```
                1         10        20        30        40        50        60        70        80
Consensus       MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
Identity        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|UL48    MDLLVDELFADMNADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
2. F|UL48       MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
3. H129|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
4. KOS|UL48     MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
5. McKr|UL48    MDLLVDELFADMNADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
6. HF10|UL48    MDLLVDELFADMNSDGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
7. CR38|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
8. E03|UL48     MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
9. E06|UL48     MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
10. E07|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
11. E08|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
12. E10|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
13. E11|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
14. E12|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
15. E13|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
16. E14|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
17. E15|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
18. E19|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
19. E22|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
20. E23|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
21. E25|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
22. E35|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
23. R11|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
24. R62|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
25. S23|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE
26. S25|UL48    MDLLVDELFADMDADGASPPPPRPAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALFNRLLDDLGFSAGPALCTMLDTWNE

                90        100       110       120       130       140       150       160       170
Consensus       DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
Identity        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERTQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
2. F|UL48       DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
3. H129|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
4. KOS|UL48     DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
5. McKr|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
6. HF10|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
7. CR38|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
8. E03|UL48     DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
9. E06|UL48     DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
10. E07|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
11. E08|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
12. E10|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
13. E11|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
14. E12|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
15. E13|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
16. E14|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
17. E15|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
18. E19|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
19. E22|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
20. E23|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
21. E25|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
22. E35|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
23. R11|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
24. R62|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
25. S23|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL
26. S25|UL48    DLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPERAQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVL

                180       190       200       210       220       230       240       250
Consensus       ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
Identity        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
2. F|UL48       ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATITDRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
3. H129|UL48    ANFCSALYRYLRASVRQLHRQAHMRERDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
4. KOS|UL48     ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
5. McKr|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
6. HF10|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
7. CR38|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
8. E03|UL48     ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
9. E06|UL48     ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
10. E07|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
11. E08|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
12. E10|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
13. E11|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
14. E12|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
15. E13|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
16. E14|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
17. E15|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
18. E19|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
19. E22|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
20. E23|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
21. E25|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
22. E35|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
23. R11|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
24. R62|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
25. S23|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC
26. S25|UL48    ANFCSALYRYLRASVRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQMMRPDLFDCLCC

                260       270       280       290       300       310       320       330       340
Consensus       DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
Identity        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
2. F|UL48       DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
3. H129|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
4. KOS|UL48     DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
5. McKr|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGTQARASGYFMVLIRAKL
6. HF10|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
7. CR38|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
8. E03|UL48     DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
9. E06|UL48     DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
10. E07|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
11. E08|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
12. E10|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
13. E11|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
14. E12|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
15. E13|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
16. E14|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
17. E15|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
18. E19|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
19. E22|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
20. E23|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
21. E25|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
22. E35|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
23. R11|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
24. R62|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
25. S23|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL
26. S25|UL48    DLESWRQLAGLFQPFMFVNGALTVRGVPIEARRLRELNHIREHLNLPLVRSAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKL

                350       360       370       380       390       400       410       420       430
Consensus       DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
Identity        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
2. F|UL48       DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
3. H129|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
4. KOS|UL48     DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
5. McKr|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
6. HF10|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPKEAGLAAPRLSFLPAGHTRRLSTPPPTDVSLGDELHLDGED
7. CR38|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEDAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
8. E03|UL48     DSYSSSTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
9. E06|UL48     DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
10. E07|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
11. E08|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
12. E10|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
13. E11|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
14. E12|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPVGHTRRLSTAPPTDVSLGDELHLDGED
15. E13|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
16. E14|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
17. E15|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
18. E19|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
19. E22|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
20. E23|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
21. E25|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
22. E35|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
23. R11|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
24. R62|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
25. S23|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED
26. S25|UL48    DSYSSFTTSPSEAVMREHAYSRARTKNNYGSTIEGLLDLPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSLGDELHLDGED

                440       450       460       470       480       490
Consensus       VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
Identity        ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

1. 17v2|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
2. F|UL48       VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
3. H129|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSTPYGALDMADFEFEQMFTDALGIDEYGG
4. KOS|UL48     VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
5. McKr|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
6. HF10|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
7. CR38|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
8. E03|UL48     VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
9. E06|UL48     VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
10. E07|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
11. E08|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
12. E10|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
13. E11|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
14. E12|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
15. E13|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
16. E14|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
17. E15|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
18. E19|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
19. E22|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
20. E23|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
21. E25|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
22. E35|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDTADFEFEQMFTDALGIDEYGG
23. R11|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
24. R62|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
25. S23|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
26. S25|UL48    VAMAHADALDDFDLDMLGDGDSPGPGFTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG
```