | D | | | | |
| UniRef90_C6Y446 | Y | M | A | Y | M | L | K | Y | D | S | T | H | G | R | F | D | G | T | I | A | V | E | N | G | H | L | V | V | N | G | K | T | V | R | I | T | A | E | R | D | | | | |
| UniRef90_E0I6D5 | T | M | A | H | L | L | K | Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| QUERY | | | 90 | | 100 | | 110 | | 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|----|---|-----|---|-----|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_K9LGW8 | P | A | E | I | K | W | G | D | A | G | T | A | Y | V | V | E | S | T | G | V | F | T | T | M | E | K | A | G | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_F7GB03 | P | A | K | E | I | K | W | S | T | A | G | A | D | Y | V | L | E | S | T | G | A | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I |
| UniRef90_N1ZEC1 | P | K | E | I | P | W | A | S | A | G | A | E | Y | V | V | E | S | T | G | A | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_Q8VXD9 | P | A | D | I | P | W | G | D | S | G | V | D | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_Q37264 | P | S | E | I | P | W | G | N | Y | G | A | E | Y | V | V | E | S | T | G | A | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_E9INY0 | P | K | A | I | P | W | A | K | A | G | A | E | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_V7I3G4 | P | N | N | I | A | W | G | S | V | G | A | D | Y | V | L | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_R9TFU3 | P | T | A | I | N | W | A | S | A | G | A | E | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_Q9P8C0 | P | A | N | I | P | W | S | E | T | G | A | Y | V | V | E | S | T | G | V | F | T | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_S9RMP8 | P | A | N | I | K | W | A | S | A | G | A | D | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_A0A024JNM3 | P | A | D | I | P | W | G | S | V | E | A | D | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_P48812 | P | A | E | I | P | W | G | V | D | G | A | E | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_R7F5N7 | P | H | N | I | P | W | G | E | L | G | V | E | Y | V | F | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_A8PVV0 | P | S | N | I | P | W | S | E | S | G | A | L | Y | V | V | D | S | T | G | V | F | K | S | T | E | K | A | K | A | H | L | K | G | G | A | K | R | V | V | | |
| UniRef90_Q9C136 | P | T | S | I | P | W | G | S | A | G | A | D | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_Q9UVC0 | P | V | N | I | P | W | G | K | D | G | V | D | Y | V | I | D | S | T | G | V | F | K | E | L | D | S | A | Q | K | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_UPI0003766271 | P | A | E | L | A | W | G | S | V | E | D | Y | V | V | E | S | T | G | L | F | T | D | F | E | T | A | S | A | H | L | K | G | G | A | K | R | V | I | | | |
| UniRef90_P04970 | P | A | A | I | A | W | G | S | V | K | A | D | F | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_M7B9B3 | P | S | E | I | P | W | G | D | A | G | A | L | Y | V | V | E | S | T | G | V | F | L | S | V | D | K | A | K | A | H | L | K | G | G | A | K | R | V | V | | |
| UniRef90_E4T480 | P | A | N | I | G | W | A | S | G | A | D | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_R6UG66 | P | S | E | I | P | W | G | E | V | G | A | E | Y | V | V | E | S | T | G | V | F | T | T | T | M | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_H9U0F9 | P | E | E | V | P | W | G | E | T | G | A | D | F | V | V | E | S | T | G | V | F | T | D | K | E | K | A | A | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_E4T9S8 | P | N | N | L | K | W | N | E | V | G | A | D | Y | V | V | E | S | T | G | L | F | L | T | K | E | T | A | Q | K | H | L | K | G | G | A | K | R | V | L | | |
| UniRef90_Q75712 | P | A | Q | L | P | W | G | E | G | I | D | I | A | I | V | E | S | T | G | V | F | K | E | L | D | S | A | Q | K | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_UPI000200171D | P | N | N | L | N | W | G | A | V | G | A | D | Y | V | L | E | S | T | G | F | F | L | T | D | E | A | A | R | A | H | L | K | G | G | A | K | R | V | M | | |
| UniRef90_R5HY74 | P | A | N | L | K | W | N | E | V | G | A | E | I | V | V | E | S | T | G | L | F | L | S | D | D | E | K | A | R | K | H | L | K | G | G | A | K | R | V | M | |
| UniRef90_G0U6Y0 | P | A | N | L | K | W | G | D | V | G | A | E | I | V | V | E | S | T | G | L | F | L | S | D | D | T | A | R | K | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_A0A058ZEN3 | P | A | E | I | P | W | G | A | T | G | T | Q | I | V | V | E | A | T | G | V | F | L | D | K | A | S | A | G | A | H | L | K | G | G | A | K | R | V | V | | |
| UniRef90_K1ELY2 | P | T | N | I | E | W | D | A | T | G | A | E | Y | V | V | E | S | T | G | V | F | T | T | V | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_I0YYL7 | P | A | D | E | I | P | W | G | E | A | G | A | E | Y | V | V | E | S | T | G | V | F | T | T | D | L | A | K | A | G | A | H | L | K | G | G | A | K | R | V | I |
| UniRef90_B4VKU1 | P | E | E | L | P | W | G | K | Y | G | V | E | Y | V | V | E | S | T | G | L | F | T | T | Y | D | G | A | S | K | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_K8GRK3 | P | S | Q | L | P | W | G | K | D | G | A | D | Y | V | V | E | S | T | G | R | F | T | D | Y | A | G | A | E | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_S3AGT6 | P | S | G | N | L | P | W | A | E | Y | G | V | E | I | V | V | E | S | T | G | I | F | T | T | D | K | A | K | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_K3WLI8 | P | S | E | I | P | W | G | S | A | G | A | T | Y | V | C | E | S | T | G | V | F | T | T | T | E | K | A | N | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_K8EL70 | P | A | M | I | K | W | D | S | A | N | V | D | V | V | E | S | T | G | V | F | T | T | T | E | Q | A | S | A | H | L | K | G | G | A | K | R | V | I | | | |
| UniRef90_A3QVX2 | P | A | K | E | I | P | W | K | E | A | G | A | T | F | V | V | E | S | T | G | V | F | T | T | L | E | G | A | S | S | H | L | V | G | G | A | E | T | V | I | |
| UniRef90_UPI0002556152 | P | A | N | L | K | W | G | D | I | G | V | D | V | V | A | E | A | T | G | L | F | L | T | D | E | K | A | R | K | H | L | K | G | G | A | K | R | V | M | | |
| UniRef90_UPI000225AE6A | P | A | N | L | P | W | G | E | L | G | V | E | V | V | V | E | S | T | G | R | F | V | D | R | D | S | S | Q | K | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_E6TRD1 | P | A | K | L | T | W | G | D | Q | G | V | E | V | V | V | E | S | T | G | F | F | T | K | R | A | D | A | S | A | K | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_Q2YC26 | P | A | E | L | K | W | G | E | V | G | A | E | V | V | V | E | S | T | G | L | F | L | T | K | E | S | C | Q | K | H | L | K | G | G | A | K | R | V | M | | |
| UniRef90_Q8AXB5 | P | T | N | I | K | W | G | D | A | G | A | D | Y | V | V | E | S | T | G | V | F | T | T | T | D | K | A | S | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_A0A059LPF9 | P | A | D | E | I | P | W | G | K | L | G | V | D | V | V | C | E | S | T | G | V | F | T | T | S | K | D | S | A | N | A | H | L | K | G | G | A | R | V | I | |
| UniRef90_K1Q350 | P | A | N | I | P | W | S | K | D | G | A | E | Y | I | V | D | S | T | G | C | F | T | T | T | D | K | A | G | S | H | M | K | G | G | A | K | R | V | I | | |
| UniRef90_R6CHI1 | P | S | E | I | P | W | A | E | C | G | A | E | Y | V | V | E | S | T | G | V | F | T | T | T | E | K | A | K | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_W7YHE4 | P | A | D | I | N | W | G | A | V | E | A | E | Y | V | V | E | S | T | G | L | F | L | T | K | E | K | A | Q | G | H | L | K | G | G | A | K | R | V | M | | |
| UniRef90_UPI0003B6061F | P | A | D | L | K | W | D | E | V | G | V | E | V | V | A | E | A | T | G | F | F | L | T | D | E | T | A | R | K | H | L | K | G | G | A | K | R | V | L | | |
| UniRef90_U6I118 | P | A | E | A | I | P | W | D | K | D | G | V | Y | V | V | E | S | T | G | V | N | T | D | M | A | K | A | G | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_UPI0004108C82 | P | A | N | L | P | W | G | K | L | G | V | E | L | V | I | E | S | T | G | R | F | T | D | K | N | A | A | V | A | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_M7PGV1 | P | A | S | I | P | W | G | S | C | E | A | E | Y | I | V | E | A | T | G | V | F | T | T | E | S | Q | A | S | L | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_R6AVR4 | P | K | E | I | P | W | G | E | C | G | A | E | Y | V | V | E | S | T | G | K | F | T | T | T | E | L | A | S | Q | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_B1GZE8 | P | A | D | L | K | W | S | D | A | E | A | E | Y | V | V | E | S | T | G | L | F | L | S | K | D | K | A | L | A | H | L | K | G | G | A | K | R | V | M | | |
| UniRef90_A3XJ91 | P | K | N | L | K | W | D | E | V | G | A | D | V | V | A | E | C | T | G | I | F | T | S | M | E | T | A | D | Y | H | L | K | G | G | A | K | R | V | I | | |
| UniRef90_C6Y446 | P | A | N | L | K | W | N | E | V | G | V | E | T | V | I | E | S | T | G | L | F | L | T | R | A | D | A | E | K | H | L | K | G | G | A | K | R | V | F | | |
| UniRef90_E0I6D5 | P | A | N | L | P | W | S | N | Y | G | V | E | L | V | I | E | S | T | G | R | F | N | D | K | T | A | E | A | H | L | K | G | G | A | K | R | V | I | | | |
| UniRef90_R5BFP8 | P | A | C | D | V | P | W | R | E | C | G | A | E | Y | I | V | E | S | T | G | V | N | T | T | T | E | K | A | S | A | H | L | K | G | G | A | K | R | V | I | |
| UniRef90_A6H007 | P | A | T | L | K | W | D | E | V | G | V | D | V | V | A | E | C | T | G | I | F | T | T | T | E | T | A | Q | A | H | L | K | G | G | | | | | | | |

| QUERY | 130 | 140 | 150 | 160 |
|------------------------|---|-----|-----|-----|
| UniRef90_K9LGW8 | S A P S A D A P M F V M G V N H F K Y A N S L K I V S N A S C T T N N C L A P L A | | | |
| UniRef90_F7GB03 | S A P S K D D A P T M Y V V G V N L D E K Y D N S H M K I V V S N A S C C T T N N C L A P L A | | | |
| UniRef90_N1ZEC1 | S A P S S D D A P M F V M G V N N D E K Y S K D M T V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_Q8VXD9 | S A P S E D A D A P M Y V V M G V N N E E K Y S A D Q N I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_Q37264 | S A P S A D A D A P M F V V G V N E G S Y K D P E M S I I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_E9INY0 | S A P S A D A D A P M F V V G V N L D A Y T D P S F K I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_V7I3G4 | S A P S A D A D A P M F V M G V N N D K T Y T D P D M K V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_R9TFU3 | S A P S A D A D A P M F V M G V N N H E K Y T D P S L Q E V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_Q9R8C0 | S A P S A D A D A P M F V M G V N N E T Y T K D I E V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_S9RMP8 | S A P S K D A D A P M Y V V G V N T D E F K T D E K V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_A0A024JNM3 | S A P S A D A D A P M F V V G V N N H E K Y T S D L E V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_P48812 | S A P S A D A D A P M F V M G V N N D Y T D K A N N H I I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_R7F5N7 | S A P S K D A D A P M F V M G V N N E T Y T D S M N I V S N A S C C C T T T N N C L A P L A | | | |
| UniRef90_A8PVV0 | S A P S E D A D A P M Y V V C G C N L D E S Y N S P S E N I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_Q9C136 | S A P S A D A D A P M F V V C G V N L E A Y K S E D Y N I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_Q3UVC0 | T A P S S T A P M F V V G V N E D K Y T P D L N K I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_UPI0003766271 | S A P T K D P E R V M G V N H D S Y N P E H D T I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_P04970 | S A P S A D A D A P M Y V V V N H E K Y D S S N D H I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_M7B9B3 | S A P S P D A D A P M F V I V N E D K Y D P S S M T I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_E4T480 | S A P S N D A D A P M F V V C G V N L E A Y K A D M D I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_R6UG66 | S A P S K D A K M F V V M G V N N E Y T S D M N I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_H9U0F9 | S A P S K D A D A P M F V V G V N E K E Y K P D I H I L V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_E4T9S8 | S A P S D D T P M F V M G V N H K D L T A D Q K I F S N A S C C T T T N N C L A P L A | | | |
| UniRef90_Q75712 | T A P S S T A P M F V M G V N E E K Y A G E T I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_UPI000200171D | S A P S K D D T P L F V M G V N H K S Y A G E Q Q I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_R5HY74 | S A P S K D D T P M F V Y G V N Q K S Y K G Q D I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_G0U6Y0 | T G P S K D D T P M F V M G V N N M T Y K G A T M P I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_A0A058ZEN3 | S A P P K D D P M F V M G C N E D T Y D K A T M P I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_G1ELY2 | S A P S A D A D A P M Y V V C G V N L D Y D P K G P K V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_I0YYL7 | S A P S A D A D A P M F V M V N E T K Y D P K T M N V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_B4VKU1 | S D P E K V P T L L M G V N H Q S Y D P N K H T V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_K8GRK3 | S A P T K D P D K V R T V N E T E F D P S A T D L I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_S3AGT6 | S A P A E D I T V V M G V N E E K Y D P S A H T I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_K3WLH8 | S A P P K D T P M Y V M G V N H K E Y N G S A H I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_K8EL70 | S A P S A D A D A P M Y V V G V N H T E Y K E S E S V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_A3QVX2 | S A P S N D A D A P M F V M G V N E E G Y K P D M K V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_UPI0002556152 | T G P S K D A T P M F V M G V N D D T Y A G Q D I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_UPI000225AE6A | S A P A E D L T I V M G V N Q N E Y D P S K H H I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_E6TRD1 | S A P A E D I T V V M G V N E D K Y D A A N H H I V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_Q2YC26 | S A P S K D D T P M F V Y G V N N D S Y D G Q A I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_Q8AXB5 | S A P S A D A D A P M F V M G V N H E K Y D K S L K V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_A0A059LPF9 | S A P S A D A D A P M F V M G V N E K Y S D K D T V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_K1Q350 | S A P S A D A D A P M F V C G V N A E K Y S D K D Q N I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_R6CHI1 | S A P A K D K P T F V V G V N H D K Y T K D M T V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_U7YHE4 | S A P S D D T P M F V M G V N N T K Y T N D M N F V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_UPI0003B6061F | T G P S D V P M F V N G V N E S E Y A G Q D I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_U6I118 | S A P S K D A P T F V V G V N L D K Y D P S M T I V V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_UPI0004108C82 | S A P A K D V T I V M G V N H E V Y D P E K H H I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_M7PGV1 | T A P S K D A P M Y V C G V N L D A Y D P S K K V I V S N A S C C T T T N N C L A P L A | | | |
| UniRef90_R6AVR4 | S A P A K D T P M F V M G V N N K E Y K S D M N V I V S | | | |

| QUERY | 170 | | | | | | | | | | | | | | | | | 180 | | | | | | | | | | | | | | | | | 190 | | | | | | | | | | | | | | | | | 200 | | | | | | | | | | | | | | | | |
|------------------------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| UniRef90_K9LGW8 | K | V | I | H | D | H | F | G | I | V | E | G | L | M | T | T | V | H | A | I | T | A | T | Q | K | T | V | D | S | P | S | G | K | L | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_F7GB03 | K | V | L | N | D | K | F | G | I | V | E | G | L | M | T | T | I | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | G | K | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_N1ZEC1 | K | V | I | N | D | K | F | G | I | V | E | G | L | M | T | T | I | H | A | S | T | T | A | T | Q | K | T | V | D | G | P | S | G | K | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q8VXD9 | K | I | V | H | Q | E | F | G | I | V | Q | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | G | K | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q37264 | K | V | V | N | E | E | F | G | I | A | E | A | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | G | M | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_E9INY0 | K | V | V | H | D | N | F | G | I | V | E | G | L | M | T | T | V | H | A | I | T | A | T | Q | K | T | V | D | G | P | S | G | K | L | W | R | D | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_V7I3G4 | K | V | L | H | E | K | F | G | I | I | E | G | L | M | S | T | V | H | A | S | T | T | A | T | Q | K | T | V | D | G | P | S | N | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_R9TFU3 | K | V | I | N | D | K | F | G | I | I | E | G | L | M | T | T | V | H | A | V | T | A | T | Q | K | T | V | D | G | P | S | G | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q9P8C0 | K | V | I | H | D | K | F | T | I | I | E | G | L | M | T | T | V | H | A | S | Y | T | A | T | Q | K | V | D | G | P | S | A | K | D | W | R | S | G | R | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_S9RMP8 | K | V | I | N | D | T | F | G | I | I | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | R | K | D | W | R | S | G | R | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_A0A024JNM3 | K | V | I | N | D | K | F | G | I | V | E | G | L | M | T | T | V | H | S | I | T | A | T | Q | K | T | V | D | G | P | S | H | K | D | W | R | S | G | R | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_P48812 | K | V | I | H | D | K | F | G | I | I | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | G | K | L | W | R | D | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_R7F5N7 | K | V | I | N | D | N | F | G | I | K | D | G | L | M | S | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | A | S | K | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_A8PVV0 | K | V | I | H | D | K | F | G | I | V | E | G | L | M | S | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | S | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q9C136 | K | V | I | N | D | N | F | G | I | A | D | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | H | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q9UVC0 | K | I | I | N | N | K | F | G | I | E | E | G | L | M | T | T | V | H | S | I | T | A | T | Q | K | T | V | D | G | P | S | H | K | D | W | R | S | G | R | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI0003766271 | K | V | L | N | D | H | F | G | I | T | E | G | L | M | T | T | V | H | A | M | T | A | T | Q | P | T | V | D | G | P | S | K | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_P04970 | K | V | I | N | D | N | F | G | I | I | E | G | L | M | T | T | V | H | A | V | T | A | T | Q | K | T | V | D | G | P | S | G | K | L | W | R | D | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_M7B9B3 | K | V | I | H | D | N | F | G | I | V | E | G | L | M | T | T | V | H | A | Y | T | A | T | Q | K | T | V | D | G | P | S | A | K | A | W | R | D | S | G | R | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_E4T480 | K | V | I | N | D | N | F | G | I | V | E | G | L | M | T | T | V | H | A | A | T | N | T | Q | K | T | V | D | A | P | S | A | K | D | W | R | S | G | R | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_R6UG66 | K | V | I | N | D | N | F | G | I | V | E | G | L | M | T | T | V | H | S | A | T | A | T | Q | K | T | V | D | G | P | S | K | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_H9U0F9 | K | V | I | N | D | R | F | G | I | V | E | G | L | M | T | T | V | H | S | I | T | A | T | Q | K | T | V | D | G | P | S | M | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_E4T9S8 | K | V | V | H | D | N | F | G | I | V | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | R | T | V | D | G | P | S | M | K | D | W | R | S | G | R | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q75712 | K | V | I | D | E | Q | F | G | I | E | E | G | L | M | T | T | V | H | A | S | L | T | A | T | Q | K | T | V | D | G | P | S | M | K | D | W | R | S | G | R | T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI000200171D | K | V | L | H | D | N | F | G | I | V | T | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | V | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_R5HY74 | K | V | L | N | E | A | F | G | I | K | R | G | L | M | T | T | I | H | A | A | T | A | T | Q | K | T | V | D | G | P | S | K | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_G0U6Y0 | K | V | L | N | D | K | F | G | I | V | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | V | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_A0A058ZEN3 | K | V | I | N | D | K | F | G | I | V | E | G | L | M | T | T | V | H | A | V | T | A | T | Q | K | T | V | D | G | P | S | G | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_G1ELY2 | K | V | I | H | D | E | F | G | I | V | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | A | K | D | W | R | S | G | R | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_I0YYL7 | K | V | V | H | N | K | F | G | I | L | K | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | K | K | D | W | R | S | G | R | S | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_B4VKU1 | K | V | I | Q | D | N | F | G | F | A | E | G | L | M | T | T | V | H | A | M | T | A | T | Q | P | T | V | D | G | P | S | K | K | D | L | R | A | G | R | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_K8GRK3 | K | V | I | H | Q | N | F | G | I | V | A | E | G | L | M | T | T | V | H | A | M | T | A | T | Q | P | T | V | D | G | P | S | K | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_S3AGT6 | K | V | L | D | E | K | F | G | I | V | K | G | M | M | T | T | V | H | S | Y | T | N | D | Q | Q | V | L | D | L | P | H | K | D | L | R | R | A | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_K3WLI8 | K | V | I | N | D | N | F | G | I | V | E | G | L | M | T | T | V | H | A | V | T | A | T | Q | L | P | V | D | G | P | S | G | K | D | W | R | A | G | R | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_K8EL70 | K | I | I | H | E | K | F | G | I | K | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | A | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_A3QVX2 | K | V | I | H | L | K | F | G | I | L | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | K | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI0002556152 | K | V | I | D | E | K | F | G | I | V | E | G | L | M | T | T | V | H | S | T | T | A | T | Q | K | T | V | D | G | P | S | L | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI000225AE6A | K | V | L | N | D | K | F | G | I | K | R | G | L | M | T | T | V | H | A | Y | T | N | D | Q | Q | I | L | D | L | P | H | K | D | Y | R | R | A | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_E6TRD1 | K | V | L | N | D | N | F | G | I | R | R | G | M | M | T | T | V | H | S | Y | T | N | D | Q | Q | I | L | D | L | P | H | K | D | L | R | R | A | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q2YC26 | K | V | L | N | D | T | F | G | V | K | R | G | L | M | T | T | V | H | A | A | T | A | T | Q | K | T | V | D | G | P | S | N | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q8AXB5 | K | V | I | H | D | N | F | H | I | V | E | G | L | M | T | T | V | H | A | V | T | A | T | Q | K | T | V | D | G | P | S | G | K | L | W | R | D | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_A0A059LPF9 | K | V | L | H | D | A | N | F | G | I | K | D | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | K | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_K1Q350 | K | V | I | H | E | K | F | G | I | V | E | G | L | M | T | T | V | H | A | Y | T | A | T | Q | K | V | D | G | P | S | N | K | D | W | R | S | G | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_R6CHI1 | K | V | I | N | D | N | F | G | V | V | E | G | L | M | S | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | N | K | D | W | R | S | G | R | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_W7YHE4 | K | V | L | N | D | K | F | G | I | V | E | G | L | M | T | T | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| QUERY | A | A | Q | N | L | I | P | A | S | T | G | A | A | K | A | V | T | G | K | V | I | P | E | L | D | G | K | L | T | G | M | A | F | R | V | P | T | A | N | V | S | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_K9LGW8 | A | G | Q | N | I | I | P | A | S | T | G | A | A | K | A | V | T | G | K | V | I | P | E | L | D | G | K | L | T | G | M | A | F | R | V | P | T | A | N | V | S | | |
| UniRef90_F7GB03 | A | G | Q | N | I | I | P | A | S | T | G | A | A | K | A | V | T | G | K | V | I | P | E | L | D | G | K | L | T | G | M | A | F | R | V | P | T | A | N | V | S | | |
| UniRef90_N1ZEC1 | A | S | A | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | K | L | T | G | M | S | F | R | V | P | T | I | D | N | V | S | | |
| UniRef90_Q8VXD9 | A | G | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | N | V | S | | | |
| UniRef90_Q37264 | A | G | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | N | V | S | | | |
| UniRef90_E9INY0 | A | A | Q | N | I | I | P | A | A | T | G | A | A | K | A | V | G | K | V | I | P | A | L | N | G | K | L | T | G | M | A | F | R | V | P | V | H | N | V | S | | | |
| UniRef90_V7I3G4 | A | S | N | N | I | I | P | A | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | K | L | T | G | M | S | F | R | V | P | T | L | D | N | V | S | | |
| UniRef90_R9TFU3 | A | A | Q | N | I | I | P | A | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | K | L | T | G | M | A | F | R | V | P | T | A | D | N | V | S | | |
| UniRef90_Q9R8C0 | A | A | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | S | D | L | N | G | K | L | T | G | M | S | F | M | R | V | P | T | S | A | N | V | S |
| UniRef90_S9RMP8 | A | G | D | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | S | S | L | N | G | K | L | T | G | M | A | F | R | V | P | T | S | D | N | V | S | |
| UniRef90_A0A024JNM3 | A | S | G | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | S | E | L | N | G | K | L | T | G | L | S | L | R | V | P | T | V | D | N | V | S | |
| UniRef90_P48812 | A | G | Q | N | I | I | P | A | S | T | G | A | A | K | A | V | G | K | V | I | P | S | G | L | N | G | K | L | T | G | M | A | N | R | V | P | T | P | D | N | V | S | |
| UniRef90_R7F5N7 | A | A | G | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | S | S | L | N | G | K | L | T | G | M | S | F | R | V | P | T | L | D | N | V | S | |
| UniRef90_A8PVV0 | A | A | G | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | S | S | L | N | G | K | L | T | G | M | A | F | R | V | P | T | L | D | N | V | S | |
| UniRef90_Q9C136 | A | A | A | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | A | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_Q9UVC0 | A | S | G | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | A | G | K | L | T | G | M | S | L | R | V | P | T | V | D | N | V | S | | |
| UniRef90_UPI0003766271 | A | A | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | S | L | V | L | P | E | L | K | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_P04970 | A | G | Q | N | I | I | P | A | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_M7B9B3 | A | H | Q | N | I | I | P | A | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | R | L | T | G | M | A | F | R | V | P | V | S | A | D | N | V | S | |
| UniRef90_E4T480 | I | L | G | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | A | L | N | G | K | L | T | G | M | A | F | R | V | P | T | A | D | N | V | S | | |
| UniRef90_R6UG66 | A | T | Y | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | S | S | L | N | G | K | L | T | G | M | A | F | R | V | P | T | L | D | N | V | S | |
| UniRef90_H9U0F9 | A | S | F | N | I | F | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | S | S | L | N | G | K | L | T | G | M | S | F | R | V | P | T | V | D | N | V | S | |
| UniRef90_E4T9S8 | A | L | L | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | S | S | L | N | G | K | L | T | G | M | S | F | R | V | P | T | A | D | N | V | S | |
| UniRef90_Q75712 | A | S | G | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | Q | L | N | G | K | L | T | G | M | A | F | R | V | P | T | V | D | N | V | S | | |
| UniRef90_UPI000200171D | A | G | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | G | R | V | L | P | E | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_R5HY74 | I | L | E | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | E | L | N | G | K | L | T | G | M | S | M | R | V | P | T | S | D | N | V | S | | |
| UniRef90_G0U6Y0 | A | A | Q | N | I | I | P | S | A | T | G | A | A | K | A | V | G | K | I | L | P | A | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | N | V | S | | | |
| UniRef90_A0A058ZEN3 | A | G | Q | N | I | I | P | A | S | T | G | A | A | R | A | V | G | K | V | L | P | V | L | A | G | K | L | T | G | M | S | F | R | V | P | T | P | N | V | S | | | |
| UniRef90_G1ELY2 | A | S | A | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | S | L | N | G | K | L | T | G | L | A | F | R | V | P | T | S | N | V | S | | | |
| UniRef90_I0YYL7 | A | S | T | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | A | L | N | G | K | L | T | G | M | A | F | R | V | P | T | T | D | N | V | S | | |
| UniRef90_B4VKU1 | A | A | Q | N | I | I | P | A | S | T | G | A | A | K | A | V | T | L | V | L | P | E | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_K8GRK3 | A | S | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | A | L | V | L | P | E | L | K | G | K | L | T | G | M | A | F | R | V | G | T | P | D | N | V | S | | |
| UniRef90_S3AGT6 | A | A | E | N | I | I | P | S | S | T | G | A | A | K | A | V | S | L | V | L | P | Q | L | K | G | K | L | T | N | G | M | A | M | R | V | P | T | P | N | V | S | | |
| UniRef90_K3WLH8 | C | G | S | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | A | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_K8EL70 | A | G | A | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | A | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_A3QVX2 | I | L | D | N | I | I | P | S | A | T | G | A | A | K | A | V | G | K | V | L | P | A | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_UPI0002556152 | A | A | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | Y | P | K | L | N | G | L | L | T | G | M | S | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_UPI000225AE6A | A | A | E | N | I | I | P | T | T | T | G | A | A | K | A | V | A | L | V | L | P | E | L | K | G | K | L | T | N | G | M | A | V | R | V | P | V | P | D | G | S | | |
| UniRef90_E6TRD1 | A | A | E | N | I | I | P | T | T | T | G | A | A | K | A | V | A | L | V | L | P | E | L | K | G | K | L | T | N | G | M | A | M | R | V | P | T | S | D | N | V | S | |
| UniRef90_Q2YC26 | I | L | E | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | T | K | L | T | G | M | A | F | R | V | P | T | S | D | N | V | S | | |
| UniRef90_Q8AXB5 | A | N | Q | N | I | I | P | A | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | K | L | T | G | M | A | F | R | V | P | V | P | N | V | S | | | |
| UniRef90_A0A059LPF9 | A | A | N | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | L | P | D | L | N | G | K | L | T | G | M | A | F | R | V | P | T | L | D | N | V | S | | |
| UniRef90_K1Q350 | A | A | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | D | L | N | G | K | L | T | G | M | A | F | R | V | P | V | P | D | N | V | S | | |
| UniRef90_R6CHI1 | A | A | G | N | I | I | P | S | S | T | G | A | A | K | A | C | A | L | V | I | P | E | V | K | G | K | L | T | G | M | S | F | R | V | P | T | L | D | N | V | S | | |
| UniRef90_W7YHE4 | A | G | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | E | L | N | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_UPI0003B6061F | A | G | Q | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | A | L | N | G | L | L | T | G | M | A | F | R | V | P | T | A | N | V | S | | | |
| UniRef90_U6I118 | G | A | L | N | I | I | P | A | Q | T | G | A | A | K | A | V | T | K | V | I | P | E | L | Q | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_UPI0004108C82 | A | G | L | S | I | I | P | T | S | T | G | A | A | R | A | V | G | L | V | L | P | H | L | K | G | R | L | T | N | G | M | A | M | R | V | P | T | P | N | V | S | | |
| UniRef90_M7PGV1 | A | F | G | N | I | I | P | S | E | T | G | A | A | S | A | V | G | K | I | L | P | S | L | N | G | K | L | T | G | M | A | F | R | V | P | V | A | N | V | S | | | |
| UniRef90_R6AVR4 | A | A | H | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | A | L | N | G | K | L | T | G | M | S | M | R | V | P | T | I | D | N | V | S | | |
| UniRef90_B1GZE8 | T | S | G | N | I | I | P | S | S | T | G | A | A | K | A | V | G | K | V | I | P | Q | L | N | G | K | L | T | G | M | S | F | R | I | P | T | L | D | N | V | S | | |
| UniRef90_A3XJ91 | A | L | A | N | I | I | P | A | S | T | G | A | A | V | A | V | T | K | V | I | P | E | L | K | G | K | L | T | G | M | A | F | R | V | P | T | P | D | N | V | S | | |
| UniRef90_C6Y446 | G | F | S | N | I | I | P | S | S | T | G | A | A | K | A | V | G | M | V | L | P | E | L | K | G | K | L | T | G | M | S | F | R | V | P | V | A | D | N | V | S | | |
| UniRef90_E0I6D5 | A | L | S | I | I | I | P | T | T | T | G | A | A | K | A | M | G | L | V | M | P | E | L | N | G | K | I | H | G | Y | S | M | R | V | P | V | V | S | | | | | |
| UniRef90_R5BFP8 | A | A | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| QUERY | V | L | D | L | T | C | R | L | E | K | P | A | K | Y | D | D | I | K | K | V | V | K | E | A | S | E | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_K9LGW8 | V | V | D | L | T | C | C | R | L | E | K | E | A | T | K | Y | D | D | I | K | K | V | V | K | E | A | S | E | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_F7GB03 | V | V | D | L | T | C | C | R | L | E | K | E | A | T | K | Y | D | D | I | K | K | V | V | K | E | A | S | E | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_N1ZEC1 | V | V | D | L | T | C | C | R | L | E | K | E | A | T | K | Y | D | D | I | K | K | V | V | K | E | A | S | E | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_Q8VXD9 | V | V | D | L | T | C | C | R | L | E | K | E | A | T | K | Y | D | D | I | K | K | V | V | K | E | A | S | E | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_Q37264 | V | V | D | L | T | C | C | R | L | E | K | E | A | T | K | Y | D | D | I | K | K | V | V | K | E | A | S | E | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_E9INY0 | V | V | D | L | T | V | R | L | E | K | P | A | S | Y | E | E | I | | | K | A | K | V | K | E | A | A | D | G | S | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_V7I3G4 | V | V | D | L | T | A | R | L | E | K | S | A | T | Y | E | E | I | | | K | A | A | V | K | E | A | S | E | G | E | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_R9TFU3 | V | V | D | L | T | V | R | L | E | K | E | A | T | Y | E | E | I | | | C | A | T | L | K | E | A | A | D | G | Q | M | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_Q9P8C0 | V | V | D | L | T | V | R | L | E | K | G | A | T | Y | D | E | I | | | K | E | A | V | K | E | A | A | D | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_S9RMP8 | V | V | D | L | T | C | K | L | E | K | P | T | T | Y | E | D | I | | | K | A | A | V | K | E | A | A | D | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_A0A024JNM3 | V | V | D | L | T | V | R | L | E | K | N | G | A | T | Y | D | E | I | | | K | Q | V | K | E | A | A | D | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_P48812 | V | V | D | L | T | C | R | L | E | K | Q | G | A | T | Y | D | E | I | | | K | A | A | V | K | E | A | A | D | G | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_R7F5N7 | V | V | D | L | T | C | N | L | E | K | P | A | S | Y | E | E | I | | | C | A | A | V | K | E | A | S | E | N | E | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_A8PVV0 | V | V | D | L | T | V | R | L | E | K | S | A | S | Y | D | E | I | | | K | A | E | I | K | R | A | S | E | T | T | M | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_Q9C136 | V | V | D | L | T | V | R | L | E | S | K | G | A | S | Y | D | E | I | | | K | Q | A | I | K | R | A | S | E | T | T | M | K | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_Q9UVC0 | V | V | D | L | T | V | K | L | L | K | D | A | T | Y | D | E | I | | | K | A | A | V | K | E | A | A | E | G | S | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_UPI0003766271 | V | V | D | L | T | F | K | T | E | K | P | A | T | Y | D | E | I | | | C | E | V | M | K | E | A | A | E | N | S | P | L | K | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_P04970 | V | V | D | L | T | V | R | L | E | K | P | A | S | Y | D | E | I | | | K | K | V | V | K | E | A | A | D | G | P | M | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_M7B9B3 | V | V | D | L | T | C | R | L | E | K | P | A | T | Y | A | E | I | | | K | E | A | M | K | K | A | S | E | D | G | P | M | A | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_E4T480 | V | V | D | L | T | V | R | L | E | K | A | A | S | Y | D | E | I | | | K | A | A | M | K | L | A | S | E | T | T | M | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_R6UG66 | V | V | D | L | T | C | R | L | E | K | G | A | S | Y | E | E | I | | | V | E | K | I | K | E | A | C | N | G | E | L | K | G | I | L | M | S | W | T | E | D | E | V | | | |
| UniRef90_H9U0F9 | V | V | D | L | T | V | R | L | E | K | P | A | T | Y | E | Q | I | | | K | A | A | I | K | E | S | E | G | K | L | K | G | I | L | G | Y | T | E | D | E | V | | | | | |
| UniRef90_E4T9S8 | V | V | D | L | T | V | R | L | E | K | G | A | S | Y | D | E | I | | | C | A | A | I | K | A | S | E | E | G | E | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_Q757I2 | V | V | D | L | T | V | K | L | N | K | E | T | T | Y | D | E | I | | | K | A | A | I | K | A | S | E | E | G | K | L | K | G | I | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_UPI000200171D | V | V | D | L | T | V | N | L | E | K | P | A | T | Y | E | Q | I | | | K | A | A | M | K | A | A | S | E | E | G | E | L | A | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_R5HY74 | V | V | D | L | T | V | E | L | E | K | T | T | T | Y | E | Q | I | | | C | K | A | M | K | A | A | S | E | E | G | E | L | K | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_G0U6Y0 | V | V | D | L | T | V | R | L | E | K | P | A | T | Y | E | Q | I | | | C | K | D | A | I | K | A | S | E | E | G | E | L | K | G | I | L | M | G | Y | M | D | E | E | I | | |
| UniRef90_A0A058ZEN3 | V | V | D | L | T | V | R | L | E | K | P | A | S | Y | E | D | I | | | K | K | A | L | L | E | A | S | E | Q | N | E | L | K | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_K1ELY2 | V | V | D | L | T | V | A | R | L | E | K | P | A | S | Y | D | E | I | | | K | A | A | I | K | A | S | E | N | E | L | K | G | I | L | M | G | Y | T | E | D | E | V | | | |
| UniRef90_I0YYL7 | V | V | D | L | T | C | V | L | E | K | E | A | T | Y | A | E | I | | | M | A | A | L | K | A | S | E | N | E | L | K | G | I | L | V | G | Y | T | E | D | E | V | | | | |
| UniRef90_B4VKU1 | V | V | D | L | T | F | R | T | D | K | A | T | S | Y | Q | E | I | | | C | D | A | M | K | K | A | S | E | G | E | L | K | G | I | L | V | G | Y | T | E | D | E | V | | | |
| UniRef90_K8GRK3 | V | V | D | L | T | F | K | T | E | K | A | T | S | Y | Q | E | I | | | C | A | A | M | K | K | A | S | E | G | E | M | K | G | I | L | L | N | Y | S | D | E | E | V | | | |
| UniRef90_S3AGT6 | V | T | D | L | T | V | V | E | L | N | A | N | V | T | V | D | E | I | | | N | N | A | L | K | E | A | A | D | G | P | L | K | G | I | L | L | G | Y | T | E | D | E | V | | |
| UniRef90_K3WLI8 | V | V | D | L | T | C | R | I | E | K | S | A | T | L | A | Q | I | | | K | A | T | I | K | A | S | E | G | E | L | N | G | I | L | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_K8EL70 | V | V | D | L | T | V | K | L | E | K | K | T | S | Y | E | D | I | | | C | Q | V | L | K | E | A | S | E | K | E | A | Y | A | N | I | L | E | G | Y | T | E | D | E | V | | |
| UniRef90_A3QVX2 | V | V | D | L | T | V | R | L | E | K | G | A | S | Y | D | E | I | | | K | A | E | I | K | R | A | S | E | K | N | E | L | K | G | I | L | G | Y | T | E | D | E | V | | | |
| UniRef90_UPI0002556152 | V | V | D | L | T | C | K | L | E | K | P | A | T | K | A | E | I | | | D | A | E | I | K | E | A | A | E | G | S | M | K | G | I | L | L | E | G | F | T | G | D | A | V | | |
| UniRef90_UPI000225AE6A | M | V | D | L | T | V | A | E | V | E | K | D | V | T | A | E | E | V | | | N | Q | A | F | K | E | A | A | E | G | E | L | K | G | I | L | E | F | S | E | E | A | P | L | | |
| UniRef90_E6TRD1 | L | V | D | L | T | V | A | E | L | E | K | D | V | T | A | E | E | V | | | N | N | A | L | K | E | A | A | D | G | P | L | K | G | I | L | L | E | D | F | S | E | E | A | P | L |
| UniRef90_Q2YC26 | V | V | D | L | T | V | E | L | E | K | E | A | S | Y | E | E | I | | | C | N | A | M | K | K | A | S | E | G | S | M | K | G | I | L | L | A | Y | T | E | D | E | V | | | |
| UniRef90_Q8AXB5 | V | V | D | L | T | C | R | L | E | K | A | A | S | Y | D | D | I | | | K | K | V | V | K | E | A | A | D | G | P | M | K | G | I | L | L | A | Y | T | E | D | E | V | | | |
| UniRef90_A0A059LPF9 | V | V | D | L | T | V | N | L | E | K | P | A | K | Y | N | D | I | | | M | A | K | L | K | E | A | S | E | K | E | L | K | G | I | L | L | G | F | T | E | D | E | V | | | |
| UniRef90_K1Q350 | V | V | D | L | T | C | R | I | N | K | G | A | S | Y | N | D | I | | | K | A | A | I | K | A | S | E | N | E | L | K | G | I | L | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_R6CHI1 | V | V | D | L | T | V | K | L | E | K | P | A | T | Y | E | E | I | | | C | A | K | V | K | E | A | S | E | T | T | M | K | G | I | L | L | G | Y | T | E | D | E | V | | | |
| UniRef90_W7YHE4 | V | V | D | L | T | A | R | L | E | K | G | A | S | Y | E | A | I | | | C | A | A | M | K | E | A | S | E | T | G | E | L | A | G | I | L | L | G | Y | T | E | D | E | V | | |
| UniRef90_UPI0003B6061F | V | V | D | L | T | V | N | L | K | T | P | A | T | Y | E | E | I | | | C | V | E | M | K | R | A | S | E | N | E | M | K | G | I | L | L | G | Y | T | E | D | E | V | | | |
| UniRef90_U6I118 | V | V | D | L | T | C | K | L | E | K | P | A | T | Y | E | Q | I | | | K | E | A | V | K | N | A | S | Q | S | P | L | K | G | I | L | L | D | Y | T | E | D | E | V | | | |
| UniRef90_UPI0004108C82 | V | V | D | L | T | A | E | V | S | R | P | V | T | V | E | A | V | | | N | Q | A | L | R | E | A | A | G | A | S | L | N | G | I | L | L | D | Y | T | E | D | E | V | | | |
| UniRef90_M7PGV1 | V | V | D | L | T | V | R | L | E | K | S | T | T | F | A | E | L | | | K | Q | A | I | K | T | S | S | S | G | E | L | S | G | I | L | L | S | Y | T | E | N | D | V | | | |
| UniRef90_R6AVR4 | V | V | D | L | T | C | V | L | E | K | P | A | T | Y | D | E | I | | | K | A | V | M | K | A | S | E | S | P | E | F | G | I | L | L | G | Y | T | E | D | E | V | | | | |
| UniRef90_B1GZE8 | V | V | D | L | T | V | N | L | E | K | P | A | S | Y | D | E | I | | | K | A | A | M | K | S | A | S | E | N | E | L | K | G | I | L | L | G | Y | T | E | D | E | V | | | |
| UniRef90_A3XJ91 | V | V | D | L | T | V | K | L | S | K | D | T | S | Y | E | D | I | | | K | K | T | F | K | A | S</ | | | | | | | | | | | | | | | | | | | | |

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|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QUERY | V | S | D | D | F | T | N | G | S | N | H | R | S | S | S | S | S | I | F | D | A | G | A | G | I | E | L | N | D | T | F | V | K | L | V | S | W | Y | D | N | E | F | G | Y | S | | |
| UniRef90_K9LGW8 | V | S | D | Y | F | T | N | G | S | D | K | P | N | S | S | S | S | S | I | F | D | A | E | A | G | I | A | L | N | S | D | Y | F | V | K | L | I | S | W | Y | D | N | E | F | G | Y | S |
| UniRef90_F7GB03 | V | S | T | D | F | I | L | G | D | A | R | N | S | S | S | S | S | S | I | F | D | A | E | A | G | I | A | L | N | S | D | Y | F | V | K | L | I | S | W | Y | D | N | E | F | G | Y | S |
| UniRef90_N1ZEC1 | V | S | S | D | F | I | L | G | D | A | R | N | S | S | S | S | S | S | I | F | D | A | K | A | G | I | A | L | N | D | N | F | V | K | L | V | S | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_Q8VXD9 | V | S | S | D | F | I | L | G | D | A | R | N | S | S | S | S | S | S | I | F | D | A | H | A | G | I | A | L | G | D | G | F | V | K | F | V | S | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_Q37264 | V | S | S | N | D | F | I | V | G | D | A | R | N | S | S | S | S | S | I | F | D | A | K | A | G | I | A | L | G | D | T | F | V | K | L | V | S | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_E9INY0 | V | S | S | D | D | F | I | L | G | D | N | R | H | S | S | S | S | S | I | F | D | A | K | A | G | I | P | L | N | D | N | F | V | K | L | I | S | W | Y | D | N | E | F | G | Y | S | |
| UniRef90_V7I3G4 | V | S | T | D | F | I | L | H | D | P | R | S | S | S | S | S | S | S | I | F | D | A | K | A | G | I | S | L | N | D | N | H | F | V | K | L | V | S | W | Y | D | N | E | W | G | Y | S |
| UniRef90_R9TFU3 | V | F | F | D | F | I | L | G | D | V | R | S | S | S | S | S | S | S | I | F | D | A | K | A | G | I | Q | L | N | S | K | T | F | V | K | L | V | S | W | Y | D | N | E | M | G | Y | S |
| UniRef90_Q9R8C0 | V | S | T | D | F | L | N | G | D | T | H | S | S | S | S | S | S | S | I | F | D | A | K | A | G | I | S | L | N | N | K | N | F | V | K | L | V | S | W | Y | D | N | E | W | G | Y | S |
| UniRef90_S9RMP8 | V | S | A | D | F | V | L | G | D | T | H | S | S | S | S | S | S | S | I | F | D | A | T | A | G | I | Q | L | N | S | P | Q | F | V | K | L | V | S | W | Y | D | N | E | Y | G | Y | S |
| UniRef90_A0A024JNM3 | V | S | T | D | F | I | L | G | D | A | R | N | S | S | S | S | S | S | I | F | D | A | S | A | G | I | L | L | N | E | N | F | V | K | L | I | S | W | Y | D | N | E | Y | G | Y | S | |
| UniRef90_P48812 | V | S | T | D | D | F | T | G | D | T | H | S | S | S | S | S | S | S | I | F | D | S | L | A | C | I | S | L | N | D | P | N | F | V | K | L | I | A | W | Y | D | N | E | Y | G | Y | S |
| UniRef90_R7F5N7 | V | S | S | D | F | L | V | G | D | S | N | H | S | S | S | S | S | S | I | F | D | A | A | A | G | I | Q | L | T | D | T | F | V | K | L | V | S | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_A8PVV0 | V | S | Q | D | F | L | V | G | D | N | H | S | S | S | S | S | S | S | I | F | D | A | A | A | G | I | Q | L | T | S | P | N | F | V | K | L | V | S | W | Y | D | N | E | W | G | Y | S |
| UniRef90_Q9C136 | V | S | S | D | D | F | V | G | E | V | C | Y | S | S | S | S | S | S | I | F | D | A | A | A | G | I | Q | L | T | T | P | F | V | K | L | I | A | W | Y | D | N | E | Y | G | Y | S | |
| UniRef90_Q3UVC0 | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|------------------------|-----------------------------|
| QUERY | E R V V D L M A H M A S K E |
| UniRef90_K9LGW8 | N R V L D L I A Y M Y S K D |
| UniRef90_F7GB03 | N R L V D L I A Y M S T K E |
| UniRef90_N1ZEC1 | N K V V D L I Q H M A K V D |
| UniRef90_Q8VXD9 | N R V V D L I E H I A A |
| UniRef90_Q37264 | N R V V D L I S H M A |
| UniRef90_E9INY0 | S R V I D L I K F M Q S K D |
| UniRef90_V7I3G4 | N K L V D L V S Y I A K V D |
| UniRef90_R9TFU3 | N R V I D L I T Y M Q S K E |
| UniRef90_Q9P8C0 | R R V L D L L V Y I A K V D |
| UniRef90_S9RMP8 | R R V V D L V A L T A A R D |
| UniRef90_A0A024JNM3 | A R V I D L L V Y I A G V D |
| UniRef90_P48812 | N R V V D L I S Y I A S R |
| UniRef90_R7F5N7 | H K L V D L A C Y M S T K D |
| UniRef90_A8PVV0 | R R C L D L I T F M A K K D |
| UniRef90_Q9C136 | N R V V D L L V H A A K V D |
| UniRef90_Q9UVC0 | T R V V D L L E Y V A S K |
| UniRef90_UPI0003766271 | N R V V D L M M M M A K K D |
| UniRef90_P04970 | N R V V D L I G Y I A T R |
| UniRef90_M7B9B3 | N R V A D L L S H M Y T K E |
| UniRef90_E4T480 | N K V L D L I A H M |
| UniRef90_R6UG66 | N K V V D L I T H M |
| UniRef90_H9U0F9 | T R V V D L I V H V A S |
| UniRef90_E4T9S8 | N K L T D L L V H S A S |
| UniRef90_Q757I2 | T R V V D L V E H V A A |
| UniRef90_UPI000200171D | C K C I D L M R H M A |
| UniRef90_R5HY74 | N K V L E M A R Y I A |
| UniRef90_G0U6Y0 | N K V L D L I A H I A K |
| UniRef90_A0A058ZEN3 | S R V L D L A A H I S K |
| UniRef90_G1ELY2 | R R V V D L I A Y I A K K D |
| UniRef90_I0YYL7 | T R V C D L I R Y I S A R D |
| UniRef90_B4VKU1 | N R M I D L I L S M A A K |
| UniRef90_K8GRK3 | N R V V D L A V H M A K A D |
| UniRef90_S3AGT6 | N R V V D L A A F I A K K |
| UniRef90_K3WLI8 | N R L V D L V V Y M S T V D |
| UniRef90_K8EL70 | N R V L D L I A H V I G |
| UniRef90_A3QVX2 | N R V V D L I A H M A K |
| UniRef90_UPI0002556152 | N K V L D L I A T I M K K |
| UniRef90_UPI000225AE6A | T R V V D L V A F M A Q K |
| UniRef90_E6TRD1 | N R V V D L V A Y I A K Q |
| UniRef90_Q2YC26 | S K I L L E M V R V V A G K |
| UniRef90_Q8AXB5 | |
| UniRef90_A0A059LPF9 | N R L V D L A V Y |
| UniRef90_K1Q350 | F R V V D L I E H M Y A V D |
| UniRef90_R6CHI1 | N K V L E L I K H M S A V D |
| UniRef90_W7YHE4 | S K V C E L I M Y M D S |
| UniRef90_UPI0003B6061F | N K V L D L V A L I S K |
| UniRef90_U6I118 | C R V I D L I T Y M Y S K D |
| UniRef90_UPI0004108C82 | N R V V D L A A Y I A S K |
| UniRef90_M7PGV1 | S R I R D L V Q F I A S Q D |
| UniRef90_R6AVR4 | N K L V D L I K H M S S V D |
| UniRef90_B1GZE8 | N K I L D L I S Y M K K |
| UniRef90_A3XJ91 | N K L V D L A E Y V N S |
| UniRef90_C6Y446 | S A L A K F V E Y |
| UniRef90_E0I6D5 | N R V V D L T A Y M A E K |
| UniRef90_R5BFP8 | N K V V D L I A H M A K V D |
| UniRef90_A6H007 | S K L I D L S I H I S E |
| UniRef90_UPI0003789548 | N R L V D L A V Y I K K R |
| UniRef90_UPI00037493A0 | N R V N D L I I Y M A K K |
| UniRef90_B3L9D3 | N R V L D L A L H I T K |
| UniRef90_Q67NW3 | N R M V D L A A Y I A S K |
| UniRef90_B7FSI4 | T R V L D L I A H M E S Q K |
| UniRef90_U9VTL0 | N R V V D L M L H M A L T E |
| UniRef90_L5K5L8 | H R V V D L L S Y M F S R D |
| UniRef90_UPI0002D86143 | N R C V D L A V Y M A E Q |
| UniRef90_D5WR91 | N R V V D L A V Y M A R K |
| UniRef90_A4J8U1 | N R V L D L A L M V A E K |
| UniRef90_U3U7Z7 | N K V L D L I A L I A S |
| UniRef90_Q84LQ0 | N R V V D L I T H M S K V D |
| UniRef90_F9N5E1 | S R I V D L A V Y M S K R |
| UniRef90_Q6WEW0 | |
| UniRef90_E4L7V1 | M R I I D L V A F I A S K |
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| UniRef90_UPI000262501D | C N M M R F V K H V A S |
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| UniRef90_A7GCE0 | C R T V D L V N Y V A K |
| UniRef90_UPI000363B1E7 | N R V V D T A A Y V A S R |
| UniRef90_G9PX01 | N R V I D L A N Y I F K K |
| UniRef90_D3IAC9 | H K V V E L I K K M A Q |
| UniRef90_UPI00004936C3 | N R V M D L M A H M S S K E |
| UniRef90_B6YQY5 | N K I L E M V R I I A K |
| UniRef90_F0YIN7 | N K V L N L I E H M |
| UniRef90_V5BE77 | N R L V E L A H Y M S V Q D |
| UniRef90_A3AV14 | S R V V D L I R H M |
| UniRef90_C0Z7Z3 | C R V V D L V R H V S E Q |
| UniRef90_E9BXV4 | H Q L L R L L K H C A A Q |
| UniRef90_B3EPD0 | T R V V D L L E V F A |
| UniRef90_S6CCS4 | N R V K D L V K |
| UniRef90_J7H0P9 | N K V L D L I A H I |
| UniRef90_Q39U99 | H R V V D L M K L I A |
| UniRef90_F8I548 | N R L V E L T Q L V A K K D |
| UniRef90_O04167 | T R V K D L M V H M A K V D |

| | 1 | 10 | 20 | 30 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI0003B4E512 | V | K | I | G | I | N | G | F | G | R | I | G | R | N | Y | F | R | A | A | L | A | Q | G | A | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | | | | |
| UniRef90_A0A03726P2 | I | V | R | I | G | I | N | G | F | G | R | I | G | R | N | Y | F | R | A | A | L | V | K | N | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | | | | |
| UniRef90_UPI0003B4D99B | I | V | R | I | G | I | N | G | F | G | R | I | G | R | M | V | F | R | K | A | L | V | K | N | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | | | | |
| UniRef90_UPI00028A22C9 | K | T | R | I | G | I | N | G | F | G | R | I | G | G | R | M | V | F | R | K | A | L | V | K | N | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | | | |
| UniRef90_UPI000348C503 | K | A | K | V | A | I | N | G | F | G | R | I | G | G | R | M | V | F | R | K | A | L | V | K | N | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | | | |
| UniRef90_C5KIN0 | | | | G | I | N | G | F | G | R | I | G | G | R | M | V | F | R | K | A | L | V | K | N | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | | | | |
| UniRef90_UPI0003657852 | | | K | I | A | I | N | G | F | G | R | I | G | G | R | N | L | R | I | T | T | Q | R | N | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | | | | |
| UniRef90_T1F731 | | | | I | G | V | N | G | F | G | R | I | G | G | R | L | V | T | R | V | A | I | E | R | R | G | F | N | V | A | I | N | D | L | T | D | N | K | | | | | |
| UniRef90_Q6ME40 | | | V | N | I | A | I | N | G | F | G | R | I | G | G | R | L | V | T | R | V | A | I | E | R | R | G | F | N | V | A | I | N | D | L | T | D | N | K | | | | |
| UniRef90_Q0C917 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_I0ROC5 | | | | R | I | G | I | N | G | F | G | R | I | G | G | R | N | Y | L | R | A | A | L | A | Q | N | S | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | |
| UniRef90_S7KKC5 | | | M | R | V | V | I | N | G | F | G | R | I | G | G | R | L | V | L | R | Q | I | L | K | R | N | S | P | I | E | V | A | V | N | D | L | T | D | N | K | | | |
| UniRef90_UPI00037A0F0B | | | | R | V | A | I | N | G | F | G | R | I | G | G | R | G | M | V | F | R | A | L | M | E | S | D | L | E | I | V | A | V | N | D | L | T | D | N | K | | | |
| UniRef90_Q8VXQ6 | | | | V | R | V | G | I | N | G | F | G | R | I | G | G | R | G | M | V | F | R | Q | I | L | M | Q | R | S | G | V | Q | V | A | I | N | D | L | T | D | N | K | |
| UniRef90_W4VHU2 | | | | V | K | V | G | I | N | G | F | G | R | I | G | G | R | G | R | N | V | F | R | Q | A | L | K | N | S | D | E | V | E | V | A | V | N | D | L | T | D | N | K |
| UniRef90_X5DS67 | | | | V | R | V | G | I | N | G | F | G | R | I | G | G | R | G | R | N | V | F | R | A | L | R | E | S | G | A | D | I | E | V | A | V | N | D | L | T | D | N | K |
| UniRef90_H0E675 | P | | | V | R | V | G | I | N | G | F | G | R | I | G | G | R | G | R | N | V | F | R | A | A | K | A | N | A | D | I | E | F | V | A | V | N | D | L | T | D | N | K |
| UniRef90_F7HS59 | K | | L | K | A | G | V | N | G | L | V | G | I | G | S | L | V | T | R | V | A | F | N | S | S | K | V | D | I | V | A | I | N | D | L | T | D | N | K | | | | |
| UniRef90_Q3B2T7 | K | | V | K | V | G | I | N | G | F | G | R | I | G | G | R | L | V | F | R | Q | A | | | | | | | | | | | | | | | | | | | | | |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| UniRef90_UPI0003B4E512 | T | L | A | H | L | L | K | Y | D | S | I | L | A | G | R | L | D | A | T | V | D | Y | D | K | D | N | S | I | L | V | N | G | T | A | I | K | A | F | Y | S | E | R | D | | | | | | | |
| UniRef90_AOA037Z6P2 | T | L | R | A | H | L | V | K | Y | D | S | I | L | H | G | R | F | D | A | G | T | V | E | A | K | E | Q | G | L | M | V | N | G | K | L | V | K | R | L | V | A | S | A | N | R | N | D | | | |
| UniRef90_UPI0003B4D99B | T | L | A | H | L | L | K | Y | D | S | I | L | H | G | R | F | D | A | G | T | V | E | A | K | E | Q | G | L | M | V | N | G | K | L | V | K | R | L | V | A | S | A | N | R | N | D | | | | |
| UniRef90_UPI00028A22C9 | Q | L | A | Y | L | I | K | Y | D | S | I | L | H | G | R | F | D | A | G | T | V | E | A | K | E | Q | G | L | M | V | N | G | K | L | V | K | R | L | V | A | S | A | N | R | N | D | | | | |
| UniRef90_UPI000348C503 | T | L | A | H | L | L | K | Y | D | S | I | L | H | G | A | F | P | A | G | E | V | E | A | K | E | Q | G | L | M | V | N | G | K | L | V | K | R | L | V | A | S | A | N | R | N | D | | | | |
| UniRef90_C5KIN0 | Y | M | K | Y | L | L | K | Y | D | S | I | L | H | G | Q | F | N | G | T | V | E | A | K | E | Q | G | L | M | V | N | G | K | L | V | K | R | L | V | A | S | A | N | R | N | D | | | | | |
| UniRef90_UPI0003657852 | T | L | A | H | L | F | K | Y | D | S | I | L | H | G | T | F | A | G | E | V | S | V | A | K | E | Q | G | L | M | V | N | G | K | L | V | K | R | L | V | A | S | A | N | R | N | D | | | | |
| UniRef90_T1F731 | Y | M | V | Y | M | F | K | Y | D | S | I | L | H | G | R | W | P | A | G | E | V | S | V | A | K | E | Q | G | L | M | V | N | G | K | L | V | K | R | L | V | A | S | A | N | R | N | D | | | |
| UniRef90_Q6ME40 | N | L | A | Y | L | L | K | F | D | S | T | L | H | G | R | F | K | G | T | V | K | V | E | N | A | I | H | V | N | G | K | K | I | L | I | F | Y | A | S | E | K | D | | | | | | | | |
| UniRef90_Q0C917 | Y | A | A | Y | M | L | K | Y | D | S | T | L | H | G | Q | R | L | D | A | G | E | T | Y | D | Q | S | L | I | V | N | G | K | K | S | I | R | F | Y | A | S | E | K | D | | | | | | | |
| UniRef90_I0ROC5 | S | L | A | H | L | L | K | Y | D | S | I | L | G | R | L | D | A | A | V | S | V | D | Y | D | Q | S | L | I | V | N | G | K | K | S | I | R | F | Y | A | S | E | K | D | | | | | | | |
| UniRef90_S7KKC5 | A | L | T | Y | L | F | K | H | D | S | T | L | H | G | R | F | D | V | K | V | S | H | E | D | G | S | L | I | V | N | G | Q | R | K | V | Q | F | L | A | E | R | D | | | | | | | | |
| UniRef90_UPI00037A0F0B | T | L | A | H | L | L | K | Y | D | S | I | L | H | G | K | F | P | A | E | V | K | E | A | G | E | S | L | I | V | N | G | K | K | I | P | L | L | A | N | D | R | | | | | | | | | |
| UniRef90_Q8VXQ6 | Y | M | K | Y | M | M | K | Y | D | T | T | L | H | G | H | F | N | G | V | V | K | E | A | S | K | G | A | L | N | V | N | G | E | E | I | K | V | F | L | A | E | R | D | | | | | | | |
| UniRef90_W4VHU2 | M | L | A | H | L | L | K | Y | D | S | I | L | H | G | I | L | E | E | E | V | T | V | N | G | D | A | L | I | V | N | G | G | K | E | I | V | K | V | L | A | S | E | R | D | | | | | | |
| UniRef90_X5DS67 | T | L | A | N | L | L | K | Y | D | S | I | L | G | R | L | D | A | E | V | S | Y | T | D | D | E | S | L | I | V | N | D | G | K | R | E | I | V | V | T | A | E | R | D | | | | | | | |

| | | 90 | 100 | 110 | 120 |
|------------------------|---------|---|---------------------|-----|-----|
| UniRef90_UPI0003B4E512 | P A N L | P W G E L G V D I V I E S T G F F T K A G D A R K H I | E A G A K K V L I | | |
| UniRef90_A0A037Z6P2 | P K N L | P W K D L G V D I V I E S T G F F T D A T E K A K A H I | E A G A K K V L I | | |
| UniRef90_UPI0003B4D99B | P E E L | P W A E L G V D I V I E S T G K F C D R E G A S K H I | K A G A K K V V I | | |
| UniRef90_UPI00028A22C9 | P S L L | K W A E V G V D V V A D E A T G K F K D L A G C Q K H I | Y A G A K K V L I | | |
| UniRef90_UPI000348C503 | P R D L | P W K E L G V D I V I E S T G K F T K T S G E S A A K A H I | Q A G A K K V L I | | |
| UniRef90_C5KIN0 | P C D I | P W G K A G A E Y V C E S T G V F T T S G E S A A K A H I | Q G G A K K V V I | | |
| UniRef90_UPI0003657852 | P A K L | P W K E Y N I N V V V E S T G V F T T K R S A A K A H I | E A G A R R V L I | | |
| UniRef90_T1F731 | P A K I | M W R S S N V D I V V E S T G V F T T L D K A N Q H I | I G A G A R K V I | | |
| UniRef90_Q6ME40 | P Q N L | P W N D L K L I D Y V V E S T G L F T T T S E L A G A H I | I G A G A Q R V I | | |
| UniRef90_Q0C917 | P A A I | P W S E N G A E Y I V E S T G V F T T T K E E D A A K H I | K G A G A K K V I | | |
| UniRef90_I0R0C5 | P A K I | D W A E L G V E V V I E S T G F F T N A D D A R K H I | Q A G A K K V I I | | |
| UniRef90_S7KKC5 | V Q K L | P W G D L G V D A V V E S T G L F T K E E D A A K H I | A S G A K K V V I | | |
| UniRef90_UPI00037A0F0B | P Q N L | P W A Q L D I D I V I E A T G K F N S R E K A A L H I | Q A G A K K V L L | | |
| UniRef90_Q8VXQ6 | P S D I | P W G S L G V D Y V L E S T G K F L S A E K S Q A H I | D G G A K K V V M | | |
| UniRef90_W4VHU2 | P A N L | P W G D L G V E I V V E S T G F F V K A H A D A S K H I | D A G A K K V I I | | |
| UniRef90_X5DS67 | P Q N L | T W G E L D V D I V I E S T G F F T D A T A A K A H I | D A G A K K V I I | | |
| UniRef90_H0E675 | P G N I | D W A S V G A E V V I E S T G F F T D A E K A K A H I | V G D V K K V V I | | |
| UniRef90_F7HS59 | P S K I | K W G D A G A E S I M E S T S V F T T S R E K A A G A R L | Q G G A K K R V I | | |
| UniRef90_Q3B2T7 | P L N L | P W K A L G C D L V V I E S T G I F T S R E K A A Y K H I | T A G A K K V I I | | |
| UniRef90_X1GAK7 | P F N L | P W K D L G V E I V V I E S T G I F R D R E G A S K H I | T A G A K K V V I | | |
| UniRef90_G7VA28 | I R D I | P W G D K G I D I V I E S T S G K Y T D A D K A K G H I | E A G A K K V V I | | |
| UniRef90_B4JW09 | P K K I | R W K D M G V E T V V E S T G K F T T L E T A K A H I | D A G A K K V V I | | |
| UniRef90_B1ZZ29 | P A E L | P W A A M G V Q L V I E S T G L F T A A E K A Q G H I | T A G A K K V I I | | |
| UniRef90_UPI00047B1C40 | P A Q I | P W G E L G V D I V I E S T G L F T Q R E K S Q K H I | D A G A K K V I I | | |
| UniRef90_J6JCG8 | P T Q L | P W K E L G V D V V M E C G L F T A K E K A K V H I | E A G A K R V L V | | |
| UniRef90_D5SR26 | P R Q L | P W K A M G V E I A L E S T G F F T A R A K D G K H I | E A G A R K V I L | | |
| UniRef90_UPI00030EF8B6 | P A D I | P W G E L G V D I V I E A T G K F R K R E Q A Q K H I | D G A G A K K V L L | | |
| UniRef90_Q2G6W6 | P A N L | P H G A N G I D I A L E C G G F F T N R D G G Q K H I | D A G A K R V L I | | |
| UniRef90_UPI00016C5283 | P N E L | P W K E F G V E Y V L E S T G L W T K A S D A R G H I | E A G A K K V V I | | |
| UniRef90_A8MFX8 | P E R L | P W G E L G V D I V I E S T G I F R S K K D V S K H I | M N A G A K K V L I | | |
| UniRef90_UPI0003752F95 | P G K L | P W G D L G A D I V I E S T G F F T D A T K A K A H I | D G G A K K V I I | | |
| UniRef90_D8PCA7 | P K E L | P W K A L G V E I V V E S T G H F T D R E G A G K H I | S A G A K T V I I | | |
| UniRef90_L0NHR0 | P K E L | P W G D V D I A M E C G F T S K E K A S L H I | S N G S K R V L V | | |
| UniRef90_A4IRP2 | P Q Q L | P W K E L D I D I V I E A T G K F N S R E K A S L H I | D A G A K R V I L | | |
| UniRef90_B0VEY0 | P E V L | P W K D L G V E F V I E S T G F F T S K E K A S K H I | K A G A K K V I L | | |
| UniRef90_UPI0003753573 | P A K L | P W G D L G V D V V V E S T G F F T D A E A A K A H I | A G G A K K V I I | | |
| UniRef90_L7VSM8 | P A A L | G W G D L G V D Y V I E S T G H F T K A D D A R K H I | E A G A K K V I I | | |
| UniRef90_B8FW51 | P L D L | P W R K L G V D I V I E S T G R F T K R A A A S Q H I | T A G A K K V V I | | |
| UniRef90_F8P9T8 | P A N I | A W G S V G A D Y I V E S T G V F T T T D K A S A H I | K G G A K K V I I | | |
| UniRef90_I4BW45 | P T K L | P W K D L G V D I V V E S T G R F T D G E K A K A H I | A A G A K K V I I | | |
| UniRef90_M4S5G0 | P A N L | P H A A N G V D I A F E C G F F T D R A S A E K H I | A A G A K K V L I | | |
| UniRef90_K1ZQQ3 | P S Q I | K W A E M G V D I V F E C G L F T S R E K A E L H I | K G G A K K V I I | | |
| UniRef90_B9ZYW6 | P E E I | P W G E S E V D V V F E C C T G V F T T V E M A N G H I | E G G A K K V I I | | |
| UniRef90_A3KA29 | P E D L | P W G D V D V I M E C C T G I F T S K E K C Q A H I | S T G A K R V L I | | |
| UniRef90_D1C371 | P A N L | P W K D L G V E L V I E S T G F F T D A T K A R A H I | E A G A K K V I I | | |
| UniRef90_L8JKJ6 | P A Q L | P W K M N V D V V L E S T G R F V D E E G S K K H I | Q A G A K R V V I | | |
| UniRef90_U2KR59 | P E N L | P W K E L G V D L V I D S T G V F K D H A G L S K H I | K A G A K K V I I | | |
| UniRef90_UPI0002F3387A | P A E L | P Y K E L G V D V A L E C C T G L F T A R D K A K L L | D A G A K R V L V | | |
| UniRef90_UPI0003B48A05 | P G K L | P H K D M G I D I V L E S T G F F Q S H E A A Q P H I | D A G A K R V L I | | |
| UniRef90_V5FIK7 | P A H I | P W G D A G A D Y V V E S T G I F K S L D K A K A H I | N G G A K K V I I | | |
| UniRef90_U4UWH6 | P A E L | P W D G V D V V L E A T G F F T D R D K A A V H I | E N G A H R V L V | | |
| UniRef90_W7Z5G4 | P R N L | P W N S L G V D I V I E C T G K F K T R E T A S Y H I | E A G A K K V I I | | |
| UniRef90_K2EGJ3 | P T D L | P W K D L N I D V A M E C S G H F T K R E A A S Q H I | I A G A K K V L I | | |
| UniRef90_B9E793 | P E L L | P W K D M N I D I V I E A T G K F N D A E K A A A H I | K A G A K K V L L | | |
| UniRef90_I4B0G0 | L E E Q | K W G E F G C D I V I E S T G R F T D A H Q K A T H I | K G G A K Q V I I | | |
| UniRef90_UPI0003706832 | P A Q L | P H K E L G V Q I A L E C C T G I F T A R D K A A A H I | A A G A Q R V L I | | |
| UniRef90_F6BUN7 | P A E L | P H K E L G V D I A M E C C T G I F T A R D K A A A H I | E A G A K R V I V | | |
| UniRef90_Q6WEV2 | P A E I | G W G E A G A D Y V C E S T G V F T N T E A C L A H I | V K G G A K K V I I | | |
| UniRef90_A0A023NYY4 | P S K L | P W G A L G V D V V L E C C T G L F T S K A K A S A H I | A A G A K K V I I | | |
| UniRef90_E2ZEC1 | P A N I | A W K E A G V D I V V E S T G K F K D H K S A S K H I | A G G A K K V V I | | |
| UniRef90_A7HUY8 | P A K L | P W K D L G V D I A L E C C T G L F T A R E K A A A H I | T A G A R K V L I | | |
| UniRef90_UPI0003B3D516 | P T K L | P W G D L G V E V V L E C C T G L F T S K E K A S A H I | Q G G A K K V L V | | |
| UniRef90_Q7NN83 | P L N L | P W K D W G V D L V I E S T G V F T S R D G A S K H I | A A G A K K V L I | | |
| UniRef90_UPI00037CA328 | P Q N L | D W A S V G A D I V I E S T G F F T D A T K A K A H V | D K G A K K V I I | | |
| UniRef90_UPI000424A222 | P A A I | R W A E A G V D M V I E S T G R F L T T E A A E G H I | R A G A G K V V L | | |
| UniRef90_Y0KJN0 | P A N I | P W A A G V D V V V E C C T G V F L T Q A T C Q A H I | Q Q G A K K V V Q | | |
| UniRef90_A6WC56 | P A N L | G W A D L G V D V V V E S T G F F T D G E K A K A H I | T A G A K K V V V | | |
| UniRef90_UPI0002FEFA8F | P S A I | P W G K H E I D I V V D A T G F F R D T E S A G K H I | E A G A K K V I I | | |
| UniRef90_UPI0003B3D7DC | P A K L | P W G K I G A D V V L E C C T G F F L D K A S A G K H I | E A G A K K V I I | | |
| UniRef90_C2GHS8 | P K N L | K W G E E N V D I V I E S T G F F T E R S A A A A H I | E A G A K K V I I | | |
| UniRef90_M1NSW2 | P K N L | D W S A H D V D I V I E S T G F F T D A E A A K A H I | E A G A K K V I I | | |
| UniRef90_H5SEK6 | P S E L | P W A E I G V D I V L E C C T G R F T T E R K H A E K H I | E R G A K K V I I | | |
| UniRef90_UPI000344987D | P A L I | P W S E V G V E L V I E A T G F F T E K A K A E V H I | K G G A K R V I I | | |
| UniRef90_K9UDS1 | P A E L | P W R K L G A D Y V V E S T G F F T T F E G A Q K H I | Q A G A K R V V I | | |
| UniRef90_Q67ME4 | A S R L | P W R E L G I D I V I D A T G K H K E R E R A A L H I | H S G A R K V I I | | |
| UniRef90_A3ZMY1 | P A A L | P W G D M G V D V V V E S T G V F T S R K T D A K H I | D A G A K K V V L | | |
| UniRef90_B8FWG9 | P G K L | P W R E L G V D L V I E A T G R F T K R E Q A A L H I | Q A G A K K V I I | | |
| UniRef90_F4CYG8 | P A Q L | P W K D L G V D V V V E S T G F F T K R E G A A K H I | D A G A K K V V I | | |
| UniRef90_W0RK84 | P A K L | P W K D L G V D V V L E S T G R F T D A D K A K A H I | D A G A K K V I I | | |
| UniRef90_E0MPF9 | P K D L | P W G E L G V E I A M E C C T G F F T D P A K A K A H I | E A G A K K V L I | | |
| UniRef90_Q7UVH8 | P R N L | P W K D H N V D I A I E S T G F F T A R S T A D K H I | A A G A K K V V L | | |
| UniRef90_C4L467 | P S R L | P W S D L E I D I V V E A T G K F N S D S G A R L H I | E A G A K K V I I | | |
| UniRef90_E3J1R1 | P A E L | P W G E L G V D I V I E S T G R F T D R D S A A K H I | A A G A K K V I I | | |
| UniRef90_D3F8U8 | P A A L | P W G D L G V D V V I E S T G F F T K R E D A A K H I | A G G A K K V I I | | |
| UniRef90_A7HCN8 | P A D L | P H Q K N Q V D V L E C C T G L F T E R E K A E G H I | K A G A P R V L I | | |
| UniRef90_F0RMU8 | P A K I | N W G D L G V D I V I E S T G F F T D R E G A S K H I | Q G G A K K V I I | | |
| UniRef90_B3MD85 | I K K I | K W C D F G V K T V V E C S G K F T T I E K C K H I | D N G A K K V V I | | |
| UniRef90_A6TU34 | P E K L | P W K E L G V D I V I E A T G I F R T K E T A S K H I | T A G A K K V I I | | |
| UniRef90_G3RQE6 | E I | K W G H A G A E Y I M E P T S I F T T M E K A G A H I | Q Q G A K R V I I | | |
| UniRef90_F5L954 | P L E L | P W G D L G V D V V I E A T G K F R D R E G V E K H I | A S G A K K V V L | | |
| UniRef90_F2Z641 | P E R I | P W A S Y N V D Y V I D S T G V F K E V D T A S R H I | K G V K K V I I | | |
| UniRef90_L7L970 | P A A L | P W K D L G V D V V V E S T G L F T A R D A A A G H I | E A G A K K V I I | | |

[illegible]

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|-----|---|---|---|
| UniRef90_UPI0003B4E512 | K | V | F | N | D | A | F | G | I | E | R | G | L | M | T | T | V | H | A | Y | T | A | D | Q | N | L | Q | D | G | P | H | K | D | L | R | R | A | R | A | 200 | | | |
| UniRef90_A0A037Z6P2 | K | I | L | D | R | E | A | F | G | I | V | E | G | L | M | T | T | V | H | A | Y | T | N | D | Q | K | N | L | D | D | A | N | P | H | R | D | L | R | R | A | A | | |
| UniRef90_UPI0003B4D99B | K | V | L | H | Q | A | F | G | I | V | E | G | L | M | T | T | V | H | A | Y | T | N | D | Q | K | N | L | D | D | A | N | P | H | R | D | L | R | R | A | A | | | |
| UniRef90_UPI00028A22C9 | K | V | L | N | D | N | F | G | I | V | E | G | L | M | T | T | V | H | A | Y | T | N | D | Q | K | N | L | D | D | A | N | P | S | K | K | D | F | R | G | R | A | | |
| UniRef90_UPI000348C503 | K | V | L | D | E | S | F | G | I | E | S | G | M | M | T | T | V | H | A | Y | T | N | D | Q | K | N | L | D | D | A | N | P | S | K | K | D | F | R | G | R | A | | |
| UniRef90_C5KIN0 | K | I | M | N | D | K | F | G | I | V | E | G | L | M | S | T | I | H | A | S | T | T | Y | I | Q | L | T | D | D | G | N | P | G | S | K | D | G | W | R | V | G | R | A |
| UniRef90_UPI0003657852 | K | V | L | D | D | E | F | G | I | Q | R | G | M | M | T | T | V | H | A | S | Y | T | N | D | Q | K | N | L | D | D | L | P | H | S | D | L | R | R | G | R | A | | |
| UniRef90_T1F731 | K | I | L | D | E | N | F | G | I | V | E | A | G | L | M | T | T | V | H | A | S | Y | T | A | T | Q | K | V | T | D | D | G | P | S | N | K | D | W | R | G | R | A | |
| UniRef90_Q6ME40 | K | V | L | D | N | F | G | I | D | E | G | L | M | T | T | V | I | H | A | V | T | A | S | Q | P | T | V | D | D | G | P | S | N | K | D | W | R | G | G | R | A | | |
| UniRef90_Q0C917 | K | V | L | N | D | N | F | G | I | E | G | L | M | T | T | V | I | H | A | S | Y | T | A | T | Q | K | T | V | D | D | A | P | S | N | K | D | W | R | G | G | R | A | |
| UniRef90_IORC05 | K | V | F | M | D | N | F | G | I | K | E | G | L | M | T | T | V | I | H | A | S | Y | T | N | D | Q | N | L | Q | D | D | G | P | S | N | K | D | W | R | R | A | A | |
| UniRef90_S7KCC5 | K | V | L | L | D | R | F | G | I | E | N | G | L | M | T | T | V | I | H | A | A | T | A | T | Q | S | V | V | D | D | G | P | S | K | K | D | W | R | G | R | A | | |
| UniRef90_UPI00037A0F0B | K | V | L | D | D | A | F | G | I | E | N | G | L | M | T | T | V | I | H | A | Y | T | N | D | Q | N | N | V | D | D | A | N | P | S | K | K | D | W | R | R | A | A | |
| UniRef90_Q8UXQ6 | K | V | L | H | D | N | F | G | I | K | E | G | L | M | N | T | V | I | H | A | V | T | A | S | Q | K | V | D | A | A | P | S | N | S | K | W | R | S | G | R | A | | |
| UniRef90_W4VHU2 | K | V | L | N | D | K | F | G | I | N | H | G | L | M | T | T | I | H | A | S | Y | T | N | D | Q | Q | R | I | L | D | L | P | H | S | K | D | Y | R | R | A | A | | |
| UniRef90_X5DS67 | K | V | L | D | E | E | F | G | I | V | K | G | L | M | T | T | I | H | A | Y | T | G | D | Q | R | R | L | H | D | A | A | P | H | S | D | L | R | R | A | A | | | |
| UniRef90_H0E675 | K | V | A | N | D | T | V | G | I | K | H | G | L | M | T | T | I | H | A | Y | T | G | D | Q | R | R | L | L | D | A | A | P | H | S | D | L | R | R | A | A | | | |
| UniRef90_F7HS59 | K | V | I | H | D | N | F | G | I | V | E | G | L | M | T | T | V | I | H | A | I | T | A | T | Q | K | T | V | D | D | G | P | H | S | H | D</ | | | | | | | |

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|------------------------|-------------|---------|-------------|---------|---------|-----------|---------|---------|---------|---------|-----|
| UniRef90_UPI0003B4E512 | A A V N I V | P T S T | G A K A I | G L V L | P E L V | G K G L | D G F A | L R V | P V P T | G S | 240 |
| UniRef90_A0A03726P2 | A A E S M I | P T T T | G A K A I | A L V L | P E L L | K G K L | N G F A | V R V | P T P T | N V S | |
| UniRef90_UPI0003B4D99B | C A Q S I I | P T T T | G A K A I | A L V L | P E L L | K G K L | N G F A | V R V | P T P T | N V S | |
| UniRef90_UPI00028A22C9 | A L V N I I | P A S T | G A K A I | G K V L | P E L L | K G K L | T G M A | M R V | P T P T | A D V S | |
| UniRef90_UPI000348C503 | C G Q S I I | P T S T | G A K A I | S K V L | P H L L | E N G K L | T G M A | L F R V | P T P T | N V S | |
| UniRef90_C5KIN0 | T E P N I I | P S P T | G A S W A I | G K V L | P C L L | E N G K L | T G M A | L F R V | P T P T | N V S | |
| UniRef90_UPI0003657852 | A A M S M I | P T S T | G A A Q A V | G L V L | P Q L L | N Q G K L | F G M A | V R V | P T P T | N V S | |
| UniRef90_T1F731 | A A M N I I | P S S T | G A A K A V | G K V I | P S L L | N G K V | T G I A | F R V | P T P T | N V S | |
| UniRef90_Q6ME40 | A S Q N I I | P A S T | G A A K A V | A L C L | P Q L L | K G K L | T G M A | F R V | P T P T | N V S | |
| UniRef90_Q0C917 | A A Q N I I | P S S T | G A A K A I | G K V I | P S L L | N G K L | T G F A | M R V | P T P T | N V S | |
| UniRef90_I0ROC5 | A I N I V | P S S T | G A A K A I | G I V I | P E L L | K G K L | D G F A | L R V | P T P T | N V S | |
| UniRef90_S7KKC5 | S L Q N I I | P A S T | G A A K A I | A L C L | P E L L | K G K L | T G M A | L F R V | P T P T | N V S | |
| UniRef90_UPI00037A0F0B | C A Q S I I | P T T T | G A A K A I | G K I L | P H L L | K G K L | H G I A | L R V | P T P T | N V S | |
| UniRef90_Q8VXQ6 | A Y S N I I | P S T T | G A A K A V | G K V I | P A L L | N G K L | T G M S | V R I | P T P T | N V S | |
| UniRef90_W4VHU2 | A A E N I I | P T S T | G A A K V V | G L V L | P E L L | D G K L | T G N A | V R V | P T P T | D G S | |
| UniRef90_X5DS67 | A A L N I V | P S S T | G A A K A V | S L V L | P Q L L | K G K L | D G Y A | L R V | P T P T | N V S | |
| UniRef90_H0E675 | A T N I I | P A S T | G A A K A V | G L V L | P E L L | N G K L | S G F A | V R A | P T P T | N V S | |
| UniRef90_F7HS59 | A L Q N I I | P A S T | G T A K A I | G K I I | L E L L | N G M I | T G M A | F H I | P T P T | N V L | |
| UniRef90_Q3B2T7 | A V S M I | P T S T | G A A K A I | G E V I | P E L L | A G K L | D G F A | V R V | P T P T | N V S | |
| UniRef90_X1GAK7 | A A L S I I | P T T T | G A A Q A T | S L V I | P E L L | A G K L | T G M A | F R V | P T P T | N V S | |
| UniRef90_G7VA28 | A A L S I I | P T T T | G A A S A I | G K V I | P E L L | N G K L | T G M A | L F R V | P T P T | N V S | |
| UniRef90_B4W9 | G M C N I I | P A S T | G A A K A I | G K V I | P D L L | N G K L | T G M A | F R V | P T P T | N V S | |
| UniRef90_B1ZZ29 | A A Q N I I | P S T T | G A A K A T | A L V L | P E V L | K G K L | T G M S | L R V | P T P T | N V S | |
| UniRef90_UPI00047B1C40 | A G E S M I | P T T T | G A A K A V | A K V L | P Q L L | E G K L | N G F S | V R V | P T P T | N V S | |
| UniRef90_J6JC68 | A A L S M I | P T S T | G A A K A V | G L V L | P E L L | K G K L | D G V A | I S I | P T P T | N V S | |
| UniRef90_D5SR26 | A A V N I I | P T S T | G A A K A V | G E V I | P E L L | N G K L | T G I A | L R V | P T P T | N V S | |
| UniRef90_UPI00030EF8B6 | A A V N I V | P T T T | G A A N A V | G K V L | P E L L | E G K L | D G F A | V R V | P T P T | N V S | |
| UniRef90_Q2G6W6 | A A M N M I | P T S T | G A A V A V | G E V I | P D L L | K G K L | D G S S | I F R V | P T P T | N V S | |
| UniRef90_UPI00016C5283 | A A I N I I | P S S T | G A A K A V | A L V L | C P E V | K G K L | T G M S | F R V | P T P T | N V S | |
| UniRef90_A8MFX8 | A G E S I I | P T T T | G A A E A V | A L V L | P Q L L | K G K L | S G I A | M R V | P T P T | N V S | |
| UniRef90_UPI0003752F95 | A A L N I V | P T S T | G A A K A I | G L V I | P E L L | K G K L | D G Y A | L R V | P T P T | N V S | |
| UniRef90_D8PCA7 | A G M S M I | P T S T | G A A K A L | H L V I | P Q L L | K G K L | D G I A | I R V | P T P T | N V S | |
| UniRef90_L0NHR0 | A A L S M I | P T S T | G A A K A V | G L V L | P E L L | K G K L | D G S A | I R V | P T P T | N V S | |
| UniRef90_A4IRP2 | A Q S I I | P T T T | G A A K A I | G L V I | P H L L | K G K L | H G M A | L R V | P T P T | N V S | |
| UniRef90_B0VEY0 | A A M S M I | P T S T | G A A K A I | G L V I | P E L L | K G K L | D G V A | I R V | P T P T | N V S | |
| UniRef90_UPI0003753573 | A A L N I V | P T S T | G A A K A I | G L V I | P E L L | N G K L | D G Y A | L R V | P T P T | N V S | |
| UniRef90_L7VSM8 | A A I N M I | P T T T | G A A R A I | A L V I | P E L L | K G K L | D G Y A | M R V | P T P T | N V S | |
| UniRef90_B8FW51 | A Y Q S M I | P T T T | G A A K A V | T L V I | P E L A | A G K M | N G I A | V R V | P T P T | N V S | |
| UniRef90_F8P9T8 | V N N N I I | P S S T | G A A K A V | G K V I | P | | | | | | |

| | 250 | 260 | 270 | 280 |
|------------------------|---------------------|-----------------------|---|-------------------|
| UniRef90_UPI0003B4E512 | I L T D L T V T S | R K P V T V D E V | K A A F K A A A E G P M K G G I L | K Y T E D E I |
| UniRef90_A0A037Z6P2 | M T D L V C T I L | G K D K T A E E E V | N A A F K K A A S E T E M K M K G I L | L Q Y C E E D P L |
| UniRef90_UPI0003B4D99B | V V D L V A D L I | G K D K T S Y E E E V | N Q A F L K K A A S E N E S L K K G V I L | M A F V I E D D V |
| UniRef90_UPI00028A22C9 | V V D L T V K L I | G K G K T S Y E E E V | M D V L K K A A S E N E S L K K G V I L | M A F V I E D D V |
| UniRef90_UPI000348C503 | L V D L V V T V K | Q D V T V E E E V | I A A L V K T A A S E N G S D M K G V I L | M G I T T Y D P L |
| UniRef90_C5KIN0 | V V D L T C R L I | E K A A T Y D D I | I A A L V K T A A S E N G S D M K G V I L | M G I T T Y D P L |
| UniRef90_UPI0003657852 | L V D L V I N T E | R E K A S V E E E V | N A A M K T A A S E G N L K K G I L | E Y C D L P L |
| UniRef90_T1F731 | V V D L T C K V E E | K A T Y E E E I | K E V V M K K A A S Q S G P W K M G I L | G Y T E D E V |
| UniRef90_Q6ME40 | A I D L T V R L S | K E T S Y E D I | C Q A M K K A A S E G A M K G I L | G A F C D E Q V |
| UniRef90_Q0C917 | V V D L T C R L I | E K A V T Y D Q I | K Q V I K K A A S E G E L L K K G I L | L G Y T D E D E V |
| UniRef90_I0R0C5 | I T D L T L V S E | K A T V T V E E I | N A A Y K K A A S E T N L R G G I L | L G Y T D E E P L |
| UniRef90_S7KKC5 | V V D L T V K L T | A S T T Y E E I | C V A I K H A S E T N L R G G I L | L G Y T D E E P L |
| UniRef90_UPI00037A0F0B | I V D L V A E V E | K K E V T P E E E V | N R A F Q R A I E N G M G E I L | G A I T Y E A V |
| UniRef90_Q8UXQ6 | M V D L V V N L E | K G T Y E E E V | C A K M K K A A S E G P M K G V I L | L G Y T E E A V |
| UniRef90_W4VHU2 | L V D L V A Q L E | N K D V T V D E V | N A V L K E A A A E G D L K K G I L | L D Y S T E E P L |
| UniRef90_X5DS67 | V T D L T F E A S | R D V T V D Q V | N A A I K K A H A E G E L L K K G I L | L Y S D D E P L |
| UniRef90_H0E675 | V V D L T F E A S | R E T T V E E V | N A A I K K A A A E G P L K K G I L | L Y E Y T D P L |
| UniRef90_F7HS59 | V T D L T C H E N | P A K Y D D I | K K V M K Q A L E G L L K K G I L | L G Y A T Q Q V I |
| UniRef90_Q3B2T7 | M T D L T A I L M | K P A T K E E I | N A A M K V A A D G N P M K G Y L | E Y C T D P L |
| UniRef90_X1GAK7 | V V D L A V V L R | K K T S P E E E V | N Q S F K E A A S Q S N L K K G I L | L G Y T T D P L |
| UniRef90_G7VA28 | A V D L V A I L N | K R V T A E E I | N E A M K E A A A E G S N L K K G I L | L G Y T E E D L V |
| UniRef90_B4JW09 | V V D L T C R L I | G T A A K M D E I | K A A I K K A A A N D E L L K K G I L | L G Y T T D D V |
| UniRef90_B1ZZZ9 | V V D L T V R T T | K E T S Y K E I | C E A M K R A S E T Y L K K G I L | L G Y T T D V |
| UniRef90_UPI00047B1C40 | L V D L V C E L K | K N V T V E E L | N N A L K S A A S E T R L K K G I L | L G Y S D K P L |
| UniRef90_J6JC68 | V V D F K F V P K | R A T S K D E I | N E A I K K A A A D Q Q L K K G I L | L Q Y N T M F P N |
| UniRef90_D5SR26 | I T D L V A E L G | K D V T V D E V | N A A V K K A A A E G Q L K K G I L | L G Y N T D P L |
| UniRef90_UPI00030EF8B6 | L V D L T F L P S | K A A T V E E V | N A A V K K A A A E G S L K K E I L | L G Y T D P L |
| UniRef90_Q2G6W6 | V V D L T F T P K | R D T S Y E E V | N G L L K K A A A E G A L K K G V L | L G Y T D E P L |
| UniRef90_UPI00016C5283 | V V D L T V K T T | K A T S Y E E I | C A A M K R A S E T Y L K K G V I L | V S T D E D E V |
| UniRef90_A8MFX8 | V V D L V L E L E | K S T D K E E I | N R I F E A A A A K G S L K K G I L | L D Y S D L P L |
| UniRef90_UPI0003752F95 | A T D L T I T A G | R E T T V E E V | N A A M K K A A A E G P L K K G I L | L Y T T E D E I |
| UniRef90_D8PCA7 | L V D L T V E T E | E Q D C D V A G V | N A A F K K A A A E G P M K N V I L | L A Y S D A P L |
| UniRef90_L0NHR0 | V V D L K F I L P | S R N V T K E E V | N E A I K A A A A E G E L K K G I L | L D Y V I T G P L |
| UniRef90_A4IRP2 | L V D L V V D V K | R D V T I D E V | N E A I L R A A A N G P L K K G I L | E F T M E P L |
| UniRef90_B0VEY0 | L V D L C A N L E | V E V T K E E V | N M A M K E A A E T Y L K K G Y L | L M Y S T E P L |
| UniRef90_UPI0003753573 | S T D L T V T L S | R S A S V S D I | N A A Y R A A A A E G P L A G I L | L R Y S T E P L |
| UniRef90_L7VSM8 | A T D L T I N M G | K A V P A D E I | N A A M R A A A A E G E L K K G I L | L R Y T E D P L |
| UniRef90_B8FW51 | L V D F V A N L E | K S T S K E G V | N A A L R E A A A E G K L K K G Y L | L E Y T E P L |
| UniRef90_F8P9T8 | V V D L V V R L E | K P A S Y K D D I | K A A L K E A A S E G P L K K G I L | M A Y T E S V |
| UniRef90_I4BW45 | I V D L V A E L K | R V T V E E V | N A A M K K A Y A E G E L K K G I L | L A Y E P G P L |
| UniRef90_M4S5G0 | L V D L T F T P K | R D T T K E E V | N A I L K K A A S E S P L A G I L | L D Y T D E P L |
| UniRef90_K1ZQQ3 | C V D F V C E L A | K S T T K D E V | N A K L K E A A S Q T V L K N I M | G Y S D E D P L |
| UniRef90_B9ZYW6 | V V D L S V R L T | N S P T T L E Q V | N A A I K I A C D S Y L N G I L | L E Y A E K D Q |
| UniRef90_A3KA29 | V V D L T F E A A | R S T T V E E I | N D A I K I A C D S Y L N G I L | L G Y T D K K L |
| UniRef90_D1C371 | I I D F V V E L E | K P A T V E S I | N G A F Q D A A A S G A M E G I L | L D Y T D E P L |
| UniRef90_L8JKJ6 | L T D L V C V L K | E K A S V E E I | N A A M K K A A S E G P M K G I L | L A Y T E D P L |
| UniRef90_U2KR59 | I V D V T F E L E | K E A T V E E I | N E A L K K N A S E N E L K K G I L | M G F S D E P L |
| UniRef90_UPI0002F3387A | A V D L K F I A K | R P T T K D E I | H A A I K K A A A D G P M K G V L | L A Y T N E K L |
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| UniRef90_V5FIK7 | V V D L T V R T E | K P V T Y D L I | K Q T I K K A A S E N E L K K G I L | L A Y S D D P L |
| UniRef90 | | | | |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|
| UniRef90_UPI0003B4E512 | V | S | S | D | I | V | R | G | D | A | H | S | S | I | F | D | A | G | L | L | R | V | L | G | D | Q | L | V | K | L | S | S | W | Y | D | N | E | W | G | Y | S | 320 | | |
| UniRef90_A0A037Z6P2 | V | S | S | V | D | I | V | R | G | D | A | H | S | S | I | F | D | A | G | L | S | T | M | V | M | G | D | R | Q | L | V | K | L | S | S | W | Y | D | N | E | W | G | Y | S |
| UniRef90_UPI0003B4D99B | V | S | S | D | F | N | G | N | E | H | S | S | S | S | I | V | D | A | G | L | S | T | M | V | M | G | D | R | Q | L | V | K | L | V | A | W | Y | D | N | E | W | G | Y | S |
| UniRef90_UPI00028A22C9 | V | S | S | Q | D | F | V | S | D | H | T | C | I | I | V | D | S | K | A | G | I | A | L | N | D | T | R | F | F | K | L | V | A | W | Y | D | N | E | Y | G | Y | S | | |
| UniRef90_UPI000348C503 | V | S | S | I | D | F | N | G | N | E | H | S | S | S | I | V | D | G | L | S | T | M | V | M | G | D | R | Q | L | V | K | L | V | A | W | Y | D | N | E | W | G | Y | S | |
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| UniRef90_UPI0003657852 | V | S | S | R | D | F | N | G | C | A | A | S | S | S | T | Y | D | A | S | F | T | T | V | I | D | D | G | H | M | V | K | L | V | A | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_T1F731 | V | S | S | S | D | F | T | T | T | T | F | S | S | S | T | V | F | D | A | K | A | G | I | T | L | N | R | T | F | F | K | L | V | A | W | Y | D | N | E | Y | G | Y | S | |
| UniRef90_Q6ME40 | V | S | S | S | D | F | I | S | S | P | Y | S | S | S | A | I | F | D | K | D | A | G | I | T | L | N | S | K | F | Y | K | L | I | A | W | Y | D | N | E | M | G | Y | A | |
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| UniRef90_I0ROC5 | V | S | S | S | D | I | V | L | G | D | P | H | S | S | S | S | I | Y | D | S | G | L | V | R | V | I | D | N | T | V | K | L | S | S | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_S7KKC5 | V | S | S | S | D | F | I | G | C | E | Y | S | S | S | S | I | F | D | A | G | A | G | I | A | L | T | D | R | F | F | K | L | V | A | W | Y | D | N | E | I | G | Y | A | |
| UniRef90_UPI00037A0F0B | V | S | S | V | D | F | Y | T | N | D | P | H | S | S | S | A | V | I | D | G | S | L | T | M | V | I | G | G | N | K | V | K | L | V | A | W | Y | D | N | E | W | G | Y | S |
| UniRef90_Q8VXQ6 | V | S | S | S | D | F | I | G | D | S | H | S | S | S | S | I | F | D | A | T | A | G | I | Q | L | S | P | T | F | V | K | L | I | T | W | Y | D | N | E | M | G | Y | S | |
| UniRef90_W4VHU2 | V | S | S | K | D | Y | I | G | N | S | H | S | S | S | S | I | I | D | G | L | S | T | M | V | M | E | G | N | M | V | K | V | V | S | W | Y | D | N | E | I | G | Y | S | |
| UniRef90_X5DS67 | V | S | S | T | D | I | V | L | G | D | S | H | S | S | S | S | I | F | D | S | G | L | T | K | V | I | G | N | Q | V | K | L | V | V | S | W | Y | D | N | E | W | G | Y | S |
| UniRef90_H0E675 | V | S | S | S | D | I | V | L | G | N | P | H | S | S | S | S | I | V | D | A | Q | L | T | A | V | I | D | G | T | L | V | K | I | V | S | W | Y | D | N | E | W | G | | |

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S K M V D M A V
C R V V D L V D L V A A E
N R L I D L V V Y M N K V D
N R V N D M V A Y I A A R E
N R V V D L A K Y L
C R V I D L V S Y M
R R V V D L I S Y I S K V D
N R L V E L T A L V A S K
T R I V D L L E Y V A K
C R V V D L A K L V A K R
T R C V D L I E P L A K V D
T R C V D L A V F F
R R L V D L A A Y V G E R
N R V V D L V
N R M V D V M A H M A S K E
T R V T D L L E
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N R M L D T A G A M A K
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T R V V D L V S Y I V E K
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N R M S D T A V A M G K
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N R M V D T G A A M G K
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C R V A D L A N L I A E Q
N R V A D L I A K L
H R V V D L A E M V K K
G R M T D T A A L I G S
N R M L D T A G V M A
Y R I V D L I Q F M A T I D
N R M A D T A V A M G K
C R V V D L M N Y V A E R
N R M V D V A I A M S K
T R V V E L A G L M G E Q
T R V I D L A V L I G K
N R M S D T A V A M A K
N R M S D T A V A L S K
N R M L D M V A L M A A K
L R V N D L A A Y I G S K
N R M G D T A V A M G K
N R M L D S A K A M T E
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N R L V D L V K M V G
S R C L D L A A H M L R K Q
S N L I R L V Q H I S K
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A R C L D L A L H M
N R M C D T A I Q I A
N Q L V R L T E F M A A K
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A K L L D L V
A R T V D L V S Y V V A K
N M V V D L M A H M A S K E
C R V V D L V K Y I G
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|------------------------|---|---|----|---|----|---|----|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | 10 | | 20 | | 30 | | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI000344CD2A | | V | R | V | A | I | N | G | Y | G | R | I | G | R | N | T | L | R | A | F | Y | E | T | H | N | L | E | I | V | A | I | N | D | L | G | D | A | K | | | | |
| UniRef90_Q4UFJ5 | K | I | R | I | G | I | N | G | Y | G | R | I | G | R | S | V | H | R | A | S | L | E | R | N | I | E | I | V | H | I | N | D | P | L | M | T | P | E | | | | |
| UniRef90_G8LR88 | S | K | I | K | I | G | I | N | G | L | G | R | I | G | K | L | V | L | I | S | A | L | N | K | N | D | I | E | V | I | S | V | N | D | L | A | S | P | I | E | | |
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| UniRef90_C7QAZ4 | | | | V | R | V | G | I | N | G | F | G | R | I | G | R | N | F | F | H | A | I | V | A | S | G | A | D | V | E | V | V | G | I | N | D | L | A | A | A | P | |
| UniRef90_B0M2A8 | | | | V | S | M | G | I | N | G | F | G | R | I | G | R | Q | V | A | R | V | A | M | K | D | P | E | T | E | L | K | L | I | N | A | S | Y | D | A | D | | |
| UniRef90_D7B1J4 | | | | I | R | V | G | V | N | G | F | G | R | I | G | R | N | F | W | R | A | A | A | G | S | D | I | E | I | V | A | V | N | D | L | T | D | T | K | | | |
| UniRef90_D1J122 | K | K | R | V | A | I | N | G | F | G | R | I | G | R | G | L | V | F | R | A | G | I | D | N | P | N | L | D | F | V | A | L | N | D | L | T | D | T | R | | | |
| UniRef90_A0A023X4G8 | | | | V | R | V | G | V | N | G | F | G | R | I | G | M | L | V | V | K | A | A | I | E | T | E | A | D | I | E | V | V | A | V | N | D | L | M | P | M | D | |
| UniRef90_U7D928 | | | | V | K | M | A | I | N | G | F | G | R | I | G | R | L | A | F | R | Q | M | M | K | A | D | D | I | E | V | V | A | A | N | D | L | T | D | A | K | | |
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| UniRef90_UPI00047CD653 | | | | K | I | A | I | N | G | F | G | R | I | G | G | R | N | V | L | R | A | L | E | E | S | G | R | D | D | Q | V | V | A | I | N | D | L | S | T | D | | |
| UniRef90_Q20FC5 | K | V | K | V | A | I | N | G | F | G | R | I | G | R | N | F | V | R | C | L | E | G | R | K | Q | T | N | L | V | A | I | N | D | T | G | S | G | A | K | | | |
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| UniRef90_D6XST8 | | | | I | K | T | A | I | N | G | F | G | R | I | G | R | M | V | F | R | Q | L | M | A | D | T | E | T | E | V | V | A | V | N | A | T | Y | P | V | E | | |
| UniRef90_Q2S3A6 | | | | I | K | L | G | I | N | G | F | G | R | I | G | R | L | C | F | R | A | L | L | E | R | E | E | D | E | I | I | V | G | I | N | D | L | T | D | A | E | |
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| UniRef90_H9UJJ8 | | | | M | K | I | A | I | N | G | F | G | R | I | G | R | N | V | F | K | I | A | L | Q | K | G | V | E | V | V | A | I | N | D | L | T | D | T | K | | | |
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| UniRef90_UPI0003D08F50 | | | | V | K | I | G | V | N | G | F | G | R | I | G | C | L | V | T | R | A | A | F | S | S | G | K | V | D | I | V | A | I | N | N | L | F | I | D | L | N | |
| UniRef90_UPI0001850871 | K | T | K | V | A | I | N | G | F | G | R | I | G | R | M | V | F | R | K | A | I | K | E | E | H | L | E | I | V | A | I | N | A | S | Y | P | A | D | | | | |
| UniRef90_UPI00036F5B11 | | | | I | K | I | G | I | N | G | F | G | R | I | G | R | N | V | F | R | A | A | A | G | T | A | D | I | E | V | L | A | V | N | D | I | T | D | N | K | | |
| UniRef90_N1UR15 | | | | R | I | G | I | N | G | F | G | R | I | G | R | N | F | F | R | A | L | L | Q | E | A | D | L | E | I | V | A | V | N | D | L | S | S | P | E | | | |
| UniRef90_V8FYW1 | | | | I | R | V | A | I | N | G | Y | G | R | I | G | R | M | V | L | R | A | H | Y | E | K | H | D | I | E | I | V | A | I | N | A | S | G | S | A | E | | |
| UniRef90_I3EDG6 | | | | M | K | V | G | I | N | G | A | G | R | I | G | K | M | V | I | R | I | A | L | E | R | G | I | E | I | G | C | I | N | D | P | F | I | D | A | K | | |
| UniRef90_R2S5I5 | | | | V | K | V | G | I | N | G | F | G | R | I | G | R | L | A | F | R | R | I | Q | D | V | D | G | I | E | V | V | A | I | N | D | L | T | D | A | K | | |
| UniRef90_K9SF47 | | | | I | R | V | A | I | N | G | F | G | R | I | G | R | N | F | L | R | C | W | S | G | R | S | E | T | N | L | V | V | A | I | N | D | T | S | D | P | K | |
| UniRef90_E1QEC3 | | | | I | R | I | G | I | N | G | F | G | R | I | G | R | Q | V | F | K | A | V | K | E | R | Y | G | Q | V | L | V | A | A | V | N | D | L | C | D | V | E | |
| UniRef90_UPI000471B8B1 | | | | V | A | I | N | G | F | G | R | I | G | R | M | V | F | R | Q | L | I | V | E | D | E | V | T | A | I | A | I | N | A | L | Y | P | P | E | | | | |
| UniRef90_D4DJY3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_A0A024Q3E8 | N | K | T | R | I | A | I | N | G | F | G | R | I | G | R | M | V | L | R | Q | A | A | I | N | D | G | S | Q | L | E | V | I | A | I | N | A | S | Y | P | P | E | |
| UniRef90_Q6AF45 | | | | V | K | I | G | I | N | G | F | G | R | I | G | R | A | V | L | F | R | I | M | A | S | R | P | D | E | F | E | V | T | L | I | N | D | L | T | D | A | S |
| UniRef90_W5X0K4 | | | | I | K | I | G | I | N | G | F | G | R | I | G | R | A | V | L | R | A | L | L | E | S | R | G | A | K | D | I | V | V | A | I | N | D | L | A | D | A | S |
| UniRef90_A3XG01 | | | | L | K | I | A | I | N | G | F | G | R | I | G | R | G | M | V | L | Q | A | I | C | D | Q | T | E | I | D | V | V | A | V | V | R | S | P | A | A | A | |
| UniRef90_Q26753 | A | P | I | K | V | G | I | N | G | F | G | R | I | G | R | M | A | L | R | A | V | I | E | F | A | D | I | E | V | V | A | I | N | G | M | Q | D | I | I | D | | |
| UniRef90_UPI000381F701 | | | | I | R | V | G | I | N | G | F | G | R | I | G | R | N | F | F | R | A | V | L | D | R | S | E | N | L | E | I | V | A | V | N | D | L | T | S | I | K | |
| UniRef90_S5SV17 | | | | V | R | V | G | I | N | G | F | G | R | I | G | R | N | V | L | R | C | V | L | E | R | A | G | N | G | T | V | V | A | V | N | D | I | T | S | P | A | |
| UniRef90_UPI00035EB046 | S | K | T | R | I | A | I | N | G | F | G | R | I | G | R | G | F | V | R | C | L | N | D | D | K | S | A | F | D | L | A | L | I | N | D | L | T | D | N | K | | |
| UniRef90_D0LTS8 | | | | I | K | L | A | I | N | G | F | G | R | I | G | R | C | I | L | R | A | A | L | S | R | K | E | D | L | E | I | V | A | I | N | D | L | D | K | P | S | |
| UniRef90_H8MUC1 | | | | V | R | V | A | I | N | G | F | G | R | I | G | R | N | F | M | R | C | W | L | K | R | K | A | N | E | I | V | G | I | N | D | T | S | D | P | R | | |
| UniRef90_Q8DIW5 | | | | R | I | A | I | N | G | F | G | R | I | G | R | I | T | L | R | N | L | L | K | M | N | D | V | E | V | V | A | I | N | D | L | T | D | N | P | E | | |
| UniRef90_F4L1M6 | | | | I | N | I | A | I | N | G | F | G | R | I | G | R | M | V | L | R | S | L | V | E | N | N | K | G | L | K | V | V | A | L | N | D | L | S | L | E | | |
| UniRef90_J9DTR7 | | | | R | I | A | I | N | G | F | G | R | I | G | R | N | T | L | R | A | L | L | E | R | N | D | T | D | L | E | V | V | A | V | N | D | L | T | A | P | D | |
| UniRef90_U2R1Z3 | | | | K | V | A | I | N | G | F | G | R | I | G | R | L | V | F | R | A | M | A | N | D | P | D | L | E | V | V | A | V | N | D | T | G | A | I | P | A | | |
| UniRef90_C7MND3 | | | | I | R | I | A | I | N | G | F | G | R | I | G | R | N | I | L | R | A | H | Y | E | K | H | P | E | I | Q | I | V | G | I | N | D | L | G | D | V | N | |
| UniRef90_K2CAE9 | | | | V | K | V | G | I | N | G | F | G | R | I | G | R | D | F | L | R | C | V | L | D | R | G | D | G | P | V | V | A | V | N | D | I | T | A | P | S | | |
| UniRef90_W7S6B5 | P | I | R | V | A | I | N | G | F | G | R | I | G | R | L | V | Y | R | A | G | M | K | N | S | K | L | E | F | V | A | V | N | D | L | A | D | A | K | | | | |
| UniRef90_T0MQS0 | | | | I | K | V | A | I | N | G | F | G | R | I | G | R | N | I | L | R | A | L | Y | E | R | T | D | E | I | Q | I | V | A | I | N | D | L | G | D | A | N | |
| UniRef90_UPI000381BCF3 | P | I | K | V | A | I | N | G | F | G | R | I | G | R | H | A | F | K | V | A | Q | T | K | R | N | V | E | V | V | A | I | N | D | L | T | D | T | K | | | | |
| UniRef90_K2EPH3 | K | I | K | I | G | I | N | G | F | G | R | I | G | R | L | V | F | R | A | A | M | T | R | P | E | L | E | I | V | C | I | N | D | L | T | D | T | R | | | | |
| UniRef90_S0G637 | | | | V | K | V | A | I | N | G | F | G | R | I | G | R | C | V | A | R | I | M | K | R | D | D | L | E | L | V | A | I | N | D | T | D | I | E | | | | |
| UniRef90_B9KFE0 | | | | R | I | G | I | N | G | F | G | R | I | G | R | L | A | L | R | S | M | K | K | Y | H | P | N | E | L | V | V | A | I | | | | | | | | | |

| | 50 | 60 | 70 | 80 |
|------------------------|---|---------------------|-----------------------------|----------|
| UniRef90_UPI000344CD2A | T N A H L T Q Y D T T H R Q F L P Y G T V | E V Q G E E L V V | N G D Q R V R V L A Q R | E 80 |
| UniRef90_Q4UFJ5 | T N K Y L L K Y D S I Q G K L P Y G T V | E T L E N N N L L L | N G E K R L R K L T S F E R | K N 80 |
| UniRef90_G8LR88 | Y L A Y L L K Y D S I H G R F P Y G T V | E T L E N N N L L L | N G E K R L R K L T S F E R | K N 80 |
| UniRef90_F0Y1M7 | Y M A Y Q F K Y D S I H G R Y P Y G T V | E A T E D D G L K I | D G V K L T P T S H T R D | R D 80 |
| UniRef90_L5N9Z4 | T L A H M L K Y D S V H G R F P Y G T V | Q A A E G D N L V V | D G V K L V R L T C S T R | R D 80 |
| UniRef90_V4NGL9 | T N A H L L R Y D S V H G R F P Y G T V | T V D G D S I T L V | D K D T P L K V T A I R K | N D 80 |
| UniRef90_F7YAX5 | T N A H L L R Y D S V H G R F P H E | S F S G D Q I T V | T G K E T F K V T A I R | R N 80 |
| UniRef90_UPI0003B36CAF | T L A H L V K Y D S V H G P F L D V | K S E G D E M I V | D G K R I R L L Q N R N | R D 80 |
| UniRef90_C7QAZ4 | I L A H F L K Y D S I L G R F D G T I | E A E G D S L I V | N G K T I V K L L S T R | R D 80 |
| UniRef90_B0M2A8 | Y L A Y L M K Y D T I H G T D G T I | E A D G D S I V | D G K K I V L S H T R | R D 80 |
| UniRef90_D7B1J4 | T L A H L L K Y D T V L G T L E G D V | E V G D F I R V | D G K K I V L S A Q R | R D 80 |
| UniRef90_D1JI22 | T L A H L L K Y D S V H E N F K E G E V | G Y D D D H L I V | N G N K I A V Y S M K | R D 80 |
| UniRef90_A0A023X4G8 | S L A H L F K R D S T Q G S Y P E D V | S Y E N N V L R I | G D R E I K T F S E R | R D 80 |
| UniRef90_U7D928 | T L A H L L K Y D T A Q G S Y E G T V | E V K D G A I V V | D G K E I K L L C E K | D 80 |
| UniRef90_G3RS64 | Y M V Y M F L Y D S T H G K F H G T V | K A E N G T L V I | N G N P I T F Q D Q | D 80 |
| UniRef90_UPI00047CD653 | N L A H L L K Y D S V L H G R F G G Q V | S H T E T S L N I | N G K G D I Q V T A I | R N 80 |
| UniRef90_Q20FC5 | L S A H L L K Y D S I L G R F D A D V | K Y D D T G A I S | N G N K T I V V S T | R D 80 |
| UniRef90_B5IAB7 | T L A H L L K Y D T N Y G K F D G E V | E Y T E K S L I V | N G R E I V P V F S E | R N 80 |
| UniRef90_D6XST8 | T L A H L L R Y D S I H G T W D A D I | R T E G Q N L I V | N G R H V P V C Q E R | N 80 |
| UniRef90_Q2S3A6 | T L A T L L K Y D S V H G Q F P G D V | H L E D S T L V V | D E Q E F P V F S E K | K D 80 |
| UniRef90_C0GGI0 | T L A H L L K Y D S L F G K F P G D V | S V K G D N T L N V | N G R D I R I L A E A | Q 80 |
| UniRef90_UPI00036A6243 | T N A H L L K Y D S I H G K F P N K I | T I L D N N T I N A | G T G Q I K V T A L K | N 80 |
| UniRef90_H9UJ8 | T L A H L L K Y D S T Q G K F E G E V | S Y D D T N L I V | D G K K Y K V C S E | R N 80 |
| UniRef90_UPI0003B49556 | S N F H L L E Y D S V Y G R A N L D A | K V N G Q D A T V | G D W N I H C F A E | R D 80 |
| UniRef90_UPI0003D08F50 | Y M V Y M L Q Y D S T H G K F N G T V | K A E N A K L V I | N R K P I T I F Q D | D 80 |
| UniRef90_UPI0001850871 | T L A H L L K Y D T T H G T F E G T V | D V K E D A L L V | D G K E I L L L N D | R N 80 |
| UniRef90_UPI00036F5B11 | T L A H L L K Y D S V H G R F D G T V | E Y N D S A L L V | N G T E I V K A F A E | R D 80 |
| UniRef90_N1UR15 | T L A H L L K Y D S V T G R L A A D V | S V Q D G N L V V | D G R T I K V L A E | R D 80 |
| UniRef90_V8FYW1 | T N V H L T K Y D T T H G R F N A D V | S L D G D Y M V | D G D R I K V L F S T | R D 80 |
| UniRef90_I3EDG6 | Y L A Y L I L R D S T H G T L K D T I | E H T N D S S L I V | N R D M T I V Q V T N | K R D 80 |
| UniRef90_R2S515 | M L A D L L K Y D S T Q G R F N G T V | E V N E G S F T V | N G K E I K V L L A | N R N 80 |
| UniRef90_K9SF47 | T N A H L L K Y D S M L G K F S G E V | S A A E D A I V | N G K T I L K T T A | D R N 80 |
| UniRef90_E1QEC3 | T S A H L L K Y D S S Y G V Y A S S V | D C A Q G K L I V | D G V E T A Y I S S | S D 80 |
| UniRef90_UPI000471B8B1 | T L A H L L K Y D T T H G T F D G D V | V V E E N A L L V | N G K V E L V A E R | D 80 |
| UniRef90_D4DJY3 | Y M L K Y D S Q H G Q F K D E I | S H D E S G L V V | G K K H I K F Y A E | R D 80 |
| UniRef90_A0A024Q3E8 | T L A H L I K Y D S V H G I F Q G E V | K A L E N G L E I | N Q K Q I K I V N S | E R D 80 |
| UniRef90_Q6AF45 | T L A H L L T Y D S T F G L P L D T T V | H L D G D S I V V | N G K Q I K I V L E | E R D 80 |
| UniRef90_W5X0K4 | S L A N L L K Y D S T F G L F D P G T V | E A S K E S I K V | N G R M I R L S N E | K D 80 |
| UniRef90_A3XG01 | T L A H L L K Y D S V H G R V K T T V | A H G E D Q M T V | N G K P I R L T A I | R D 80 |
| UniRef90_Q26753 | Y L S Y R L R Y D S V H G R F K H K V | S I K H D T L V V | N G K H K I V V K G | G P D 80 |
| UniRef90_UPI000381F701 | Y M A H M L Q Y D S V H G R F N G T V | S I K G D A L I V | N G K K I V A V S K | E R D 80 |
| UniRef90_S5SV17 | T L T T L L K F D S I L G R L G R E V | E F D D E S I T V | D G K R I V A V H A | E R D 80 |
| UniRef90_UPI00035EB046 | A L A H L L A Y D S T Y G R I G R P | E H D E S L T V | D G H D R I M V T A | I K D 80 |
| UniRef90_D0LTS8 | T L A H L L K Y D S V H G R F G G D V | E V A A E G L S I | D G D A V I T A I K | D 80 |
| UniRef90_H8MUC1 | A L A H L F K Y D S V H R T W P G E V | S H T D K G I V V | A N G K E I A V T A | E K D 80 |
| UniRef90_Q8DIW5 | T N A H L L K Y D S M L G I F D A E I | T A D D D C I Y A | G G H A V K C V S D | R N 80 |
| UniRef90_F4L1M6 | T L A H L F K Y D S A Q G K F D G T V | S A D D K Y I H A | N G K A I L A L A E | K D 80 |
| UniRef90_J9DTR7 | N N I H L L K Y D S I H G N F N A P | R Q L K S G L K I | N G N Q N I A Q L A | E R D 80 |
| UniRef90_U2R1Z3 | A L A Q L L R F D S I L G R L G R T V | E V D G S T L V V | D G Q R I E V L A E | R D 80 |
| UniRef90_C7MND3 | I L A H L L K Y D S I L G R A F D S V | E A V D D G F I V | D G G K V R A F C D | R |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|
| UniRef90_UPI000344CD2A | P | A | A | L | P | W | G | E | L | G | V | D | V | V | L | E | C | T | G | F | T | S | K | A | K | A | S | A | H | L | Q | G | G | A | K | K | V | I | I | 120 | | | | | | | |
| UniRef90_Q4UFJ5 | P | D | N | L | P | E | W | G | N | S | L | G | V | D | V | V | L | E | C | T | G | G | F | T | S | K | N | K | L | A | L | K | S | G | A | K | K | V | I | I | | | | | | | |
| UniRef90_G8LRJ8 | P | E | N | L | P | W | G | N | S | L | G | V | D | V | V | L | E | E | S | T | G | G | F | L | T | K | A | E | K | V | E | A | H | L | K | S | G | A | K | K | | | | | | | |
| UniRef90_F0Y1M7 | P | A | E | I | P | F | S | A | M | G | A | E | Y | I | | | | C | | S | T | G | A | F | L | T | K | A | E | K | V | E | A | H | L | K | A | G | A | K | | | | | | | |
| UniRef90_L5N9Z4 | P | H | E | L | P | W | D | E | L | L | G | V | D | I | V | V | L | E | E | A | T | G | K | F | K | T | K | A | K | D | E | A | A | A | H | L | E | A | G | A | K | | | | | | |
| UniRef90_V4NGL9 | P | A | E | L | P | H | K | E | L | L | G | V | D | I | V | V | L | E | C | T | G | I | F | T | A | R | D | K | A | A | A | L | H | L | E | A | G | A | K | | | | | | | | |
| UniRef90_F7YAX5 | P | A | Q | L | P | W | K | E | L | L | G | V | D | I | V | V | L | E | C | T | G | I | F | T | A | R | D | K | A | A | A | L | H | L | E | A | G | A | K | | | | | | | | |
| UniRef90_UPI0003B36CAF | P | L | E | L | P | W | E | E | L | L | G | V | D | I | V | V | L | E | E | A | T | G | K | F | N | R | G | P | D | A | E | M | H | L | E | A | G | A | K | | | | | | | | |
| UniRef90_C7QAZ4 | P | A | A | L | P | W | K | E | L | L | G | V | D | I | V | V | L | E | E | S | T | G | L | F | T | N | G | D | D | A | R | K | H | L | E | A | G | A | K | | | | | | | | |
| UniRef90_B0M2A8 | P | S | E | I | P | F | G | K | Y | G | A | D | Y | V | | | | C | | S | T | G | V | F | L | T | K | A | D | K | V | Q | G | H | L | E | K | G | A | K | | | | | | | |
| UniRef90_D7B1J4 | P | A | Q | L | P | W | S | D | L | E | I | D | V | V | V | L | E | E | S | T | G | L | F | T | T | K | A | E | D | A | K | K | H | L | E | K | A | G | A | K | | | | | | | |
| UniRef90_D1JI22 | P | E | L | L | P | W | K | E | L | L | G | V | D | I | V | V | L | E | E | S | T | G | R | F | T | T | D | R | K | G | A | K | K | H | L | E | K | A | G | A | K | | | | | | |
| UniRef90_A0A023X4G8 | P | A | S | I | P | W | G | D | V | G | A | D | I | V | V | L | E | E | S | T | G | V | F | T | T | D | R | K | G | A | K | K | H | L | E | K | A | G | A | K | | | | | | | |
| UniRef90_U7D9Z8 | P | A | N | L | P | W | G | E | M | G | V | D | V | V | L | E | E | E | S | T | G | F | F | T | T | K | E | L | A | G | A | K | K | H | L | E | K | A | G | A | K | | | | | | |
| UniRef90_G3RS64 | P | S | K | I | K | W | G | D | A | G | A | E | Y | V | V | L | E | E | F | T | G | V | F | T | T | M | E | K | A | G | A | K | H | L | E | Q | G | A | K | R | V | N | | | | | |
| UniRef90_UPI00047CD653 | L | E | D | Q | N | W | A | D | N | D | V | D | I | V | M | | | | C | | T | G | I | F | T | A | R | E | T | A | G | A | K | H | L | E | A | G | A | K | R | V | L | | | | |
| UniRef90_Q20FC5 | P | T | T | L | P | W | K | E | L | L | G | V | D | I | V | V | L | E | E | S | T | G | V | F | L | D | G | P | T | A | G | A | K | H | L | E | A | G | A | K | K | V | I | | | | |
| UniRef90_B5IAB7 | P | E | K | L | P | W | K | E | L | L | G | V | D | I | V | V | L | E | E | S | T | G | V | F | R | S | R | D | K | A | A | K | H | L | E | K | A | G | A | K | K | V | I | | | | |
| UniRef90_D6XST8 | P | A | L | L | P | W | G | E | L | L | G | V | D | I | V | V | L | E | E | A | T | G | A | F | T | T | D | R | K | A | A | A | L | H | L | E | D | A | G | A | D | K | V | I | | | |
| UniRef90_Q2S3A6 | P | T | N | L | P | W | G | D | H | D | T | D | V | V | L | E | E | E | S | T | G | V | F | R | T | T | Y | D | K | A | S | Q | H | L | E | A | G | A | D | Q | V | I | | | | | |
| UniRef90_C0GGI0 | P | E | N | L | P | W | S | E | L | L | G | V | D | I | V | V | L | E | E | S | T | G | R | F | R | T | H | K | D | A | S | R | H | L | E | K | Q | G | A | K | K | V | I | V | | | |
| UniRef90_UPI00036A6243 | P | D | D | L | P | W | | | | | N | D | V | D | I | A | F | | | C | | T | G | I | F | N | E | K | E | S | A | K | R | N | A | K | N | G | S | K | K | V | I | L | | | |
| UniRef90_H9UJJ8 | P | Q | E | I | P | W | G | A | N | P | D | V | V | V | L | E | E | E | S | T | G | V | F | R | S | K | E | S | A | K | R | N | A | K | F | P | A | K | K | V | I | L | | | | | |
| UniRef90_UPI0003B49556 | P | K | Q | L | T | W | G | A | H | D | V | D | I | V | V | L | E | E | S | T | G | I | F | R | S | A | T | Q | A | A | V | H | L | E | N | G | A | K | K | V | I | L | | | | | |
| UniRef90_UPI0003D08F50 | P | T | N | I | K | W | G | D | A | G | T | E | Y | V | M | | | | | | S | T | G | V | F | T | T | M | E | K | A | G | T | H | L | E | N | G | T | K | R | V | I | L | | | |
| UniRef90_UPI0001850871 | P | E | N | L | P | W | K | E | L | L | G | V | D | I | V | V | L | E | E | A | T | G | K | F | N | S | R | E | K | A | A | L | H | L | E | N | N | A | G | A | E | K | V | I | L | | |
| UniRef90_UPI00036F5B11 | P | A | D | L | P | W | G | D | L | G | V | D | I | V | V | L | E | E | S | S | G | I | F | T | D | A | A | D | S | A | G | K | H | L | E | K | A | G | A | K | K | V | I | L | | | |
| UniRef90_N1UR15 | P | G | N | L | P | W | K | D | L | G | V | D | I | V | V | L | E | E | S | T | G | L | F | T | D | A | A | D | A | E | K | H | L | E | V | J | A | G | A | K | K | V | I | L | | | |
| UniRef90_V8FYW1 | P | L | E | L | P | W | A | D | L | N | V | D | V | V | L | E | E | | | C | | T | G | A | F | T | S | K | E | K | A | G | L | H | L | E | Q | A | G | A | K | K | V | I | L | | |
| UniRef90_I3EDG6 | P | S | E | I | E | W | D | T | Y | G | I | E | Y | V | V | L | E | E | S | S | G | V | F | K | T | V | E | A | C | Q | K | H | L | E | R | P | G | V | K | S | V | I | L | | | | |
| UniRef90_R2S5I5 | P | E | E | L | P | W | G | E | L | L | G | V | D | I | V | V | L | E | E | | | C | | T | G | F | F | T | T | K | E | K | A | E | L | H | L | E | K | A | G | A | K | R | V | I | |
| UniRef90_K9SF47 | P | E | N | L | P | W | A | A | L | L | G | V | D | I | V | V | L | E | E | A | T | G | V | F | R | D | Y | P | K | A | E | K | H | L | E | K | A | G | A | K | K | V | I | L | | | |
| UniRef90_E1QEC3 | P | S | K | I | P | W | G | D | L | G | V | D | V | V | L | E | E | E | S | T | G | L | F | R | S | G | D | K | A | G | A | H | L | E | K | G | A | K | K | V | I | L | | | | | |
| UniRef90_UPI000471B8B1 | P | S | K | L | P | W | K | Q | L | G | V | D | I | V | V | L | E | E | A | T | G | V | F | N | A | R | D | K | A | A | L | H | L | E | E | A | G | A | K | K | V | I | L | | | | |
| UniRef90_D4DJY3 | P | A | N | I | K | W | S | T | G | A | D | Y | I | V | | | | | | S | T | G | V | F | T | T | T | E | K | A | S | A | H | L | E | K | G | A | K | K | V | I | L | | | | |
| UniRef90_A0A024Q3E8 | P | E | K | L | P | W | E | E | L | N | I | D | V | V | L | E | E | E | A | T | G | K | F | K | T | T | K | E | T | A | G | L | H | L | E | K | A | G | A | K | K | V | I | L | | | |
| UniRef90_Q6AF45 | P | A | N | L | G | W | D | L | G | V | D | I | V | V | L | E | E | E | S | T | G | R | F | T | T | K | A | A | D | A | R | K | H | L | E | E | A | G | A | K | K | V | I | L | | | |
| UniRef90_W5X0K4 | P | E | N | I | A | W | E | K | G | N | V | S | V | V | L | E | E | | | S | S | G | K | F | T | T | R | E | G | L | E | K | H | L | E | I | T | A | G | A | P | K | V | I | L | | |
| UniRef90_A3XG01 | P | K | A | L | P | W | S | | | | D | V | D | I | A | F | | | | C | | T | G | H | F | T | T | S | H | A | A | E | S | A | H | L | E | G | N | G | S | K | R | V | I | L | |
| UniRef90_Q26753 | P | S | T | L | P | W | G | K | L | G | V | D | Y | V | V | L | E | E | | | C | | T | G | F | F | T | T | S | H | A | A | E | S | A | H | L | E | G | N | G | S | K | R | V | I | L |
| UniRef90_UPI000381F701 | P | F | H | I | Q | W | G | A | R | G | V | D | I | V | V | L | E | E | | | D | A | T | G | V | F | L | T | T | K | E | G | C | K | G | H | L | E | A | E | G | A | K | K | V | I | Q |
| UniRef90_S5SV17 | P | K | N | L | D | W | S | K | H | D | V | D | I | V | V | L | E | E | E | S | T | G | L | I | Y | K | D | R | E | E | G | A | Q | L | H | L | E | D | S | G | A | K | K | V | I | L | |
| UniRef90_UPI00035EB046 | P | A | A | L | A | W | S | E | L | L | G | V | D | I | V | V | L | E | E | | | C | | T | G | R | F | R | K | R | P | Q | A | G | K | H | L | E | A | G | A | K | K | V | I | L | |
| UniRef90_D0LTS8 | P | A | E | L | P | W | S | E | E | K | V | D | I | V | V | L | E | E | | | C | | T | G | I | F | R | K | R | P | Q | A | G | K | H | L | E | D | A | G | A | K | K | V | I | L | |
| UniRef90_H8MUC1 | P | S | A | L | P | W | K | N | M | N | V | D | V | V | M | | | | | | C | | T | G | R | F | T | A | R | D | A | A | K | H | L | E | A | G | A | K | K | V | I | L | | | |
| UniRef90_Q8DIW5 | P | E | N | L | P | W | S | A | W | G | I | D | V | V | L | E | E | E | A | T | G | V | F | T | S | R | E | G | A | S | K | H | L | E | S | A | G | A | K | K | V | I | L | | | | |
| UniRef90_F4L1M6 | P | T | K | L | P | W | G | D | L | K | V | D | V | V | L | E | E | | | | C | | T | G | F | F | T | T | S | R | E | G | A | E | Q | H | L | E | T | A | G | A | K | K | V | I | L |
| UniRef90_J9DTR7 | P | A | N | L | P | W | E | K | L | N | V | D | I | V | V | L | E | E | | | C | | T | G | I | F | T | T | S | R | E | G | A | G | K | H | L | E | A | G | A | K | K | V | I | L | |
| UniRef90_U2R1Z3 | P | E | N | L | P | W | A | D | L | G | V | E | I | V | V | L | E | E | E | A | T | G | R | F | T | S | A | D | A | A | R | A | H | L | E | R | A | G | A | K | K | V | I | V | | | |
| UniRef90_C7MND3 | P | A | H | L | P | W | R | E | L | L | G | V | D | I | V | V | L | E | E | E | A | T | G | A | F | R | D | G | N | T | A | R | T | H | L | E | D | A | G | A | K | K | V | I | L | | |
| UniRef90_K2CAE9 | P | K | K | L | P | W | K | E | L | N | V | D | I | V | F | | | | | | C | | T | G | L | F | T | T | K | E | K | A | A | Q | H | L | E | E | A | G | A | K | K | V | I | L | |
| UniRef90_W7S6B5 | P | R | L | I | P | W | D | E | A | D | V | D | I | V | V | L | E | E | E | S | T | G | R | F | R | T | R | E | A | A | S | G | H | L | E | H | G | V | K | K | V | I | L | | | | |
| UniRef90_T0MQS0 | V | A | G | L | P | W | K | K | M | G | I | D | V | V | V | L | E | E | | | S | S | G | R | F | | | | | | | | | | | | | | | | | | | | | | |

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| UniRef90_UPI000344CD2A | S | A | P | K | D | V | D | A | T | I | V | Y | G | V | N | H | Q | T | L | K | K | E | H | T | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | | |
| UniRef90_Q4UFJ5 | S | A | I | T | D | T | D | P | I | V | Y | V | G | I | N | H | T | Y | N | K | S | N | Q | V | R | I | V | M | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | |
| UniRef90_G8LRJ8 | S | A | P | P | D | D | I | P | M | Y | I | M | G | V | N | H | D | T | I | N | S | N | Q | V | R | I | V | M | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | |
| UniRef90_F0Y1M7 | S | A | P | A | K | D | D | S | P | T | V | V | M | G | V | N | E | E | T | Y | D | S | N | M | K | A | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | |
| UniRef90_L5N9Z4 | T | A | P | G | K | D | A | T | I | V | M | G | V | N | E | D | S | Y | V | P | E | Q | H | H | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | | |
| UniRef90_V4NGL9 | S | A | P | A | D | A | D | K | T | I | V | Y | G | V | N | H | D | S | V | L | T | K | D | D | T | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | |
| UniRef90_F7YAX5 | S | A | P | A | E | G | A | D | L | T | V | V | F | G | I | N | H | D | K | L | T | K | D | D | H | I | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | |
| UniRef90_UPI0003B36CAF | T | A | P | G | K | D | T | T | I | V | M | G | V | N | E | E | D | Y | D | P | E | R | N | H | H | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | |
| UniRef90_C7QAZ4 | S | A | P | A | D | D | V | T | I | V | M | G | V | N | Q | E | D | Y | D | A | K | P | R | H | N | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | |
| UniRef90_B0M2A8 | S | A | P | A | K | D | D | H | T | I | V | M | G | V | N | E | E | T | Y | D | A | K | P | R | N | M | K | A | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V |
| UniRef90_D7B1J4 | S | A | P | A | K | G | E | D | I | T | V | V | M | N | D | E | K | Y | D | A | N | A | K | H | H | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | |
| UniRef90_D1JI22 | S | A | P | G | K | D | I | T | I | V | K | G | V | N | E | H | L | Y | D | K | E | K | H | N | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | | |
| UniRef90_A0A023X4G8 | S | A | P | A | K | D | G | T | F | V | Y | G | V | N | H | E | D | Y | N | P | D | E | H | E | V | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | |
| UniRef90_U7D928 | S | A | P | A | K | G | G | V | P | T | V | V | Y | N | V | N | H | K | D | T | K | D | D | H | I | V | I | S | G | A | S | C | T | T | N | C | L | V | P | L | V | | | |
| UniRef90_G3RS64 | S | V | T | S | V | D | T | P | M | F | V | M | G | V | N | H | E | K | Y | D | N | S | L | N | I | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | |
| UniRef90_UPI00047CD653 | S | A | P | A | G | A | D | K | T | I | V | Y | G | V | N | H | D | V | L | T | K | N | D | I | V | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | |
| UniRef90_Q20FC5 | T | A | P | S | G | D | I | P | T | Y | V | Y | G | V | N | H | K | D | Y | N | P | S | T | D | H | I | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | |
| UniRef90_B5IAB7 | T | A | P | S | K | G | E | P | A | D | V | T | I | N | Q | D | K | Y | D | P | E | K | H | D | V | I | S | N | A | S | C | T | T | N | C | L | V | P | L | V | | | | |
| UniRef | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI000344CD2A | K | P | L | H | D | K | L | G | V | N | G | L | M | T | S | V | H | A | Y | T | N | D | Q | V | L | T | D | V | Y | H | E | D | L | R | R | A | R | S | | | | | | | |
| UniRef90_Q4UFJ5 | K | V | L | H | E | N | F | E | I | V | E | G | L | M | T | S | V | W | A | N | M | A | T | Q | K | V | L | V | D | G | S | T | R | D | K | R | G | C | | | | | | | |
| UniRef90_G8LRJ8 | K | V | L | H | E | N | F | E | I | V | E | G | L | M | T | S | V | W | A | N | M | A | T | Q | K | V | L | V | D | G | S | T | R | D | K | R | G | S | | | | | | | |
| UniRef90_F0Y1M7 | K | A | L | N | D | A | Y | G | I | D | E | G | L | M | T | T | V | H | A | M | T | A | T | Q | K | V | V | D | A | S | S | N | K | D | W | R | G | C | | | | | | | |
| UniRef90_L5N9Z4 | K | V | L | E | D | Q | F | G | I | V | N | G | L | M | T | T | V | H | A | M | T | A | T | Q | K | V | L | L | D | D | S | M | H | K | D | L | R | A | G | | | | | | |
| UniRef90_V4NGL9 | K | V | L | Q | D | L | C | G | I | E | R | G | Y | M | T | T | I | H | S | Y | T | N | D | Q | P | S | L | L | D | D | N | Q | M | H | K | D | L | R | A | R | A | | | | |
| UniRef90_F7YAX5 | A | A | L | H | E | T | V | G | I | E | K | G | M | M | T | T | I | H | S | Y | T | N | D | Q | P | T | L | L | D | D | T | M | P | H | K | D | L | R | A | R | A | | | | |
| UniRef90_UPI0003B36CAF | K | V | L | E | D | S | I | G | I | E | S | G | L | M | T | T | V | H | A | Y | T | N | D | Q | N | N | M | D | D | T | M | P | H | K | D | L | R | R | A | R | A | | | | |
| UniRef90_C7QAZ4 | K | V | L | L | D | E | F | G | I | E | S | G | Y | M | T | T | V | H | A | F | T | T | E | Q | Q | L | L | D | Q | I | G | T | I | D | L | R | R | A | R | S | | | | | |
| UniRef90_B0M2A8 | K | V | L | Q | E | T | Y | G | I | K | R | G | L | M | T | T | V | C | H | A | M | T | A | S | Q | P | T | L | V | D | A | T | S | K | K | D | W | R | G | R | A | | | | |
| UniRef90_D7B1J4 | K | V | L | L | D | N | F | G | V | D | V | G | F | M | T | T | V | H | A | Y | T | N | D | Q | V | L | L | L | D | D | G | F | P | H | K | D | L | R | R | A | R | A | | | |
| UniRef90_D1JI22 | K | V | L | L | D | N | F | G | V | D | V | G | F | M | T | T | V | H | A | Y | T | N | D | Q | R | I | L | L | V | D | D | G | F | P | H | K | D | L | R | R | A | R | S | A | |
| UniRef90_A0A023X4G8 | K | V | L | Q | D | N | F | G | I | S | S | G | F | M | T | T | V | C | H | A | Y | T | N | D | Q | S | L | L | L | D | D | G | A | A | H | K | D | L | P | R | R | A | R | A | |
| UniRef90_U7D928 | K | V | L | N | E | K | F | G | L | K | R | G | W | M | T | T | I | H | A | Y | T | N | D | Q | R | L | M | Q | D | A | P | A | H | K | D | L | P | R | R | A | R | A | G | | |
| UniRef90_G3RS64 | K | V | I | H | D | N | F | G | I | E | G | F | M | T | T | I | V | H | T | I | T | A | T | Q | Q | T | L | L | D | N | G | P | S | G | K | D | L | S | C | D | G | C | R | | |
| UniRef90_UPI00047CD653 | K | V | L | N | D | T | F | G | I | E | N | G | F | M | T | T | I | V | H | A | Y | T | G | D | Q | P | T | L | L | D | D | T | I | H | R | K | D | Y | N | R | G | R | A | | |
| UniRef90_Q20FC5 | K | V | L | D | E | K | F | K | I | L | K | G | T | M | T | T | T | H | S | Y | T | G | D | Q | R | L | L | L | D | D | A | S | I | H | R | K | D | L | R | R | A | R | A | | |
| UniRef90_B5IAB7 | K | V | L | H | E | N | F | G | I | K | Y | A | L | M | S | T | V | H | S | Y | T | N | D | Q | R | V | L | L | D | L | D | P | H | R | D | L | R | R | A | R | A | R | A | | |
| UniRef90_D6XST8 | K | V | I | D | D | A | F | G | I | V | S | G | L | M | T | T | V | H | S | Y | T | A | S | Q | K | N | I | V | D | N | G | P | H | R | K | D | L | R | R | A | R | A | C | | |
| UniRef90_Q2S3A6 | K | V | L | H | D | A | F | G | V | E | S | G | L | M | T | T | V | H | A | Y | T | A | S | Q | K | N | I | V | D | D | G | P | H | R | K | D | L | R | R | A | R | A | | | |
| UniRef90_C0GGI0 | K | V | L | H | E | N | F | A | L | K | K | G | L | M | N | T | T | H | A | Y | T | N | D | Q | N | L | L | L | D | L | D | P | H | R | P | D | L | R | R | A | R | A | | | |
| UniRef90_UPI00036A6243 | K | V | L | H | E | K | L | G | I | E | R | G | F | M | T | T | V | H | S | Y | T | G | D | Q | P | T | L | L | D | D | T | M | H | S | S | D | L | R | R | S | R | S | A | | |
| UniRef90_H9UJ8 | K | V | L | N | E | K | F | G | L | E | S | G | F | M | T | T | I | H | S | Y | T | N | D | Q | T | L | L | L | D | D | G | P | H | S | R | K | D | L | R | R | A | R | S | C | |
| UniRef90_UPI0003B49556 | L | V | L | Q | R | K | F | G | I | Q | M | G | N | M | T | T | I | H | A | Y | T | N | D | Q | R | I | L | L | L | D | D | G | M | A | H | K | D | P | R | R | A | R | A | | |
| UniRef90_UPI0003D08F50 | K | V | I | Y | G | N | F | D | I | M | E | G | L | M | T | T | I | H | A | I | T | A | T | Q | K | N | I | V | D | D | G | P | S | G | K | L | W | H | D | R | A | R | G | H | G |
| UniRef90_UPI0001850871 | K | V | L | D | E | Q | F | G | I | L | N | G | L | M | T | T | V | H | A | F | T | N | D | Q | N | N | I | V | D | D | G | N | P | H | R | K | D | L | R | R | A | R | A | | |
| UniRef90_UPI00036F5B11 | K | V | L | H | D | A | F | G | L | Q | T | G | F | M | T | T | V | H | A | Y | T | G | D | Q | R | V | L | H | D | D | A | P | H | R | K | D | L | R | R | A | R | A | | | |
| UniRef90_N1UR15 | K | V | L | N | D | E | F | G | I | E | H | G | L | M | T | T | I | H | A | Y | T | A | D | Q | N | L | I | Q | D | D | G | P | H | R | K | D | L | R | R | A | R | A | | | |
| UniRef90_V8FYW1 | K | P | L | Q | D | A | I | G | V | E | N | G | L | M | T | T | I | H | A | Y | T | N | D | Q | V | L | L | L | D | D | G | V | R | H | R | K | D | L | R | R | A | R | S | | |
| UniRef90_I3EDG6 | K | V | I | E | E | A | F | G | I | E | E | G | L | M | S | T | V | H | A | I | T | A | T | Q | R | I | L | V | D | D | G | M | S | M | K | E | Y | R | D | G | R | G | | | |
| UniRef90_R2S515 | K | V | L | N | D | Q | F | G | I | V | E | G | L | M | T | T | I | H | A | Y | T | G | D | Q | R | L | L | L | D | D | P | H | P | K | G | D | M | R | R | A | R | A | | | |
| UniRef90_K9SF47 | K | T | L | N | D | N | F | G | I | V | K | G | M | M | T | T | T | H | S | Y | T | G | D | Q | R | L | L | L | D | D | P | A | S | H | R | D | I | R | R | A | R | A | | | |
| UniRef90_E1QEC3 | K | V | I | H | E | K | F | G | I | G | H | G | L | M | T | T | V | H | S | Y | T | S | D | Q | R | L | L | L | D | D | A | P | H | R | K | D | L | I | R | R | A | R | T | S | |
| UniRef90_UPI000471B8B1 | K | I | L | N | D | E | F | G | I | E | N | G | L | M | T | T | V | H | A | Y | T | N | D | Q | K | N | I | L | L | D | D | N | P | S | G | K | D | L | R | R | A | R | S | | |
| UniRef90_D4DJY3 | K | V | V | H | Q | N | W | G | L | K | E | G | L | M | T | T | V | H | S | Y | T | A | T | Q | K | T | V | V | D | D | G | P | S | G | K | D | W | R | G | G | R | T | | | |
| UniRef90_A0A024Q3E8 | K | V | I | D | D | H | F | K | I | V | N | G | L | M | T | T | V | H | S | F | T | N | D | Q | K | N | I | D | D | N | P | H | R | K | D | L | R | R | A | R | G | | | | |
| UniRef90_Q6AF45 | K | V | F | N | D | A | F | G | I | E | R | G | F | M | M | T | A | H | A | Y | T | A | D | Q | N | L | I | Q | D | D | G | P | H | S | S | D | L | R | R | A | R | A | | | |
| UniRef90_W5X0K4 | K | I | L | H | D | R | F | E | I | E | S | G | L | M | T | T | A | H | A | Y | T | S | S | Q | A | L | L | L | D | D | K | M | S | K | D | P | R | R | G | R | A | | | | |
| UniRef90_A3XG01 | Q | V | L | D | Q | S | F | G | I | Q | T | G | Y | M | T | T | I | H | A | Y | T | G | D | Q | P | T | H | D | S | D | P | H | S | K | D | L | Y | R | G | R | A | | | | |
| UniRef90_Q26753 | H | V | N | K | E | G | F | G | I | K | V | G | L | I | T | T | L | H | A | Y | T | A | T | Q | K | T | V | D | D | G | V | S | K | K | D | W | R | G | G | R | A | | | | |
| UniRef90_UPI000381F701 | K | V | L | N | D | N | F | E | I | K | R | G | L | M | T | T | V | H | A | A | T | A | S | Q | M | V | L | L | D | D | S | A | S | N | K | D | W | R | G | G | R | S | | | |
| UniRef90_S5SV17 | K | A | L | N | D | G | L | G | I | E | R | G | L | M | T | T | I | H | A | Y | T | G | D | Q | R | L | H | D | A | D | P | H | R | K | D | L | R | R | A | R | A | | | | |
| UniRef90_UPI00035EB046 | K | V | L | D | E | H | F | G | I | V | K | G | L | M | T | T | I | H | G | Y | T | N | D | Q | V | V | L | L | D | D | G | P | H | R | K | D | L | R | R | A | R | S | | | |
| UniRef90_D0LTS8 | K | V | L | N | D | S | F | G | I | E | H | G | L | M | T | T | I | H | S | Y | T | N | D | Q | Q | I | L | L | D | D | G | L | P | H | R | K | D | L | R | R | A | R | A | | |
| UniRef90_H8MUC1 | K | V | L | V | D | N | F | G | V | E | K | G | L | M | T | T | V | H | S | Y | T | N | D | Q | R | I | L | L | D | D | L | L | T | H | E | D | M | R | R | A | R | A | | | |
| UniRef90_Q8DIW5 | K | V | L | H | E | A | F | G | I | Q | Q | G | M | M | T | T | T | H | S | Y | T | G | D | Q | R | L | L | L | D | D | A | S | H | S | R | D | L | R | R | A | R | A | | | |
| UniRef90_F4L1M6 | K | V | L | D | D | L | G | I | E | S | G | F | M | T | T | V | H | A | Y | T | A | D | Q | R | L | L | I | Q | D | D | A | P | H | R | K | D | L | R | R | A | R | A | | | |
| UniRef90_J9DTR7 | K | I | L | N | N | K | F | G | I | V | Q | G | H | M | T | T | V | H | A | Y | T | G | D | Q | N | L | L | L | D | D | A | T | V | H | K | D | P | R | R | A | R | G | | | |
| UniRef90_U2R1Z3 | K | V | L | D | D | L | A | G | I | E | H | G | F | M | T | T | V | H | A | Y | T | Q | E | Q | N | L | I | Q | D | D | G | P | H | R | D | L | P | R | R | A | R | A | | | |
| UniRef90_C7MND3 | K | V | L | L | N | N | F | G | I | K | R | G | F | M | N | T | I | H | A | F | T | S | D | Q | K | I | L | L | D | D | A | T | H | K | D | L | R | R | A | R | A | | | | |
| UniRef90_K2CAE9 | K | P | L | H | E | A | I | G | V | I | S | G | L | M | N | T | V | H | A | Y | T | N | D | Q | S | L | L | L | D | D | V | Y | H | S | K | D | L | R | R | A | R | A | | | |
| UniRef90_U7S6B5 | E | V | L | H | R | A | F | G | I | V | R | R | G | M | M | T | I | H | S | Y | T | N | D | Q | A | L | L | L | D | D | G | P | H | R | K | D | P | R | R | G | R | S | | | |
| UniRef90_T0MQS0 | K | I | L | N | D | N | F | G | I | Q | K | G | F | M | T | T | I | H | A | Y | T | N | D | Q | T | T | L | L | D | D | G | Q | V | H | K | D | L | R | R | A | R | A | | | |
| UniRef90_UPI000381BCF3 | K | P | L | N | D | A | I | G | V | V | H | G | L | M | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI000344CD2A | A | T | Q | N | M | I | P | A | K | T | G | A | A | S | A | V | G | L | V | L | P | E | L | N | G | K | K | L | D | G | F | A | I | R | V | P | T | I | N | V | S | | | |
| UniRef90_Q4UFJ5 | A | L | T | N | M | I | P | L | T | T | G | A | A | D | A | V | G | K | I | I | P | S | L | L | N | G | K | K | L | T | G | M | T | F | F | R | V | P | T | S | A | D | V | S |
| UniRef90_G8LR88 | A | L | T | N | M | I | P | L | T | T | G | A | A | D | A | V | G | K | I | I | P | S | L | L | N | G | K | K | L | T | G | M | T | F | F | R | V | P | T | S | A | D | V | S |
| UniRef90_F0Y1M7 | A | S | G | N | I | I | P | S | S | T | G | A | A | K | A | V | A | K | E | V | I | P | D | V | M | R | G | K | L | T | G | M | A | F | R | V | P | T | S | A | D | V | S | |
| UniRef90_L5N9Z4 | C | Q | S | I | I | I | P | T | T | T | G | A | A | K | A | L | G | K | E | V | I | P | D | L | K | K | K | L | T | G | M | A | F | R | V | P | T | S | A | D | V | S | | |
| UniRef90_V4NGL9 | A | S | L | S | M | I | P | T | T | T | G | A | A | K | A | V | G | L | V | L | P | E | L | L | K | K | K | L | T | D | G | S | S | I | R | V | P | T | P | N | V | S | | |
| UniRef90_F7YAX5 | A | A | L | S | Q | I | P | T | T | T | G | A | A | K | A | I | G | L | V | L | P | D | L | K | K | K | L | T | D | G | I | S | I | R | V | P | T | P | N | V | S | | | |
| UniRef90_UPI0003B36CAF | C | Q | S | I | I | I | P | T | T | T | G | A | A | K | A | L | S | E | V | I | P | S | M | E | K | K | K | L | T | D | G | F | A | M | R | V | P | V | P | T | G | S | | |
| UniRef90_C7QAZ4 | A | P | Q | S | I | I | P | T | T | T | G | A | A | K | A | I | G | L | V | I | P | E | V | K | K | K | L | T | D | G | F | A | M | R | V | P | V | P | T | G | S | | | |
| UniRef90_B0M2A4 | G | P | G | N | I | I | P | S | S | T | G | A | A | K | A | V | A | K | V | I | P | A | E | L | V | K | K | L | T | D | G | M | A | L | R | V | P | T | I | D | V | S | | |
| UniRef90_D7B1J8 | A | A | Q | N | I | I | P | T | T | T | G | A | A | K | A | T | A | L | V | I | P | A | E | L | K | K | K | L | T | D | G | M | A | M | R | V | P | V | P | I | D | V | S | |
| UniRef90_D1Jl22 | A | L | S | I | V | I | P | T | T | T | G | A | A | K | A | V | A | E | V | I | P | A | E | L | K | K | K | L | T | D | G | M | A | M | R | V | P | V | A | D | G | S | | |
| UniRef90_A0A023X4G8 | A | A | S | I | I | I | P | T | T | T | G | A | A | R | A | V | G | L | V | I | P | E | L | L | K | K | K | L | T | D | G | L | A | J | A | R | V | P | I | L | D | G | S | |
| UniRef90_U7D928 | A | A | N | I | I | I | P | T | T | T | G | A | A | A | A | I | G | L | V | I | P | E | L | L | A | G | K | L | T | D | G | L | J | A | V | R | V | P | T | I | L | T | G | S |
| UniRef90_G3RS64 | A | L | Q | D | I | I | P | A | S | T | G | A | A | K | P | I | V | G | K | V | I | P | E | L | L | N | G | K | L | T | G | M | A | F | H | R | V | P | T | A | N | V | S | |
| UniRef90_UPI00047CD653 | A | A | L | S | M | I | P | T | T | T | G | A | A | R | A | I | G | L | V | L | P | E | L | L | N | K | K | L | T | D | G | K | A | T | R | V | P | T | P | N | V | S | | |
| UniRef90_Q20FC5 | A | M | N | I | V | I | P | T | T | T | G | A | A | K | A | V | A | L | V | L | P | E | N | L | N | K | K | L | T | D | N | G | L | A | L | R | V | P | T | P | N | V | S | |
| UniRef90_B5IAB7 | A | A | M | N | I | I | P | T | T | T | G | A | A | K | A | I | G | L | V | L | P | E | L | L | D | G | | | | | | | | | | | | | | | | | | |

| | 250 | 260 | 270 | 280 |
|------------------------|---|-----|-----|-----|
| UniRef90_UPI000344CD2A | L V D L S F V A R D T T V D E N I V A I L K E A A D G P L K G G I L A Y N T L P L | | | |
| UniRef90_Q4UFJ5 | V V D L T T V K L K S K R T T Y D C I K Y C I K K E A E S D G N R L K K G I L G Y T T E D E A V | | | |
| UniRef90_G8LRJ8 | V L D L T V R L K S K E T S Y E E I C A E I K K R A N G D M K G F L G Y C D E E P L | | | |
| UniRef90_F0Y1M7 | V V D L T C L K S K E T S Y E E I C A E I K K R A N G D M K G F L G Y C D E E P L | | | |
| UniRef90_L5N9Z4 | L V D L V D V K R D V T T R E E V N E A F A G M A A N G Y E M K G I L D Y T N E E P L | | | |
| UniRef90_V4NGL9 | A V D L V F V P S R T V T K D E E V N E A I F I A A A S D G V M K G I L D Y T N E E P L | | | |
| UniRef90_F7YAX5 | V V D F K F I A K R P T T V Q E I N E A V I A A A S N G K L K G I L G V T H P N | | | |
| UniRef90_UPI0003B36CAF | L V D M V I D M K R P V T T E E I N Q T L K T A A S E Q K L K G I L S Y C D E E P L | | | |
| UniRef90_C7QAZ4 | V T D L T V L G R E T T T K D E E I N A F K K A A E T P L K G F L K Y T D E D E I | | | |
| UniRef90_B0M2A8 | V V D L T V E L E R P T T Y E E I C A E I K K R A A E T D M K G Y L G Y T D E D E I | | | |
| UniRef90_D7B1J4 | V T D L V V T L E R E V T T K D E E V N A A F K K A A E G P L K K D V I L V Y T D E D E I | | | |
| UniRef90_D1JI22 | I V D F V C E L E K K P S I L E E I N Q V F K T I S Q G H E L K G I L E Y S E D S L | | | |
| UniRef90_A0A023X4G8 | I T D L V A Q V E G S P S A D E V N A A F K K A A S Q G M E G V L E Y S E A P L | | | |
| UniRef90_U7D9Z8 | I V D L V V E T E K Q C S V E D I N A A M K E A A S E G E L K D T F E Y T D E P L | | | |
| UniRef90_G3RS64 | V A D L T C H L E K P A N M M T S K A A S E G P L K S I L G Y N E H Q V | | | |
| UniRef90_UPI00047CD653 | V V D L V I N A A K K T A D A E A V N E A I L R E A A A N G A L K K N V L V I S D D K T | | | |
| UniRef90_Q20FC5 | I V D L V V Q V K K T F A D E E V N E A I L R E A A A N T G L K K G I L Q Y V D D E P L | | | |
| UniRef90_B5IAB7 | I V D L V A E V E K E P T E D E E V N R E A F K K A A E G E L K K G I L Q Y V D D E P L | | | |
| UniRef90_D6XST8 | I V D L V V E V E H M T D R D Q V N G A F Y Q A A A G T S M K G V L S V C D D D P L | | | |
| UniRef90_Q2S3A6 | V T D L T A V V E Q D V T V E D V N E A F Y E A A A N G A L D G I L A Y S D D D P L | | | |
| UniRef90_C0GGI0 | M V D F V A D L G K E V T A E E T A N E A F K S A A A N E L R G I L G Y S E E P L | | | |
| UniRef90_UPI00036A6243 | V V D L T F E S S K K D T T E S E I N S Y I E N A S L S D L K K G I L G F T K E D P L | | | |
| UniRef90_H9UJ8 | L V D L V A T L K K D V T V E E V N A A M K E A A A N G A M K G V L E Y T E D P L | | | |
| UniRef90_UPI0003B49556 | V V D F S G I L E K S T D T E S L L G E L K E A S E T Y L K G I L A Y S N E K P L | | | |
| UniRef90_UPI0003D08F50 | I V D L I C H L E K P A K C D N I K K V V Q K T A A S E G S L K K G I L G Y S E D Q V | | | |
| UniRef90_UPI0001850871 | L V D L V V D V K F A V T P E M V N N A F V Q T A A K G S L K K G I L G I T D E P L | | | |
| UniRef90_UPI00036F5B11 | V T D L T A T L D Q E V T V E Q V N E A F K K A A A E G E L K K G V L V Y T D E D P L | | | |
| UniRef90_N1UR15 | A T D L T V T V S R D V T A E E V N A A Y R A A A A D P W A G I L A F N T D P L | | | |
| UniRef90_V8FYW1 | M V D L T F V A K R D T N I D E I N K V L K D A S E G A L K K G I L A F N T D P L | | | |
| UniRef90_I3EDG6 | V V D L T A R L K K T S A T P E Q I K Q A L K N A S E T T L K G I L L G Y T E A V | | | |
| UniRef90_R2S5I5 | L T E L V T V L D K Q V T A D E V N A A M K A A S N E S Y G Y N V D P I | | | |
| UniRef90_K9SF47 | V V D F V A E F E K S T F A D E V N A Q V L K Q A T E T N M K G F M A Y S D E E P L | | | |
| UniRef90_E1QEC3 | L V D L T M T L E K P A D T E A L R Q A L V E A A Q G E L K K G I L M A C Y A K P L | | | |
| UniRef90_UPI000471B8B1 | I V D L V V D V K K D V T A E Q V N E V F K K A A M E G P M K G V L S L T M E P L | | | |
| UniRef90_D4DJY3 | V V D L T C R T E K V T Y D E I K V V M K K A A S E G E L K K G I L G Y T E D A V | | | |
| UniRef90_A0A024Q3E8 | L V D L V V D V E K A V S V E E V N K V F K N V A Q G E L A N G I L K Y T E E P L | | | |
| UniRef90_Q6AF45 | I V D L T L I T E G R D T V Q E I N A A Y A A A A A E G R L A G I L Q Y T E D P I | | | |
| UniRef90_W5X0K4 | I T D L T V A L K E P H S R D E I N A A F R E A A A M G Q M R G I L E Y T E E P L | | | |
| UniRef90_A3XG01 | V V D L S F M P E R P A T V E Q I N A A V Q A A A A N G P L Q G V L L S Y E T D P M | | | |
| UniRef90_Q26753 | V V D L T F T T K D T S I K E I D A A L K R A A A S Y L R G I L D I S K E E P L | | | |
| UniRef90_UPI000381F701 | V V D L T V E L V K P T S Y A D I C A A M Q A A A K G S L K K N V L V Y T N D K V | | | |
| UniRef90_S5SV17 | A T D L T F T A S R E T T A E E V N E I M K A A A E A D S T G A L G Y T D E P L | | | |
| UniRef90_UPI00035EB046 | L T D L S V L E R P V T A E E V N A A F R E A A A D G P L K G V L R V S D A P L | | | |
| UniRef90_D0LTS8 | I V D L T V T L S K S A S V G A V N E A F R E A A A A G P L K K G V L G V S D E P L | | | |
| UniRef90_H8MUC1 | L V D L T V N T T K K V T P E E V I A A M K A A A A N G P L K K G V L E F S D A Q T | | | |
| UniRef90_Q8DIW5 | V V D F V A Q V E K P T I A E Q V N Q V I K E A S E T T M K G I L H Y S E L E P L | | | |
| UniRef90_F4L1M6 | V T D F S A L V K K T A S V D E I N A A F K K A A S E G P M K G I L E Y C V D P L | | | |
| UniRef90_J9DTR7 | V I D L V V Q L K K P A S V S D I N N E M S K A A S K G L L K K G V L D I N S A P L | | | |
| UniRef90_U2R1Z3 | I V E L N T T V A R E V T R D E V L A A Y R A A A A E G P L A G I L E Y S E D P L | | | |
| UniRef90_C7MND3 | M V D L T F E T E R P V T I E S I N A A M R E A A A E G P L A G I L K Y E T D P L | | | |
| UniRef90_K2CAE9 | V V D L T F E A K R N T T V E E V N D V V R K A A A N G P M K G I L A F N E E Q L | | | |
| UniRef90_W7S6B5 | L T D L A V E L D Q P V T V G Q V N R A F A | | | |

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| UniRef90_UPI000344CD2A | V | S | T | D | F | N | H | H | S | A | S | S | I | F | D | A | T | L | T | K | V | S | G | R | L | V | K | V | S | S | W | Y | D | N | E | W | G | F | S | 320 | | | |
| UniRef90_Q4UFJ5 | V | S | S | D | F | M | H | H | E | S | L | S | I | F | D | I | N | A | S | G | I | L | N | D | P | T | F | I | K | L | L | V | S | W | Y | H | D | N | E | W | G | Y | S |
| UniRef90_G8LRJ8 | V | S | T | D | F | I | F | E | S | K | R | L | S | I | F | D | A | S | G | I | I | M | L | N | D | P | T | F | I | K | L | L | V | S | W | Y | D | N | E | W | G | Y | S |
| UniRef90_F0Y1M7 | V | S | T | D | F | E | T | E | P | T | S | S | I | F | D | A | G | A | G | I | I | M | L | N | D | P | T | F | I | K | L | L | V | A | W | Y | D | N | E | W | G | Y | S |
| UniRef90_L5N9Z4 | V | S | I | D | Y | T | E | T | P | T | S | S | A | L | I | D | G | L | N | S | Q | V | I | E | E | R | K | V | K | V | L | A | W | Y | D | N | E | W | G | Y | S | | |
| UniRef90_V4NGL9 | V | S | S | D | F | N | H | A | P | A | S | S | T | F | A | L | N | Q | T | Q | I | V | I | D | E | G | K | V | K | V | L | S | W | Y | D | N | E | W | G | F | S | | |
| UniRef90_F7YAX5 | V | S | I | D | F | N | H | D | P | R | S | S | I | L | A | L | D | Q | T | K | V | M | D | G | R | N | F | V | K | V | L | S | W | Y | D | N | E | W | G | F | S | | |
| UniRef90_UPI0003B36CAF | V | S | T | D | F | N | G | N | E | N | S | S | I | L | D | A | L | S | T | M | V | I | N | D | R | Q | V | K | V | L | A | W | Y | D | N | E | W | G | Y | S | | | |
| UniRef90_C7QAZ4 | V | S | R | D | I | V | T | D | P | H | S | C | I | F | D | S | K | L | T | M | A | N | G | N | Q | V | K | V | V | L | G | W | Y | D | N | E | W | G | Y | S | | | |
| UniRef90_B0M2A8 | V | S | T | D | F | E | T | C | S | T | S | C | T | F | D | A | K | A | G | I | M | L | D | P | T | F | V | K | V | M | L | W | Y | D | S | E | W | A | Y | S | | | |
| UniRef90_D7B1J4 | V | S | S | D | I | V | G | T | S | P | S | C | T | F | D | S | K | A | L | T | M | A | F | G | N | Q | V | K | V | I | V | G | W | Y | D | N | E | W | G | Y | S | | |
| UniRef90_D1JI22 | V | S | A | D | I | I | G | N | P | H | S | C | I | F | D | S | Q | L | T | R | T | L | P | H | E | M | V | E | I | V | G | W | Y | D | N | E | W | G | Y | S | | | |
| UniRef90_A0A023X4G8 | V | S | A | D | I | I | V | G | N | P | H | S | C | I | F | D | A | G | Q | T | M | V | N | G | S | T | V | K | V | L | G | W | Y | D | N | E | W | G | Y | S | | | |
| UniRef90_U7D9Z8 | V | S | S | D | V | I | G | S | T | A | G | S | V | F | D | A | D | S | T | K | V | M | D | G | N | M | V | K | V | L | S | W | Y | D | N | E | N | S | Y | V | | | |
| UniRef90_G3RS64 | V | S | S | F | D | F | N | S | D | T | H | S | S | T | F | D | A | G | A | A | I | V | L | K | D | H | S | V | K | L | I | S | W | Y | D | N | E | F | G | Y | S | | |
| UniRef90_UPI00047CD653 | V | S | T | D | F | N | H | D | P | H | S | S | S | L | I | V | T | G | E | T | V | V | M | D | G | N | L | I | R | V | L | S | W | Y | D | N | E | W | G | F | S | | |
| UniRef90_Q20FC5 | V | S | C | I | D | F | R | C | T | D | Q | S | T | L | I | D | A | S | L | T | M | V | M | G | D | D | M | V | K | V | I | A | W | Y | D | N | E | W | G | Y | S | | |
| UniRef90_B5IAB7 | V | S | V | D | F | K | G | N | P | H | S | A | M | Y | D | A | L | E | T | Y | V | R | G | N | L | V | K | V | L | A | W | Y | D | N | E | Y | G | | | | | | |

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UniRef90_V4NGL9 S R M A D T A V Y F G K
UniRef90_F7YAX5 N R M A D T S V A V I G
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UniRef90_C7QAZ4 N R L V D L V A F V I G A
UniRef90_B0M2A8 N R V V D L I K H M A K E D
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UniRef90_A0A023X4G8 N R T V D L V N Y M G G K
UniRef90_U7D928 S Q F V R L A K Y M A
UniRef90_G3RS64 N R V V H L M A H I A S K E
UniRef90_UPI00047CD653 N R M L D T A A A M A K
UniRef90_Q20FC5 Q R V V D L A E I V A Q
UniRef90_B5IAB7 A R V V D L V K Y I L S Q
UniRef90_D6XST8 S R V C D A V R Y T A
UniRef90_Q2S3A6 N R T V D L V E R L
UniRef90_C0GGI0 Q R V A D L S F Y I A Q Q
UniRef90_UPI00036A6243 N R M S D T A L E M A K
UniRef90_H9UJJ8 A R V V D L A L K L A
UniRef90_UPI0003B49556 N R V C D L A C L M G A K
UniRef90_UPI0003D08F50
UniRef90_UPI0001850871 C R V V D L V K Y V A
UniRef90_UPI00036F5B11 N R V V D L T T L V I G S K
UniRef90_N1UR15 N R L V D L A K L M G A K
UniRef90_V8FYW1 C R M L D T T V A M
UniRef90_I3EDG6 H R V V D L L V H I S K
UniRef90_R2S5I5 A Q L I R T L E Y F A K
UniRef90_K9SF47 Q R V V D L A E L V A K K
UniRef90_E1QEC3 C R T A D L A A Y V G A R
UniRef90_UPI000471B8B1 A R V V D L T K K V A K E
UniRef90_D4DJY3 R R V V D L I
UniRef90_A0A024Q3E8 K R V V D L A R Y V I G
UniRef90_Q6AF45 N R L V D L T E Y V A E R
UniRef90_W5X0K4 S R T V D V L K R M A S
UniRef90_A3XG01 N R M L D T G R H M G
UniRef90_Q26753 N R V V D L V R F M N S K D
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UniRef90_S5SV17 V Q L L R L T E M V A A K
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UniRef90_D0LTS8 Q R L F D L A K F V A S K
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UniRef90_F4L1M6 A R L A D L A T R I
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UniRef90_C7MND3 Q R V K D L A R L M
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UniRef90_W7S6B5 S R L V D L T E H V A Q
UniRef90_T0MQS0 C R M V D M L E R M
UniRef90_UPI000381BCF3 N R M L D T
UniRef90_K2EPH3 N R L V E M V E I V I G K
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UniRef90_B9KFE0 S R L V D M A V I F V A K
UniRef90_D8K0N7 T R L G D L A A Y M G T K
UniRef90_Q30UW7 C R V A D L V E Y M
UniRef90_W0JHR4 S R L K D V M L K M
UniRef90_D5UF28 S S L V K L T E Y V I G A R
UniRef90_Q5MZI1 Q R V V D L A E L A A R K
UniRef90_K1JSK5 N R M L D T A A M M A A K
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UniRef90_UPI00036D00E8 N R M L D T A A V M G S
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UniRef90_R6GXM4 N M V V R M L Q H M
UniRef90_A5FXV0 N R M S D T A A L F G S
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UniRef90_G4KRH2 S K L L D L M A Y M Y E V D
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UniRef90_K2FEE4 N R F V E M A E H I M K
UniRef90_C1FDB2 Q R V V D L T H I V A K
UniRef90_K9UIU1 Q R V V D L A E I V I G E K
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UniRef90_F7ACZ3 N R V V D L M A H M A T K E
UniRef90_D2SF44 N R L V D S V E L V I G
UniRef90_A0L4S8 N R V L D L I L H M A S K
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UniRef90_E7NXX0 N R V I D L L N F I S K K
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| | 1 | 10 | 20 | 30 | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI0003F8E080 | K | I | G | I | N | G | F | G | R | I | G | R | N | L | F | R | L | L | I | D | H | P | R | I | E | V | V | A | I | N | D | I | A | D | A | A | | | | | | |
| UniRef90_Q5HF86 | | I | A | I | N | G | M | G | R | I | G | R | M | V | L | R | I | A | L | Q | N | K | N | L | N | V | V | A | I | N | D | N | A | S | Y | P | P | E | | | | |
| UniRef90_D8ILT9 | | K | V | G | I | N | G | F | G | R | I | G | R | L | A | F | R | I | A | E | T | S | K | D | L | E | V | V | A | I | N | D | L | T | S | P | A | K | | | | |
| UniRef90_I3DF40 | V | K | V | A | I | N | G | F | G | R | I | G | R | L | A | L | R | V | M | S | E | N | P | E | Y | D | V | V | A | I | N | D | L | T | D | A | K | | | | | |
| UniRef90_O04106 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_E6W9Y3 | | K | I | G | I | N | G | F | G | R | I | G | R | L | V | L | R | R | L | L | E | Q | S | K | E | P | V | E | I | V | A | I | N | D | L | T | S | P | E | | | |
| UniRef90_T0JFM8 | | L | R | V | A | I | N | G | F | G | R | I | G | R | L | V | A | R | I | A | A | S | R | K | S | D | V | E | I | V | A | I | N | D | M | A | T | I | D | | | |
| UniRef90_A3YWI8 | | | R | I | A | I | N | G | F | G | R | I | G | R | N | F | M | R | C | W | L | E | N | T | G | I | E | V | V | G | L | N | D | T | S | D | P | H | | | | |
| UniRef90_A2SJK6 | | | | R | I | A | I | N | G | F | G | R | I | G | R | N | V | L | R | A | L | F | E | S | K | R | I | E | V | V | A | I | N | D | L | G | S | N | A | Q | | |
| UniRef90_UPI000262CA79 | A | K | | L | R | V | A | I | N | G | F | G | R | I | G | R | N | I | L | R | A | L | Y | E | R | N | L | Q | T | Q | V | V | A | I | N | D | L | G | S | P | E | |
| UniRef90_Q20FB4 | | | L | K | V | A | I | N | G | F | G | R | I | G | R | N | F | L | R | C | W | V | E | N | S | P | L | E | V | V | A | I | N | D | S | G | G | V | K | | | |
| UniRef90_S2LCF5 | | | L | K | V | A | I | N | G | F | G | R | I | G | R | L | V | L | R | Q | I | Q | A | Q | H | A | D | D | I | E | V | V | R | S | R | M | R | P | I | N | | |
| UniRef90_UPI000467284D | | | L | R | V | G | I | N | G | F | G | R | I | G | R | L | A | F | R | L | M | I | E | Q | P | E | A | F | E | I | V | G | I | N | D | L | T | D | I | V | E | |
| UniRef90_A0A010PER2 | | | K | I | A | I | N | G | F | G | R | I | G | R | N | V | L | R | V | L | E | N | R | T | D | L | E | L | V | A | I | N | D | L | T | D | P | A | | | | |
| UniRef90_R6YLU2 | | V | R | I | K | I | A | I | N | G | F | G | R | I | G | R | L | A | F | R | Q | V | Y | D | D | S | D | L | E | V | V | A | I | N | D | L | T | D | T | K | | |
| UniRef90_F3L362 | | I | K | I | A | I | N | G | F | G | R | I | G | R | N | I | L | R | A | Y | Y | E | R | P | E | M | E | I | V | A | I | N | D | L | G | D | A | | | | | |
| UniRef90_C6XFH4 | | K | V | A | I | N | G | F | G | R | I | G | R | C | I | L | R | A | A | V | E | S | R | R | D | D | V | I | V | A | I | N | D | L | N | S | I | E | | | | |
| UniRef90_J9P980 | | M | K | V | A | I | N | G | F | G | R | I | G | H | L | V | T | R | A | A | S | N | S | G | K | E | A | I | F | T | I | S | N | P | F | I | D | P | N | | | |
| UniRef90_H3NX72 | | I | N | V | A | I | N | G | F | G | R | I | G | R | N | I | L | R | A | L | Y | E | R | P | E | M | R | I | V | A | I | N | D | L | G | T | P | E | | | | |
| UniRef90_L0B5B6 | | I | R | V | A | I | N | G | F | G | R | I | G | R | N | I | L | R | A | H | Y | E | K | H | D | I | E | I | V | A | I | N | D | M | G | N | V | E | | | | |
| UniRef90_UPI00038133CD | P | L | | I | K | V | A | I | N | G | F | G | R | I | G | R | M | V | L | R | A | I | A | E | N | H | T | D | Q | V | V | A | I | N | D | L | A | D | A | K | | |
| UniRef90_G4CM63 | | | I | K | V | A | I | N | G | F | G | R | I | G | R | L | A | L | R | R | L | I | E | K | G | D | I | D | V | V | A | I | N | D | L | T | P | P | D | | | |
| UniRef90_A9RIU5 | A | K | | I | K | V | A | I | N | G | F | G | R | I | G | R | N | F | I | R | C | W | Q | G | R | K | D | S | P | L | V | V | I | N | D | T | G | G | V | K | | |
| UniRef90_UPI00040F370A | A | Q | | V | K | V | A | I | N | G | F | G | R | I | G | R | N | A | F | K | I | A | F | E | R | S | D | V | E | I | V | A | I | N | D | L | T | D | T | K | | |
| UniRef90_L1M2Q6 | | | I | R | I | A | I | N | G | F | G | R | I | G | R | N | L | R | A | L | Y | T | R | H | D | L | Q | V | V | A | I | N | D | L | G | D | S | A | | | | |
| UniRef90_Q6WEV5 | | | K | V | G | I | N | G | F | G | R | I | G | R | L | V | F | R | I | A | M | A | R | D | N | M | V | V | K | H | I | N | S | P | M | A | P | E | | | | |
| UniRef90_K9EX01 | | | I | R | V | A | I | N | G | F | G | R | I | G | R | N | F | L | R | C | W | L | E | N | S | G | F | D | I | V | A | I | N | N | T | S | D | P | K | | | |
| UniRef90_C1E4R4 | | | V | R | V | G | I | N | G | F | G | R | I | G | R | L | A | F | R | L | A | Y | D | H | P | E | L | E | F | V | H | I | N | E | I | K | G | A | E | | | |
| UniRef90_UPI0002F66B8C | | | V | R | V | G | I | N | G | F | G | R | I | G | R | L | S | L | R | A | A | W | G | W | S | D | I | E | F | V | H | I | N | E | I | K | G | A | E | | | |
| UniRef90_UPI00046A718B | | | V | K | L | A | I | N | G | F | G | R | I | G | R | N | V | L | R | A | I | M | D | R | D | D | M | F | E | V | V | A | I | N | D | L | A | P | L | E | | |
| UniRef90_Q6QWP2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_F7WZB6 | | | I | K | V | A | I | N | G | F | G | R | I | G | R | M | V | F | R | L | S | E | E | R | S | D | I | Q | I | V | A | I | N | D | L | L | S | T | N | | | |
| UniRef90_I3YSK2 | G | K | | T | T | V | A | I | N | G | F | G | R | I | G | R | N | L | F | R | L | I | N | H | P | S | I | E | V | V | A | I | N | D | L | A | D | A | K | | | |
| UniRef90_G211U0 | | | V | K | V | A | I | N | G | F | G | R | I | G | R | L | V | L | R | G | L | I | E | S | G | R | T | D | V | V | V | A | I | N | D | L | G | S | V | E | | |
| UniRef90_R6E1C8 | | | I | R | V | G | I | N | G | F | G | R | I | G | R | V | V | I | R | A | A | M | D | M | P | E | I | E | I | R | A | I | N | L | R | N | A | D | L | E | | |
| UniRef90_Q5N025 | | | M | R | V | G | I | N | G | F | G | R | I | G | R | L | V | L | R | A | A | W | D | W | P | E | L | E | F | V | Q | I | N | E | P | Y | G | E | A | | | |
| UniRef90_E6U7L7 | | | I | R | I | G | I | N | G | F | G | R | I | G | R | L | A | Y | R | R | I | R | E | V | G | K | D | L | E | V | V | A | I | N | D | L | T | S | P | K | | |
| UniRef90_W0GV94 | | | I | R | V | A | I | N | G | F | G | R | I | G | R | N | V | L | R | G | W | I | S | R | T | G | L | E | I | V | G | M | N | S | T | S | D | P | A | | | |
| UniRef90_Q2SQ86 | | | I | R | V | G | I | N | G | F | G | R | I | G | R | N | I | L | R | A | I | Y | E | S | R | D | M | I | Q | V | V | A | I | N | D | L | A | D | A | | | |
| UniRef90_P0C0G6 | | | V | K | V | G | I | N | G | F | G | R | I | G | R | L | A | F | R | R | I | Q | N | I | E | G | V | E | V | T | R | I | N | D | L | T | D | P | N | | | |
| UniRef90_T0P0P1 | | | M | H | I | A | I | N | G | F | G | R | I | G | R | N | T | L | R | N | I | F | I | R | D | A | E | H | L | E | V | I | N | D | L | T | D | T | K | | | |
| UniRef90_G9I121 | K | | L | K | V | A | I | N | G | F | G | R | I | G | R | Q | F | L | R | C | W | Y | G | R | G | D | S | L | L | V | V | C | I | N | D | S | G | G | P | K | | |
| UniRef90_G8R6J2 | | | L | R | I | G | I | N | G | F | G | R | I | G | R | S | L | T | R | V | I | R | K | Y | P | N | I | E | L | V | A | I | N | D | L | A | D | V | K | | | |
| UniRef90_T1KWW3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_W5P448 | | | V | K | I | G | I | N | G | F | G | R | I | G | R | L | D | L | R | A | A | W | G | W | S | E | F | E | I | T | H | I | N | E | V | K | G | G | I | E | | |
| UniRef90_K9SQ08 | | | V | K | I | G | I | N | G | F | G | R | I | G | R | L | A | F | R | R | I | H | E | L | N | T | D | D | I | V | V | A | I | N | D | L | T | S | P | E | | |
| UniRef90_C2ETG1 | N | K | | L | R | A | I | N | G | F | G | R | I | G | R | L | A | C | I | R | L | L | Q | M | P | E | I | Q | I | V | A | I | N | D | L | A | P | A | A | | | |
| UniRef90_H6L8H5 | | | M | K | I | G | I | N | G | F | G | R | I | G | R | L | V | F | R | A | L | W | D | R | A | D | I | E | I | T | H | I | N | E | I | A | G | D | S | N | | |
| UniRef90_Q31BG0 | K | | T | R | I | A | I | N | G | F | G | R | I | G | R | N | I | L | F | R | A | L | L | N | H | P | S | I | E | I | V | A | I | N | D | I | A | D | L | K | | |
| UniRef90_H8XVU3 | | | | R | I | A | I | N | G | F | G | R | I | G | R | N | I | V | R | A | L | Y | E | R | P | K | I | Q | I | V | A | I | N | D | L | G | S | L | E | | | |
| UniRef90_Q1YRK3 | | | | V | G | I | N | G | F | G | R | I | G | R | M | C | L | R | T | C | I | E | K | D | M | T | V | S | L | I | N | D | P | F | I | S | T | D | | | | |
| UniRef90_UPI000258DA70 | | | I | R | V | A | I | N | G | F | G | R | I | G | R | L | A | F | R | L | M | E | E | D | N | D | Y | E | V | V | A | I | N | D | L | T | D | A | E | | | |
| UniRef90_R5LIP1 | | | | R | I | A | I | N | G | F | G | R | I | G | R | L | I | L | R | I | A | E | R | K | G | Q | T | P | I | V | A | V | N | D | L | V | P | A | D | | | |
| UniRef90_UPI00036940EB | | | I | K | V | A | I | N | G | F | G | R | I | G | R | T | I | L | R | A | H | Y | E | N | K | K | K | H | T | I | V | A | I | N | D | S | G | N | A | A | | |
| UniRef90_U4KPR9 | A | P | | I | K | V | A | I | N | G | F | G | R | I | G | R | L | A | F | R | L | M | H | N | N | P | A | F | D | V | V | A | L | N | D | L | S | N | A | D | | |
| UniRef90_A0SNX1 | | | | I | R | V | A | I | N | G | F | G | R | I | G | R | L | V | F | R | I | M | R | R | S | A | E | F | K | I | V | A | I | N | D | H | D | L | A | P | A | A |
| UniRef90_UPI0004131850 | | | | K | V | A | I | N | G | F | G | R | I | G | R | L | V | L | R | H | L | M | K | V | P | H | V | S | V | V | A | I | N | D | L | T | D | A | A | | | |
| UniRef90_O83816 | | | M | R | V | A | I | N | G | F | G | R | I | G | R | L | V | L | Q | A | M | A | E | Q | K | E | F | D | V | A | A | V | V | D | L | | | | | | | |

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| UniRef90_UPI0003F8E080 | T | L | A | H | L | L | K | Y | D | S | I | H | G | R | I | K | A | E | I | E | H | E | D | S | K | L | L | I | V | N | K | K | E | I | P | V | L | K | H | L | H | | | |
| UniRef90_Q5H8F6 | T | L | A | H | L | L | N | Y | D | T | T | H | G | K | Y | N | L | K | V | E | S | A | T | E | N | A | G | L | Q | V | N | K | K | E | I | P | V | L | K | H | L | H | | |
| UniRef90_D8ILT9 | M | L | A | H | L | K | Y | D | T | T | A | H | G | Q | F | D | G | E | T | E | S | A | T | E | N | A | G | L | I | V | N | K | K | E | I | P | V | L | K | H | L | H | | |
| UniRef90_I3DF40 | T | L | A | H | L | F | K | Y | D | S | A | Q | G | R | F | Q | G | T | I | E | D | V | T | E | N | A | G | L | I | V | N | K | K | E | I | P | V | L | K | H | L | H | | |
| UniRef90_O04106 | | M | T | Y | M | F | K | Y | D | S | V | H | G | Q | W | K | H | E | I | V | K | D | E | K | T | L | L | F | N | G | K | E | I | P | V | L | K | H | L | H | | | | |
| UniRef90_E6W9Y3 | M | L | A | Y | L | L | K | Y | D | S | N | Y | G | A | F | P | A | T | V | S | A | E | D | E | Q | S | N | L | L | V | V | G | G | N | S | V | K | V | F | F | E | K | R | E |
| UniRef90_T0JFM8 | M | M | L | Y | L | L | K | N | D | S | V | H | G | L | F | K | S | E | V | I | Q | D | E | N | N | I | L | I | N | D | G | K | K | E | I | P | V | L | K | H | L | H | | |
| UniRef90_A3YWI8 | T | N | A | H | L | L | E | Y | D | S | M | L | G | K | I | D | T | E | V | G | Y | T | K | D | T | I | T | V | N | G | K | K | E | I | P | V | L | K | H | L | H | | | |
| UniRef90_A2SJK6 | T | N | A | H | L | T | R | F | D | T | V | H | G | R | F | G | L | P | E | S | H | E | G | S | D | L | T | V | V | D | G | H | R | I | H | V | S | A | I | R | S | | | |
| UniRef90_UPI000262CA79 | I | N | A | H | L | L | Q | F | D | S | T | H | G | R | F | G | F | H | V | E | I | D | N | G | L | T | I | V | D | G | K | K | E | I | P | V | L | K | H | L | H | | | |
| UniRef90_Q20FB4 | Q | A | A | H | L | L | K | Y | D | S | M | L | G | T | F | K | A | D | V | K | V | I | S | E | T | L | L | A | V | N | D | G | K | K | E | I | P | V | L | K | H | L | H | |
| UniRef90_S2LCF5 | Q | I | V | Y | L | L | R | Y | D | T | T | Q | G | A | F | P | G | T | V | E | E | G | E | G | A | F | L | V | V | N | G | K | E | I | P | V | L | K | H | L | H | | | |
| UniRef90_UPI000467284D | M | L | V | Y | L | L | K | Y | D | T | T | Q | R | R | L | N | H | K | I | E | I | K | D | N | N | I | L | V | V | N | G | K | E | I | P | V | L | K | H | L | H | | | |
| UniRef90_A0A010PER2 | Q | L | V | N | L | T | K | Y | D | S | V | M | G | R | F | P | A | P | V | S | L | E | G | D | T | L | V | A | N | G | D | R | R | I | K | L | F | T | S | E | K | K | D | |
| UniRef90_R6YLU2 | T | L | A | H | L | L | K | Y | D | T | A | Q | G | R | F | D | D | R | I | V | T | C | T | E | D | D | L | L | V | V | D | G | K | N | I | R | V | Y | K | E | S | R | D | |
| UniRef90_F3L362 | M | N | A | H | L | T | R | F | D | T | A | H | G | R | F | G | F | P | V | Q | V | V | D | S | H | L | I | V | D | G | D | R | I | K | V | C | S | E | R | D | | | | |
| UniRef90_C6XFH4 | T | M | A | H | L | L | R | Y | D | S | V | H | G | R | F | P | G | E | V | V | I | G | D | T | I | D | V | G | L | G | P | I | K | V | T | S | I | R | D | | | | | |
| UniRef90_J9P980 | Y | M | V | Y | V | L | Q | Y | D | S | N | H | S | K | F | N | G | N | V | K | I | E | H | R | K | L | V | I | S | G | R | L | I | S | I | | | | | | | | | |

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| UniRef90_UPI0003F8E080 | P | K | D | I | N | W | S | K | Y | Q | V | N | I | V | I | E | A | S | G | K | F | K | N | Q | E | D | L | Q | F | H | I | K | Q | G | V | E | K | V | I | L | 120 | | | | | |
| UniRef90_Q5H86 | P | E | N | L | P | W | K | E | L | D | G | V | D | I | V | L | E | D | S | T | G | F | Y | T | S | K | E | K | A | I | A | H | I | L | K | A | G | A | K | K | V | L | V | | | |
| UniRef90_D8ILT9 | A | K | N | I | P | W | K | N | L | D | G | V | D | I | V | L | E | D | S | T | G | F | Y | T | S | K | E | K | A | I | A | H | I | L | K | A | G | A | K | K | V | L | V | | | |
| UniRef90_I3DF40 | P | E | E | L | P | W | K | E | L | D | G | V | D | I | V | L | E | C | T | G | F | Y | T | S | K | E | K | A | E | A | H | I | L | K | A | G | A | K | K | V | I | | | | | |
| UniRef90_Q04106 | P | E | E | T | S | M | D | R | R | L | L | G | A | D | Y | I | V | E | C | T | G | V | F | T | D | K | E | K | A | E | A | H | I | L | K | G | A | K | K | F | I | | | | | |
| UniRef90_E6W9Y3 | A | K | N | I | P | W | G | D | L | D | G | V | D | I | V | L | E | C | T | G | F | Y | T | S | K | E | K | A | Q | A | H | I | L | D | A | G | A | K | K | V | L | I | | | | |
| UniRef90_T0JFM8 | P | K | K | L | A | F | A | D | C | G | A | D | I | V | L | E | C | T | G | V | F | L | T | D | T | Q | E | G | S | A | Q | I | H | I | K | N | G | A | K | V | L | I | | | | |
| UniRef90_A3YW18 | P | L | N | L | P | W | K | D | W | L | G | V | D | I | V | L | E | A | T | G | V | V | F | L | T | D | T | E | G | A | G | A | H | I | K | A | G | A | S | K | V | L | I | | | |
| UniRef90_A2SJK6 | P | A | E | L | P | W | K | Q | H | G | I | D | I | V | M | E | C | T | G | L | F | T | S | K | D | A | K | A | G | A | H | I | L | K | A | G | A | R | K | V | L | I | | | | |
| UniRef90_UPI000262CA79 | P | A | D | L | P | W | D | R | L | D | G | V | D | I | V | Y | E | C | T | G | L | F | T | S | K | D | A | G | L | J | A | H | I | K | A | G | A | K | K | V | L | I | | | | |
| UniRef90_Q20FB4 | P | L | Q | L | P | W | A | K | M | G | V | D | I | V | L | E | C | T | G | V | F | L | D | G | P | A | G | A | G | K | H | I | L | J | A | G | A | K | K | V | L | I | | | | |
| UniRef90_S2LCF5 | P | E | N | L | P | W | K | E | L | G | V | D | I | V | L | E | C | T | G | R | F | F | N | S | K | E | K | A | E | E | H | I | L | R | A | G | A | K | K | V | L | I | | | | |
| UniRef90_UPI000467284D | P | A | D | I | P | W | L | J | E | L | G | T | E | V | V | L | E | C | T | G | L | F | T | S | K | E | K | A | E | E | H | I | L | K | A | G | A | K | K | V | I | | | | | |
| UniRef90_A0A010PER2 | P | A | N | L | P | W | G | E | L | G | V | D | I | V | L | E | C | T | G | F | F | T | T | S | K | E | T | A | G | K | H | I | L | E | A | G | A | K | K | V | I | V | | | | |
| UniRef90_R6YLU2 | P | E | K | L | P | W | E | E | L | L | D | V | D | V | V | L | E | C | T | G | F | F | T | T | S | K | D | A | M | K | H | I | L | J | A | G | A | K | K | V | I | L | | | | |
| UniRef90_F3L362 | P | S | Q | L | P | W | K | S | L | L | D | V | D | V | V | F | E | C | T | G | I | F | F | R | H | R | A | D | L | Q | K | H | I | L | D | A | G | A | K | K | V | L | I | | | |
| UniRef90_C6XFH4 | P | Q | D | L | P | W | G | L | D | V | D | V | A | M | E | C | T | G | I | F | F | V | T | Q | R | E | K | A | S | L | H | I | L | D | A | N | G | S | Q | R | V | L | V | | | |
| UniRef90_J9P980 | | | | | P | E | D | I | K | W | G | D | A | S | A | K | Y | V | V | K | P | T | G | V | F | T | T | E | K | A | R | A | H | L | L | K | G | A | K | M | I | I | I | | | |
| UniRef90_H3NX72 | P | E | D | L | P | W | G | D | L | N | T | I | D | V | V | F | M | E | C | T | G | I | F | T | S | R | D | K | A | S | A | H | I | L | R | N | A | G | A | K | K | V | L | I | | |
| UniRef90_L0B5B6 | P | E | E | L | P | W | R | D | L | L | G | I | D | V | V | F | M | E | C | T | G | L | F | T | S | R | D | K | A | S | K | A | M | V | H | I | L | R | N | G | A | K | K | V | L | I |
| UniRef90_UPI00038133CD | P | E | E | D | I | P | W | G | D | H | S | V | D | I | V | M | E | C | T | G | F | F | L | T | K | E | D | L | C | G | K | H | I | L | M | A | G | A | K | K | V | L | I | | | |
| UniRef90_G4CM63 | P | E | N | L | P | W | R | E | L | G | V | D | I | V | L | E | C | T | G | F | F | N | S | K | E | A | G | A | E | A | H | I | L | R | A | G | A | K | K | V | L | I | | | | |
| UniRef90_A9RIU5 | P | L | N | L | P | W | G | D | M | D | I | N | V | I | E | E | C | T | G | V | F | L | T | D | E | A | G | A | G | A | H | I | L | K | Q | A | G | A | K | K | V | L | I | | | |
| UniRef90_UPI00040F370A | P | A | N | L | P | W | K | Q | H | D | I | N | V | I | E | E | C | T | G | F | F | T | V | E | P | A | K | A | R | A | H | I | L | D | A | G | A | K | K | V | L | I | | | | |
| UniRef90_L1M2Q6 | P | A | E | L | P | W | R | A | E | G | V | D | I | V | F | E | C | T | G | L | F | T | D | S | T | E | K | A | A | H | I | L | T | T | S | A | N | K | K | V | V | I | | | | |
| UniRef90_Q6WEV5 | P | T | E | I | P | W | G | K | R | D | V | A | Y | V | I | C | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_K9EX01 | P | N | N | L | P | W | G | A | W | D | I | D | L | V | I | E | E | C | T | G | V | F | V | L | S | T | E | E | G | A | R | R | H | L | E | A | G | A | K | K | V | L | I | | | |
| UniRef90_C1E4R4 | P | G | D | V | P | W | D | E | H | G | V | E | L | V | L | E | C | S | G | K | F | L | T | R | A | K | L | E | A | P | Y | F | E | A | R | G | V | K | K | V | L | V | | | | |
| UniRef90_UPI000266B8C | P | G | D | V | D | W | A | S | L | G | V | D | I | V | L | E | S | S | G | K | F | R | T | P | D | T | L | A | P | Y | F | E | A | R | G | A | K | K | V | I | V | | | | | |
| UniRef90_UPI00046A718B | P | D | Q | L | P | W | E | L | D | V | D | I | V | L | E | C | T | G | K | H | F | R | T | P | E | K | A | G | L | H | L | E | K | N | G | S | K | K | V | L | I | | | | | |
| UniRef90_Q6WVP2 | P | N | N | I | P | W | S | K | A | G | A | E | Y | I | I | E | S | T | G | V | F | T | T | L | D | K | A | Q | T | H | F | E | G | G | A | K | K | V | L | I | | | | | | |
| UniRef90_7VWZB6 | | | | | K | N | I | D | W | K | S | L | N | I | D | V | V | I | E | S | T | G | M | F | L | T | E | K | K | A | L | E | H | I | L | H | A | N | G | A | K | K | V | V | L | |
| UniRef90_I3YSK2 | I | E | D | I | R | W | G | N | L | I | D | L | D | V | V | I | E | C | T | G | K | F | K | T | S | K | K | Q | L | E | N | H | I | L | K | N | G | A | K | K | V | V | L | | | |
| UniRef90_G21IU0 | P | T | K | V | P | F | Q | G | V | D | V | A | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_R6E1C8 | A | S | E | I | P | W | K | E | A | G | V | D | Y | I | V | D | E | C | T | G | R | F | T | D | K | E | K | A | A | Q | L | H | I | L | K | A | G | A | K | K | V | I | V | | | |
| UniRef90_Q5N025 | P | T | A | I | D | W | A | A | Q | G | V | E | L | V | L | E | C | S | G | Q | F | Y | T | T | T | E | K | L | E | P | H | F | Q | A | G | V | Q | T | V | I | V | | | | | |
| UniRef90_E6U7L7 | A | E | N | I | P | W | G | A | E | Q | V | D | I | V | I | E | S | T | G | F | Y | T | S | E | E | K | S | A | H | I | L | K | A | G | A | K | K | V | L | I | | | | | | |
| UniRef90_W0GV94 | P | L | N | L | C | P | W | K | E | W | G | V | D | L | V | L | E | S | T | G | V | F | N | T | D | E | K | A | S | M | H | I | L | K | Q | A | G | A | K | K | V | L | I | | | |
| UniRef90_Q2SQ86 | P | L | E | L | P | W | A | V | A | N | V | D | L | V | L | E | C | T | G | R | F | F | T | K | R | E | K | A | E | A | H | I | L | M | A | G | A | K | K | V | L | I | | | | |
| UniRef90_P0C0G6 | P | E | N | I | D | W | A | T | D | G | V | E | I | V | L | E | A | T | G | F | F | A | K | K | E | A | A | E | K | H | I | L | H | A | G | A | K | K | V | V | I | | | | | |
| UniRef90_T0P0P1 | P | E | N | L | P | W | N | T | L | D | I | D | V | V | V | E | S | T | G | H | F | F | A | K | S | K | E | K | A | N | L | H | I | L | J | A | G | A | K | K | V | I | | | | |
| UniRef90_G9I121 | P | T | Q | L | P | W | G | E | M | G | V | D | L | V | I | E | E | G | T | G | V | F | V | D | E | A | G | A | G | K | H | L | E | A | G | A | K | K | V | V | I | | | | | |
| UniRef90_G8R6J2 | P | A | N | I | P | W | A | S | V | G | V | D | L | V | I | E | A | T | G | R | F | K | T | T | D | L | A | I | G | H | I | L | K | A | G | A | K | K | V | I | | | | | | |
| UniRef90_T1KWW3 | P | A | D | I | P | W | G | K | T | G | A | D | Y | V | V | E | S | T | G | V | F | L | T | T | K | E | K | C | Q | G | H | I | L | A | G | A | K | K | V | I | | | | | | |
| UniRef90_W5P448 | P | K | E | I | P | W | K | S | V | G | S | P | F | V | V | E | A | T | G | V | Y | L | S | L | E | E | T | K | A | H | I | L | E | A | G | A | Q | R | V | V | I | | | | | |
| UniRef90_K9SQ08 | P | A | E | V | P | W | D | D | L | G | V | D | I | V | L | E | C | S | G | K | F | I | T | L | E | K | L | N | S | Y | F | T | D | K | G | V | K | K | V | I | V | | | | | |
| UniRef90_C2ETG1 | A | R | N | I | P | W | K | N | D | G | V | D | F | V | L | E | C | T | G | F | Y | T | S | A | E | K | S | Q | A | H | I | L | D | A | G | A | K | K | V | L | V | | | | | |
| UniRef90_H6L8H5 | P | K | A | L | P | W | K | S | L | E | J | I | D | M | V | L | E | C | T | G | I | F | R | T | R | E | K | A | L | Q | H | V | Q | D | A | G | A | K | K | V | L | L | | | | |
| UniRef90_Q31BG0 | Y | L | D | V | P | W | K | S | S | V | D | I | F | I | L | E | C | T | G | K | N | K | K | P | D | E | K | L | N | P | Y | F | D | S | G | M | K | K | V | I | V | | | | | |
| UniRef90_H8XVU3 | I | N | Q | L | P | W | N | K | L | A | I | A | D | V | V | L | E | A | T | G | K | F | K | T | F | E | L | A | N | Q | H | I | L | V | J | A | G | S | K | K | V | L | L | | | |
| UniRef90_Q1YRK3 | P | T | D | L | P | W | A | D | L | N | V | D | L | V | I | C | E | C | T | G | V | F | T | S | R | E | K | A | A | M | H | I | L | E | A | G | A | K | K | V | I | | | | | |
| UniRef90_UPI000258DA70 | P | C | K | I | N | W | K | E | A | G | V | T | Y | V | I | E | A | T | G | V | F | T | N | T | L | E | K | A | S | L | H | I | M | D | G | A | K | K | V | V | I | | | | | |
| UniRef90_R5LIP1 | P | A | M | L | P | W | K | D | L | D | I | D | V | V | I | E | C | T | G | L | F | T | S | D | E | K | A | M | A | H | I | L | N | A | G | A | K | K | V | I | | | | | | |
| UniRef90_UPI00046787D1 | P | A | A | M | P | W | A | D | L | L | G | V | G | L | V | L | E | S | T | G | L | F | T | S | | | | | | | | | | | | | | | | | | | | | | |

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| UniRef90_UPI0003F8E080 | S | V | P | P | D | D | D | K | M | V | V | L | G | V | N | E | D | I | L | D | G | T | E | Q | I | I | S | N | A | S | C | T | T | N | N | A | A | P | M | L | | |
| UniRef90_Q5H8F86 | T | G | P | S | K | G | D | H | V | Q | M | V | V | K | G | V | N | D | N | Q | L | D | F | D | I | F | S | N | A | S | C | T | T | N | N | A | A | P | V | A | | |
| UniRef90_D8ILT9 | S | A | P | A | G | D | M | T | V | V | V | V | V | G | V | N | D | D | A | I | T | A | D | D | K | I | S | N | A | S | C | T | T | N | N | A | A | P | L | A | | |
| UniRef90_I3DF40 | S | A | P | A | G | D | L | K | T | V | V | V | V | N | V | H | D | I | L | D | G | S | E | T | V | I | S | N | A | S | C | T | T | N | N | A | A | P | M | A | | |
| UniRef90_O04106 | S | A | P | S | K | D | A | M | F | V | V | V | V | G | V | N | E | K | E | Y | N | P | E | L | N | I | V | S | N | A | S | C | T | T | N | N | A | A | P | L | A | |
| UniRef90_E6W9Y3 | S | A | P | A | G | E | M | K | T | I | V | V | V | V | N | D | D | T | L | T | A | D | D | T | I | I | S | N | A | S | C | T | T | N | N | A | A | P | M | A | | |
| UniRef90_T0JFM8 | S | A | P | S | K | D | K | E | T | A | T | F | V | M | G | V | N | E | H | L | Y | D | Q | K | I | V | S | N | A | S | C | T | T | N | N | A | A | P | L | A | | |
| UniRef90_A3YW18 | T | A | P | G | K | G | E | T | F | V | V | V | G | V | N | D | Q | Y | R | H | D | Y | N | V | I | S | N | A | S | C | T | T | N | N | A | A | P | L | V | | | |
| UniRef90_A2SJK6 | S | A | P | A | D | V | D | A | T | V | V | V | G | V | N | H | G | V | L | R | A | G | H | T | V | V | S | N | A | S | C | T | T | N | N | A | A | P | V | A | | |
| UniRef90_UPI000262CA79 | S | A | P | A | K | G | V | D | A | T | V | V | V | G | V | N | D | T | V | T | D | D | M | Q | I | V | S | N | A | S | C | T | T | N | N | A | A | P | L | A | | |
| UniRef90_Q20FB4 | T | A | P | A | K | G | V | T | Y | V | V | V | G | V | N | E | K | D | Y | T | H | D | V | S | N | I | S | N | A | S | C | T | T | N | N | A | A | P | F | A | | |
| UniRef90_S2LCF5 | S | A | P | S | G | D | V | K | T | I | V | V | V | N | N | H | D | I | L | T | G | E | E | T | I | V | I | S | N | A | S | C | T | T | N | N | A | A | P | M | A | |
| UniRef90_UPI000467284D | S | A | P | S | D | D | I | K | M | I | V | Y | N | T | N | H | K | T | L | D | G | S | E | T | I | V | I | S | N | A | S | C | T | T | N | N | A | A | P | M | A | |
| UniRef90_A0A010PER2 | S | A | P | G | K | D | A | T | L | V | M | G | I | N | E | N | T | Y | D | R | E | N | H | T | V | V | S | N | A | S | C | T | T | N | N | A | A | P | M | V | | |
| UniRef90_R6YLU2 | S | A | P | A | G | D | V | K | T | I | V | V | V | N | N | H | E | E | L | D | G | D | E | K | I | I | S | N | A | S | C | T | T | N | N | A | A | P | V | A | | |
| UniRef90_F3L362 | S | A | P | G | D | D | D | K | A | T | I | V | V | G | I | N | H | D | S | I | L | K | P | S | D | T | I | S | N | A | S | C | T | T | N | N | A | A | P | L | V | |
| UniRef90_C6XFH4 | S | A | P | C | K | V | K | A | T | I | V | V | V | G | V | N | H | Q | S | I | L | N | K | E | D | K | V | V | S | N | A | S | C | T | T | N | N | A | A | P | V | V |
| UniRef90_J9P980 | S | A | L | S | A | D | T | S | M | F | V | M | V | V | N | H | E | K | Y | D | N | S | L | K | I | V | S | N | A | S | C | T | T | N | N | A | A | P | L | A | | |
| UniRef90_H3NX72 | S | A | P | S | N | D | D | A | T | I | V | V | V | G | V | N | H | D | V | L | N | D | D | A | V | I | S | N | A | S | C | T | T | N | N | A | A | P | L | V | | |
| UniRef90_L0B5B6 | S | A | P | S | D | V | D | A | T | I | V | F | G | V | N | D | N | L | L | K | S | N | H | T | I | I | S | N | A | S | C | T | T | N | N | A | A | P | L | V | | |
| UniRef90_UPI00038133CD | S | A | P | A | K | D | N | T | K | T | I | V | V | G | V | N | D | N | V | I | D | A | T | D | I | F | S | N | A | S | C | T | T | N | N | A | A | P | L | L | | |
| UniRef90_G4CM63 | S | A | P | G | G | D | V | K | T | I | V | F | G | V | N | E | H | T | L | D | G | S | E | T | V | V | I | S | N | A | S | C | T | T | N | N | A | A | P | M | A | |
| UniRef90_A9RIU5 | T | A | P | G | K | A | L | P | T | F | V | V | G | V | N | E | Q | D | Y | K | H | S | D | A | I | S | N | A | S | C | T | T | N | N | A | A | P | F | V | | | |
| UniRef90_UPI00040F370A | S | A | P | A | K | G | E | D | T | I | V | L | G | V | N | E | D | E | I | G | K | D | S | D | V | I | L | N | N | G | S | C | T | T | N | N | A | A | P | V | M | |
| UniRef90_L1M2Q6 | S | A | P | A | K | G | A | D | A | T | V | V | H | G | V | N | H | D | I | L | R | A | S | H | Q | I | V | S | N | A | S | C | T | T | N | N | A | A | P | V | A | |
| UniRef90_Q6WEV5 | S | A | P | A | K | D | A | E | T | P | V | G | V | N | A | E | D | Y | K | T | S | M | N | V | I | S | N | A | S | C | T | T | N | N | A | A | P | L | V | | | |
| UniRef90_K9EX01 | T | A | P | G | K | G | D | T | Y | V | V | V | G | V | N | A | D | Q | Y | V | H | G | K | N | P | I | V | S | N | A | S | C | T | T | N | N | A | A | P | V | V | |
| UniRef90_C1E4R4 | S | A | P | V | K | E | K | D | D | P | V | L | N | N | H | E | Y | E | D | H | K | D | H | I | L | T | A | A | S | C | T | T | N | N | A | A | P | V | V | | | |
| UniRef90_UPI00062F66B8C | A | A | P | V | K | E | E | A | L | N | I | V | M | N | D | H | Y | L | Y | E | P | E | K | H | H | L | T | A | A | S | C | T | T | N | N | A | A | P | V | V | | |
| UniRef90_UPI00046A718B | S | A | P | G | K | G | I | K | T | I | V | V | G | V | N | H | G | L | I | D | G | S | E | A | V | I | S | N | A | S | C | T | T | N | N | A | A | P | L | A | | |
| UniRef90_Q6QWP2 | S | A | P | S | A | D | A | M | F | V | M | G | V | N | E | H | E | A | Y | D | P | S | M | K | I | V | S | N | A | S | C | T | T | N | N | A | A | P | M | A | | |
| UniRef90_F7WZB6 | T | G | P | V | K | D | D | N | I | P | M | F | V | K | G | V | N | F | S | Q | Y | S | Q | K | I | V | S | N | A | S | C | T | T | N | N | A | A | P | L | V | | |
| UniRef90_I3YSK2 | S | V | P | D | D | D | I | K | T | V | V | L | G | V | N | D | S | I | L | E | S | T | D | L | I | I | S | N | A | S | C | T | T | N | N | A | A | P | M | L | | |
| UniRef90_G21IU0 | S | A | P | S | G | V | D | A | T | I | V | F | G | V | N | Q | D | V | L | T | P | D | M | T | V | I | S | N | A | S | C | T | T | N | N | A | A | P | V | A | | |
| UniRef90_R6E1C8 | S | A | P | D | K | D | T | P | T | F | V | V | G | V | N | E | N | E | Y | N | S | D | M | K | V | I | S | N | A | S | C | T | T | N | N | A | A | P | L | M | | |
| UniRef90_Q5N025 | S | A | P | V | K | E | A | L | N | I | V | V | G | V | N | D | D | Y | D | P | S | Q | H | R | L | L | T | A | A | S | C | T | T | N | N | A | A | P | V | V | | |
| UniRef90_E6U7L7 | S | A | P | A | G | K | M | K | T | I | V | V | S | V | N | D | S | T | L | T | A | D | D | K | I | I | S | N | A | S | C | T | T | N | N | A | A | P | M | A | | |
| UniRef90_W0G9V94 | T | A | P | G | K | V | G | T | F | V | V | V | G | V | N | D | Q | Y | R | H | E | D | W | D | I | V | S | N | A | S | C | T | T | N | N | A | A | P | I | V | | |
| UniRef90_Q2SQ86 | S | A | P | S | E | D | A | D | A | T | V | V | V | G | V | N | E | H | V | E | A | R | H | A | I | V | S | N | A | S | C | T | T | N | N | A | A | P | I | A | | |
| UniRef90_P0C0G6 | T | A | P | G | G | N | D | V | K | T | I | V | V | F | N | T | H | D | I | D | G | T | E | T | V | I | S | N | A | S | C | T | T | N | N | A | A | P | M | A | | |
| UniRef90_T0P0P1 | S | A | P | S | K | D | I | P | T | I | V | L | G | I | N | D | K | D | F | D | L | N | V | P | I | V | S | N | A | S | C | T | T | N | N | A | A | P | L | V | | |
| UniRef90_G9I121 | T | A | P | G | K | D | I | P | T | F | V | M | G | V | N | G | D | D | Y | K | H | E | Y | P | I | V | S | N | A | S | C | T | T | N | N | A | A | P | F | V | | |
| UniRef90_G8R6J2 | S | A | P | A | D | D | T | K | T | I | V | L | G | A | N | G | D | E | L | S | D | D | I | I | V | S | N | A | S | C | T | T | N | N | A | A | P | L | L | | | |
| UniRef90_T1KWW3 | S | A | P | S | A | D | A | M | F | V | M | G | V | N | E | H | E | S | Y | D | P | S | M | N | V | I | S | N | A | S | C | T | T | N | N | A | A | P | L | A | | |
| UniRef90_W5P448 | C | A | P | S | P | D | A | P | M | F | V | M | V | N | E | K | E | Y | N | P | S | S | M | K | I | V | S | N | A | S | C | T | T | N | N | A | A | P | L | A | | |
| UniRef90_K9SQ08 | A | A | P | V | K | E | A | N | I | V | M | G | V | N | D | H | L | Y | E | P | Q | I | H | H | L | V | T | A | A | S | C | T | T | N | N | A | A | P | V | V | | |
| UniRef90_C2ETG1 | S | A | P | A | G | N | V | P | T | V | V | V | P | G | V | N | L | D | T | L | K | P | E | D | K | V | V | S | A | G | S | C | T | T | S | C | L | A | P | M | A | |
| UniRef90_H6L8H5 | S | A | P | A | K | G | I | P | T | I | V | Q | G | I | N | Q | N | E | V | I | S | N | Q | L | I | Y | V | S | N | A | S | C | T | T | N | N | A | A | P | I | L | |
| UniRef90_Q31BG0 | A | C | P | V | K | G | I | N | I | V | Y | G | I | N | Q | S | L | Y | D | P | S | K | K | L | V | T | A | A | S | C | T | T | N | N | A | A | P | I | V | | | |
| UniRef90_H8XVU3 | S | A | P | E | D | D | K | L | K | V | L | G | V | N | E | S | I | I | D | G | T | E | K | I | V | S | N | A | S | C | T | T | N | N | A | A | P | M | I | | | |
| UniRef90_Q1YRK3 | S | A | P | G | N | V | D | A | T | V | V | V | G | V | N | D | H | L | L | D | G | T | Q | E | I | I | S | N | A | S | C | T | T | N | N | A | A | P | M | V | | |
| UniRef90_UPI000258DA70 | T | A | P | S | V | D | A | Q | M | I | A | Y | V | N | H | A | C | Y | D | P | K | K | C | K | V | I | S | N | A | S | C | T | T | N | N | A | A | P | I | I | | |
| UniRef90_R5LIP1 | S | A | P | A | K | D | V | K | T | I | V | V | V | N | N | H | E | I | L | T | G | D | E | K | I | I | S | N | A | S | C | T | T | N | N | A | A | P | V | V | | |
| UniRef90_UPI00046787D1 | T | A | P | G | K | N | A | D | I | T | V | V | Y | N | H | Q | Q | I | D | R | S | K | H | S | I | I | S | N | A | S | C | T | T | N | N | A | A | P | V | V | | |
| UniRef90_UPI00036940EB | S | G | P | K | E | V | D | A | T | I | V | V | G | V | N | H | K | I | L | K | N | H | T | I | V | I | S | N | A | S | C | T | T | N | N | A | A | P | I | A | | |
| UniRef90_U4KPR9 | S | A | P | S | K | G | I | K | T | I | V | V | V | N | N | H | N | T | L | D | G | S | E | A | I | V | I | S | N | A | S | C | T | T | N | N | A | A | P | M | V</ | |

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| UniRef90_UPI0003F8E080 | D | V | I | R | K | N | F | G | I | E | Q | A | Y | I | S | T | I | H | S | Y | T | S | D | Q | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | | |
| UniRef90_Q5H8F86 | K | V | L | N | N | D | F | G | I | V | N | G | L | M | T | T | I | H | A | I | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_D8ILT9 | K | A | V | N | N | D | F | G | I | K | A | G | L | M | T | T | I | H | A | I | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_I3DF40 | K | V | L | H | D | N | F | G | I | V | E | G | L | M | T | T | I | H | A | I | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_O04106 | K | V | I | N | D | R | F | G | I | V | E | G | L | M | T | T | I | H | S | I | T | A | T | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_E6W9Y3 | K | A | L | N | D | S | F | G | I | K | V | G | L | M | T | T | I | H | S | I | T | A | T | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_T0JFM8 | K | T | L | D | D | A | F | G | I | E | K | G | L | M | T | T | I | H | S | I | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_A3YW18 | K | V | L | D | Q | A | F | G | I | V | K | G | L | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_A2SJW6 | K | V | L | N | D | G | I | G | I | A | N | G | L | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_UPI000262CA79 | K | A | L | D | D | A | F | G | I | V | K | G | L | M | T | T | I | H | A | F | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_Q20FB4 | K | V | L | D | E | N | F | G | I | V | K | G | L | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_S2LCF5 | K | V | L | H | D | N | F | G | I | V | Q | G | L | M | T | T | I | H | G | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_UPI000467284D | K | V | L | N | D | N | F | G | I | Q | K | G | L | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_A0A010PER2 | K | V | L | N | D | E | F | G | I | V | E | G | L | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_R6YLU2 | K | V | L | N | D | N | F | K | I | R | T | G | F | M | S | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_F3L362 | A | P | L | H | D | K | T | V | G | I | E | Q | G | F | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_C6XFH4 | H | V | L | D | M | Q | T | F | G | I | E | K | G | Y | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_J9P980 | K | V | I | H | D | N | F | G | A | I | E | G | P | M | T | T | I | H | A | I | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_H3NX72 | A | P | L | H | A | S | V | I | G | V | E | T | G | L | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_L0B5B6 | K | P | L | H | D | S | L | I | G | I | E | T | G | L | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_UPI00038133CD | S | V | L | N | E | N | Y | G | I | K | S | G | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | | |
| UniRef90_G4CM63 | N | V | L | Q | K | E | F | G | I | V | Q | G | L | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_A9RIU5 | K | V | L | D | E | K | F | G | I | I | K | G | T | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_UPI00040F370A | A | V | L | E | S | N | F | G | I | E | K | A | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | | |
| UniRef90_L1M2Q6 | Q | V | L | H | R | E | L | G | I | E | K | G | L | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_Q6WEV5 | K | H | I | D | Q | T | Y | G | I | A | E | G | L | M | T | T | I | H | A | T | T | A | S | Q | L | T | V | D | G | G | S | M | K | G | D | W | R | A | G | R | A | |
| UniRef90_K9EX01 | K | V | I | N | D | A | F | G | I | I | K | G | T | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_C1E4R4 | A | V | V | Q | K | N | L | I | G | I | R | G | S | I | T | T | I | H | N | V | T | N | T | Q | T | I | V | D | A | P | N | S | K | K | D | L | R | R | A | R | A | |
| UniRef90_UPI00026F66B8C | K | V | I | H | E | G | L | I | G | I | K | H | G | L | I | T | T | I | H | D | H | T | N | T | Q | T | I | V | D | A | P | N | S | K | K | D | L | R | R | A | R | A |
| UniRef90_UPI00046A718B | H | A | L | H | E | A | F | G | I | Q | R | G | L | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_Q6QGWP2 | K | V | I | N | D | N | F | E | I | E | K | G | L | M | T | T | I | H | A | I | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_F7WZB6 | K | I | L | N | D | E | F | I | L | I | E | G | L | M | T | T | I | H | A | T | T | A | T | Q | K | T | V | D | G | G | A | S | I | J | R | D | W | R | G | R | G | |
| UniRef90_I3YSK2 | K | I | I | N | E | L | C | G | I | E | Q | A | Y | I | T | T | I | H | S | Y | T | T | A | D | Q | S | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_G21IU0 | K | V | L | D | D | A | F | G | I | E | C | G | M | V | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_R6E1C8 | K | V | I | N | D | N | Y | G | I | K | E | G | L | M | S | T | I | H | A | A | T | A | K | Q | K | V | I | V | D | A | K | S | L | K | D | W | R | T | G | R | S | |
| UniRef90_Q5N025 | K | V | L | R | E | A | I | G | I | R | H | G | L | I | T | T | I | H | D | Q | T | A | T | Q | S | I | V | D | G | K | S | Y | H | K | D | L | R | R | S | R | A | |
| UniRef90_E6U7L7 | K | A | I | N | D | A | F | G | I | D | W | G | L | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_W0G9V94 | K | V | L | D | Q | N | F | G | L | I | D | W | G | L | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_Q2SQ86 | M | V | L | H | E | N | L | G | I | E | Q | G | V | L | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_P0C0G6 | K | A | L | H | D | A | F | G | I | Q | K | G | L | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_T0P0P1 | K | I | L | D | E | N | W | G | I | K | D | G | Y | I | T | T | I | H | S | M | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_G9I121 | K | V | L | N | D | K | F | G | I | V | K | G | T | M | T | T | I | H | S | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_G8R6J2 | K | I | V | D | E | V | C | G | V | D | E | A | Y | I | T | T | I | H | S | I | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_T1KWW3 | K | V | I | N | D | S | F | G | I | E | E | G | L | M | T | T | I | H | A | I | T | A | T | Q | K | L | C | V | D | G | P | S | A | K | A | W | R | D | G | R | G | |
| UniRef90_W5P448 | K | V | I | H | E | R | F | G | I | E | E | G | L | M | T | T | I | H | S | Y | T | A | T | Q | K | T | V | D | G | A | P | S | K | K | A | W | R | D | G | R | G | |
| UniRef90_K9SQ08 | K | V | I | H | Q | H | L | I | G | I | K | H | G | M | I | T | T | I | H | D | N | T | N | T | Q | T | I | V | D | A | P | S | K | K | D | L | R | R | A | R | A | |
| UniRef90_C2ETG1 | Y | W | L | N | K | N | F | G | I | K | V | G | T | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_H6L8H5 | K | I | F | N | D | S | W | G | I | E | H | A | I | M | E | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_Q31BG0 | K | V | I | N | E | N | F | S | I | K | H | G | A | I | T | T | I | H | D | V | I | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_H8XVU3 | K | V | I | Q | E | L | C | E | I | E | Q | A | Y | I | T | T | I | H | S | Y | T | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_Q1YRK3 | Q | P | L | Q | E | S | L | I | G | I | L | S | G | Y | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | |
| UniRef90_UPI000258DA70 | K | V | M | H | D | K | F | E | V | I | E | V | M | I | S | V | I | H | A | V | T | N | S | M | Q | R | T | L | D | G | P | I | G | K | L | W | R | D | G | R | S | |
| UniRef90_R5LIP1 | N | V | I | D | K | V | F | G | I | E | K | G | Y | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_UPI00046787D1 | H | V | L | K | E | G | F | G | I | E | E | G | L | M | T | T | I | H | S | A | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_UPI00036940EB | K | V | L | N | D | S | L | G | I | E | E | G | L | M | T | T | I | H | A | Y | T | N | D | Q | K | N | L | H | D | K | P | H | R | D | L | R | R | A | R | A | | |
| UniRef90_U4KPR9 | K | V | L | D | D | A | F | G | V | E | K | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

[illegible]

| | 250 | 260 | 270 | 280 |
|------------------------|---|---------------------------------|-----------------|-----|
| UniRef90_UPI0003F8E080 | L T D M T I N I S T N T T I E E I | N S V F K K A S E T Y L K G | L S Y T D E P I | |
| UniRef90_Q5HFR6 | L V D L V V D L D K E V T T A E E I | N Q A F K K A S E T Y L K G | L S Y T D E P I | |
| UniRef90_D8ILT9 | L T E L V A T I L D E K E V T T A E E I | N Q A F K K A S E T Y L K G | L S Y T D E P I | |
| UniRef90_I3DF40 | I T E L V T V L D E K S V T T A E E I | N A A M K A A A S E T Y L K G | L S Y T D E P I | |
| UniRef90_O04106 | V V D L T V R L E K E A T Y D E I | K A A I K K E E S E G K L K G | L S Y T D E P I | |
| UniRef90_E6W9Y3 | V T E L V S V L D K K V T A A E I | N A A I K K L A S E T Y L K G | L S Y T D E P I | |
| UniRef90_T0JFM8 | M V D L N V V V S R K T S K E E V | T A V F N E M A S E T K L K G | L S Y T D E P I | |
| UniRef90_A3YW18 | V V D L V I E V S R G T T R E E V | N A V L K Q A A S E T G M K G | L S Y T D E P I | |
| UniRef90_A2SJK6 | L V D L V F T A Q R T S V D E V | N A L M K A A A T G P L A K G | L S Y T D E P I | |
| UniRef90_UPI000262CA79 | L V D L T C R L K T Q V S T D E I | N Q T L Q K A A L D S P N G I | L S Y T D E P I | |
| UniRef90_Q20FB4 | V V D L V I N T K K G M T A E E V | N A A F R K E A A N G A M K G | L S Y T D E P I | |
| UniRef90_S2LCF5 | L T E L F A N V E K K V T V E E I | N E V M K K A A N E S Y G | L S Y T D E P I | |
| UniRef90_UPI000467284D | L T E L V C S L D K K V T V E E I | N K A M K K A A E N D S Y G | L S Y T D E P I | |
| UniRef90_A0A010PER2 | G T D L T V A I E K E V T A E Q V | N A A F K K A A E N G P L K G | L S Y T D E P I | |
| UniRef90_R6YLU2 | I V E L T C V L E D D V T K E E I | N E A F K K A A A N V T L K G | L S Y T D E P I | |
| UniRef90_F3L362 | L V D L T F V A T S R D T A E E I | N S I M K Q A A D A D A Y G V | L S Y T D E P I | |
| UniRef90_C6XFH4 | M V D L K C V T S R D V N I D E I | N A T M K Y F A E A D K N G I | L S Y T D E P I | |
| UniRef90_J9P980 | V L D L I C C L E K A A K Y N N I | R K K L K K A A S E G P F K G | L S Y T D E P I | |
| UniRef90_H3NX72 | L V D L T F T A S R D T S V E V | N A I L A K A A S E A D R L G V | L S Y T D E P I | |
| UniRef90_L0B5B6 | L V D L S F V A K R S T S V D E V | N E T I R L A S E A G Y L K G | L S Y T D E P I | |
| UniRef90_UPI00038133CD | M V D L T V I T E K E T N A E E I | D K K F K T A S E S S L K G | L S Y T D E P I | |
| UniRef90_G4CM63 | L T E L V S V L D K K V T V E E I | N A T M K A A A S E S Y A | L S Y T D E P I | |
| UniRef90_A9RIU5 | V V D L V V Q V E K R T F A E E V | N Q A F R D A C Q T E L K G | L S Y T D E P I | |
| UniRef90_UPI00040F370A | L S D F V V V T K R D V T V E E V | N A A F K E A A N K P Y Q G | L S Y T D E P I | |
| UniRef90_L1M2Q6 | L V D L T V T L A R P T T A E D V | N A L F K E A A S R G S K | L S Y T D E P I | |
| UniRef90_Q6WEV5 | V V D L T C R L V K S T T Y D E L | K A S V K A A S E G S M K G | L S Y T D E P I | |
| UniRef90_K9EX01 | V V D L V V Q V E K K T I K E E V | N E A M K K A A S G S M K G | L S Y T D E P I | |
| UniRef90_C1E4R4 | L T D C V F E V A R E T T V E E V | N A L M K K A A N G W L K G | L S Y T D E P I | |
| UniRef90_UPI00026F6B8C | L T D C V F E V A R E T T K E E V | N S L L F G A A N G E L K G | L S Y T D E P I | |
| UniRef90_UPI00046A718B | C V D L V V E L N K D V T A Q E E V | N A A M Q A A A D G P L A G V | L S Y T D E P I | |
| UniRef90_Q6QWP2 | V V D L T C R I K K E A T Y E E I | K A A V K S A A E D H W K G | L S Y T D E P I | |
| UniRef90_F7WZB6 | V V D F T V K L K N V S Y N N V | C A E I R L A S K T Y M K D V | L S Y T D E P I | |
| UniRef90_I3YSK2 | L T D V T L N V K K E V S I E E I | N N A F K K A A S E T S L K G | L S Y T D E P I | |
| UniRef90_G2I1U0 | L V S L D F V P K T P S S V E A R | N E A V R K A A S E S Y L K G | L S Y T D E P I | |
| UniRef90_R6E1C8 | V I D V N V V L N T P T S G P E L | R Q R I K E A S E T Y L K G | L S Y T D E P I | |
| UniRef90_Q5N025 | L T D A V F E L E R E T S V A E V | S G L F Q A A S S G S L Q G | L S Y T D E P I | |
| UniRef90_E6U7L7 | V T E L V S I L K H V T V E E V | N A A V K K A A S K G N E S | L S Y T D E P I | |
| UniRef90_W0GVR94 | A V D L T F G P S R A A S V D D I | K A A I K K A S A S E N G M K | L S Y T D E P I | |
| UniRef90_Q2SQ86 | L L D L S L Q V A R H V S A E E I | N A M M L A A S R E T P K G | L S Y T D E P I | |
| UniRef90_P0C0G6 | V T E L V V T L D K N V S V D E I | N S A M K A A S N D S | L S Y T D E P I | |
| UniRef90_T0P0P1 | L T D F T C T L T H Q P T V E E I | N A K F K E A A E G E L K N | L S Y T D E P I | |
| UniRef90_G9I121 | I V D L V V Q T E K K T F A E E V | N A A F K E A A S D G P M K N | L S Y T D E P I | |
| UniRef90_G8R6J2 | L T D I T I T V K K E A T V E E I | N T A F K K A A S E E P F K G | L S Y T D E P I | |
| UniRef90_T1KWW3 | V V D L T C R L K K E A T Y E E I | C A V V K A A S E D Q W K G | L S Y T D E P I | |
| UniRef90_W5P448 | V V D L T C R L A Q P T P Y S A I | K D A I K A A A K G P M A G | L S Y T D E P I | |
| UniRef90_K9SQ08 | L T D C V F E V E R P T T T S E V | N A L L K A A A D G E L K D | L S Y T D E P I | |
| UniRef90_C2ETG1 | L T E L V A I L N K K V S V D E V | N S A M K K A A E N N P A | L S Y T D E P I | |
| UniRef90_H6L8H5 | L I D L T I L L P K N S A S I E E I | N A V Y K A A A Q G D F K G | L S Y T D E P I | |
| UniRef90_Q31BG0 | L T D A V F E L N K E V T S V E V | N L A F K K A A S E T Y L K G | L S Y T D E P I | |
| UniRef90_H8XVU3 | L T D I T F N V K R E V S I E E I | N A L F K K A A S E T N L K | L S Y T D E P I | |
| UniRef90_Q1YRK3 | L V D L T F N A G R E T S V E E V | N E L L L K A S Q G T L K S | L S Y T D E P I | |
| UniRef90_UPI000258DA70 | L C D M T F R V S K P T T Y E E V | K D A M K S A S E N E L K D | L S Y T D E P I | |
| UniRef90_R5LIP1 | V V D L V L E L K K N T V E E V | N N A L K A A T N E T L | L S Y T D E P I | |
| UniRef90_UPI00046787D1 | | | | |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI0003F8E080 | V | S | I | D | I | L | G | D | S | H | S | C | A | V | F | D | S | G | M | T | S | V | I | G | G | L | I | K | L | I | G | W | Y | D | N | E | I | G | Y | S | | |
| UniRef90_Q5H86 | V | S | V | D | F | N | T | S | S | N | S | A | I | F | D | A | K | S | T | M | V | M | S | G | N | K | V | K | L | V | I | A | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_D8ILT9 | V | S | S | D | I | F | G | T | T | F | G | S | A | I | F | D | A | P | T | Q | T | Q | V | V | S | G | Q | V | K | V | V | I | A | W | Y | D | N | E | Y | G | F | T |
| UniRef90_I3DF40 | V | S | S | D | V | I | G | C | R | S | S | I | F | D | A | T | Q | T | R | V | M | D | K | Q | L | V | K | V | T | V | S | W | Y | D | N | E | M | S | Y | T | | |
| UniRef90_Q04106 | V | S | T | D | F | V | I | G | D | N | R | P | S | I | F | D | A | K | A | G | I | A | L | S | K | N | F | V | K | L | V | A | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_E6W9Y3 | V | S | S | D | F | V | I | G | L | P | F | G | S | I | F | D | A | T | Q | T | E | I | S | D | I | Q | L | V | K | T | V | S | W | Y | D | N | E | Y | G | F | V | |
| UniRef90_T0JFM8 | V | S | Q | D | F | I | G | C | Q | Y | S | S | I | V | A | E | D | L | T | Q | V | I | A | G | D | M | V | K | V | I | M | A | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_A3YWI8 | V | S | S | D | F | H | A | G | T | D | E | S | T | I | V | D | A | D | L | T | L | V | M | G | D | N | M | V | K | V | T | I | A | W | Y | D | N | E | W | G | Y | S |
| UniRef90_A2SJK6 | V | S | M | D | F | N | H | D | A | R | S | S | I | V | F | D | A | S | C | T | K | V | S | G | R | L | V | K | V | C | A | W | Y | D | N | E | W | G | F | S | | |
| UniRef90_UPI000262CA79 | V | S | Q | D | F | N | H | N | P | A | S | S | I | V | D | L | S | H | T | K | V | L | G | G | L | T | K | V | V | S | W | Y | D | N | E | W | G | F | S | | | |
| UniRef90_Q20FB4 | V | S | I | D | F | R | C | N | S | D | V | S | C | T | I | D | S | S | L | T | M | V | M | G | D | D | M | V | K | V | V | A | W | Y | D | N | E | W | G | Y | S | |
| UniRef90_S2LCF5 | V | S | S | D | I | I | G | M | S | Y | G | S | L | F | D | A | T | Q | T | K | V | I | D | K | Q | L | V | K | V | V | A | W | Y | D | N | E | M | S | Y | T | | |
| UniRef90_UPI000467284D | V | S | S | D | V | I | G | I | Y | G | S | S | L | F | D | A | T | Q | T | K | V | I | D | V | N | G | V | K | V | V | I | A | W | Y | D | N | E | M | S | Y | T | |
| UniRef90_A0A010PER2 | V | S | S | D | I | V | G | D | P | Y | H | S | T | I | F | D | A | P | L | T | K | V | I | G | K | T | V | K | V | F | E | G | W | Y | D | N | E | Y | G | Y | S | |
| UniRef90_R6YLU2 | V | S | S | D | V | I | G | I | R | Y | G | S | L | F | D | A | T | Q | T | K | V | I | E | S | D | G | V | K | L | V | A | W | Y | D | N | E | M | S | Y | T | | |
| UniRef90_F3L362 | V | S | I | D | F | N | H | T | N | F | S | S | N | F | D | A | S | N | H | T | R | V | D | G | R | L | V | K | V | L | V | A | W | Y | D | N | E | W | G | F | S | |
| UniRef90_C6XFH4 | V | S | V | D | F | N | H | T | S | Y | S | S | I | F | A | A | D | Q | T | K | V | V | S | Q | N | L | L | R | V | L | V | A | W | Y | D | N | E | W | G | F | S | |
| UniRef90_J9P980 | V | S | C | N | F | N | N | T | C | S | S | T | F | S | A | R | A | C | F | S | L | N | D | H | V | K | F | I | S | W | Y | D | N | E | F | D | Y | G | S | | | |
| UniRef | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

UniRef90_UPI0003F8E080 S R L K D L I S F V A K K
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UniRef90_I3DF40 S Q L I R T L G A V T K
UniRef90_O04106 T R V V D L I I H M S S
UniRef90_E6W9Y3 T Q L V R V L H K F S
UniRef90_T0JFM8 M R L L D M A L H I S S K
UniRef90_A3YWI8 Q R V V D L A E L V A K
UniRef90_A2SJK6 N R M L D T A L A M A
UniRef90_UPI000262CA79 N R M L D T L S W M A
UniRef90_Q20FB4 Q R V V D L A D I V A
UniRef90_S2LCF5 A Q L I R T L K H F V K
UniRef90_UPI000467284D A Q L I R L L V L V G
UniRef90_A0A010PER2 S R L V D M T A H V G
UniRef90_R6YLU2 S Q M I R T A K Y L
UniRef90_F3L362 N R M L D N A L V F A A
UniRef90_C6XFH4 N R M L D T A S A M A
UniRef90_J9P980 N W V V E L M V H M A S Q K
UniRef90_H3NX72 N R M L D T G C L L A A
UniRef90_L0B5B6 N R M L D T I A L M F A K
UniRef90_UPI00038133CD N R M I D T A R A M G
UniRef90_G4CM63 C Q L I R T L Q Y F S
UniRef90_A9RIU5 Q R V V D L A N L V A E K
UniRef90_UPI00040F370A N R L V E L V V
UniRef90_L1M2Q6 N R M L D
UniRef90_Q6WEV5
UniRef90_K9EX01 Q R V V D L A E V V A A
UniRef90_C1E4R4 A R M V D I A R M I A G K
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UniRef90_UPI00046A718B N R M L D T A G V M A
UniRef90_Q6QWP2
UniRef90_F7WZB6 S K V L D L V A W I
UniRef90_I3YSK2 S R I I N L I E R I S A K
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UniRef90_R6E1C8 S N L L N M L K H M H E V D
UniRef90_Q5N025 N R L A E L A R K V A
UniRef90_E6U7L7 S Q M I R T L E K F A
UniRef90_W0GV94 Q R V V D L A E V V A K
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UniRef90_P0C0G6 A Q L V R T L E Y F A K
UniRef90_T0P0P1 N R L V D L L D K I S K
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UniRef90_G8R6J2 H R L A D L I M K M G
UniRef90_T1KWW3 N R V A D L I K Y I S T R
UniRef90_W5P448 N R V V D L V R Y M F S R D
UniRef90_K9SQ08 N R M V E L A R K V A
UniRef90_C2ETG1 C N M I R T L L H F A E
UniRef90_H6L8H5 N R L A E T A L F L A K K
UniRef90_Q31BG0 C R L A D L T E Y V I K K E
UniRef90_H8XVU3 S R I I D L I V F I S K K
UniRef90_Q1YRK3 N R M L D
UniRef90_UPI000258DA70 H R V T D L I N Y M Y Q V D
UniRef90_R5LIP1 A Q M V R T A K Y L M E K
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UniRef90_UPI00036940EB N R M L D T I A L M
UniRef90_U4KPR9 A Q L V R T L E F F A
UniRef90_A0SNX1 E R V V D L M K F
UniRef90_UPI0004131850 A R L K D V C V Y L
UniRef90_O83816 N R V V D L L K F I S Q K
UniRef90_B9ZZR2
UniRef90_Q8L6U2
UniRef90_Q0FG85 C R M A D T A I A M G K
UniRef90_G3RNY9 N R V V D L M V H M A S K E
UniRef90_B0G3M8 S Q I F R L I K Y M D Q V D
UniRef90_C7RSQ3 N R Y V E L A R K L A
UniRef90_A0Z4E3 N R M L D
UniRef90_UPI0004786826 N R L V D L I E V I F E K K
UniRef90_F7ZF10 A R M A D V A V A M G
UniRef90_UPI000402D485 S R I V D L I N Y L T D K K
UniRef90_A1BQS4 N R V V D L I A K V
UniRef90_UPI00046E761A S R I I D L I I N I S K K
UniRef90_A0A023D6J4 N R M S D T A A L F G S
UniRef90_UPI0003735578 C R M A D V A S T M G S
UniRef90_UPI000468DB9D S R L I D V V R K I
UniRef90_A9KPG0 S Q M V R T I K Y F A E
UniRef90_M5TLV0 N R M M E L V K K V A
UniRef90_Q76EG3
UniRef90_I1YK01 N R T V E L M K L V G
UniRef90_F4B2T3 S R I V D L I L R I S T K
UniRef90_D3S9Z9 N R L V E L V A R V A E Q
UniRef90_UPI0003B2E1CC N R A A E L A R L V G
UniRef90_UPI0003499A5B N R L I E L V N K I S
UniRef90_R4VVU6 N R M L D L A E Y V
UniRef90_Q0FGE6 N R M L D T A K V M A
UniRef90_R4UKJ1
UniRef90_I3C5M3 S R I V D L I Q L I
UniRef90_Q00301
UniRef90_F2LX78 S R L R D L M L K I A E E
UniRef90_A1U6T7 N R T V E L A R K V G Q
UniRef90_UPI00041816CA C R M A D V A V A M G Q
UniRef90_K2L7J9 C R M V D L A A K V A Q
UniRef90_UPI0003750526 R Q M M D L A

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|------------------------|---|---|----|---|----|---|----|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | 10 | | 20 | | 30 | | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_A3Y4W7 | I | K | V | G | I | N | G | F | G | R | M | G | R | L | A | L | R | A | A | W | D | W | P | E | L | E | F | V | Q | I | N | D | P | A | G | D | A | T | | |
| UniRef90_H3NNA1 | I | K | L | A | I | N | G | F | G | R | I | G | R | L | A | L | R | R | I | L | E | S | D | T | E | L | E | V | V | A | I | N | D | L | T | N | N | D | | |
| UniRef90_Q6WEV4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_H1Y1Z3 | M | K | I | A | I | N | G | F | G | R | I | G | R | V | F | L | R | L | I | L | Q | N | T | N | V | D | V | V | A | I | N | D | L | T | D | T | A | | | |
| UniRef90_L0RX94 | | K | V | A | I | N | G | F | G | R | I | G | R | L | F | L | R | K | M | L | E | L | G | T | E | L | E | V | V | A | V | N | D | L | T | D | A | K | | |
| UniRef90_M1PEW1 | I | K | V | G | I | N | G | F | G | R | I | G | R | S | I | F | R | A | L | A | K | D | P | D | I | E | I | A | A | I | N | D | L | T | D | N | A | | | |
| UniRef90_E6RQNI | I | K | V | G | I | N | G | F | G | R | I | G | R | L | T | L | R | A | A | I | D | W | P | E | V | E | F | V | H | I | N | D | V | A | A | D | A | K | | |
| UniRef90_F8N869 | A | N | V | K | V | A | I | N | G | F | G | R | I | G | R | L | A | F | R | Q | M | F | A | A | P | G | Y | E | V | V | A | I | N | D | L | T | S | P | K | |
| UniRef90_R6BZV8 | | V | K | V | A | I | N | G | F | G | R | I | G | R | L | A | F | R | Q | M | F | A | E | G | Y | E | V | V | A | I | N | D | L | T | S | P | K | | | |
| UniRef90_G5C7P3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_E0S803 | M | K | V | G | I | N | G | L | G | R | I | G | K | L | V | Y | R | I | L | R | E | K | G | V | E | V | P | L | V | N | D | P | L | L | K | P | E | | | |
| UniRef90_A8UKB9 | I | T | V | A | I | N | G | F | G | R | I | G | R | R | V | F | R | L | A | L | Q | H | P | Q | I | K | I | V | A | I | N | D | L | L | A | N | A | K | | |
| UniRef90_A6VWE5 | I | K | V | G | I | N | G | F | G | R | M | G | R | L | S | F | R | A | A | F | D | W | D | D | I | E | F | V | Q | I | N | D | L | K | G | D | A | A | | |
| UniRef90_F2QH22 | I | K | V | G | I | N | G | F | G | R | I | G | R | L | V | A | R | V | A | L | Q | R | D | D | V | E | L | V | A | V | N | D | P | F | I | T | T | D | | |
| UniRef90_P52987 | V | K | V | G | I | N | G | F | G | R | I | G | R | L | A | L | R | R | I | Q | E | V | E | G | V | E | V | A | H | I | N | D | L | T | D | N | A | | | |
| UniRef90_Q2SDC2 | I | K | I | G | I | N | G | F | G | R | I | G | R | L | A | L | R | A | A | W | D | W | P | E | V | E | F | V | R | I | N | D | P | A | G | N | A | A | | |
| UniRef90_A3VDE4 | V | T | V | G | I | N | G | F | G | R | I | G | R | C | T | L | S | H | I | A | Q | S | G | R | N | D | I | V | V | K | V | N | A | T | G | P | L | E | | |
| UniRef90_V5RJ18 | K | I | A | I | N | G | F | G | R | I | G | R | L | A | F | R | Q | L | F | L | S | D | N | I | E | I | V | A | I | N | D | L | T | N | A | N | A | | | |
| UniRef90_B2GH84 | V | K | V | A | I | N | G | F | G | R | I | G | R | C | F | A | R | A | L | Y | T | H | H | G | H | D | I | L | V | A | V | N | D | L | T | A | P | E | | |
| UniRef90_UPI00047AF071 | V | K | V | A | V | N | G | T | G | R | I | G | L | C | V | C | K | L | S | E | R | T | D | L | E | L | V | A | L | N | T | T | M | P | I | D | | | | |
| UniRef90_L0WAN1 | M | R | I | A | I | N | G | F | G | R | I | G | R | C | L | V | R | A | I | S | E | H | P | R | G | D | Q | L | V | A | I | N | D | L | A | D | F | Q | | |
| UniRef90_UPI00047AF3D8 | | K | I | A | I | N | G | F | G | R | I | G | R | T | V | A | K | L | L | T | H | P | D | L | Q | L | V | A | I | N | D | L | A | D | P | K | | | | |
| UniRef90_U7G6S9 | R | I | A | I | N | G | F | G | R | I | G | R | C | I | V | R | A | L | Q | D | H | P | R | F | E | L | V | A | I | N | D | L | A | D | F | T | | | | |
| UniRef90_U7P2C0 | | I | G | I | N | G | F | G | R | I | G | R | L | V | V | R | S | L | W | E | A | G | E | V | E | L | V | R | I | N | D | P | G | G | D | A | A | | | |
| UniRef90_UPI000255B03F | I | N | I | G | I | N | G | F | G | R | I | G | R | T | V | F | R | L | T | Q | H | T | N | I | K | V | V | A | I | N | D | L | A | D | T | K | | | | |
| UniRef90_A3SY64 | I | K | V | G | I | N | G | F | G | R | I | G | R | C | T | L | S | H | I | A | A | S | G | R | D | D | I | V | V | R | I | N | A | T | G | P | L | E | | |
| UniRef90_R7P569 | I | K | V | A | I | N | G | F | G | R | I | G | R | L | A | F | R | Q | I | V | T | Q | T | D | F | D | I | V | A | I | N | D | L | T | S | A | E | | | |
| UniRef90_G4L978 | K | V | R | V | G | I | N | G | F | G | R | I | G | R | L | A | L | R | R | I | L | E | A | S | D | E | L | E | V | V | A | I | N | D | L | T | S | P | Q | |
| UniRef90_UPI0004787645 | I | L | R | I | G | I | N | G | F | G | R | M | G | R | L | A | L | R | A | G | W | N | R | P | G | F | E | W | H | I | N | E | L | K | G | D | A | A | | |
| UniRef90_UPI0003715D25 | N | P | V | R | V | G | I | N | G | F | G | R | I | G | R | D | L | L | R | G | V | L | D | R | A | G | S | D | I | V | V | G | V | N | D | V | A | S | A | T |
| UniRef90_Q18KC9 | | K | I | A | I | N | G | F | G | R | I | G | R | S | V | L | R | A | I | I | T | N | P | S | I | E | L | V | G | I | N | D | V | M | E | F | D | D | | |
| UniRef90_C5J6X4 | | L | R | V | A | I | N | G | F | G | R | I | G | R | L | V | L | R | R | I | F | E | I | K | D | R | N | I | V | V | A | I | N | D | L | T | D | V | K | |
| UniRef90_D0I4N9 | | | V | A | I | N | G | F | G | R | I | G | R | S | V | L | R | A | L | Y | E | S | D | K | R | D | Q | V | V | A | V | N | E | L | A | E | P | D | | |
| UniRef90_J6EN34 | | | V | G | I | N | G | F | G | R | I | G | R | A | L | F | R | L | C | L | E | R | D | D | L | N | L | V | A | V | N | H | T | A | A | S | I | E | | |
| UniRef90_U5SBE0 | I | K | V | A | I | N | G | F | G | R | I | G | R | L | A | L | R | R | M | L | E | K | D | T | D | L | E | V | V | A | I | N | D | L | T | S | N | E | | |
| UniRef90_UPI00038037C6 | M | K | I | A | I | N | G | F | G | R | I | G | K | N | I | A | R | H | L | I | A | N | N | D | L | E | L | V | A | I | N | D | L | G | S | I | E | | | |
| UniRef90_D0JA89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI00047C71EB | K | I | A | I | N | G | M | G | R | I | G | R | A | S | L | K | V | I | L | D | T | P | E | L | E | L | V | A | V | N | D | L | V | S | I | E | | | | |
| UniRef90_Q7M9C4 | L | K | V | A | I | N | G | T | G | R | I | G | L | C | A | C | R | V | I | G | N | R | D | D | I | E | L | V | A | L | N | T | T | A | P | I | D | | | |
| UniRef90_R4Q1D2 | V | K | I | G | I | N | G | F | G | R | I | G | R | L | A | F | R | R | I | L | E | S | S | D | I | E | V | V | A | I | N | D | L | T | S | P | A | | | |
| UniRef90_UPI00037852D4 | I | K | I | A | I | N | G | Y | G | R | I | G | R | S | V | V | R | A | L | Y | E | S | S | R | Q | D | K | V | V | V | I | N | E | P | A | E | P | E | | |
| UniRef90_UPI0003D0C8A6 | V | K | V | R | V | N | G | F | G | M | L | G | X | L | V | T | R | A | A | L | L | S | D | K | V | N | I | A | M | N | D | P | F | A | D | L | S | | | |
| UniRef90_UPI00042919FB | I | K | V | G | I | N | G | F | G | R | I | G | R | L | V | M | R | A | S | F | D | W | P | E | I | E | F | V | Q | I | N | D | V | A | G | D | A | K | | |
| UniRef90_K2AIZ7 | L | K | L | A | I | N | G | F | G | R | I | G | R | S | V | F | K | A | A | L | E | R | S | H | E | V | D | V | V | A | V | N | D | L | T | D | A | K | | |
| UniRef90_UPI0003612D8C | L | K | V | G | I | N | G | F | G | R | M | G | R | L | I | L | R | A | A | W | H | W | P | E | V | E | F | I | Q | I | N | D | P | A | G | D | A | P | | |
| UniRef90_A3YD42 | L | R | V | A | I | N | G | Y | G | R | I | G | R | S | V | L | R | A | L | Y | E | Y | R | D | Q | I | Q | V | V | A | I | N | E | L | S | D | L | E | | |
| UniRef90_H3SHG9 | | V | A | I | N | G | M | G | R | I | G | R | L | V | L | R | A | M | E | A | H | S | P | F | A | I | R | A | V | N | T | L | T | D | I | D | | | | |
| UniRef90_D3ZW51 | M | K | I | G | V | N | R | F | D | C | I | G | H | L | V | T | R | A | V | F | Y | A | S | G | K | V | E | V | A | I | K | D | P | F | I | D | N | | | |
| UniRef90_B4RWC5 | V | N | I | A | I | N | G | F | G | R | I | G | R | N | V | L | R | A | L | Y | E | S | G | R | N | N | N | V | V | A | I | N | D | L | I | A | K | P | E | |
| UniRef90_H3NBS5 | | K | I | A | I | N | G | F | G | R | I | G | R | L | A | L | R | R | I | L | E | S | S | N | E | L | E | V | V | A | I | N | D | L | T | D | I | D | | |
| UniRef90_K7STJ6 | V | K | I | A | I | N | G | F | G | R | I | G | R | L | A | L | R | S | I | V | E | S | G | R | S | D | V | I | V | A | I | N | G | P | G | S | I | E | | |
| UniRef90_F3YW60 | I | R | I | G | I | N | G | F | G | R | I | G | R | Q | T | L | R | A | I | Q | E | R | Y | R | M | Q | V | V | A | I | N | D | L | H | G | A | K | | | |
| UniRef90_E3H664 | S | T | V | K | V | A | I | N | G | F | G | R | I | G | R | L | A | F | R | L | M | F | D | S | P | E | F | E | I | V | A | I | N | D | L | T | D | A | E | |
| UniRef90_UPI000363C9A5 | V | K | I | G | I | N | G | F | G | R | I | G | R | L | A | L | R | A | S | F | D | W | A | D | V | E | F | V | Q | I | N | D | A | G | D | A | E | | | |
| UniRef90_M5J8Z7 | V | K | I | G | I | N | G | F | G | R | I | G | R | L | A | F | R | R | I | L | E | L | K | D | I | E | V | V | A | I | N | D | L | T | N | P | A | | | |
| UniRef90_Q1YUK7 | I | K | I | A | I | N | G | F | G | R | I | G | R | L | A | L | R | A | A | W | H | R | D | D | Y | Q | I | V | Q | I | N | E | I | A | G | D | A | S | | |
| UniRef90_R6DPI0 | V | R | V | A | I | N | G | F | G | R | I | G | R | L | A | F | R | Q | I | F | E | D | K | D | M | E | V | V | A | I | N | D | L | T | E | P | R | | | |
| UniRef90_W9E2I8 | I | K | I | G | I | N | G | M | G | R | I | G | R | M | V | V | R | S | I | V | E | S | N | K | K | L | K | I | N | H | I | N | N | R | S | N | S | E | | |
| UniRef90_A6Q9K8 | K | K | R | I | A | I | N | G | L | G | R | I | G | N | Q | V | L | R | H | Y | I | H | A | L | P | A | H | C | E | I | V | A | N | T | S | S | V | E | | |
| UniRef90_G3GZ97 | V | K | V | G | V | T | R | F | G | R | I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | 50 | 60 | 70 | 80 |
|------------------------|---------------------|---------------------|-----------------------|-----------------------------------|
| UniRef90_A3YA4W7 | T L A H L L N Y D S | V Q G R T W Q H T A | E V E G D D E I H I | G S K A L I K T S Y Q N K K T |
| UniRef90_H3NNA1 | D L A Y L L K Y D T | A Q G R F P Y G S T | V S V E N D N L L V V | D G K K A I K F Y A A K K S D |
| UniRef90_Q6WEV4 | | T H G R F K G E V S | F V D A D N L I V V | N G K E I K R V F A E K K D |
| UniRef90_H1Y1Z3 | T L A H L L F K Y D | S V H G R F K G E V | S F V K D A N L I V | N G K E I K R V F A E K K D |
| UniRef90_L0RX94 | T L A H L L K Y D S | T A F G E L N A S I | E V K D A N A F I V | N G K E I K R V F A E K K D |
| UniRef90_M1PEW1 | T L A H L L K Y D S | T A F G E L N A S I | E V K D D D T G I T | N G K H I K V F S D H R K D S |
| UniRef90_E6RQN1 | T H A H L L E F D S | T V H G R L K Y E V | I T S K D D T G S F S | N A K H T E I K V I T S A F |
| UniRef90_F8N869 | M L A Q L L K Y D S | T T V H G G Y K H T | V Q A T E D N S I V | D G K E I K I Y A F P D |
| UniRef90_R6BZV8 | M L A H L L K Y D S | S Q G K Y A D T | V S A G E D S I T V | D G K E I K I Y A F P D |
| UniRef90_G5C3P3 | | | | |
| UniRef90_E0S803 | Q A E Y L L K Y D S | V F G R Q K E Q | K V E G G K I L Y K | G K K T S L S S A F D R |
| UniRef90_A8UKB9 | T L S H L L K Y D S | S I F H G V L N E T | E S F D E D N N I I | V N D K N T I T P L Y S A F D R |
| UniRef90_A6VWE5 | T L A H L L K Y D S | V F H G R W H N E A | S S E K D N N I I V | N G K K I T I T C L Y S A F D R |
| UniRef90_F2QH22 | Y M T Y M F K Y D T | V T H G A W K H A E | V K D E K T I L L F | N G E K P I V A V F G L R N |
| UniRef90_P52987 | M L A H L L K Y D T | T T Q G R F K G T V | E V E K E D G G F D | V I N G K K F V A L A E K R N S |
| UniRef90_Q2SDC2 | T H A H L L K Y D S | V H G R W A H E A | I V M A N D G I N I | N G K H I V A L A E K R N S |
| UniRef90_A3VDE4 | T A A H L L K Y D S | V H G R Y P D E I | I R M A N D T T M D I | N G R G P I M E M M S T Y D |
| UniRef90_V5RJ18 | T L A Y L L E F D S | A H G Q F P G E I | K A K D G A I I V | D G K E I K I L A E R D D |
| UniRef90_B2GH84 | T L K H L L F E F D | S V M G R L G S E V | S L D G D V M S V | D G H Q I V K F F A E A D D |
| UniRef90_UPI00047AF071 | T L V H L L K Y D S | V V Q K N S E V E K | L S E S S I R I G K | D G K Q N I V Q Q I I S T R E |
| UniRef90_L0WAN1 | V L A H L L A F D S | T H G R W P Y S V I | H F D G G N H L E I | D G G R R V I R Q C L I S E A D N |
| UniRef90_UPI00047AF3D8 | A I A H L L K Y D S | V H G K F D G E I | L I Q G S H L Q A | G G Q S I R Q L F S K S A N E |
| UniRef90_U7G6S9 | V L A H L L A F D S | T H G R W T H S V I | H Y D G S H L E I | D G H R I P C F S R A E S |
| UniRef90_U7P2C0 | T F A H L L E F D S | V H G H W G Q G I | A A E A D A I V I | D G R R I I A F S V C K S H |
| UniRef90_UPI000255B03F | T L A H L L K Y D S | I H G V Y N Q D V | S N D D Q A I V | N K G K E P I V M S N Y S Q |
| UniRef90_A3SY64 | T A A H L I K Y D S | V H G R F P N E V | K V G N G T L D L | N G R G E M I V M S T Y Q |
| UniRef90_R7P569 | D L A Y L V K Y D T | V H G S F F H D E I | K A E G N E I V | V A G K R I K V F S E T D |
| UniRef90_G4L978 | D L A Y L L K Y D T | A H G R F P Y S V | E V K E D A L V | V V D G K D I K A Y A E K D |
| UniRef90_UPI0004787645 | M L A H L L A H D S | T Y G R L R I P V | E T E D G A L R V | D G H L L K V H A E K D E |
| UniRef90_UPI0003715D25 | T L A H L L N F D S | V H G R W H N T A | K S T D H T I E I | D G L K V L A S A N T E S T |
| UniRef90_A9B834 | T A A H L L A F D S | V H G R W N H Q V | S S Q E Q A L M I | E Q Q R S L Y S S A N H P |
| UniRef90_UPI0002625986 | T L A H L L R Y D S | T F G P L R Q P V | E V H D G G L E V | G A H R V L H V Y S S C P D |
| UniRef90_Q18KC9 | M G Y L A K Y D T | V M G R A D I V | S Q D G G N M L S | V V G E T T V P L Y N I Q D D |
| UniRef90_C5J6X4 | T L A H L L F K Y D | T A H G R F E G K V | E E D K S F L V | I N G D H K I L I L S Q R D |
| UniRef90_D0I4N9 | A M A H L L Q Y D S | S H G R F F K K V | T N S Q E F L F | V I N G D S I R I L L H L S D |
| UniRef90_J6EN34 | H L L T A I R H D S | T H G P C H H E I | N P N P S A L L Y | K G R L I H L F S Q R D D |
| UniRef90_U5SBE0 | D L V Y L L K Y D T | S Q G R F P Y N V | E V G N D A I V | V D G K E I K S F S E E K D |
| UniRef90_UPI00038037C6 | S N A H L L K F D S | L H G Q I A N N I | S A E A N E I V | V D E S S I K Y F S E K R D |
| UniRef90_D0JA89 | Y L A Y V L K Y D S | V H G S F K G N I | R I D E A N Y L | V L D N E K R I K V T N Q K R D |
| UniRef90_UPI00047C71EB | N I A Y L L K Y D S | V Y G I D Y E K E V | S H D E N N L V | I D G K K I Q Y N S Q R N D |
| UniRef90_Q7M9C4 | T L V H L L K Y D S | V H G R Y D A E K I | L D E Q T I R I G K | H R H V K V Y S D R D |
| UniRef90_R4Q1D2 | L L A H L L K Y D S | T H G T L N A D V | S A T D D S I V | V N G K N Y R V Y A E P Q |
| UniRef90_UPI00037852D4 | A I A H L L T Q Y D | S T H G R F S P V E | L V D N Q L Q I | E N D R A I S L V X F T E |
| UniRef90_UPI0003D0C8A6 | N I V Y M F Q Y D S | T H G V K F N S T I | K A E N K K L V I | N G K A I T I L F X E L D |
| UniRef90_UPI00042919FB | T L A H L L E F D S | I Q G R W A H A V | E S T D S T M T I | N A G K S I A M S Q Q K D |
| UniRef90_K2AIZ7 | T L A H L L Q Y D S | V H G K Y K K K V | S A E N D L I V | V D G K K I K I F K E K D |
| UniRef90_UPI0003612D8C | T L A H L L N F D S | I H G R W Q Y E A | T A T D S L M H I | E D G K S L I V S Q N D A |
| UniRef90_A3YD42 | T I S Y L L T R Y D | T T H G R F P Y P V | A E K Q G M L V | V N E D D E I K V M A H E N |
| UniRef90_H3SHG9 | T I A H L L K Y D S | I H G K W N A N I | A A E G N T L L I | N D T P I Q V F A E A D |
| UniRef90_D3ZW51 | Y M V N I F Q D D S | T H G I F N G T | K A K N G K | G S P S T I F Q E R D |
| UniRef90_B4RWC5 | G I A H L L K Y D T | A H G R F R F D V | A L E N N T L N V | A G D D I A L L A I S D |
| UniRef90_H3NBS5 | D L G Y L L K Y D T | A Q G R F P Y D | V E V K S D A L V | |

[illegible]

| | | 130 | 140 | 150 | 160 |
|------------------------|---|-----|-----|-----|-----|
| UniRef90_A3Y4W7 | T | A | P | V | K |
| UniRef90_H3NNA1 | S | A | P | A | K |
| UniRef90_Q6WEV4 | S | A | P | S | A |
| UniRef90_H1Y1Z3 | S | A | P | S | K |
| UniRef90_L0RX94 | S | A | P | S | D |
| UniRef90_M1PEW1 | S | A | P | A | K |
| UniRef90_E6RQN1 | T | A | P | V | K |
| UniRef90_F8N869 | S | A | P | A | G |
| UniRef90_R6BZV8 | S | A | P | A | G |
| UniRef90_G5C7P3 | S | A | P | S | A |
| UniRef90_E0S803 | T | A | P | S | K |
| UniRef90_A8UKB9 | S | V | P | A | D |
| UniRef90_A6VWE5 | T | A | P | D | G |
| UniRef90_F2QH22 | S | A | P | S | K |
| UniRef90_P52987 | T | A | P | G | G |
| UniRef90_Q2SDC2 | T | A | P | V | K |
| UniRef90_A3VDE4 | S | A | P | A | K |
| UniRef90_V5RJ18 | S | A | P | A | G |
| UniRef90_B2GH84 | S | A | P | G | K |
| UniRef90_UPI00047AF071 | S | A | P | A | T |
| UniRef90_L0WAN1 | S | Y | P | V | S |
| UniRef90_UPI00047AF3D8 | S | A | P | V | Q |
| UniRef90_U7G6S9 | S | Y | P | V | D |
| UniRef90_U7P2C0 | S | A | P | V | K |
| UniRef90_UPI000255B03F | S | V | P | P | D |
| UniRef90_A3SY64 | S | A | P | G | K |
| UniRef90_R7P569 | S | A | P | G | K |
| UniRef90_G4L978 | S | A | P | S | K |
| UniRef90_UPI0004787645 | S | A | P | G | K |
| UniRef90_UPI0003715D25 | S | A | P | A | G |
| UniRef90_A9B834 | A | A | P | V | K |
| UniRef90_UPI0002625986 | S | A | P | G | K |
| UniRef90_Q18KC9 | S | A | P | K | G |
| UniRef90_C5J6X4 | S | A | P | A | G |
| UniRef90_D0I4N9 | H | P | G | D | L |
| UniRef90_J6EN34 | S | A | P | S | K |
| UniRef90_U5SBE0 | S | A | P | V | D |
| UniRef90_UPI00038037C6 | S | A | P | A | Q |
| UniRef90_D0JA89 | S | P | P | K | D |
| UniRef90_UPI00047C71EB | S | A | P | T | K |
| UniRef90_Q7M9C4 | S | A | P | A | D |
| UniRef90_R4Q1D2 | S | A | P | A | G |
| UniRef90_UPI00037852D4 | S | H | P | S | D |
| UniRef90_UPI0003D0C8A6 | H | T | S | S | D |
| UniRef90_UPI00042919FB | S | A | P | A | D |
| UniRef90_K2AIZ7 | S | A | P | S | K |
| UniRef90_UPI0003612D8C | T | A | P | D | D |
| UniRef90_A3YD42 | S | Q | P | A | D |
| UniRef90_H3SHG9 | T | A | P | G | K |
| UniRef90_D3ZW51 | S | P | S | A | D |
| UniRef90_B4RWC5 | S | S | P | S | P |
| UniRef90_H3NBS5 | S | A | P | A | K |
| UniRef90_K7STJ6 | S | A | P | G | D |
| UniRef90_F3YW60 | S | A | P | A | E |
| UniRef90_E3H664 | S | A | P | S | G |
| UniRef90_UPI000363C9A5 | S | A | P | V | K |
| UniRef90_M5J8Z7 | S | A | P | A | G |
| UniRef90_Q1YUK7 | S | A | P | V | K |
| UniRef90_R6DPI0 | S | A | P | A | G |
| UniRef90_W9E2I8 | S | A | P | C | K |
| UniRef90_A6Q9K8 | S | A | P | G | K |
| UniRef90_G3GZ97 | S | S | P | S | A |
| UniRef90_L9L6B7 | S | A | L | S | T |
| UniRef90_V9NET2 | S | A | P | A | G |
| UniRef90_M3WXP9 | S | V | P | S | A |
| UniRef90_UPI00035D0694 | S | S | P | G | K |
| UniRef90_B3GAT0 | S | A | P | S | A |
| UniRef90_G5APS2 | S | A | P | S | T |
| UniRef90_R7IQH4 | S | A | P | A | G |
| UniRef90_UPI0003B356BD | S | A | P | A | G |
| UniRef90_F6VAC7 | S | A | P | S | A |
| UniRef90_A1S9A4 | S | H | P | S | D |
| UniRef90_F8QMS9 | S | A | P | S | P |
| UniRef90_U7UFY5 | T | A | P | S | D |
| UniRef90_C5BAU7 | S | H | P | G | D |
| UniRef90_A4CPC3 | S | A | P | D | A |
| UniRef90_K8EC93 | S | A | P | V | K |
| UniRef90_Q56RF1 | S | A | P | S | A |
| UniRef90_H5SJJ3 | T | A | P | A | K |
| UniRef90_H0IZB7 | S | Q | P | S | D |
| UniRef90_A4C843 | P | V | K | E | G |
| UniRef90_H8YXT9 | A | A | P | T | K |
| UniRef90_K1XUS5 | S | A | P | A | K |
| UniRef90_UPI00040653E3 | S | T | V | A | D |
| UniRef90_R7MDX4 | S | A | P | A | K |
| UniRef90_J7SKQ7 | S | H | P | G | G |
| UniRef90_U7D621 | S | A | P | K | K |
| UniRef90_Q26BI6 | S | A | P | D | D |
| UniRef90_R5TRG4 | S | A | P | A | K |
| UniRef90_R9S5V0 | S | H | P | S | D |
| UniRef90_E1BH84 | S | A | P | S | A |
| UniRef90_UPI00047A5166 | S | A | P | A | K |

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|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_A3Y4W7 | K | V | I | H | E | S | L | G | V | K | H | G | S | M | T | T | I | H | D | I | T | N | T | Q | T | I | L | D | A | P | H | K | D | L | R | A | R | A | | | | |
| UniRef90_H3NNA1 | N | V | L | D | K | E | F | F | G | V | D | R | A | G | L | M | S | T | I | H | A | Y | T | A | T | Q | Q | T | V | D | G | P | G | G | K | D | L | R | A | R | A | |
| UniRef90_Q6WEV4 | K | I | I | D | K | E | F | F | G | V | D | R | A | G | L | M | S | T | I | H | A | Y | T | A | T | Q | Q | T | V | D | G | P | G | G | K | D | L | R | A | R | A | |
| UniRef90_H1Y1Z3 | K | V | L | D | D | N | F | G | V | I | D | G | G | Y | I | T | T | V | H | A | S | M | T | G | D | Q | N | L | H | D | A | P | H | K | D | L | R | A | R | A | | |
| UniRef90_L0RX94 | K | A | L | V | D | N | F | G | V | K | S | G | F | M | T | T | V | H | A | Y | T | G | D | Q | Q | R | L | Q | D | A | F | P | H | K | D | L | R | A | R | A | | |
| UniRef90_M1PEW1 | K | V | I | L | D | N | F | G | V | K | H | G | S | M | T | T | V | H | A | Y | T | G | D | Q | Q | R | L | Q | D | A | F | P | H | K | D | L | R | A | R | A | | |
| UniRef90_E6RQN1 | K | V | L | Q | E | K | V | G | V | K | H | G | S | I | T | T | I | H | D | I | T | N | T | Q | T | I | L | D | D | G | P | H | K | D | L | R | A | R | A | | | |
| UniRef90_F8N869 | K | A | L | N | D | K | Y | P | I | Q | A | G | I | M | Q | T | I | H | A | Y | T | G | D | Q | Q | M | L | Q | D | A | G | P | Q | R | K | D | L | R | A | R | A | |
| UniRef90_R6BZV8 | K | A | L | N | D | E | L | A | P | I | K | S | G | I | M | V | T | I | H | A | Y | T | G | D | Q | Q | M | L | Q | D | A | G | P | Q | R | K | D | L | R | A | R | A |
| UniRef90_G5C7P3 | K | V | I | L | D | N | F | G | V | V | E | G | L | M | T | T | V | H | A | V | T | T | A | T | Q | K | T | V | D | G | G | P | L | G | K | D | L | R | A | R | A | |
| UniRef90_E0S803 | K | I | V | D | D | N | F | G | V | V | E | G | L | M | T | T | V | H | A | V | T | T | A | T | Q | K | T | V | D | G | G | P | L | G | K | D | L | R | A | R | A | |
| UniRef90_A8UKB9 | A | L | I | K | A | H | F | G | I | K | Q | A | Y | I | T | T | V | H | S | Y | T | T | A | T | Q | S | T | I | H | D | Q | P | H | R | D | L | R | A | R | A | | |
| UniRef90_A6VWE5 | K | V | L | Q | D | A | I | G | V | K | H | G | S | M | T | T | V | H | S | I | T | T | A | T | Q | T | I | L | D | D | A | P | H | K | D | L | R | A | R | A | | |
| UniRef90_F2QH22 | K | V | I | N | D | R | F | G | V | V | E | G | L | M | T | T | V | H | S | I | T | A | T | Q | K | T | I | V | D | G | P | H | K | D | L | R | A | R | A | | | |
| UniRef90_P52987 | D | A | L | N | K | N | F | G | V | K | G | G | T | M | T | T | V | H | S | Y | T | G | D | Q | Q | M | L | Q | D | A | D | P | H | R | G | D | F | L | R | A | R | A |
| UniRef90_Q2SDC2 | K | V | I | H | E | N | A | L | H | L | R | H | G | S | I | T | T | V | H | D | L | T | N | T | Q | T | I | L | D | D | A | P | H | K | D | L | R | A | R | A | | |
| UniRef90_A3VDE4 | K | V | L | N | D | A | L | G | V | I | R | G | V | M | T | T | I | H | S | Y | T | G | D | Q | Q | T | I | L | D | R | A | A | H | S | K | D | L | R | A | R | A | |
| UniRef90_V5RJ18 | K | I | L | D | E | K | F | G | V | V | K | G | L | M | N | T | I | H | A | V | T | N | D | Q | T | I | L | D | D | L | P | H | A | D | V | L | R | A | R | A | | |
| UniRef90_B2GH84 | K | V | I | N | D | E | F | G | V | I | E | R | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

[illegible]

[illegible]

| | | 290 | 300 | 310 | 320 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_A3Y4W7 | V | S | V | D | Y | K | G | D | K | R | S | G | I | I | D | A | L | S | T | M | V | V | N | D | T | Q | V | K | L | Y | V | W | Y | D | N | E | W | G | Y | A | | | | | |
| UniRef90_H3NNA1 | V | S | S | D | I | L | I | G | V | P | R | S | S | I | I | F | D | A | T | Q | T | N | L | M | V | G | Q | L | V | K | T | V | A | W | Y | D | N | E | Y | G | F | T | | | |
| UniRef90_Q6WEV4 | V | S | S | Q | D | F | I | V | H | D | P | R | S | S | I | I | F | D | A | T | G | A | G | I | M | L | V | T | G | D | F | V | K | L | V | A | W | Y | D | N | E | W | G | Y | S |
| UniRef90_H1Y1Z3 | V | S | S | V | D | I | L | I | D | N | S | P | H | S | C | I | F | D | A | Q | L | T | S | V | V | G | G | L | V | K | L | V | I | G | W | Y | D | N | E | M | G | Y | S | | |
| UniRef90_L0RX94 | V | S | S | S | D | I | L | I | G | N | S | Y | Y | G | S | I | L | F | D | S | L | L | T | T | V | K | V | G | N | L | Y | K | L | F | V | S | W | Y | D | N | E | M | S | Y | V |
| UniRef90_M1PEW1 | V | S | S | I | D | Y | Q | G | N | S | P | H | S | S | V | V | D | G | Q | S | T | K | V | I | G | T | T | V | K | I | L | I | S | W | Y | D | N | E | W | G | Y | S | | | |
| UniRef90_E6RQN1 | V | S | S | I | D | Y | K | T | D | P | R | S | T | I | I | I | D | A | L | S | T | M | V | V | I | N | H | T | Y | Q | L | K | L | Y | A | W | Y | D | N | E | W | G | Y | A | |
| UniRef90_F8N869 | V | S | S | D | I | L | I | G | M | R | Y | G | S | L | F | D | A | T | Q | T | M | V | V | I | N | T | Y | E | V | Q | V | V | V | S | W | Y | D | N | E | N | S | Y | T | | |
| UniRef90_R6BZV8 | V | S | S | S | D | I | L | I | G | M | R | F | G | S | L | F | D | A | T | Q | T | M | V | L | N | D | T | T | E | V | V | Q | V | V | S | W | Y | D | N | E | N | S | Y | T | |
| UniRef90_G5C7P3 | V | S | S | C | N | D | F | N | S | D | T | H | S | S | T | F | D | A | G | A | G | I | A | L | N | D | H | F | V | K | L | I | S | W | Y | D | N | E | F | G | Y | S | | | |
| UniRef90_E0S803 | V | S | S | S | D | F | I | V | G | N | S | H | S | C | I | F | D | A | Q | M | T | S | V | I | G | N | M | V | K | I | V | I | G | W | Y | D | N | E | T | G | Y | S | | | |
| UniRef90_A8UKB9 | V | S | S | I | D | I | V | G | N | S | H | S | C | I | F | D | A | Q | M | T | S | V | I | G | N | M | V | K | I | V | I | G | W | Y | D | N | E | T | G | Y | S | | | | |
| UniRef90_A6VWE5 | V | S | S | I | D | Y | R | T | D | P | R | S | C | I | I | I | D | A | L | S | T | M | V | I | N | S | T | Q | V | K | L | Y | V | W | Y | D | N | E | W | G | Y | A | | | |
| UniRef90_F2QH22 | V | S | S | S | D | I | I | G | M | A | Y | G | S | S | L | F | D | A | T | L | T | E | V | T | D | G | T | Q | L | V | K | T | A | A | W | Y | D | N | E | M | S | F | T | | |
| UniRef90_Q2SDC2 | V | S | S | I | D | Y | R | T | D | E | P | R | S | S | I | I | F | D | A | L | S | T | M | V | V | I | N | D | T | Q | V | K | V | V | A | W | Y | D | N | E | W | A | Y | A | |
| UniRef90_A3VDE4 | V | S | S | V | D | F | N | H | T | E | P | R | S | S | I | I | F | A | P | D | Q | T | R | V | V | G | R | T | V | R | V | L | A | W | Y | D | N | E | W | G | F | S | | | |
| UniRef90_V5RJ18 | V | S | S | Q | D | V | I | S | S | T | Y | G | S | S | I | I | F | D | A | T | L | T | K | V | M | E | K | Q | M | V | K | V | F | A | W | Y | D | N | E | S | | | | | |

UniRef90_A3Y4W7
UniRef90_H3NNA1
UniRef90_Q6WEV4
UniRef90_H1Y1Z3
UniRef90_L0RX94
UniRef90_M1PEW1
UniRef90_E6RQN1
UniRef90_F8N869
UniRef90_R6BZV8
UniRef90_G5C7P3
UniRef90_E0S803
UniRef90_A8UKB9
UniRef90_A6VWE5
UniRef90_F2QH22
UniRef90_P52987
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UniRef90_A3VDE4
UniRef90_V5RJ18
UniRef90_B2GH84
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UniRef90_L0WAN1
UniRef90_UPI00047AF3D8
UniRef90_U7G6S9
UniRef90_U7P2C0
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UniRef90_C5J6X4
UniRef90_D0I4N9
UniRef90_J6EN34
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UniRef90_R6DPI0
UniRef90_W9E2I8
UniRef90_A6Q9K8
UniRef90_G3GZ97
UniRef90_L9L6B7
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UniRef90_A1S9A4
UniRef90_F8QMS9
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UniRef90_H0IZB7
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UniRef90_K1XUS5
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UniRef90_UPI00047A5166

330
N R A A E L A L K V G
G N M I R T L E Y M A
S R L S D L V E K I
S Q L I R T T V Y F A
N R M L D L I L Y M
N R T A E L M L K V G Q S D
S Q M V R T I K F F A E
S Q M V R T I K Y F S E
N R V V H L M V H M A S K E
C R V Y D L L K Y A Y S R K
T R I L D L I C N L S D K K
N R T A E L M R K V G
A Q L I R T L E Y F A K
N R T V E L A R M V G A
A R M A D V A A T M G Q
S Q F I R T I K Y M L S
I R L V D F V S Y V A D K
T R L V D M A S F V G S
N R M L D V A L H
N R L V D L V V K I S
Q R M L D V A A
N R T A E L A L K V G N E Q
S R L I D L I
V R M A D V A V A M G K
A Q M L R T A K K M
S N M V R T L E Y F A
T R T V E L V E L I G
N R T A E L A R M I G N M D
N R M L E L A A K V A Q
Q R T L D L V E L I G
N R M L D L A Q F I
S Q F V R L V S L L S K
N R M L D T A L A M A
S R M C D L A I Y M H Q R D
S N M V G T L E H F A
K R M L E M C L Y I
T K L V D L I D Y M S S
N Q M I R Q I
H R L V D M A L W V G
C Q M V R T L L K F A
N R L L D T S E Y I T A
N R V V D L M A Y M G S K D
T R T A E L M K K V G
L R V I D L A V Y I N A K
N R T A E L M I L I A
N R M L D V A A Y W A Q E
A R V V D L A R H V A
N R V V D L I A Y V V S K E
N R M L D T A K V M
G N M V R T L E R L A
N R M I D T S V L F G A
C R I A D L L
A Q L V R T C K K F A S
T R T A E L I R K V G Q
S N M I R T L L H L A K
N R M M E L A A K V A A
C Q L I R T L K Y L
N R M C D I A E
Q R L L E L A D Y V A K K
S R E V Y L G V H M A S K E
T V V D L M V Y M A S K E
S R V I D L T Q H M I S H E
N W V V D L M V H M A S K E
S Q M V R T I K Y F A E
S Q M V R T I K Y F A E
N R M L D T A L A M A A T Q
R R I I D L I R L L V S R
N R M L D T T L A M A
S R V R D T I E
A R M A D I A N M V A E
A R L V D L V K Y L
N R M L D I S Q R L A S L E
N R T A E L A R M V G
N R M V D I A L M L A
V A M L E K H V T K
S Q M I R T A K Y L A E
A Q M L R V A E Y W C K K
N R M L D T T L A M A E
H R M S D L C R K V A Q
N R L K D L I L K I S S P D
S Q M V R T A K R L
N R M L D T A S Y W A D K
S Q L V R T T M Y F

| | 1 | 10 | 20 | 30 | 40 |
|------------------------|---|----|----|----|----|
| UniRef90_T1DWL4 | M | K | V | A | I |
| UniRef90_S6AQK5 | K | V | A | I | N |
| UniRef90_F3L3H0 | M | R | L | A | I |
| UniRef90_A3V7Z0 | | A | I | N | G |
| UniRef90_V8C589 | M | K | I | A | I |
| UniRef90_F7XU15 | K | L | R | L | G |
| UniRef90_R9B1F6 | | K | V | A | I |
| UniRef90_W5USJ5 | | K | I | A | I |
| UniRef90_UPI0000E0F4EC | M | K | V | A | I |
| UniRef90_Q27782 | | | | | |
| UniRef90_H2FXN2 | I | R | L | A | I |
| UniRef90_K2BRD6 | I | R | V | A | I |
| UniRef90_Q8VM71 | | | | | |
| UniRef90_V8CBL5 | K | V | A | I | N |
| UniRef90_UPI0003788788 | M | R | V | A | I |
| UniRef90_K2DX57 | P | I | K | A | I |
| UniRef90_Q6ALS4 | | R | I | A | I |
| UniRef90_D3R612 | V | K | I | G | I |
| UniRef90_UPI00036CEEFA | L | R | V | A | I |
| UniRef90_A8LIE2 | | R | V | A | I |
| UniRef90_B7GC94 | P | V | K | C | L |
| UniRef90_M7WNF8 | | R | I | G | I |
| UniRef90_B9KH83 | L | R | I | G | I |
| UniRef90_UPI0000236629 | K | V | G | I | N |
| UniRef90_H0XUI9 | V | K | I | G | I |
| UniRef90_C2CY10 | | R | V | A | I |
| UniRef90_Q2BRD4 | | R | V | A | I |
| UniRef90_V5RUM5 | | L | R | I | A |
| UniRef90_UPI0003083376 | I | I | Q | V | G |
| UniRef90_W4XUQ0 | | I | R | L | A |
| UniRef90_A0Y9R2 | | L | R | I | A |
| UniRef90_F8C2R3 | | V | G | V | G |
| UniRef90_UPI00028A1F7E | I | R | I | A | I |
| UniRef90_Q98RG3 | | | | | |
| UniRef90_Q20FB9 | | | | | |
| UniRef90_U3AF69 | L | R | V | A | I |
| UniRef90_Q5I5H6 | | | | | |
| UniRef90_B8KU58 | K | S | Q | L | A |
| UniRef90_UPI00036BC328 | | V | V | I | Y |
| UniRef90_L5LT91 | | | | | |
| UniRef90_V4JAU1 | M | R | I | A | I |
| UniRef90_K2ENR0 | | K | T | K | V |
| UniRef90_UPI000478F0E3 | | | | | |
| UniRef90_R7YZG0 | | | | | |
| UniRef90_U7G099 | P | L | R | I | A |
| UniRef90_M0BT73 | | V | V | L | Y |
| UniRef90_Q1QX87 | | V | V | L | Y |
| UniRef90_A4SJK6 | | L | R | V | A |
| UniRef90_K4RMJ1 | I | N | I | A | I |
| UniRef90_Q7VH10 | | V | V | L | Y |
| UniRef90_UPI0003651567 | | K | I | A | I |
| UniRef90_UPI00040BAB9F | L | K | I | G | I |
| UniRef90_UPI0003B44CC1 | | R | I | A | I |
| UniRef90_C4K9X5 | V | K | V | G | V |
| UniRef90_L5LWF3 | K | I | A | I | N |
| UniRef90_UPI0003B32CB6 | | | | | |
| UniRef90_T0XT91 | | V | V | L | Y |
| UniRef90_N6WOC1 | | | | | |
| UniRef90_A7I7U0 | P | I | R | I | A |
| UniRef90_A3SJJ3 | P | L | R | I | A |
| UniRef90_UPI0002F49420 | | V | V | L | Y |
| UniRef90_W8QWX4 | M | K | I | A | I |
| UniRef90_Q1GDZ0 | | V | V | L | Y |
| UniRef90_A4A891 | S | S | L | R | I |
| UniRef90_Q5NYJ7 | | K | V | A | I |
| UniRef90_I5B194 | | V | V | L | Y |
| UniRef90_E2CL25 | V | K | V | L | M |
| UniRef90_D3ZQ40 | | | | | |
| UniRef90_I7A9J3 | | | | | |
| UniRef90_A3WPA7 | | I | V | L | Y |
| UniRef90_A3JP38 | I | K | V | A | I |
| UniRef90_A3XD91 | M | K | I | A | I |
| UniRef90_E2Q1F0 | | V | V | L | Y |
| UniRef90_UPI000373DCA7 | R | V | A | I | N |
| UniRef90_Q1WLW5 | | | | | |
| UniRef90_Q8X1J6 | | | | | |
| UniRef90_Q76EG2 | | | | | |
| UniRef90_E7G038 | K | L | R | V | A |
| UniRef90_D5VB79 | | V | V | L | Y |
| UniRef90_B7VQW2 | | | | | |
| UniRef90_UPI0003760ABA | | V | V | L | Y |
| UniRef90_D9VKF9 | V | R | L | G | I |
| UniRef90_UPI00045618FB | | V | V | L | Y |
| UniRef90_F6EFJ0 | | V | V | L | Y |
| UniRef90_S7XIK1 | M | R | V | G | I |
| UniRef90_H3NTD7 | G | P | V | D | V |
| UniRef90_R4YLV8 | | V | V | L | Y |
| UniRef90_A7T3Q4 | | | | | |
| UniRef90_J9NTW9 | V | K | V | R | V |
| UniRef90_UPI0003FEED2C | | I | V | L | Y |
| UniRef90_L8JHX7 | | V | V | L | Y |
| UniRef90_F2IBQ0 | | V | V | L | Y |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_T1DWL4 | L | A | Y | L | F | Q | K | D | S | M | H | G | A | L | D | A | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N | | |
| UniRef90_S6AQH0 | S | I | A | Y | L | T | R | F | D | S | T | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N | |
| UniRef90_F3L3H0 | S | I | A | Y | L | T | R | F | D | S | T | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N | |
| UniRef90_A3V7Z0 | M | Q | A | Y | L | F | E | F | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_V8C589 | L | A | Y | L | F | G | R | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N | |
| UniRef90_F7XU15 | D | R | I | H | S | L | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_R9B1F6 | T | L | I | H | L | F | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_W5USJ5 | I | L | A | Y | L | F | K | F | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_UPI0000E0F4EC | G | I | A | Y | L | L | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_Q27782 | Y | M | V | Y | M | L | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_L2FXN2 | A | M | A | H | L | T | R | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_K2BRD6 | G | W | M | Y | L | L | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_Q8VM71 | M | L | A | Y | L | L | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_V8CBL5 | T | L | L | H | L | L | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_UPI0003788788 | A | T | A | H | L | I | E | F | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_K2D57 | V | L | A | Y | L | L | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_Q6ALS4 | T | I | R | Y | L | T | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_D3R612 | A | L | A | Y | L | L | K | Y | D | S | T | V | H | G | R | F | A | D | K | V | W | C | E | G | Q | M | L | H | I | P | Q | R | I | P | L | F | A | C | A | N |
| UniRef90_UPI000036CEEFA | T | M</ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | 90 | 100 | 110 | 120 |
|------------------------|---|---|-----|-----|
| UniRef90_T1DWL4 | P N E L I D F G S L L G A D V V I E S S G K Y F L T D S A S S A H H L Q K G V K K V I L | | | |
| UniRef90_S6AQK5 | P E G I L D W A K H E I D L V L E C S G G A Y G T D R R T Q T A E R F L L A A G A P Q R V L L F | | | |
| UniRef90_F3L3H0 | A A L C P L D G V D V V I E C T G V F K T L A A K L A P Y F A A G V K K V V V | | | |
| UniRef90_A3V7Z0 | I A A L P L D G V D V V I E C T G V F K T L A A K L A P Y F A A G V K K V V V | | | |
| UniRef90_V8C589 | P K E L D F G T L G A E V V V I E C T G S G R F L T T D E K V A H H L L E K S G V Q K V V I | | | |
| UniRef90_F7XU15 | I E K L D W L A L G V D V V I E C T G S G R F S K S R E A A T R H H L L E K S G V Q K V V I | | | |
| UniRef90_R9B1F6 | P A H L P W Q Q L L N I D V V I E C T G L F R S R E A A T R H H L L E K S G V Q K V V I | | | |
| UniRef90_W5USJ5 | P K K L P W K Q L L N I D V V I E C T G L F R S R E A A T R H H L L E K S G V Q K V V I | | | |
| UniRef90_UPI0000E0F4EC | I D G C P W G E L G V D V V I E C T G N Y F T T R A S A D A A Q H H L L E K S G V Q K V V I | | | |
| UniRef90_Q27782 | P K N I A W E L G V D V V I E C T G V F F T T R A S A D A A Q H H L L E K S G V Q K V V I | | | |
| UniRef90_H2FXN2 | A A R L P W A E L A V D V V I E C T G V F F T T R A S A D A A Q H H L L E K S G V Q K V V I | | | |
| UniRef90_K2BRD6 | P E N L P W K D L L N V D V V I E C T G A F F T T R A S A D A A Q H H L L E K S G V Q K V V I | | | |
| UniRef90_Q8VM71 | L G K L P W G D L L N V D V V I E C T G F Y F T T R A S A D A A Q H H L L E K S G V Q K V V I | | | |
| UniRef90_V8CBL5 | P K N V D F S S L G A G V I E C T G K F N S L E K S S V H L L R D N I K V V I | | | |
| UniRef90_UPI0003788788 | P A D I H W G D L G V D V V I E C T G R F F L T P A A L Q G H H L L R D G A R R V I | | | |
| UniRef90_K2DX57 | P E K L P W K D M G I D V V I E C T G S G R F T D L E G M Q K H H L L V A G A H K V V I | | | |
| UniRef90_Q6ALS4 | P R M L P W K E L D I D V V I E C S G S F H D R E T A E L H L L A S G A K R I V L | | | |
| UniRef90_D3R612 | A R D L K W A N D G V E F V I E C T G F Y T S A E K S Q A S H L L D A G A K K V L | | | |
| UniRef90_UPI00036CEEFA | I D N L P W A D Q N I D V V I E C S G S Y S K R K Q A E S Y F I V S G A K K V L F | | | |
| UniRef90_A8LEI2 | I E D L P L R E M G V D V V I E C T G V F K T A A K T A P Y F D A G V K K V V V | | | |
| UniRef90_B7GC94 | F T K I D F A S L G V D M V M E C T G K F L T V K T L Q L P Y F G M G V K V V V | | | |
| UniRef90_M7WNF8 | P L K L D W K S A G A E Y I V E A T G K H C T T A T A G L H L L N S G A K K V I | | | |
| UniRef90_B9KH83 | P Q D I P W E E V G V N V I V E C T G K F N N R E S S G L H L L G G T V K K V V V | | | |
| UniRef90_UPI0000236629 | P A N I P W G Q D G A E Y I V E C T G V F F T T R E K S A S A H L L K G G A K K V I | | | |
| UniRef90_H0XU19 | | E C K T T G V F T T R E K S A S A H L L K G G A K K V I T | | |
| UniRef90_C2CY10 | A S Q I P W K D D G V E L V I E C T G F Y T T S K E K S Q A D L D A G V K K V | | | |
| UniRef90_Q2BRD4 | A E D L P W A D L G I D L L V E C S G S F F K A R S L A E L H L L H S G A Q R K V L F | | | |
| UniRef90_V5RUM5 | P A K L P W G E L N I D T V I E C T G S G R F T E N D S A K A H L L T A G A K K V V I | | | |
| UniRef90_UPI0003083376 | A K L L P W K D L N V D V I E C T G K F G S Q A D G Q L H L L Q A G A K K V L F | | | |
| UniRef90_W4XUQ0 | P S E I P W G E N G A E Y V I E C T G V F T T I D K A S A H L M R G G A K K V V I | | | |
| UniRef90_A0Y9R2 | L S D L D W A E H E I D L V I E C S G L Y D S L D Q L E G H L L D Q G V K V L L | | | |
| UniRef90_F8C2R3 | P E R I P W D E E K I D Y V I E A T G K F T D D G S L A R K H F L R G V K V I | | | |
| UniRef90_UPI00028A1F7E | P N R I P W K S L G V Q I V I E A S G K F T D R S G A S Q H L L Q A G A H K V I V | | | |
| UniRef90_Q98RG3 | P R N L P W G K L E I D L V I E C T G M F A S K E Q V H L L D A G A K K V L I | | | |
| UniRef90_Q20FB9 | P L N M P W G K M G V D L V I E C T G V F V D S E G A G K H I T A G A K K V L | | | |
| UniRef90_U3AF69 | L D L L P W R D L G V D L V I E C T G V Y F T S Q A D G Q Q H I L A G A S K V L F | | | |
| UniRef90_Q515H6 | P A N I K W A G A V G A E Y V I E C T G V F T T I E K A G A H L L K G G A K K V I | | | |
| UniRef90_B8KU58 | V E K L P W A Q D I D L V I E C T G A F T T D R A T A H L L S A G A H R V L F | | | |
| UniRef90_UPI00036BC328 | P Q E V D Y T E H G I N D A L I V D S T G V W R D E Q H L L E S P G A S K V I L T | | | |
| UniRef90_L5LT91 | | R L V L R A C M Q K G V K V V A V | | |
| UniRef90_V4JAU1 | I D R L A W G D L D V D L V I E C S G R F T T R A D A Q R A H L L A R G A H R V L F | | | |
| UniRef90_K2ENR0 | P S K L P W K A L K V D V I E C T G R F T T D N D S A K A H L L D A G A K K V I V | | | |
| UniRef90_UPI000478F0E3 | P E E I D I C A G A D I V I E A S G L F L T Q S E V S H L L D K G A K K V I L | | | |
| UniRef90_R7YZG0 | V E R Q I N W G L Y G A E T V I E C T G K F T T K T L A K D H L L E G A A K K V I | | | |
| UniRef90_U7G099 | P E Q L P W A E M E V S L V I E C S G H F R S H A G A S R H L L D A G A K K V I | | | |
| UniRef90_M0BT73 | P D A L P W D D L G V S L V I E A T G L F R T Y E D A A R H L L E A G A D R V L I | | | |
| UniRef90_Q1QX87 | P Q D I D Y T A Y G I D N A L V I D N T G K W R D E Q H L L A S K G V A K V L L T | | | |
| UniRef90_A4SJK6 | P S D I D Y T A Y D I H N A L I V D N T G V W R D E A H L L K A R G A S V V L L T | | | |
| UniRef90_K4RMJ1 | P A K L D F S P A D Q V I E C T G K F N E A A L K A H L L K S G V Q R V V I | | | |
| UniRef90_Q2RVH10 | P K E L D F A A C G A D V I E C S G Q F L D S K Q L T H L L C K G I K R V I L | | | |
| UniRef90_UPI0003651567 | P R T V D Y P S Y G I N N A V L V D N T G R W R D Q Q H L L E A P G I A R V L L T | | | |
| UniRef90_UPI00040BAB9F | L D I P D W K A L G I D L V I E C T G R A T T R D F A Q K H I L D K G A K Y V L V | | | |
| UniRef90_UPI00 | | | | |

| | | 130 | 140 | 150 | 160 |
|------------------------|---|-----|-----|-----|-----|
| UniRef90_T1DWL4 | S | A | P | A | I |
| UniRef90_S6AQK5 | S | Q | P | A | D |
| UniRef90_F3L3H0 | S | Q | P | A | D |
| UniRef90_A3V7Z0 | S | A | P | V | K |
| UniRef90_V8C589 | S | A | P | A | K |
| UniRef90_F7XU15 | S | A | P | S | A |
| UniRef90_R9B1F6 | G | A | A | P | F |
| UniRef90_W5USJ5 | S | A | P | A | G |
| UniRef90_UPI0000E0F4EC | S | E | P | P | D |
| UniRef90_Q27782 | S | A | P | S | A |
| UniRef90_H2FXN2 | S | H | P | S | D |
| UniRef90_K2BRD6 | S | A | P | F | K |
| UniRef90_Q8VM71 | S | A | P | A | K |
| UniRef90_V8CBL5 | S | A | P | A | E |
| UniRef90_UPI0003788788 | A | A | P | V | K |
| UniRef90_K2DX57 | S | A | P | A | K |
| UniRef90_Q6ALS4 | S | H | P | S | E |
| UniRef90_D3R612 | S | A | P | A | K |
| UniRef90_UPI00036CEEFA | S | Q | P | A | D |
| UniRef90_A8LIE2 | S | A | P | V | K |
| UniRef90_B7GC94 | S | A | P | V | K |
| UniRef90_M7WNF8 | S | A | P | A | K |
| UniRef90_B9KH83 | S | A | P | V | A |
| UniRef90_UPI0000236629 | S | A | P | S | A |
| UniRef90_H0XUI9 | S | P | P | S | A |
| UniRef90_C2CY10 | S | A | P | A | G |
| UniRef90_Q2BRD4 | S | Q | P | A | T |
| UniRef90_V5RUM5 | S | A | P | T | K |
| UniRef90_UPI0003083376 | S | H | P | G | D |
| UniRef90_W4XUQ0 | S | A | P | S | A |
| UniRef90_A0Y9R2 | S | Q | P | G | A |
| UniRef90_F8C2R3 | T | A | P | A | E |
| UniRef90_UPI00028A1F7E | T | A | P | G | K |
| UniRef90_Q98RG3 | S | A | P | S | G |
| UniRef90_Q20FB9 | T | A | P | G | K |
| UniRef90_U3AF69 | S | H | P | G | D |
| UniRef90_Q5I5H6 | S | A | P | S | A |
| UniRef90_B8KU58 | S | Q | P | A | K |
| UniRef90_UPI00036BC328 | A | P | G | K | G |
| UniRef90_L5LT91 | N | D | P | F | I |
| UniRef90_V4JAU1 | S | C | P | A | D |
| UniRef90_K2ENR0 | S | A | P | T | K |
| UniRef90_UPI000478F0E3 | S | A | P | A | K |
| UniRef90_R7YZG0 | S | A | P | S | A |
| UniRef90_U7G099 | G | A | V | P | F |
| UniRef90_M0BT73 | S | A | P | P | K |
| UniRef90_Q1QX87 | A | P | G | K | G |
| UniRef90_A4SJK6 | A | P | G | K | G |
| UniRef90_K4RMJ1 | S | A | P | A | K |
| UniRef90_Q7VH10 | S | A | T | P | T |
| UniRef90_UPI0003651567 | A | P | G | K | G |
| UniRef90_UPI00040BAB9F | S | A | P | S | K |
| UniRef90_UPI0003B44CC1 | S | A | P | A | P |
| UniRef90_C4K9X5 | S | H | P | G | D |
| UniRef90_L5LWF3 | S | A | P | S | A |
| UniRef90_UPI0003B32CB6 | S | A | P | E | N |
| UniRef90_T0XT91 | T | A | P | A | A |
| UniRef90_N6W0C1 | A | P | G | K | G |
| UniRef90_A7I7U0 | S | A | P | S | A |
| UniRef90_A3SJJ3 | S | G | P | S | A |
| UniRef90_UPI0002F49420 | S | H | P | A | D |
| UniRef90_W8QWX4 | A | P | G | K | G |
| UniRef90_Q1GDZ0 | S | G | P | S | P |
| UniRef90_A4A891 | A | P | G | K | G |
| UniRef90_Q5NYJ7 | S | Q | P | G | D |
| UniRef90_I5B194 | S | S | P | E | K |
| UniRef90_E2CL25 | A | P | G | K | G |
| UniRef90_D3ZQ40 | P | F | P | S | D |
| UniRef90_I7A9J3 | S | H | P | L | D |
| UniRef90_A3WPA7 | A | P | A | K | G |
| UniRef90_A3JP38 | S | G | P | S | P |
| UniRef90_A3XD91 | S | G | P | S | P |
| UniRef90_E2Q1F0 | T | A | P | G | K |
| UniRef90_UPI000373DCA7 | S | Q | P | A | D |
| UniRef90_Q1WLW5 | | | | | |
| UniRef90_Q8X1J6 | | | | | |
| UniRef90_Q76EG2 | T | A | P | G | K |
| UniRef90_E7G038 | S | A | P | A | K |
| UniRef90_D5VB79 | G | A | A | P | F |
| UniRef90_B7VQW2 | T | A | P | G | K |
| UniRef90_UPI0003760ABA | S | A | P | A | D |
| UniRef90_D9VKF9 | A | A | P | G | K |
| UniRef90_UPI00045618FB | S | A | P | S | S |
| UniRef90_F6EFJ0 | A | P | P | S | K |
| UniRef90_S7XIK1 | T | A | P | S | S |
| UniRef90_H3NTD7 | A | P | G | K | G |
| UniRef90_R4YLV8 | A | P | G | K | G |
| UniRef90_A7T3Q4 | S | A | P | A | K |
| UniRef90_J9NTW9 | S | A | P | S | A |
| UniRef90_UPI0003FEED2C | A | P | G | K | G |
| UniRef90_L8JHX7 | A | P | G | K | G |
| UniRef90_F2IBQ0 | T | A | P | G | K |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_T1DWL4 | M | I | L | E | R | E | F | G | I | Q | K | A | T | L | S | T | I | H | S | Y | T | N | D | Q | N | P | L | D | V | P | H | H | S | D | K | R | R | S | R | A | | | | | |
| UniRef90_S6AQK5 | K | L | L | N | E | S | V | G | I | E | Y | V | S | T | I | T | T | I | H | S | A | M | N | D | Q | P | P | L | D | A | Y | H | H | H | E | D | L | R | R | T | R | S | | | |
| UniRef90_F3L3H0 | D | A | L | N | E | K | A | F | G | I | D | Y | G | S | I | T | T | I | H | S | A | M | N | D | Q | P | P | L | D | A | Y | H | H | H | E | D | L | R | R | T | R | S | | | |
| UniRef90_A3V7Z0 | K | V | L | L | D | G | I | G | I | T | H | G | S | I | T | T | T | I | H | N | V | T | N | D | Q | T | P | L | D | R | P | A | K | S | D | L | R | R | K | A | R | S | | | |
| UniRef90_V8C589 | M | L | L | E | R | E | F | G | I | E | L | K | A | S | L | S | T | I | H | S | Y | T | N | D | Q | Q | L | L | D | V | P | H | H | S | D | K | R | R | S | R | A | | | | |
| UniRef90_F7XU15 | K | I | L | N | E | R | E | F | G | I | E | S | G | F | V | T | T | I | H | A | A | T | N | D | Q | Q | L | L | D | G | K | H | T | D | R | R | R | S | R | A | R | A | | | |
| UniRef90_R9B1F6 | K | I | L | D | E | D | A | F | G | I | Q | T | A | L | M | T | E | I | H | A | V | T | A | D | Q | S | R | L | D | H | A | H | S | D | L | R | R | A | R | A | R | A | | | |
| UniRef90_V5USJ5 | N | V | L | E | R | E | F | G | I | S | H | G | Y | M | T | T | V | I | H | A | Y | T | A | D | Q | S | R | L | D | A | P | H | S | D | L | R | R | A | R | A | R | A | | | |
| UniRef90_UPI0000E0F4EC | Q | A | L | D | D | A | F | G | V | Q | S | G | T | I | T | T | V | I | H | S | S | M | H | D | Q | Q | V | I | D | A | F | H | S | P | D | L | R | R | T | R | A | R | A | | |
| UniRef90_Q27782 | K | V | L | E | E | E | C | Y | G | I | K | E | G | L | M | T | T | V | I | H | A | A | T | A | T | Q | P | S | V | D | G | P | S | K | K | D | W | R | G | G | R | S | | | |
| UniRef90_H2FXN2 | E | T | L | H | E | R | V | F | H | I | K | C | G | N | I | T | T | I | H | S | A | M | N | D | Q | Q | V | I | D | A | Y | H | A | H | S | D | L | R | R | T | R | A | R | A | |
| UniRef90_K2BRD6 | K | V | L | E | D | N | F | G | I | E | K | A | M | M | T | T | I | I | H | H | G | Y | T | S | D | Q | Q | R | L | D | G | G | H | K | D | Y | R | R | A | R | A | R | A | | |
| UniRef90_Q8VM71 | K | V | L | S | D | E | F | G | I | V | E | S | G | F | M | T | T | I | H | A | Y | T | G | D | Q | N | T | Q | D | P | H | R | K | G | D | K | R | R | A | R | A | R | A | | |
| UniRef90_V8CBL5 | K | V | L | H | K | K | F | G | I | E | S | A | L | M | T | T | V | I | H | S | Y | T | N | D | Q | N | V | L | D | V | K | H | K | D | I | R | R | A | R | A | R | A | R | A | |
| UniRef90_UPI0003788788 | K | V | V | H | E | A | I | G | I | R | H | G | Q | I | T | T | I | I | H | N | P | T | N | T | N | V | V | D | D | A | P | H | K | D | L | R | R | A | R | A | R | A | R | A | |
| UniRef90_K2DX57 | A | I | M | H | E | K | F | G | V | L | K | A | L | M | T | T | I | I | H | S | V | T | A | E | Q | N | L | D | D | G | P | P | P | G | N | T | D | L | R | R | A | R | A | R | A |
| UniRef90_Q6ALS4 | H | L | L | E | K | N | F | G | V | L | N | G | L | I | T | T | V | I | H | S | A | M | N | D | Q | P | P | L | D | D | G | S | Y | H | P | N | T | N | L | R | L | T | R | S | |
| UniRef90_D3R612 | K | L | L | N | D | K | W | G | I | E | K | A | G | F | M | T | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | | | | | | | | | | | | | | | |
|------------------------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_T1DWL4 | A | A | I | N | I | I | P | T | S | T | G | V | A | K | A | I | L | Y | K | V | I | P | S | E | L | L | K | D | K | R | I | H | G | H | S | L | R | V | V | P | I | A | D | V | S | S | |
| UniRef90_S6AKQ5 | A | F | Q | S | S | V | I | P | V | S | T | G | L | A | R | G | I | E | R | L | L | P | E | L | L | V | A | D | R | F | N | G | H | S | L | R | V | V | P | T | V | N | N | V | S | S | |
| UniRef90_F3L3H0 | A | S | Q | S | S | L | I | P | V | S | T | G | A | L | K | A | I | T | L | L | Y | P | E | L | L | A | D | R | K | F | N | G | H | S | L | R | V | V | P | T | V | N | N | V | S | S | |
| UniRef90_A3V7Z0 | A | L | N | S | S | L | I | P | T | T | T | G | S | A | T | A | I | T | L | L | Y | P | E | L | L | A | D | R | K | F | N | G | H | S | L | R | V | V | P | T | V | N | N | V | S | S | |
| UniRef90_V8C589 | A | A | N | L | N | L | I | P | T | T | T | G | A | K | A | L | I | Y | K | V | L | P | E | L | L | A | D | R | K | F | N | G | H | S | L | R | V | V | P | T | V | N | N | V | S | S | |
| UniRef90_F7XU15 | A | F | L | S | A | I | P | A | S | T | T | G | A | K | A | S | L | I | G | V | V | L | P | E | L | L | Q | D | R | K | F | N | G | H | S | L | R | V | V | P | T | A | N | N | V | S | S |
| UniRef90_R9B1F6 | S | G | Q | N | I | I | P | T | S | T | S | G | A | L | K | A | L | I | K | Q | V | I | P | K | M | E | N | R | I | D | G | F | A | S | L | R | V | V | P | T | I | T | N | V | A | S | S |
| UniRef90_W5U5J5 | A | A | A | N | I | V | P | S | S | T | S | G | A | K | A | V | I | G | L | V | I | P | E | L | L | S | G | K | M | D | G | F | A | S | L | R | V | V | P | V | I | T | G | S | S | | |
| UniRef90_UPI0000E0F4EC | A | S | Q | S | S | I | I | P | V | D | T | R | L | A | Q | G | I | E | R | I | L | P | K | F | L | A | G | K | F | E | A | L | A | V | R | V | V | P | T | I | T | N | V | T | S | S | |
| UniRef90_Q27782 | C | M | C | S | S | I | I | P | A | A | T | G | A | K | A | V | I | G | K | V | L | P | K | F | L | A | N | G | K | F | V | E | A | G | M | A | F | R | V | T | T | I | D | V | S | S | |
| UniRef90_H2FXN2 | A | S | Q | S | S | I | I | P | V | D | T | K | L | A | K | G | V | E | R | L | I | P | K | F | L | A | N | G | K | F | E | A | I | S | V | R | V | V | P | T | T | I | N | V | T | S | S |
| UniRef90_K2BRD6 | A | A | E | N | I | I | P | T | S | T | G | A | T | K | A | A | A | K | A | I | P | E | L | L | E | G | K | F | N | G | H | S | L | R | V | V | P | T | V | T | G | S | S | | | | |
| UniRef90_Q8VM71 | A | A | E | N | I | I | P | N | S | T | G | A | K | A | V | I | G | K | V | L | P | E | L | L | D | G | K | F | N | G | H | S | L | R | V | V | P | V | A | T | N | V | S | S | | | |
| UniRef90_VBCL5 | C | A | L | N | L | I | P | T | S | S | G | A | K | A | V | I | G | L | V | I | P | E | L | L | V | G | K | F | N | G | H | S | L | R | V | V | P | T | P | D | V | S | S | | | | |
| UniRef90_UPI0003788788 | A | M | L | S | L | Q | P | T | T | T | G | S | A | T | A | I | T | A | L | I | Y | P | E | L | L | K | G | K | L | N | G | H | A | V | R | V | A | P | V | L | N | A | S | S | | | |
| UniRef90_K2DX57 | A | Y | V | N | M | I | P | T | T | T | G | A | A | V | A</ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

UniRef90_T1DWL4 M V D L N A Y L A K S V D A K T L N D L F I A E S K G A L K G I L G I D E E F G
UniRef90_S6AQK5 C L D I T L Q T A R D T S A V E I N R V L R E A A E S P L K G I L A Y T T E L P H
UniRef90_F3L3H0 A M D L S V Y L Q R P T T A Q E I N A L M K A A A D G A L K G I L G Y T T E R P L
UniRef90_A3V7Z0 L T D C V F E V P R P T T A Q E I N A L M K A A A D G A L K G I L G Y T T E R P L
UniRef90_V8C589 M V D L N A Y L A K Q A S A E S I N A L F E E Q S K G A L K G I L G I D K D F G
UniRef90_F7XU15 M I D L K F L S T K N T S K D E I N S L M K Q A I S Q S P T I L A V S D E A L
UniRef90_R9B1F6 A I D L S F L S Q S P V T V H R L N E S V L I G A A E S D Y A E I M Q V T D E A L
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UniRef90_UPI0000E0F4EC A M D L S V T L R D N V T I G Q V N Q V L Q Q A K L G Q L A G I L D Y T E S Q P
UniRef90_Q27782 V V D L T V V L E K P T N Y E D I C A N M K K Y S E E Q L K G I L G Y T E S P V
UniRef90_H2FXN2 A M D L S V I V E R H A S V D E V N R V L R E A A Q G P L K G I L D Y T E A P L
UniRef90_K2BRD6 L S D F T F L V K R N T T V E D V N S A L E N A S K Q P F E G I L E V T R E D E I
UniRef90_Q8VM71 L T E L T V V L K D D V T V D Q V N S A M K Q A S D E S F G Y T E D E I
UniRef90_V8CBL5 L V D L S A N L C V I E V S A E E I N Q A F R H A Q T C V M K D I T I Y V D E E K C
UniRef90_UPI0003788788 L T D A V F E M Q R P T S V E E V N D L F R A A A G A L N G I L G Y E P R A L
UniRef90_K2DX57 L S D F T F L L K A K T T V E E V N Q A I K D A A G S P W Q G I A A W T E S P L
UniRef90_Q6ALS4 L M D L S V N L K E N V S V E D I N N L F A G V A K R E L Q G L L G Y T R E T H
UniRef90_D3R612 I T E L F T V L E K D A T V D E I N A A F K D A A D C A Y Y G Y N D D E I
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UniRef90_M7WNF8 M V D L T M V R L Q R P A T K E D L F P L R R E A A T G P I K S N V I A V N D E E L
UniRef90_B9KH83 V V D F A F V S S S K A T V T S I N E A L C K A A T A R P D V L M A S D E Q L
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UniRef90_C2CY10 M M D L S I N V T Q S T S V E E V N Q L K R A S E G P L Q G I L G Y T E S P H
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| | 290 | | | | | | | | | | | | | | | | | | | | 300 | | | | | | | | | | | | | | | | | | | | 310 | | | | | | | | | | | | | | | | | | | | 320 | | | | | | | | | |
|-------------------------|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----|--|--|--|--|--|--|--|--|--|
| UniRef90_T1DWL4 | V | S | S | D | F | V | G | D | S | R | S | A | I | V | A | K | D | L | T | F | S | L | D | N | M | A | K | I | M | A | W | F | D | N | E | W | G | Y | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_S6AQK5 | A | S | C | D | F | N | H | D | S | R | S | A | I | V | D | G | S | Q | T | R | V | S | G | P | R | L | V | N | L | L | A | W | F | D | N | E | W | G | F | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_F3L3H0 | A | S | C | D | F | N | H | D | S | R | S | A | I | V | D | G | S | Q | T | R | V | S | G | P | R | L | V | N | L | L | A | W | F | D | N | E | W | G | F | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_A3V7Z0 | V | S | S | A | D | F | T | N | D | T | R | S | S | G | I | V | D | A | P | S | T | M | V | V | N | G | T | Q | V | K | L | Y | V | W | Y | D | N | E | M | G | Y | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_V8C589 | V | S | S | D | F | L | G | D | S | R | S | A | I | V | A | Q | D | L | T | F | S | L | G | N | M | S | K | I | M | A | W | Y | D | N | E | W | G | Y | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_F7XU15 | V | S | S | C | D | F | N | H | T | K | Y | S | A | I | F | D | T | T | L | T | S | V | V | N | R | N | F | C | R | V | V | A | W | Y | D | N | E | W | G | F | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_R9B1F6 | V | S | S | D | F | N | H | S | P | Y | S | S | L | I | V | D | L | S | Q | T | M | V | V | G | H | Q | A | K | V | F | A | W | Y | D | N | E | W | G | Y | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_W5USJ5 | V | S | S | D | I | L | G | D | R | H | S | S | I | F | D | A | T | L | T | K | I | L | T | E | R | V | K | V | F | S | W | Y | D | N | E | F | S | F | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI0000E0F4EC | V | S | V | D | F | N | H | D | S | R | S | C | I | V | D | G | T | Q | T | R | V | S | H | G | Q | L | V | K | T | L | V | W | C | D | N | E | W | G | F | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q27782 | V | S | S | D | F | L | G | S | T | V | V | S | T | F | D | A | K | A | G | I | M | L | N | D | H | F | V | K | I | L | V | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_H2FXN2 | V | S | V | D | F | N | H | D | P | H | S | S | I | L | D | G | T | Q | T | R | V | S | D | N | L | I | K | M | L | M | W | C | D | N | E | W | G | F | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_K2BRD6 | V | S | S | D | I | L | G | N | Y | H | S | A | I | A | D | L | S | L | T | Q | V | V | G | G | N | M | V | K | V | I | A | W | Y | D | N | E | F | G | Y | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q8VM71 | V | S | S | D | I | L | G | M | T | Y | G | S | L | F | D | A | T | Q | T | R | V | M | D | R | Q | L | V | K | V | A | A | W | Y | D | N | E | K | E | W | G | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_V8CBL5 | V | S | S | D | F | L | G | S | P | Y | S | A | I | V | D | P | K | T | L | A | I | G | K | S | V | K | V | L | A | W | Y | D | N | E | M | G | Y | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI0003788788 | V | S | A | D | Y | A | R | D | T | R | S | S | I | V | D | G | L | S | T | M | V | T | D | E | T | L | L | K | V | Y | A | W | Y | D | N | E | M | G | Y | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_K2DX57 | V | S | S | D | I | L | G | R | S | C | I | V | D | L | G | L | T | Q | I | V | D | G | D | L | V | K | V | F | A | A | W | Y | D | N | E | W | G | Y | S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_Q6ALS4 | A | S | V | D | F | N | T | D | S | R | S | C | V | V | D | G | T | Q | T | R | V | C | G | G | K | L | V | K | M | I | C | W | F | D | N | E | W | G | F | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_D3R612 | V | S | G | D | I | L | G | D | T | H | G | G | V | F | D | P | T | Q | T | D | V | N | T | V | T | M | A | R | T | V | A | F | Y | D | N | E | Y | G | F | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UniRef90_UPI000036CEEFA | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

UniRef90_T1DWL4 N R L V E M A Q F I L S Q E 330
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UniRef90_Q2BRD4 N R M L D V A Q H
UniRef90_V5RUM5 N R L V E L A
UniRef90_UPI0003083376 N R M L D T T Q V M G A
UniRef90_W4XUQ0
UniRef90_A0Y9R2 N R M L E I V D Y
UniRef90_F8C2R3 V R V L D L I N Y I S E K E
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UniRef90_Q5I5H6
UniRef90_B8KU58 N R L V D I A
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UniRef90_K2ENR0 N R L V E M A E L V
UniRef90_UPI000478F0E3 H R I L E M A C Y I
UniRef90_R7YZG0 N R L L D L L S Y I F Q V D
UniRef90_U7G099 N R L L D W V A A M A E Q
UniRef90_M0BT73 H Q L L D L A R Y V A S E
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UniRef90_A4SJK6 C Q V V R V M E Q M A
UniRef90_K4RMJ1 H R L V D M A V Y I C Q K D
UniRef90_Q7VH10 N R L L D M A Q F I S S
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UniRef90_UPI0003B44CC1
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UniRef90_N6W0C1 A Q V I R C V N Q M A
UniRef90_A7I7U0 R R L L D L A S Y I A G R
UniRef90_A3SJZ3 C R M L D M A R L I A R R
UniRef90_UPI0002F49420 N R L L D V A D Y W A
UniRef90_W8QWX4 C Q V V R V M E D M A
UniRef90_Q1GDZ0 A R M L D V A R A M
UniRef90_A4A891 C Q V Y R V M E R M A
UniRef90_Q5NYJ7 N R M L D V A N Y W S K R
UniRef90_I5B194 S Q M V R E A I R M M K
UniRef90_E2CL25 T Q V I R L M Q E V A
UniRef90_D3ZQ40 N R L I D L K A Y M A S K E
UniRef90_I7A9J3 N R M L D V L
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UniRef90_A3XD91 A R M L D V A R L M A
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UniRef90_Q8X1J6 N R V I D L L
UniRef90_Q76EG2
UniRef90_E7G038 H R L V D L A L Y I H S K
UniRef90_D5VB79 N R L L D M C Q K L A
UniRef90_B7VQW2 C Q V V H C M E Q M
UniRef90_UPI0003760ABA N R L A E L M L K M
UniRef90_D9VKF9 C Q V I R V V Q H V S G V E
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UniRef90_A5FP11 P E E I D Y T E Y G I N D V I D N T G A F T T Q E A L K R H L K N G V N K V L L T

UniRef90_F2G564 P D E V D Y T Q Y G I D N V I D N T G I W R D R D G L G L H L K G A A K A I L T

UniRef90_F5SRY0 P Q L P W Q S L N V D V L E C T G H F R S Y E D A S R H L T A G A K Q V I V

UniRef90_K0CAP7 P A R L P W R E L G V D L V L E C S G H F R A Y R D A A V H L E A G A G R V I L

UniRef90_W5XUZ7 P A D I D Y T S Y G I D N A V D N T G V W R D R E G L S Q H L K K G I S N V L I

UniRef90_K6X2Q0 P A S V D Y T E Y G I D N A I L D G K V W R D R D G L S Q H L R P G I A K V V I

UniRef90_E3H2L1 P T T V D Y T E Y G I E D A L L V D N T G R W R D T Q H L E R P G I S R V L L T

UniRef90_A4F4T9 P T Q L P W R E L G I D A L E C T G I F T A R D K A A H L T A G A K R V L V

UniRef90_UPI0003B5A306 P A S I D Y S A Y G I D D A I V V D N T G R W R D E A H L Q S K G V S R V L L T

UniRef90_X7ELU6 L G R L P L E G V D V M D C T G T I H T R A Q A Q R G L D A G A K N V L I

UniRef90_C6D391 E V P N W G E L G V E L V I D C T G R A V T R P V A Q M H L D R G A K R V L V

UniRef90_B9UYE1 K K V V I

UniRef90_F1LUI2 L S T L D L S N V D V V L E C T G L A G N R A I A T R G M D A G A G A V L I

UniRef90_B6AUN8 P E N V D Y T A Y G L H D A L V V D N T G I W R D E K H L Q A P G A A R V V I

UniRef90_UPI000346EDB P A A I K W G E S G A E Y V C E S T G I F T T Q E K A A L H I G G G A K K V I I

UniRef90_Q76EH8 P S E I D Y T A Y G I D N V I D N T G I W K D E D G L G K H L K G G V Q K V L L

UniRef90_UPI0004087EA6 P L D V K Y S D L D I H I V I D N T G I W R D E T L S Q H L S S G A K K V I I

UniRef90_K6H364 P Q D L D L L G I D L L L E T S G K F N T Y E D L E V F R Q K G A K K V I L

UniRef90_E7G050 M T A

UniRef90_L0D4L6 P A E I P W G Q A G A D Y V C E S T G V F T T S E K A G G H L G G G C K K V I I

UniRef90_C5L5C8 P A Q L A W G E L G V E V V V E S T G R F T T K R A D A A K H L E A G A K K V I I

UniRef90_Q38Q15 P A N L P W G E L G I D L V I E G T G V F V D R E G A A K H I Q A G A K K V I I

UniRef90_MORHL2 P E D I D Y T Q Y G I D K I L D N T G A F R D K K E L S R H L K A G A S K V L L

UniRef90_D7SA12 P A S I P W G S V G A A Y V V E S T G V F T T V E K A S A H L A G G A K K V I I

UniRef90_W2UQA5 P A S I K W G D A G A E D V V E S T G V F T T M E K T G A H L R N G A K K V I I

UniRef90_B1B567 P E S I D Y T A Y G I S D A L I D N T G A F R D K A A L S R H L K A K K V L L

UniRef90_Q6X8K8 P K N I A W A K A G A E Y I V E S T G V F T T I D K A S A H F E G G A K K V I I

UniRef90_M3WZD0 P E N L P W N E L D V D I V I E S T G K F T T K R E D A Q K H I K A G A K K V I I

UniRef90_UPI000478CDB7 P S R I D L S G I D V L M E C T G R A T D R S F A E A G L A A G A G R V L V

UniRef90_Q5EG66 P G R I P W A E A D V D V L E A T G R F R S G D A A R A H I G G G A K K V I I

UniRef90_T0CNT7 L G A V D L S G V D V V L E C T G H H D A L A F S R S S L A A G A R R V V I

UniRef90_W8SK17 P E D I D Y T K Y G I S I I D N T G A F R D K E A L S R H L K Q G A S R V L L

UniRef90_R4LE17 P G N I S W H D Y G V D L V I E S T G L F T D A A K A A H L Q G G A K K V I I

UniRef90_F5J8R7 P A D L P W G K L G V D Y V I E S T G L F T N K A K A E G H V K G G A K K V I I

UniRef90_F0REQ2 P A T L P W K D L K V D V V I E S T G R F T T K K E D A G K H I T A G A K R V V I

UniRef90_X1P948 L K I F R G K A K G A E I I V E C T G F Y T S A E K S Q A H L D A G A K K V L I

UniRef90_D7PE43 P K E I E W N I E N I D C V I E A S G I F L T M E K A S S H N V K L V I C

UniRef90_K2BMU7 P A N I P W N D W R T D I V L E C T G F F R T Y E L A S K H L E N N V K R V I I

UniRef90_X1IYT3 P G Q I P F P A P T R L V V E A S G R F T R R A D A A G H L K D G V S H V V I

UniRef90_F4UMA3 L A E V D L C A I D V L F E C T G S D V A A A N A R C C I D K G V G Q V I V

UniRef90_B7XKC2 P E E I D Y N K Y G I N D A L I V D N T G V W R D G Q H L A C K G A E K V L L T

UniRef90_X1PS37 P D K C D Y T K Y G I N N A I V I D N T G R W R D A L H L K S P G V S K V I L T

UniRef90_U1M303 P A N I P W S E T G A E Y V V E S T G V F T T T E K A S A H L K G G A K K V I I

UniRef90_UPI00040EADB4 P A N L K W D E V G A E Y V A E A T G I F L T D E T A R K H I T A G A K K V I I

UniRef90_B8XPK9 P T Y T K W G N P G S E Y T V E S T A V F T N M K K S D H L I R K K R V I I

UniRef90_S5SYD7 D I K W G A A G A E C V V E S T G V L T T V E K A G A H L K D G V K R V I I

UniRef90_R3MFC2 P D K C D Y T K Y G I S D A V I D N T G I W R D E A H L Q S P G V A K V V L T

UniRef90_R0BC05 G N E A N W A E L N T D V I V I A T G K P K T K N E V E E H L S K G C K K V I V

UniRef90_D0NV36 P S Q L P W K E L G V D V L E S T G I F R T K A V V E H I T A G A K K V V L

UniRef90_Q6QJ98 P T A I P W G K A G A E Y V V E S T G V F T T I E K A N A H I Q G G A K K V V I

UniRef90_A9MFH5 G G A K K V I I

UniRef90_E9LG38 P E E I P W G E A G A D F V V E S T G V F T D K D K A A A H L K G G A K X V X I

UniRef90_J9PAT2 P E E L P W G D L G V D L V L E C T G F V T A Q D K A E L H I K A G A K K V I I

UniRef90_G1MA57 P A N I K W G D V G A E Y T V E S T G A S T T V E K A G S Q E

UniRef90_T0RTK7 P S N I K W A D A G A E Y V V E S T G V F T T M E K A G A H L K G G A K R V I I

UniRef90_S5DQG2 P E E V P W G E A G A E Y V I E S T G D K A A A Y I K G G A K K V V I

UniRef90_D8L304 P A A L P W G E L G A D V V V E S T G I F T K R D D A A K H L A A G A K K V L I

UniRef90_C7SP43 P A E L P W K E E G V D I A L E C T G I F T K R D D K A A H L E A G A K R V I V

UniRef90_C7EZK6 P A E L P W K A L G V D Y V L E S T G I F T K T K A V A E G H I Y A G A K K V I L

UniRef90_H2D2S1 P A N L K W D E V G A D V V L E A T G L F L T K E T A Q K H I D A G A K K V I M

UniRef90_D4JE57 P S K L P W K E L G V D V L E S T G V F R T K E G Y G H I K A G A K K V I I

UniRef90_UPI00036CABD5 P T N I K W G D A L A E Y V V E F T G V F T T M E K A G A C L K G G A K K V I I

UniRef90_G3HKV0 P N E I P L G K T E A A V I V E S A G V F T D M K A A H L K G G A K E V I

UniRef90_Q68AP2 F T Q V D W K G S G C D L V V D S S G K F T K T D K L K P Y L Q C G M K K V V V

UniRef90_C0LWK1 P I N I K W D D S T K Y V E R S S G L F S T L E K A E S X H L K G G A K K V I I

UniRef90_Q6X8K1 P K E V D Y T Q Y G I K N A L L V D N T G V W R D A Q H L A C P G V D R V V L T

UniRef90_G1L151 V K S K

| | | 130 | 140 | 150 | 160 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI00031C46D5 | A | P | G | K | G | E | V | K | N | L | V | F | G | V | N | S | D | A | P | E | D | T | V | L | S | A | S | C | T | T | N | A | L | T | P | V | L | | | |
| UniRef90_F4SAL3 | S | A | P | S | A | D | A | P | M | T | V | V | G | V | N | L | D | S | Y | D | P | K | E | T | V | V | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_A5CDP6 | S | A | P | S | C | K | N | A | D | A | T | I | V | G | V | N | L | D | S | L | L | N | S | H | N | I | V | S | A | S | C | T | T | N | A | L | T | P | V | L |
| UniRef90_S9WN30 | S | A | P | S | A | D | A | P | M | F | V | M | G | V | N | H | E | K | Y | D | K | S | L | K | I | V | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_UPI00037B996E | T | A | P | G | K | G | I | K | N | I | V | M | G | V | N | H | E | K | Y | D | S | D | D | K | I | V | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_H8KQA0 | A | P | G | K | G | D | L | P | N | I | V | F | G | V | N | Q | A | E | F | N | G | Q | E | N | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_B9NQ90 | S | G | P | S | P | A | S | E | V | T | I | V | L | G | A | N | E | D | H | L | K | G | D | A | Q | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L |
| UniRef90_UPI0003662FB4 | A | P | G | K | G | D | I | P | N | V | V | Y | G | V | N | N | G | D | I | K | A | G | E | T | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_A4F4V9 | S | A | P | A | D | A | D | K | T | I | V | Y | G | V | N | H | N | T | L | K | D | D | L | V | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_H9KDJ0 | S | A | P | A | G | N | M | K | T | I | V | Y | S | V | N | E | D | Q | L | T | D | S | D | Q | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_I3YXW0 | A | P | G | K | G | V | P | N | I | V | H | G | V | N | Q | N | D | Y | D | P | N | T | V | D | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_A5FP11 | T | A | P | G | K | G | V | I | N | I | V | H | G | V | N | H | N | E | Y | D | P | D | E | N | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_F2G564 | A | P | G | K | G | D | I | K | N | I | V | H | G | V | N | D | E | E | V | T | P | E | D | T | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_F5SRY0 | A | P | F | D | K | V | D | A | S | L | V | M | G | V | N | Q | L | L | T | R | D | L | P | I | V | S | S | V | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_K0CAP7 | G | A | V | P | F | D | R | A | D | Q | V | Y | G | V | N | Q | E | Q | V | G | N | D | R | I | V | L | S | A | S | C | T | T | N | A | L | T | P | V | L | |
| UniRef90_W5XUZ7 | T | A | P | G | K | D | V | K | N | I | V | Y | G | I | N | Q | H | Q | D | M | S | A | E | D | Q | I | F | S | A | S | C | T | T | N | A | L | T | P | V | L |
| UniRef90_K6X2Q0 | T | A | P | G | K | D | V | P | N | I | V | H | G | V | N | H | R | T | M | D | L | E | Q | Q | I | F | S | C | C | T | T | N | A | L | T | P | V | L | | |
| UniRef90_E3H2L1 | A | P | G | K | G | D | M | K | N | I | V | F | G | V | N | D | S | I | I | T | D | D | K | I | L | S | A | S | C | T | T | N | A | L | T | P | V | L | | |
| UniRef90_A4F4T9 | S | A | P | A | E | G | A | D | L | T | V | Y | G | I | N | H | D | K | L | T | K | D | H | I | | | | | | | | | | | | | | | | |

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|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI00031C46D5 | K | V | L | N | D | E | F | G | V | V | N | G | H | V | E | T | V | H | S | F | T | N | D | Q | N | L | I | D | N | Y | H | K | G | S | R | R | G | R | A | | | | |
| UniRef90_F4SAL3 | K | V | I | N | D | K | Y | G | I | V | N | G | L | M | T | T | V | V | H | A | T | T | A | T | Q | K | T | V | D | G | N | S | H | K | D | W | R | G | R | S | | | |
| UniRef90_A5CDP6 | K | I | L | N | D | K | F | G | I | Q | C | H | L | I | T | T | V | V | H | A | T | T | A | T | Q | K | T | V | D | G | P | S | H | G | K | D | F | R | R | G | R | S | |
| UniRef90_S9WN30 | K | V | I | D | H | F | G | I | V | E | G | L | M | T | T | V | V | H | A | I | T | A | T | Q | K | T | V | D | G | P | S | H | G | K | L | W | R | D | D | G | R | G | |
| UniRef90_UPI00037B996E | K | A | L | D | T | K | Y | G | V | T | N | G | H | V | E | T | V | V | H | A | Y | T | N | D | Q | N | L | I | D | D | N | Y | H | K | G | K | D | R | R | G | R | A | S |
| UniRef90_H8KQA0 | K | L | V | S | E | K | F | G | I | E | K | G | H | I | E | T | V | V | H | S | Y | T | N | D | Q | N | L | I | D | D | N | Y | H | K | K | S | D | R | R | G | R | S | |
| UniRef90_B9NQ90 | R | V | L | D | Q | I | A | G | L | A | S | G | H | M | T | T | L | H | C | Y | T | N | D | Q | N | L | I | D | D | A | P | R | H | G | K | D | L | A | R | S | R | A | G |
| UniRef90_UPI0003662FB4 | K | A | V | N | D | Q | F | G | V | V | S | G | H | V | E | T | V | C | H | S | Y | T | N | D | Q | N | L | I | D | D | N | Y | H | N | K | D | L | A | R | S | R | A | G |
| UniRef90_A4F4V9 | Y | V | L | N | Q | K | L | V | G | I | E | S | G | Y | M | T | T | H | S | Y | T | G | D | Q | N | L | I | D | D | N | T | M | H | K | D | L | H | A | R | A | A | A | |
| UniRef90_H9KDJ0 | Q | A | M | N | D | E | F | G | I | Q | V | G | L | M | S | T | T | H | A | Y | T | A | S | Q | M | L | Q | D | D | P | D | R | H | G | G | N | V | R | N | A | R | A | |
| UniRef90_I3YXW0 | K | A | V | E | D | S | F | G | V | V | R | G | H | L | E | T | V | I | H | A | Y | T | N | D | Q | N | L | I | D | D | N | M | H | S | R | K | Y | R | R | G | R | A | A |
| UniRef90_A5FP11 | K | V | I | E | E | T | L | G | V | V | K | G | H | L | E | T | V | I | H | A | Y | T | N | D | Q | N | L | I | D | D | N | M | H | S | R | K | Y | R | R | G | R | A | A |
| UniRef90_F2G564 | K | A | L | D | E | E | Y | G | I | E | N | G | H | V | E | T | V | H | S | Y | T | A | D | Q | N | L | I | D | D | N | Q | P | H | R | D | K | R | R | A | R | A | A | |
| UniRef90_F5SRY0 | Y | V | L | D | K | A | F | G | T | E | S | V | M | M | T | E | L | H | A | V | T | A | D | Q | N | V | L | I | D | D | N | Y | P | H | R | D | K | R | R | A | R | A | A |
| UniRef90_K0CAP7 | R | A | L | H | A | D | F | G | V | R | Q | A | L | M | Q | E | T | H | A | Y | T | S | D | Q | T | L | L | I | D | D | H | V | H | R | D | P | R | R | G | R | A | G | A |
| UniRef90_W5XUZ7 | K | V | I | N | D | R | Y | G | V | V | H | G | H | V | E | T | V | A | H | S | F | T | N | D | Q | N | L | I | D | D | N | Y | H | K | K | G | D | R | R | G | R | A | A |
| UniRef90_K6X2Q0 | K | A | I | E | E | A | F | G | I | V | R | G | H | V | E | T | V | H | S | F | T | N | D | Q | N | L | I | D | D | N | Y | H | K | K | A | D | R | R | G | R | S | A | A |
| UniRef90_E3H2L1 | K | V | L | D | D | V | Y | G | V | E | R | G | H | V | E | T | V | H | A | F | T | | | | | | | | | | | | | | | | | | | | | | |

| | 210 | | | | | | | | | | 220 | | | | | | | | | | 230 | | | | | | | | | | 240 | | | | | | | | | | | |
|------------------------|-----|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|-----|-----|---|---|---|---|---|---|---|---|---|---|---|
| UniRef90_UPI00031C46D5 | A | G | L | N | M | V | L | T | E | T | G | A | A | K | A | V | A | K | A | L | P | E | F | A | G | K | L | S | G | N | A | L | R | V | P | T | P | N | V | S | | |
| UniRef90_F4SAL3 | A | S | A | N | I | I | P | S | G | T | G | A | A | K | T | S | L | K | E | V | I | P | E | L | A | N | G | C | L | D | G | S | S | V | R | V | P | T | S | N | V | S |
| UniRef90_A5CDP6 | C | F | A | S | I | I | P | T | S | T | G | A | K | V | S | L | K | E | V | I | P | E | L | A | N | G | C | L | D | G | S | S | V | R | V | P | T | S | N | V | S | |
| UniRef90_S9WN30 | A | A | Q | N | I | I | P | A | S | T | G | A | A | K | A | M | G | K | V | I | P | E | L | A | N | G | C | L | D | G | S | S | V | R | V | P | T | S | N | V | S | |
| UniRef90_UPI00037B996E | A | G | L | N | M | V | L | T | E | T | G | A | K | A | V | S | K | A | L | P | Q | L | E | G | K | L | T | G | N | A | I | R | V | V | P | T | P | N | V | S | | |
| UniRef90_H8KQA0 | A | A | L | N | M | V | L | T | E | T | G | A | D | K | A | V | K | V | L | P | Q | L | E | G | K | L | T | G | N | A | I | R | V | V | P | T | P | N | V | S | | |
| UniRef90_B9NQ90 | A | A | L | S | M | V | P | T | T | S | A | T | H | L | I | D | V | V | L | P | Q | L | A | G | R | I | T | S | G | A | A | V | R | V | P | T | A | S | V | S | | |
| UniRef90_UPI0003662FB4 | A | A | L | N | M | V | L | T | E | T | G | A | A | K | A | V | A | K | A | L | P | E | L | A | G | K | L | T | G | N | A | I | R | V | V | P | T | P | N | V | S | |
| UniRef90_A4F4V9 | A | A | L | S | M | I | P | T | S | T | G | A | K | A | V | I | G | L | V | L | P | E | L | A | G | K | L | T | D | G | S | A | I | R | V | V | P | T | P | N | V | S |
| UniRef90_H9KDJ0 | A | V | A | N | V | I | P | H | T | S | T | G | A | K | A | I | G | L | V | L | P | E | L | D | G | K | L | T | G | I | A | Q | R | V | V | P | T | V | I | S | G | S |
| UniRef90_I3YXW0 | A | A | L | N | M | V | L | T | E | T | G | A | G | S | A | V | A | K | A | L | P | V | L | A | G | K | L | T | T | S | N | A | I | R | V | V | P | T | P | N | V | S |
| UniRef90_A5FP11 | A | A | L | N | M | V | L | T | E | T | G | A | G | S | A | V | A | K | A | L | P | S | L | E | G | K | L | T | T | S | N | A | I | R | V | V | P | T | P | N | V | S |
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| UniRef90_F5SRY0 | S | G | H | N | I | I | P | T | T | S | S | A | I | A | T | E | R | T | L | P | N | M | L | G | K | I | N | G | H | S | I | R | V | V | P | T | L | N | D | V | A | |
| UniRef90_K0CAP7 | A | Q | N | I | I | P | T | T | S | S | A | I | G | A | V | Q | Q | V | L | P | E | L | A | G | R | I | T | N | G | H | S | I | R | V | V | P | T | L | N | D | V | A |
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| UniRef90_K6X2Q0 | A | P | S | N | L | V | L | T | E | T | G | A | S | A | V | A | K | A | L | P | E | L | E | K | A | K | I | T | T | G | N | S | V | R | V | P | T | Q | D | V | S | |
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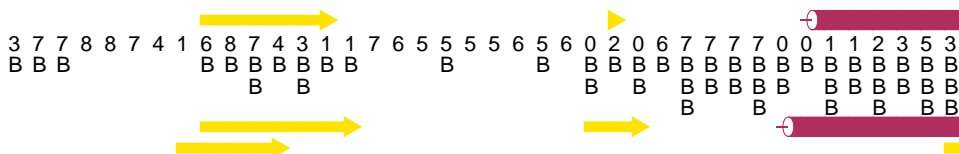
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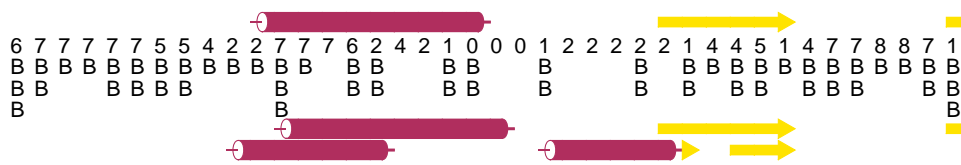
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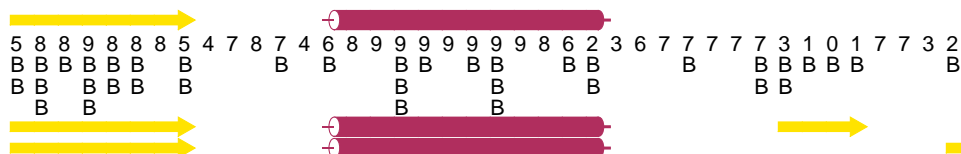
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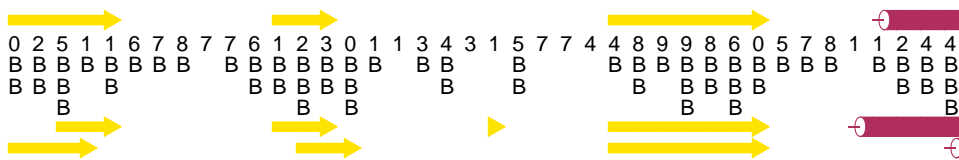
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