

N. men C311 1 MKRQALAAMIASLFLALAAGGEGPEAAQAAPAETPAAAAEAASAAQTAETPSGELPVIDAV 60
 N. gon 1291 1 -----MIASLFLALAAGGEGEAQAAPAETPAASAEAAASAAQATAETPAGELPVIDAV 52
 A. cycloclastes 1 -----AAGAAPV-----DISTLPRVKVLDLVKPP 23
 A. xylosoxidans 1 -----MNALRPTLLAAALAFMAAG-----TAWAQDADKLPHTKVTLVAPP 41
 A. faecalis NiR 1 -MAEQMISRRITLAGAALAGALAPVLATTSAWGGQAVRKATAEIAALPRQKVELVDPP 59
 R. sphaeroides 1 -----MFTRRAALVGAALASAPLVIRTAGAQEAPQLASAAPVDLSNLPRVKHTLVPPP 55
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N. men C311 61 TTHAPEVPPAIDRDYPAKVRVKMETVEKTMEDG-VEYRYWTFDGDVPGMRMIRVREGDT 119
 N. gon 1291 53 TTHAPEVPPAIDRDYPAKVRVKMETVEKTMKMDG-VEYRYWTFDGDVPGMRMIRVREGDT 111
 A. cycloclastes 24 FVHAHDQVAKT---PRVFEFTMIEEKKLVIDREGTEIHAMTFNGSVPGFLMVVHENDY 80
 A. xylosoxidans 42 QVHPHEQATKSG---PKVVEFTMIEEKKMVIDDKGTTLQAMTFNGSMGPPTLVVHEGDY 98
 A. faecalis NiR 60 FVHAHSQVAEGG---PKVVEFTMVEEKKIVIDDAGTEVHAMAFNGTVPGPLMVMVHQDDY 116
 R. sphaeroides 56 FAHAHEQVAASG---PVINEFEMRIIEKEVQLDED-AYLQAMTFDGSIPGPLMIVHEGDY 111
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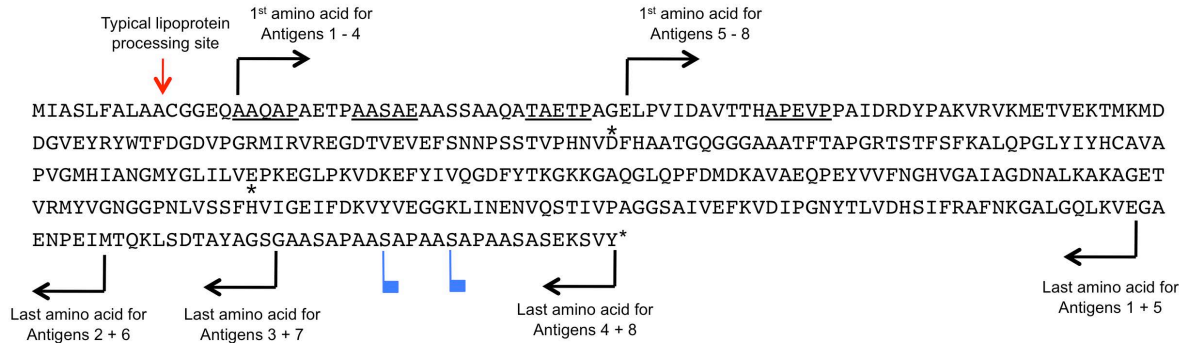
I # II I I I
 N. men C311 120 VEVEFSNNPSSTVPHNVDFFHAATGQGGAATFTAPGRSTFSFKALQPGLYIYHCAPAV 179
 N. gon 1291 112 VEVEFSNNPSSTVPHNVDFFHAATGQGGAATFTAPGRSTFSFKALQPGLYIYHCAPAV 171
 A. cycloclastes 81 VELRLINPDTNLTLLHNIDFFHAATGALGGGLTVQNPGEITTLRFKATKPGVFVYHCAPEG 140
 A. xylosoxidans 99 VQLTLVNPATNAMPHNVDFFHGATGALGGAKLTNVNPGEQATLRFKADRSGTFVYHCAPEG 158
 A. faecalis NiR 117 LELTLINPETNLTLLHNIDFFHAATGALGGGLTEINPGEKITLRFKATKPGVFVYHCAPEG 176
 R. sphaeroides 112 VELTLINPENTMPPHNIDFFHAATGALGGGLTLINPGEKVVLRFKATRAGAFVYHCAPEG 171
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I I
 N. men C311 180 --VGMHIIANGMYGLILVPEKLELP-----KVDKEFYIVQGDIFYTKGKGAQGLQPFDM 230
 N. gon 1291 172 --VGMHIVTANGMYGLILVPEKLELP-----KVDKEFYIVQGDIFYTKGKGAQGLQPFDM 222
 A. cycloclastes 141 --MVPWHIISGMMGAIIMVLPDRDGLKDEKGQPLTYDKIYYVGEQDFYVPKDEAGNYKKYETP 199
 A. xylosoxidans 159 --MVPWHIVSMMGSLMVLPRDGLKDPQGKPLHYDRAYTIGFDLYIPKPGDGKYKDYATL 217
 A. faecalis NiR 177 --MVPWHIVSMMGAIIMVLPREGLHDGKGGKALTVDKIYYVGEQDFYVPRDENGYKKYEAPE 235
 R. sphaeroides 172 PMPWHIVSMMGACIMVLPDRDGLKDHEGKPVRYDTVYYIGESDHYIPKDEDGYMRPSTP 231
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 N. men C311 231 DKAAVE-----QPEYVFNHGVGAIAGDNALKAKAGETVRMYVGNNGPNLVSSFFHVI 282
 N. gon 1291 223 DKAAVE-----QPEYVFNHGVGAIAGDNALKAKAGETVRMYVGNNGPNLVSSFFHVI 274
 A. cycloclastes 200 GEAYEDAVKAMRLTPTSHIVFNGAVGALTDGDHALTAAGVERVVLVHVSQ--ANRDRPHLI 257
 A. xylosoxidans 218 AESYGDVTVQVMRLLTPSHIVFNGKVGALGANALTAKVGETVLLIHSQ--ANRDRPHLI 275
 A. faecalis NiR 236 GDAYEDTVKVMRLLTPSHIVFNGAVGALTDGKAMTAAVGEKNVLVHVSQ--ANRDRPHLI 293
 R. sphaeroides 232 SEGyedMVAVMDTLIPSHIVFNGAVGALTEGEGALKAKVDNVLVHVSQ--PKRDRPHLI 289
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I I
 N. men C311 283 GEIFDKVYVEG--GKLINENVQSTIVPAGGSAIVEFKVDIPGSYTLVDHSHIFRAFNGKAL 340
 N. gon 1291 275 GEIFDKVYVEG--GKLINENVQSTIVPAGGSAIVEFKVDIPGNITLVDHSHIFRAFNGKAL 332
 A. cycloclastes 258 GGHGDYVWATGKFRNPPDLQETWLPGGTAGAAYFTRFQPGVYAYVNHLIEAFELGAA 317
 A. xylosoxidans 276 GGHGDVWETGKFNAPQDLETWIFIRGGSAGAALYTFKQPGVYAYVNHLIEAFELGAA 335
 A. faecalis NiR 294 GGHGDYVWATGKFNTPPVDQETWIFIPGGAAGAAYFTRFQPGVYAYVNHLIEAFELGAA 353
 R. sphaeroides 290 GGHGDYVWETGKFNAPERDLETWIFIRGGTAGAALYKFLQPGVYAYVNHLIEAVHKGAT 349
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N. men C311 341 GQLKVEGAENPEIMTQKLSDTAYAGNGAA--PAASAPAASAPAASASEKSVY 390
 N. gon 1291 333 GQLKVEGAENPEIMTQKLSDTAYAGSNGAA--PAASAPAASAPAASASEKSVY 384
 A. cycloclastes 318 GHFKVTGEWNDDMLTSVVKPASM----- 340
 A. xylosoxidans 336 GHIKVEGKWNDDLMKQIKAPAPIR----- 360
 A. faecalis NiR 354 AHFKVTGEWNDDMLTSLVAPSGT----- 376
 R. sphaeroides 350 ASVLVGEWDDNLMEQVPPVGLTG----- 374
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