

| | 1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Consensus | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| Identity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. 17v2 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | S | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 2. F UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | A | T | S | R | R | G | A | L | Q | T | R | A | R | P | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 3. H129 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | S | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 4. KOS UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | P | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 5. MKr UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | S | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 6. HF10 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | S | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 7. CR38 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | S | H | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 8. E03 UL49 | M | T | S | R | R | S | V | K | S | G | Q | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 9. E06 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 10. E07 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 11. E08 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 12. E10 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 13. E11 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 14. E12 UL49 | M | T | S | R | R | S | V | K | S | C | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | S | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 15. E13 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | S | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 16. E14 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | S | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 17. E15 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 18. E19 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 19. E22 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 20. E23 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 21. E25 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 22. E35 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | G | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | Q | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 23. R11 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | P | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 24. R62 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | P | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 25. S23 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | P | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | E | D | D | E | H | P | E | V | P | R | T | R | R |
| 26. S25 UL49 | M | T | S | R | R | S | V | K | S | G | P | R | E | V | P | R | D | E | Y | E | D | L | Y | Y | T | P | S | S | C | M | A | S | P | D | S | P | P | D | T | S | R | R | G | A | L | Q | T | R | A | R | P | R | G | E | V | R | F | V | Q | Y | D | E | S | D | Y | A | L | Y | G | G | S | S | S | | | | | | | | | | | | | |

Consensus
Identity

1. 17v2|UL49
2. F|UL49
3. H129|UL49
4. KOS|UL49
5. MKr|UL49
6. HF10|UL49
7. CR38|UL49
8. E03|UL49
9. E06|UL49
10. E07|UL49
11. E08|UL49
12. E10|UL49
13. E11|UL49
14. E12|UL49
15. E13|UL49
16. E14|UL49
17. E15|UL49
18. E19|UL49
19. E22|UL49
20. E23|UL49
21. E25|UL49
22. E35|UL49
23. R11|UL49
24. R62|UL49
25. S23|UL49
26. S25|UL49

[illegible]

| | 260 | 270 | 280 | 290 | 301 |
|--------------|-------------|-------|------|-----------|----------------|
| Consensus | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| Identity | [Green bar] | | | | |
| 1. 17v2 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 2. F UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 3. H129 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 4. KOS UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 5. McKr UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 6. HF10 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 7. CR38 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 8. E03 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 9. E06 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 10. E07 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 11. E08 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 12. E10 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 13. E11 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 14. E12 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 15. E13 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 16. E14 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 17. E15 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 18. E19 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 19. E22 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 20. E23 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 21. E25 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 22. E35 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 23. R11 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 24. R62 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 25. S23 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |
| 26. S25 UL49 | VNP | DVVQD | VDAA | TATRGRSAA | SRPTERPRAPARSA |