

1. WP_103592558.1 hypothetical protein [Bacillus thuringiensis]
2. WP_001196891.1 hypothetical protein [Bacillus thuringiensis]
3. WP_043936493.1 MULTISPECIES: hypothetical protein [unclassified Bacillus (in: Bacteria)]
4. WP_214931495.1 hypothetical protein [Bacillus sp. ISL-8]
5. WP_098223856.1 hypothetical protein [Bacillus thuringiensis]
6. WP_198130194.1 hypothetical protein [Bacillus thuringiensis]
7. WP_150159506.1 hypothetical protein [Bacillus cereus]
8. WP_001196890.1 MULTISPECIES: hypothetical protein [Bacillaceae]
9. WP_151619209.1 hypothetical protein [Bacillus cereus]
10. WP_087876301.1 hypothetical protein [Bacillus thuringiensis]
11. WP_242555206.1 hypothetical protein [Bacillus cereus]
12. WP_118415087.1 hypothetical protein [Bacillus thuringiensis]
13. WP_153599337.1 hypothetical protein [Bacillus thuringiensis]
14. WP_093290892.1 hypothetical protein [Thermoactinomyces sp. DSM 45892]
15. WP_090719323.1 hypothetical protein [Nitrosomonas sp. Nm166]
16. WP_090657007.1 hypothetical protein [Nitrosomonas marina]
17. WP_090629228.1 hypothetical protein [Nitrosomonas marina]
18. WP_090698829.1 hypothetical protein [Nitrosomonas aestuarii]
19. MCB1985445.1 hypothetical protein [Nitrosomonas sp.]
20. MCO6429124.1 hypothetical protein [Nitrosomonas communis]
21. SER17553.1 hypothetical protein SAMN05421690_10118 [Nitrosomonas sp. Nm51]
22. WP_143058755.1 hypothetical protein [Nitrosomonas marina]
23. WP_143057368.1 hypothetical protein [Nitrosomonas sp. Nm51]
24. MCP5243701.1 hypothetical protein [Burkholderiales bacterium]
25. WP_090698296.1 hypothetical protein [Nitrosomonas aestuarii]
26. WP_090634528.1 hypothetical protein [Nitrosomonas marina]
27. WP_090331542.1 hypothetical protein [Nitrosomonas sp. Nm51]
28. MCB1948730.1 hypothetical protein [Nitrosomonas sp.]
29. MBV6516776.1 hypothetical protein [Planctomycetes bacterium]
30. NUO17800.1 hypothetical protein [Planctomycetaceae bacterium]
31. MCC6151602.1 hypothetical protein [Planctomycetes bacterium]
32. MCC6149736.1 hypothetical protein [Planctomycetes bacterium]
33. MBP9893028.1 hypothetical protein [Planctomycetes bacterium]
34. MCA8919643.1 hypothetical protein [Planctomycetes bacterium]
35. MCQ3948913.1 hypothetical protein [Planctomycetes bacterium]
36. WP_254705115.1 hypothetical protein [Bacillus thuringiensis]
37. MCC7510907.1 hypothetical protein [Planctomycetes bacterium]
38. KAA0216165.1 hypothetical protein EDM80_04610 [bacterium]
39. WP_199019276.1 hypothetical protein [Paenibacillus roseus]
40. MBK8207208.1 hypothetical protein [Planctomycetes bacterium]
41. WP_199019274.1 hypothetical protein [Paenibacillus roseus]
42. MCC7507738.1 hypothetical protein [Planctomycetes bacterium]
43. MCC7508108.1 hypothetical protein [Planctomycetes bacterium]
44. MBK8206537.1 hypothetical protein [Planctomycetes bacterium]
45. MBP9891346.1 hypothetical protein [Planctomycetes bacterium]
46. MBK8206605.1 hypothetical protein [Planctomycetes bacterium]
47. MBE7490899.1 hypothetical protein [Planctomycetes bacterium]
48. MBK8207622.1 hypothetical protein [Planctomycetes bacterium]
49. MBK8205278.1 hypothetical protein [Planctomycetes bacterium]
50. MCC7509103.1 hypothetical protein [Planctomycetes bacterium]
51. MCB9934236.1 hypothetical protein [Planctomycetes bacterium]
52. KAA0210941.1 hypothetical protein EDM80_12875 [bacterium]
53. MCC6742171.1 hypothetical protein [Planctomycetia bacterium]
54. MCB9894499.1 hypothetical protein [Planctomycetes bacterium]
55. MCC6742172.1 hypothetical protein [Planctomycetia bacterium]
56. MCQ3951076.1 hypothetical protein [Planctomycetes bacterium]
57. MCC6687398.1 hypothetical protein [Fimbriimonadaceae bacterium]
58. MCB9935966.1 hypothetical protein [Planctomycetes bacterium]
59. NUN50366.1 hypothetical protein [Candidatus Brocadiae bacterium]
60. MBX3458745.1 hypothetical protein [Planctomycetes bacterium]
61. MCE9583168.1 hypothetical protein [Planctomycetes bacterium]
62. MCC7510851.1 hypothetical protein [Planctomycetes bacterium]
63. MBP9891054.1 hypothetical protein [Planctomycetes bacterium]
64. MCE9583169.1 phage major capsid protein [Planctomycetes bacterium]
65. NUN50365.1 hypothetical protein [Candidatus Brocadiae bacterium]
66. MCA8918287.1 hypothetical protein [Planctomycetes bacterium]
67. MBX3461049.1 hypothetical protein [Planctomycetes bacterium]
68. KAF0245036.1 hypothetical protein FD180_1973 [Planctomycetes bacterium]
69. MCC6738530.1 hypothetical protein [Planctomycetia bacterium]
70. MCC6149762.1 hypothetical protein [Planctomycetes bacterium]
71. MCQ3949629.1 hypothetical protein [Planctomycetes bacterium]
72. NUO16364.1 hypothetical protein [Planctomycetaceae bacterium]
73. CAG0962046.1 hypothetical protein PLCT2_00815 [Planctomycetaceae bacterium]
74. WP_002731357.1 hypothetical protein [Magnetospirillum molischianum]
75. MBX3459031.1 hypothetical protein [Planctomycetes bacterium]
76. MCQ3948721.1 hypothetical protein [Planctomycetes bacterium]
77. MCB9933912.1 hypothetical protein [Planctomycetes bacterium]
78. MBO6507501.1 phage major capsid protein [Roseibium sp.]

79. KAA0209033.1 hypothetical protein EDM80_15205, partial [bacterium]
80. WP_238616883.1 phage major capsid protein [Ectothiorhodospira shaposhnikovii]
81. NQZ53225.1 phage major capsid protein [Piscirickettsiaceae bacterium]
82. WP_199153549.1 hypothetical protein [Chromobacterium sp. ASV23]
83. TDW20413.1 hypothetical protein EV128_12543 [Rhizobium azibense]
84. WP_221103340.1 phage major capsid protein [Rhizobium bangladeshense]
85. WP_221122355.1 phage major capsid protein [Rhizobium lentis]
86. QIG69072.1 major capsid protein [Rhizobium phage RHph_N1_10]
87. MBP9891731.1 hypothetical protein [Planctomycetes bacterium]
88. MCA8917006.1 hypothetical protein [Planctomycetes bacterium]
89. QIG75611.1 major capsid protein [Rhizobium phage RHph_Y2_11]
90. WP_092498438.1 phage major capsid protein [Chelativorans sp. A52C2]
91. MCB9936365.1 hypothetical protein [Planctomycetes bacterium]
92. CAG0968390.1 hypothetical protein PLCT2_01190 [Planctomycetaceae bacterium]
93. MCC6150886.1 hypothetical protein [Planctomycetes bacterium]
94. WP_045991564.1 phage capsid protein [Halomonas sp. S2151]
95. WP_065784019.1 MULTISPECIES: phage capsid protein [unclassified Ensifer]
96. WP_144196640.1 phage major capsid protein [Cupriavidus campinensis]
97. WP_253399773.1 hypothetical protein [Methylobacterium extorquens]
98. YP_009620683.1 major capsid protein [Pseudomonas phage nickie]
99. AMB48270.1 phage capsid protein [Methylobacterium sp. AMS5]
100. UKL14918.1 major capsid protein [Pseudomonas phage hairong]
101. WP_026610715.1 hypothetical protein [Methylocaldum szegediense]
102. MCC6152092.1 hypothetical protein [Planctomycetes bacterium]
103. UIS24576.1 major capsid protein [Pseudomonas phage ZY21]
104. WP_247125312.1 phage major capsid protein [Acinetobacter baumannii]
105. WP_031986190.1 phage capsid protein [Acinetobacter baumannii]
106. MBP4651980.1 phage major capsid protein [Acinetobacter baumannii]
107. MCL2874769.1 phage major capsid protein [Betaproteobacteria bacterium]
108. WP_176966547.1 phage major capsid protein, partial [Acinetobacter baumannii]
109. HAV4743116.1 phage major capsid protein [Acinetobacter baumannii]
110. WP_001130341.1 MULTISPECIES: hypothetical protein [Acinetobacter]
111. WP_224446258.1 hypothetical protein [Cupriavidus metallidurans]
112. WP_252429529.1 hypothetical protein, partial [Acinetobacter baumannii]
113. MBQ0662298.1 phage major capsid protein [Acinetobacter baumannii]
114. EUU0976857.1 phage major capsid protein [Acinetobacter baumannii]
115. WP_115292648.1 phage major capsid protein [Pseudomonas mendocina]
116. DAP19794.1 TPA: MAG TPA: major capsid protein [Siphoviridae sp.]
117. WP_161289910.1 phage major capsid protein [Acinetobacter baumannii]
118. WP_001130337.1 hypothetical protein [Acinetobacter baumannii]
119. DAM63278.1 TPA: MAG TPA: major capsid protein [Siphoviridae sp.]
120. WP_063664455.1 phage major capsid protein [Comamonas thiooxydans]
121. WP_252436504.1 phage major capsid protein, partial [Acinetobacter baumannii]
122. WP_104915983.1 phage major capsid protein [Acinetobacter baumannii]
123. WP_151708812.1 phage major capsid protein [Acinetobacter brisouii]
124. WP_031980863.1 phage capsid protein [Acinetobacter baumannii]
125. WP_023897583.1 hypothetical protein [Acinetobacter baumannii]
126. HAV4899581.1 phage major capsid protein [Acinetobacter baumannii]
127. WP_042670060.1 phage capsid protein [Methylobacterium sp. B34]
128. WP_209651035.1 MULTISPECIES: hypothetical protein [Methylobacterium]
129. WP_124618513.1 phage major capsid protein [Burkholderia contaminans]
130. WP_059608968.1 hypothetical protein [Burkholderia anthina]
131. WP_059789217.1 hypothetical protein [Burkholderia sp. MSMB1072]
132. EGY2841718.1 phage major capsid protein [Acinetobacter baumannii]
133. MCK9569022.1 phage major capsid protein [Candidatus Pacearchaeota archaeon]
134. WP_059858205.1 hypothetical protein [Burkholderia cepacia]
135. WP_252414503.1 phage major capsid protein, partial [Acinetobacter baumannii]
136. DAS20049.1 TPA: MAG TPA: major capsid protein [Siphoviridae sp.]
137. WP_093294920.1 phage major capsid protein [Sphingomonas sp. NFR04]
138. WP_102064968.1 phage major capsid protein [Ralstonia pickettii]
139. WP_247300523.1 hypothetical protein [Bradyrhizobium sp. 179]
140. WP_047884360.1 hypothetical protein [Photobacterium ganghwense]
141. WP_187057131.1 phage major capsid protein [Dyella telluris]
142. WP_155041137.1 phage major capsid protein [Paracoccus litorisediminis]
143. WP_207104130.1 phage major capsid protein [Photobacterium ganghwense]
144. RWB95541.1 phage major capsid protein [Mesorhizobium sp.]
145. WP_150063515.1 phage major capsid protein [Roseospora marina]
146. HIV77377.1 hypothetical protein [Candidatus Sphingomonas excrementigallinarum]
147. WP_097566451.1 phage major capsid protein [Cronobacter sakazakii]
148. WP_166500133.1 phage major capsid protein [Cronobacter sakazakii]
149. WP_216296239.1 phage major capsid protein [Cronobacter sakazakii]
150. WP_080953189.1 phage capsid protein [Cronobacter sakazakii]
151. HAV7489798.1 phage major capsid protein [Escherichia coli]
152. WP_161580717.1 phage major capsid protein [Cronobacter muytjensii]
153. RWI35418.1 phage major capsid protein [Mesorhizobium sp.]
154. WP_130097775.1 MULTISPECIES: phage major capsid protein [Citrobacter]
155. EFG0346231.1 phage major capsid protein [Escherichia coli]
156. WP_029590302.1 MULTISPECIES: hypothetical protein [Cronobacter]
157. WP_085044976.1 phage capsid protein [Cronobacter sakazakii]
158. WP_052904762.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]

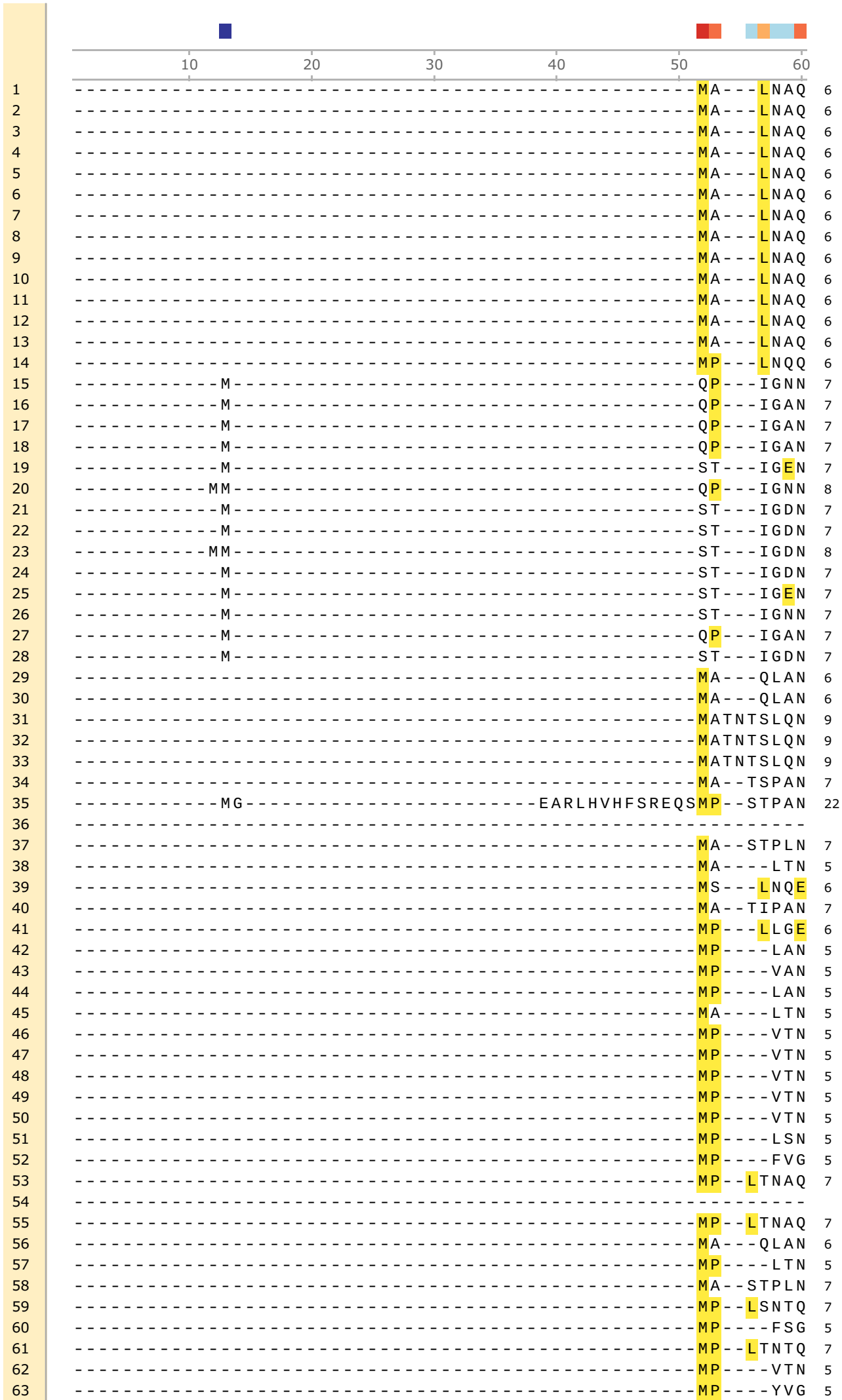
159. WP_014962239.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
160. WP_052904335.1 hypothetical protein [Escherichia coli]
161. WP_059296125.1 phage capsid protein, partial [Acinetobacter baumannii]
162. MBE0438045.1 phage major capsid protein [Methylobacterium sp.]
163. WP_052983289.1 hypothetical protein [Shigella sonnei]
164. WP_105875125.1 phage major capsid protein [Cronobacter malonaticus]
165. WP_080817813.1 phage capsid protein [Cronobacter sakazakii]
166. WP_029463964.1 MULTISPECIES: hypothetical protein [Cronobacter]
167. WP_209732192.1 phage major capsid protein [Cronobacter sakazakii]
168. WP_032969640.1 hypothetical protein [Cronobacter malonaticus]
169. WP_080781210.1 phage capsid protein [Cronobacter sakazakii]
170. WP_096095769.1 phage major capsid protein [Escherichia coli]
171. WP_076734789.1 phage capsid protein [Cronobacter sakazakii]
172. EFF6507864.1 phage major capsid protein [Escherichia coli]
173. HAL3311757.1 phage major capsid protein [Escherichia coli]
174. UTU32364.1 phage major capsid protein [Escherichia coli]
175. MCK2723972.1 phage major capsid protein [Escherichia coli]
176. EGS6838749.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Agona]
177. WP_244079899.1 phage major capsid protein [Escherichia coli]
178. EHC2975283.1 phage major capsid protein [Shigella sonnei]
179. WP_069127011.1 phage capsid protein [Klebsiella pneumoniae]
180. EDZ1273658.1 phage major capsid protein [Salmonella enterica]
181. WP_193125375.1 phage major capsid protein [Escherichia coli]
182. EJJF8070929.1 phage major capsid protein [Escherichia coli]
183. WP_161620577.1 phage major capsid protein [Escherichia coli]
184. EFJ2838014.1 phage major capsid protein [Escherichia coli]
185. EJK5757188.1 phage major capsid protein [Escherichia coli]
186. EIH9371074.1 phage major capsid protein [Escherichia coli]
187. WP_001130339.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
188. MHX32748.1 phage major capsid protein [Escherichia coli]
189. WP_072644904.1 phage capsid protein [Escherichia coli]
190. MBC7264957.1 phage major capsid protein [Chloroflexi bacterium]
191. HBL6848639.1 phage major capsid protein [Escherichia coli]
192. WP_062120516.1 phage major capsid protein [Aureimonas sp. AU40]
193. HAH5045117.1 phage major capsid protein [Escherichia coli]
194. WP_243540855.1 phage major capsid protein [Escherichia coli]
195. WP_112901748.1 phage major capsid protein [Escherichia coli]
196. EIT7775743.1 phage major capsid protein [Escherichia coli]
197. EFV7979351.1 phage major capsid protein [Shigella sonnei]
198. WP_042063131.1 hypothetical protein [Escherichia coli]
199. EEZ8393064.1 phage major capsid protein [Escherichia coli]
200. EEY7369300.1 phage major capsid protein [Escherichia coli]
201. EFG0309418.1 phage major capsid protein [Escherichia coli]
202. WP_182552267.1 phage major capsid protein [Phyllobacterium myrsinacearum]
203. WP_063091425.1 hypothetical protein [Escherichia coli]
204. CAB4122113.1 hypothetical protein UFOVP26_79 [uncultured Caudovirales phage]
205. WP_112043712.1 phage major capsid protein [Escherichia coli]
206. HBB7811611.1 phage major capsid protein [Escherichia coli]
207. WP_001130338.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
208. HAJ7535281.1 phage major capsid protein [Escherichia coli]
209. WP_096165287.1 phage major capsid protein [Escherichia coli]
210. WP_085457360.1 phage capsid protein [Escherichia coli]
211. WP_032328869.1 hypothetical protein [Escherichia coli]
212. WP_053904528.1 MULTISPECIES: hypothetical protein [Escherichia]
213. MBB0544530.1 phage major capsid protein [Escherichia coli]
214. EFK7891705.1 phage major capsid protein [Escherichia coli]
215. EAB8604575.1 phage major capsid protein [Shigella sonnei]
216. WP_149556591.1 phage major capsid protein [Escherichia coli]
217. WP_149540218.1 phage major capsid protein [Escherichia albertii]
218. EFH9124402.1 phage major capsid protein [Escherichia coli]
219. WP_052988632.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
220. WP_247150342.1 phage major capsid protein [Escherichia coli]
221. WP_094259633.1 phage major capsid protein [Escherichia coli]
222. WP_061158051.1 hypothetical protein [Escherichia coli]
223. WP_033803025.1 hypothetical protein [Escherichia coli]
224. MBZ8365671.1 phage major capsid protein [Escherichia coli]
225. WP_203054096.1 phage major capsid protein [Escherichia coli]
226. EFC1505940.1 phage major capsid protein [Escherichia coli]
227. WP_134894003.1 phage major capsid protein [Escherichia coli]
228. WP_251569595.1 hypothetical protein [Parasutterella sp. DSM 108034]
229. HBU8289600.1 phage major capsid protein [Escherichia coli]
230. WP_160334835.1 phage major capsid protein [Parasutterella sp. NM82_D38]
231. HBH5230159.1 phage major capsid protein [Escherichia coli]
232. WP_106889102.1 phage major capsid protein [Escherichia coli]
233. HAM5980914.1 phage major capsid protein [Escherichia coli]
234. WP_161623763.1 phage major capsid protein [Escherichia coli]
235. EFF1057382.1 phage major capsid protein [Escherichia coli]
236. EFZ7197477.1 phage major capsid protein [Shigella sonnei]
237. WP_231351989.1 phage major capsid protein [Escherichia coli]
238. WP_193119742.1 phage major capsid protein [Escherichia coli]

239. WP_252127766.1 phage major capsid protein [Thermomicrobium sp. CFH 73360]
240. EFW0034188.1 phage major capsid protein [Shigella sonnei]
241. EJE3861318.1 phage major capsid protein [Escherichia coli]
242. WP_085458157.1 MULTISPECIES: phage capsid protein [Escherichia]
243. WP_094337983.1 MULTISPECIES: phage major capsid protein [Escherichia]
244. WP_053886737.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
245. MCN1174709.1 phage major capsid protein [Escherichia coli]
246. WP_152935148.1 phage major capsid protein [Escherichia coli]
247. EFX2756071.1 phage major capsid protein [Shigella sonnei]
248. EFC0466466.1 phage major capsid protein [Escherichia coli]
249. MCN4038342.1 phage major capsid protein [Escherichia coli]
250. EFD9355743.1 phage major capsid protein [Escherichia coli]
251. WP_097497792.1 phage major capsid protein [Escherichia coli]
252. EFA9209962.1 phage major capsid protein [Escherichia coli]
253. HBB1414416.1 phage major capsid protein [Escherichia coli]
254. HAO7436534.1 phage major capsid protein [Escherichia coli]
255. HAW3037422.1 phage major capsid protein [Escherichia coli]
256. HAW1565627.1 phage major capsid protein [Escherichia coli]
257. WP_032187309.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
258. EEQ2490861.1 phage major capsid protein [Escherichia coli]
259. WP_053900371.1 hypothetical protein [Escherichia coli]
260. WP_109949435.1 phage major capsid protein [Escherichia coli]
261. HCC6220448.1 phage major capsid protein [Klebsiella pneumoniae]
262. HAN9820645.1 phage major capsid protein [Escherichia coli]
263. WP_046622184.1 MULTISPECIES: hypothetical protein [Enterobacter cloacae complex]
264. WP_039264878.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
265. WP_113613520.1 phage major capsid protein [Klebsiella pneumoniae]
266. EEV7694734.1 phage major capsid protein [Escherichia coli]
267. WP_072124166.1 phage capsid protein [Klebsiella variicola]
268. WP_048292500.1 hypothetical protein [Klebsiella pneumoniae]
269. WP_247188155.1 phage major capsid protein [Escherichia coli]
270. DAE04111.1 TPA: MAG TPA: major capsid protein [Siphoviridae sp. ctmpG14]
271. WP_001405040.1 hypothetical protein [Escherichia coli]
272. WP_065304476.1 phage capsid protein [Escherichia coli]
273. HBZ3184842.1 phage major capsid protein [Klebsiella pneumoniae]
274. WP_119127007.1 phage major capsid protein [Klebsiella pneumoniae]
275. EIM7866883.1 phage major capsid protein [Escherichia coli]
276. WP_001130340.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
277. WP_202979481.1 phage major capsid protein [Escherichia coli]
278. HAT3636238.1 phage major capsid protein [Raoultella ornithinolytica]
279. EFI9420290.1 phage major capsid protein [Escherichia coli]
280. WP_126646421.1 phage major capsid protein [Escherichia coli]
281. WP_252461054.1 phage major capsid protein, partial [Acinetobacter baumannii]
282. WP_221016063.1 phage major capsid protein [Klebsiella pneumoniae]
283. EFK0326126.1 phage major capsid protein [Escherichia coli]
284. HAJ7861025.1 phage major capsid protein [Escherichia coli]
285. EHH5028748.1 phage major capsid protein [Escherichia coli]
286. HAU5664456.1 phage major capsid protein [Citrobacter freundii]
287. EAB6775759.1 phage major capsid protein [Escherichia coli]
288. EBZ0832066.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Java]
289. WP_064343494.1 MULTISPECIES: hypothetical protein [Klebsiella]
290. WP_087507360.1 phage capsid protein [Escherichia coli]
291. WP_236525880.1 phage major capsid protein [Escherichia coli]
292. WP_096178288.1 phage major capsid protein [Escherichia coli]
293. WP_104074192.1 phage major capsid protein [Escherichia coli]
294. HAL2790855.1 phage major capsid protein [Escherichia coli]
295. HBR7729850.1 phage major capsid protein [Klebsiella pneumoniae]
296. WP_221012288.1 phage major capsid protein [Klebsiella pneumoniae]
297. HBV4481339.1 phage major capsid protein [Klebsiella pneumoniae]
298. EFF2501934.1 phage major capsid protein [Escherichia coli]
299. EIW9109236.1 phage major capsid protein [Klebsiella pneumoniae]
300. HAO3297438.1 phage major capsid protein [Escherichia coli]
301. WP_064165097.1 hypothetical protein [Klebsiella pneumoniae]
302. QJJ61945.1 phage major capsid protein [Klebsiella pneumoniae]
303. WP_089075232.1 phage major capsid protein [Escherichia coli]
304. WP_097307300.1 phage major capsid protein [Escherichia coli]
305. HBR4262047.1 phage major capsid protein [Klebsiella pneumoniae]
306. WP_004109857.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
307. EEO4716749.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Tennessee]
308. HBT8335443.1 phage major capsid protein [Klebsiella pneumoniae]
309. EHK0743263.1 phage major capsid protein [Salmonella enterica]
310. WP_006812514.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
311. WP_054625182.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
312. WP_032217427.1 hypothetical protein [Escherichia coli]
313. EET8203310.1 phage major capsid protein [Escherichia coli]
314. WP_045339225.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
315. EIH0829516.1 phage major capsid protein [Escherichia coli]
316. CAF2811462.1 hypothetical protein AI2925V1_5194 [Klebsiella pneumoniae]
317. EIG5508613.1 phage major capsid protein [Salmonella enterica]
318. WP_194797343.1 phage major capsid protein [Klebsiella pneumoniae]

319. WP_078207497.1 phage capsid protein [Escherichia coli]
320. WP_016607444.1 hypothetical protein [Yersinia pestis]
321. WP_204363305.1 phage major capsid protein [Klebsiella pneumoniae]
322. EBK5293162.1 phage major capsid protein [Salmonella enterica]
323. WP_063929200.1 hypothetical protein [Enterobacter hormaechei]
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325. WP_096842503.1 phage major capsid protein [Escherichia coli]
326. HBX2495344.1 phage major capsid protein [Klebsiella pneumoniae]
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328. WP_086910796.1 MULTISPECIES: phage capsid protein [Klebsiella]
329. WP_040110313.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
330. WP_194304202.1 phage major capsid protein [Enterobacter hormaechei]
331. WP_116431201.1 phage major capsid protein [Klebsiella pneumoniae]
332. WP_001130336.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
333. WP_250209263.1 phage major capsid protein [Enterobacter cloacae]
334. WP_023316010.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
335. ECB7446470.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Braenderup]
336. HAM5174158.1 phage major capsid protein [Escherichia coli]
337. EHR3333785.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Senftenberg]
338. HBV3788408.1 phage major capsid protein [Klebsiella pneumoniae]
339. EBS8359733.1 phage major capsid protein [Salmonella enterica]
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341. WP_060458874.1 MULTISPECIES: hypothetical protein [Enterobacter cloacae complex]
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343. WP_002211784.1 MULTISPECIES: hypothetical protein [Gammaproteobacteria]
344. WP_072105584.1 phage capsid protein [Enterobacter cloacae]
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346. WP_175617232.1 phage major capsid protein [Escherichia coli]
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348. EHJ4216072.1 phage major capsid protein [Salmonella enterica]
349. WP_227899545.1 phage major capsid protein [Escherichia coli]
350. HCD2326535.1 phage major capsid protein [Enterobacter hormaechei]
351. WP_086374674.1 phage capsid protein, partial [Acinetobacter baumannii]
352. EDQ0380811.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Oslo]
353. BDD45295.1 hypothetical protein 17 [bacterium]
354. HBT7858040.1 phage major capsid protein [Klebsiella pneumoniae]
355. WP_060453932.1 MULTISPECIES: hypothetical protein [Enterobacteriaceae]
356. EAA4173638.1 phage major capsid protein [Salmonella enterica subsp. enterica]
357. HBQ8554378.1 phage major capsid protein [Klebsiella pneumoniae]
358. WP_247156820.1 phage major capsid protein [Escherichia coli]
359. HBV0452233.1 phage major capsid protein [Escherichia coli]
360. EDW0215574.1 phage major capsid protein [Salmonella enterica subsp. enterica]
361. WP_046083837.1 hypothetical protein [Escherichia fergusonii]
362. EIW8542850.1 phage major capsid protein [Klebsiella pneumoniae]
363. HAK0268282.1 phage major capsid protein [Salmonella enterica]
364. EGK6915180.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Enteritidis]
365. WP_071692149.1 phage capsid protein [Citrobacter portucalensis]
366. EBN2282108.1 phage major capsid protein [Salmonella enterica]
367. EDQ3388105.1 phage major capsid protein [Salmonella enterica subsp. houtenae]
368. ECT3984105.1 phage major capsid protein [Salmonella enterica subsp. houtenae serovar 53:z4,z23:-]
369. EBV1651518.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Bareilly]
370. WP_042863544.1 hypothetical protein [Enterobacter hormaechei]
371. WP_048231968.1 MULTISPECIES: hypothetical protein [Citrobacter freundii complex]
372. EEP8077587.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Braenderup]
373. WP_016587721.1 hypothetical protein [Yersinia pestis]
374. HAX9983652.1 phage major capsid protein [Escherichia coli]
375. WP_075191900.1 MULTISPECIES: phage capsid protein [Cronobacter]
376. HAY3994692.1 phage major capsid protein [Escherichia coli]
377. MBO9360510.1 phage major capsid protein [Thermomicrobium sp.]
378. HAD4280041.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Typhi str. CT18]
379. HBY0825155.1 phage major capsid protein [Klebsiella pneumoniae]
380. EBH6160155.1 phage major capsid protein [Salmonella enterica]
381. WP_023221754.1 hypothetical protein [Salmonella enterica]
382. MCK5604243.1 phage major capsid protein [Candidatus Pacearchaeota archaeon]
383. EHD3174008.1 phage major capsid protein [Salmonella enterica]
384. ECQ3861573.1 phage major capsid protein [Salmonella enterica]
385. EGQ6262282.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Enteritidis]
386. WP_114569653.1 phage major capsid protein [Escherichia coli]
387. WP_028449712.1 phage major capsid protein [Chitinibacter tainanensis]
388. ECC6545565.1 phage major capsid protein [Salmonella enterica]
389. MCM6396231.1 phage major capsid protein [Klebsiella pneumoniae]
390. RPJ40005.1 phage major capsid protein [Planctomycetaceae bacterium]
391. EAB0133809.1 phage major capsid protein [Salmonella enterica]
392. HCH9832956.1 phage major capsid protein [Salmonella enterica]
393. WP_169724898.1 phage major capsid protein [Enterobacter hormaechei]
394. ECG2845924.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Manhattan]
395. EBX1374166.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Newport]
396. HAX2345276.1 phage major capsid protein [Escherichia coli]
397. UQM93941.1 major head protein [Stenotrophomonas phage vB_Sm_QDWS359]
398. EEU2445140.1 phage major capsid protein [Escherichia coli]

399. EBS5432372.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Alachua]
400. EAX1817979.1 phage major capsid protein [Salmonella enterica]
401. EBR9946236.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Krefeld]
402. HBC0308464.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Napoli]
403. HBZ3547779.1 phage major capsid protein [Klebsiella pneumoniae]
404. MCB2982456.1 phage major capsid protein [Klebsiella pneumoniae]
405. EER4805513.1 phage major capsid protein [Escherichia coli]
406. EGO4917944.1 phage major capsid protein [Salmonella enterica]
407. HBV9739600.1 phage major capsid protein [Klebsiella pneumoniae]
408. HAD4904499.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Typhi str. CT18]
409. EAB5862671.1 phage major capsid protein [Salmonella enterica subsp. enterica]
410. WP_079825253.1 phage capsid protein [Salmonella enterica]
411. EBE2364545.1 phage major capsid protein [Salmonella enterica]
412. EBR8005981.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Saintpaul]
413. EFO0755060.1 phage major capsid protein [Escherichia coli]
414. WP_063592850.1 hypothetical protein [Salmonella enterica]
415. EDK9786262.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Give]
416. ECD3753536.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Orion]
417. HBN7443553.1 phage major capsid protein [Escherichia coli]
418. WP_252044140.1 phage major capsid protein [Enterobacter asburiae]
419. QHJ78809.1 hypothetical protein [Bacteriophage sp.]
420. EBC2961021.1 phage major capsid protein [Salmonella enterica]
421. EGS7371949.1 phage major capsid protein [Escherichia coli]
422. EEW0868939.1 phage major capsid protein [Escherichia coli]
423. HBQ4879992.1 phage major capsid protein [Escherichia coli]
424. EDZ5493145.1 phage major capsid protein [Salmonella enterica]
425. EFV9537430.1 phage major capsid protein [Shigella sonnei]
426. EFH0306860.1 phage major capsid protein [Escherichia coli]
427. EFW4078867.1 phage major capsid protein [Shigella sonnei]
428. EDU5118278.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Anatum]
429. EEV7166997.1 phage major capsid protein [Escherichia coli]
430. HBE0118361.1 phage major capsid protein [Shigella sonnei]
431. EAQ8609054.1 phage major capsid protein [Salmonella enterica]
432. QXN72400.1 major capsid protein [Rhodobacter phage RcSimone-Hastad]
433. EFO1692251.1 phage major capsid protein [Escherichia coli]
434. MBD7755531.1 phage major capsid protein [Klebsiella pneumoniae]
435. WP_102003656.1 phage major capsid protein [Klebsiella pneumoniae]
436. EEA1371212.1 phage major capsid protein [Salmonella enterica]
437. MBA8354127.1 phage major capsid protein [Escherichia coli]
438. EGI1978062.1 phage major capsid protein [Salmonella enterica]
439. DAJ05229.1 TPA: MAG TPA: major capsid protein [Siphoviridae sp.]
440. EJJF9244945.1 phage major capsid protein [Escherichia coli]
441. WP_015922589.1 phage major capsid protein [Thermomicrobium roseum]
442. WP_181374643.1 phage major capsid protein [Pectobacterium carotovorum]
443. HCH7946627.1 phage major capsid protein [Escherichia coli]
444. WP_223762983.1 phage major capsid protein [Corallococcus sp. AS-1-6]
445. MBW2636049.1 phage major capsid protein [Deltaproteobacteria bacterium]
446. EET1013303.1 phage major capsid protein [Escherichia coli]
447. EIQ1087120.1 phage major capsid protein [Escherichia coli]
448. MCM8749459.1 phage major capsid protein [Thermomicrobiaceae bacterium CFH 74404]
449. EJA7649394.1 phage major capsid protein [Escherichia coli]
450. EIT1058465.1 phage major capsid protein [Escherichia coli]
451. GBD19714.1 hypothetical protein HRbin28_00148 [bacterium HR28]
452. MBX5446219.1 phage major capsid protein [Sphaerobacter sp.]
453. EJA5029925.1 phage major capsid protein [Salmonella enterica]
454. YP_009996955.1 major head protein [Xanthomonas phage Xoo-sp2]
455. WP_224020286.1 hypothetical protein [Burkholderia vietnamiensis]
456. HBQ7547743.1 phage major capsid protein [Klebsiella pneumoniae]
457. EFC1758968.1 phage major capsid protein [Escherichia coli]
458. EDU4451998.1 phage major capsid protein [Salmonella enterica subsp. enterica serovar Anatum]
459. WP_153283238.1 phage major capsid protein [Variovorax paradoxus]
460. HBB2595907.1 phage major capsid protein [Escherichia coli]
461. YP_009997022.1 hypothetical protein JTY56_gp20 [Xanthomonas phage Bosa]
462. EEZ6802210.1 phage major capsid protein [Escherichia coli]
463. MBX3473679.1 hypothetical protein [Planctomycetes bacterium]
464. EFW0729459.1 phage major capsid protein [Shigella sonnei]
465. EHL0287849.1 phage major capsid protein [Escherichia coli]
466. EER8844980.1 phage major capsid protein [Escherichia coli]
467. EFN9767071.1 phage major capsid protein [Escherichia coli]
468. WP_137447163.1 phage major capsid protein, partial [Escherichia coli]
469. MCJ8600995.1 phage major capsid protein [Klebsiella pneumoniae]
470. EFH8846498.1 phage major capsid protein [Escherichia coli]
471. UAW07626.1 major head protein [Pseudomonas phage AIIMS-Plu-RaNi]
472. WP_152881049.1 phage major capsid protein [Duganella sp. FT27W]
473. YP_009196268.1 major head protein [Pseudomonas phage PaMx11]
474. EIB9668287.1 phage major capsid protein [Escherichia coli]
475. HBL5398680.1 phage major capsid protein [Escherichia coli]
476. UIS24744.1 major head protein [Stenotrophomonas phage vB_SmaS-AXL_1]
477. CAH1069075.1 Uncharacterised protein [Acinetobacter phage MD-2021a]
478. WP_163998672.1 phage major capsid protein [Pyxidicoccus caerfyrdinensis]

479. URA07134.1 major capsid protein [Xanthomonas phage Mallos]
480. YP_009996845.1 major head protein [Pseudomonas phage Epa5]
481. EFC2304030.1 phage major capsid protein [Escherichia coli]
482. EHH4005454.1 phage major capsid protein [Escherichia coli]
483. WP_067370658.1 phage capsid protein [Morganella psychrotolerans]
484. EHW0876436.1 phage major capsid protein [Escherichia coli]
485. WP_012870511.1 phage major capsid protein [Sphaerobacter thermophilus]
486. WP_136134600.1 phage major capsid protein [Providencia sp. MGF014]
487. EDS1306404.1 phage major capsid protein [Salmonella enterica]
488. WP_099110294.1 phage major capsid protein [Xenorhabdus sp. KJ12.1]
489. WP_038234216.1 hypothetical protein [Xenorhabdus szentirmaii]
490. UGL62843.1 major head protein [Xanthomonas phage MET13-T1]
491. EIH9254667.1 phage major capsid protein [Escherichia coli]
492. WP_121762769.1 phage major capsid protein [Corallococcus sp. AB038B]
493. EFH8389121.1 phage major capsid protein [Escherichia coli]
494. WP_038038123.1 phage major capsid protein [Thermorudis peleae]
495. HBZ3723017.1 phage major capsid protein [Klebsiella pneumoniae]
496. WP_064173653.1 hypothetical protein, partial [Klebsiella pneumoniae]
497. MCA1800049.1 phage major capsid protein [Actinomyces bacterium]
498. EFH8991876.1 phage major capsid protein [Escherichia coli]
499. WP_047963505.1 hypothetical protein [Xenorhabdus khoisanus]
500. QNN97178.1 hypothetical protein [Xanthomonas phage Xp12]



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422	-----	MP	LLREE	7
423	-----	MP	LLREE	7
424	-----	MP	LLREE	7
425	-----	MP	LLREE	7
426	-----	MP	LLREE	7
427	-----	MP	LLREE	7
428	-----	MP	LLREE	7
429	-----	MP	LLREE	7
430	-----	MP	LLREE	7
431	-----	MP	LLREE	7
432	-----M-----	PS	VTLTE	8
433	-----	MP	LLREE	7
434	-----	MP	LLREE	7
435	-----	MP	LLREE	7
436	-----	MP	LLREE	7
437	-----	MP	LLREE	7
438	-----	MP	LLREE	7
439	-----	MP	LLRAE	7
440	-----	MP	LLREE	7
441	-----	MA	LTKVE	7
442	-----	MP	LLREE	7
443	-----	MP	LLREE	7
444	-----M-----	PS	VILSE	8
445	-----M-----	AS	VTLAE	8
446	-----	MP	LLREE	7
447	-----	MP	LLREE	7
448	-----	-	MTKVE	5
449	-----	MP	LLREE	7
450	-----	MP	LLREE	7
451	-----	MA	LTKVE	7
452	-----	MA	LTKVE	7
453	-----	MP	LLREE	7
454	-----M-----	SS	VTLAE	8
455	-----	MP	LLQAE	7
456	-----	MP	LLREE	7
457	-----	MP	LLREE	7
458	-----	MP	LLREE	7
459	-----	MP	LLKAT	7
460	-----	MP	LLREE	7
461	-----M-----	AS	VTLAE	8
462	-----	MP	LLREE	7
463	-----			
464	-----	MP	LLREE	7
465	-----	MP	LLREE	7

466	-----	MP--LLREE	7
467	-----	MP--LLREE	7
468	-----	MP--LLREE	7
469	-----	MP--LLREE	7
470	-----	MP--LLREE	7
471	-----M-----	AS--VTLVE	8
472	-----	MP--LLRTE	7
473	-----M-----	AS--VTLVE	8
474	-----	MP--LLREE	7
475	-----	MP--LLRDE	7
476	-----M-----	AS--VTLAE	8
477	-----M-----	AT--ITLAE	8
478	-----M-----	PS--NPLIE	8
479	-----M-----	AS--VTLTE	8
480	-----M-----	AS--VTLAE	8
481	-----	MP--LLREE	7
482	-----	MP--LLREE	7
483	-----	MP--LLREE	7
484	-----	MP--LLREE	7
485	-----	MA--LTKVE	7
486	-----	MP--LLREE	7
487	-----	MP--LLREE	7
488	-----	MP--LLREE	7
489	-----	MP--LLREE	7
490	-----M-----	AS--VTLAE	8
491	-----	MP--LLREE	7
492	-----M-----	PS--VILSE	8
493	-----	MP--LLREE	7
494	-----	MA--LTKLE	7
495	-----	MP--LLREE	7
496	-----	MP--LLREE	7
497	-----M-----	AS--VTLAE	8
498	-----	MP--LLREE	7
499	-----	MP--LLREE	7
500	-----M-----	AS--VTLAE	8



1	AQFLSILELTKG	LL	ENSPKRLQHLEVF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
2	AQFLSILELTKG	LL	ENSPKRLQHLEVF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
3	AQFLSILELTKG	LL	ENSPKRLQHLEVF	PF	HHVEGDSLRYVR	-----	TPALTP	----	ASI	56
4	AQFLSILELTKG	LL	ENSPKRLQHLEIF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
5	AQFLSILELTKG	LL	ENSPKRLQHLEIF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
6	AQFLSILELTKG	LL	ENSPKRLQHLEVF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
7	AQFLSILELTKG	LL	ENSPKRLQHLEIF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
8	AQFLSILELTKG	LL	ENSPKRLQHLEVF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
9	AQFLSILELTKG	LL	ENSPKRLQHLEIF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
10	AQFLSILELTKG	LL	ENSPKRLQHLEIF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
11	AQFLSILELTKG	LL	ENSPKRLQHLEVF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
12	AQFLSILELTKG	LL	ENSPKRLQHLEVF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
13	AQFLSILELTKG	LL	ENSPKRLQHLEIF	PF	HHVEGDSLRYVR	-----	TPELTP	----	ASI	56
14	VQFLSIDALALG	LI	ENAPKRMQYLPFF	PF	YSIKGSALRYVR	-----	TPELVP	----	AEI	56
15	ARLLSN	DVLAKWLL	EDFPFRIQL	STAF	PLPVAGDALRYAT	-----	TGPLIP	----	GIA	57
16	AQLLSN	DALAKWL	IEDFPFRIQL	SSIF	PIPVSGHSLRYAA	-----	TGALTP	----	GNA	57
17	AQLLSN	DALAKWL	VEDFPFRIQL	SSIF	PIPVSGHSLRYAT	-----	TDALMP	----	GNA	57
18	AQLLAN	DALAKWL	IEDFPFRIQL	SSIF	PLPVAGDSFRYAT	-----	TGLLNP	----	GST	57
19	ARLLSN	DVQAKWL	IEDFPFRIQL	ASVLP	PLPVAGDALRYTT	-----	TPVLQP	----	GVT	57
20	ARLLSN	DVLAKWLL	EDFPFRIQL	STAF	PLIAGDALRYAT	-----	TGPLTP	----	GVT	58
21	ARLLSN	DVQAKWL	IEDFPFRIQL	ASVFP	YPVAGDALRYTT	-----	TPVLQP	----	GVT	57
22	ARLLSN	DVQAKWL	IEDFPFRIQL	ASVFP	CPVAGDALRYTT	-----	TPILQP	----	GVM	57
23	ARLLSN	DVQAKWL	IEDFPFRIQL	ASVFP	YPVAGDALRYTT	-----	TPVLQP	----	GVT	58
24	ARLLSN	DVQAKWL	IEDFPFRIQL	ASALP	YPVAGDALRYTT	-----	TPVLQP	----	GVT	57
25	ARLLSN	DVQAKWL	IEDFPFRIQL	ASVLP	LPVAGDALRYTT	-----	TSVLQP	----	GVT	57
26	ARLLSN	DVQAKWL	IEDFPFRIQL	ASVFP	YPVAGDALRYTT	-----	TPVLQP	----	GVT	57

27	AQLLSNDVLA	KWLIEDFPFRIQLSSIFPFLSVSGHSLRYAT	-----TGPLIP	----	GAA	57		
28	ARLLSNDVQAKWL	IEDFPFRIQLASALPFYPVAGDALRYTT	-----TPVLQP	----	GVT	57		
29	ADLLTLRDLWLPWL	VENFPWKIQIAHWPFFMGIDGGFLRVAR	-----TARFDQ	----	TDL	56		
30	ADLLTLRDLWLPWL	VENFPWKIQIAHWPFFMGIDGGFLRVAR	TARFDQTARFDQ	----	TDL	62		
31	ADRLVLTDQWQWL	IENFPWKLQIARFWPFMGIYGGFLRVPR	-----TNQFDK	----	SEL	59		
32	ADRLVLTDQWQWL	IENFPWKLQIARFWPFTGIHGGFLRVAR	-----TNLIDK	----	SDL	59		
33	ADRLVLTDQWQWL	IENFPWKLQIARFWPFMGIHGGFLRVAR	-----TNQISN	----	ADL	59		
34	STNLTQDQLAKWL	IEDAPYKIQIARVWPFMGIQGGKISYAR	-----TAALES	LANIDDM	61			
35	AVNLTQEQLSKFLL	ETIEYKLQIMQIWPFMGMVLGGKLYER	-----TNQLEA	IADINNM	76			
36								
37	SINLTQDQLAKWL	IEDMPYRIQIARIFPFMGIQGGKISYAR	-----TPALEA	VADINDM	61			
38	VSLLLQKLKQSWL	IENFPYKLQIPRAWAWKGIEGTQVSFAR	-----TPAFNK	----	ASL	55		
39	ANRLSTNHLLPGL	QENAPKRLDILKALFLLQITGNALAVVR	-----TPALPD	----	ALA	56		
40	SINLTQDQLAKWL	IEDAPYKIQIARIWPFMGIQGGKISYAR	-----IADLTT	GFSDTV	61			
41	AQYLSSTD	ELLPGLLENWSKEIPGLECFPFYEIRGNALTAVA	-----TDALPD	----	AGT	56		
42	VSRLQLLLRQAWL	IENFPHKLQIPRAWVWKAIEGTQVAFAR	-----TNRMDP	----	AEL	55		
43	VERFMQLLRQSWLV	ENFPHKLQIPRRWIWHGIACTRVAFPR	-----TNRIDK	----	DNL	55		
44	VSRLQLLLRQAWL	IENFPHKLQIPRAWVWKAIEGTQVAFAR	-----INRMDP	----	AEL	55		
45	VSMLLQKLKQSWL	IENFPHKLQIPRAWAWKGIEGTQVSFAR	-----TPQLDK	----	ATL	55		
46	ADLLSDDL	LALWLVENAPIKIPFFQAWSWQQVAGKSLIYPR	-----TTALAP	----	ASV	55		
47	ADLLADDLLALS	LVENSPVKIPFFQAWIWQEVAGKSLTYAR	-----TPLLAP	----	ATE	55		
48	ADLLSDDL	LALWLVENAPIKIPFFQAWAWQQVAGKSLIYPR	-----TTALAP	----	AGV	55		
49	ADLLSDDL	LALWLVENAPIKIPFFQAWSWQQVAGKSLIYPR	-----TTALAP	----	AGV	55		
50	ADLLSDDL	LALWLVENAPIKIPFFQAWAWQQVAGKSLIYPR	-----TTTLSP	----	AGV	55		
51	AFLLGDSPVARWL	ENSPVAIPFLDYAWAQGVGQSLTYPR	-----ATELTP	----	ASV	55		
52	AANATTQQATRWLV	ENEPEIIQIHGHFPSQAVQGGFLTYP	-----VPKLI	----	ASP	55		
53	AQLLSEEA	LLAGLVENDPKRIQLARRLPFYAVGGDRLAVPRV	-----TSGNLGT	----	AVW	59		
54	-----MLSKFLL	EELEYKLQIARIWPFMGMVVGKLYER	-----TDQLET	VANIDSM	47			
55	ALLLSNDAFIKGL	IEAEPKRIQMISHIFPFIEIDGDKLTVPRV	-----TSANLGT	----	AIF	59		
56	ADLLTRRD	LWPWLVENFPWKIQIARHWPFMGIDGGFLRVAR	-----TTRFDE	----	TDL	56		
57	ASLLSENRRTRFIV	ENSPIKLQIARVWPWLGVGDSGNMYAR	-----KNAQLT	----	TPV	56		
58	AVDLTQEQLVKTV	IEKIIRYKVEIANFWPMRGVIGGKLYAR	-----TDQLSA	-GDINAM	60			
59	ASLLSDEQLLSNL	VENEPKRIQFALRPFYAIIGGDRLTVPRV	-----TAANLGT	----	AVW	59		
60	ASGTANT	IATPHAVENEPRLIQIHRRMATKGVPGGTLVYPR	-----VPALKP	----	ASV	55		
61	ALLLSNDAFLQGL	VENDPKRIQMSNLLPFIEIDGDKLTI	PRV-----TNANLGT	----	AIW	59		
62	ADLLSDDL	LALWLVENAPIKIPFFQAWSWQQVAGKSLIYPR	-----TTALAP	----	AVM	55		
63	AQNAV	NQIATPWLVENDPEIIQVHGHWAQGVPGGLTYAR	-----VPKLIA	----	ASA	55		
64	ALLLSNDALLAG	LVENDPKRIQLSRRLPFYALAGDRLTVPRV	-----TNANLGT	----	ALW	59		
65	ALLLSNDAFLQGL	TENEPRLIQMSHVLEFIEIDGDKLTI	PRV-----TSANLGT	----	AIF	59		
66	AYMLGES	PVARWLIENTSPINIAFYQAWAWQGVGQSLTYPR	-----ATELSP	----	AAV	55		
67	TQFLNSIP	VARYAVERAPTRIQHLMLWSFQGVAGRELLYAQ	-----VPQLVA	----	SGQ	55		
68	GLLLSND	FLVGRFIEDSPFVIQPAHFLPFIEVPGDSERWST	-----TAAILP	----	ASA	57		
69	GLLLSND	FLVGRFIEDSPFVIQPAHFLPFIEVSGDSERWST	-----TVAIPP	----	ASP	73		
70	AQALAE	EKVAKWLLLENWPVKLQFGLVCPITWVDGKSLKFNSLTD-PAGNP	PIPF----	AYP	61			
71	AQALAE	EKITKWLLLENWPVKLQFGLVCPITWVDGKSLKFNSLTD-AGGNP	MPF----	AYP	112			
72	AQALAE	EKITKWLLLENWPVKLQFGLVCPITWVDGKSLKFNSLTD-AGGNP	MPF----	AYP	107			
73	AQALAE	EKVTRWLLLENWPVKLQFGLVCPITWVDGKSLKFNSLTD-PDGNP	PIPF----	AYP	61			
74	AELLSQE	QMERGIEEIIDKDDLFAVLPFKQVVKGAYVYDR	-----ELTLSE	----	GDF	57		
75	ADLLADDLLALWL	VENSPVKIPFYQAWIWQEVAGKSLTYAR	-----TPLLAP	----	ATI	55		
76								
77	APDTAN	IQAAKWFEVENEPRRIQIHGVMPVFGVNGGFLVYPR	-----VPAIKP	----	AQV	55		
78	AAKLSRE	QFERGVIEEIIDKDELFALFPFMKVEGKTYDYVR	-----EGTLSE	----	GDF	57		
79	ADLLTLRDLWLPWL	VENFPWKIQIARHWPFMGINGGFLRVAR	-----TARFDE	----	TDL	56		
80	AAKLSNNDLVAG	VIEEVIDKEDLLAVLPFTETKGKAYVYNR	-----ENFISE	----	AVF	57		
81	AEKLSNQLVSG	VIEEIIDKDELFALLPFMGVNGKAYVYNR	-----ENTISE	----	GDF	57		
82	AETLT	NNDLVAGIVEEIERDDMFAILPFVHTEGKAYVYNR	-----EKTLAE	----	GVF	57		
83	AAKLSQEDKARG	VIEEIIDTESLFALMPFQHVN	DKTFTYVR-----EGTLSE	----	GEF	57		
84	AAKLSQEDKARG	VIEEIIDTESLFALMPFQHVT	DKTFTYVR-----EGTLSE	----	GEF	57		
85	AAKLSQEDKARG	VIEEIIDTESLFALMPFQHVT	DKTFTYVR-----EGTLSE	----	GEF	57		
86	AAKLSQEDKARG	VIEEIIDDES	LFALMPFQHVT	DKTFTYVR-----EGTLSE	----	GEF	57	
87	AENAGQN	FLQPHIVETAPVPMQIARHMPVQFVNGRAKSF	FAVI-----GKLEP	----	GVA	55		
88								
89	ADKLSQEDKARG	VIEEIIDTESLFALMPFQHVS	DKTFTYVR-----EGTLSE	----	GEF	57		
90	AAKLSQE	QMERGVIEEIIDTDELFALIPFMGVNGKAYVYNR	-----EDTLSE	----	GEF	57		
91					-----MKYAR	-----SAVLAA	-----ATK	14
92	AENAGQN	FLQPHIVETAPVPLQIARHMPVRY	INGRALSFAVI-----DAMAA	----	GVA	55		
93	AENAGS	DFLQPHIVETAPVPLQIARHMPVRYVNGRAMSFAVI	-----GKMOP	----	GIA	55		

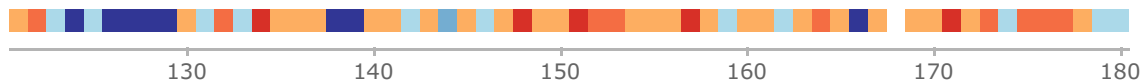
94	AAKLS	SEADL	LQRGI	IEE	IIDK	EDLL	AVLP	PFVRT	DGKS	SYDY	VR	-----	EKTL	SE	----	AEF	57	
95	AEKLS	QEDK	ARGV	IEE	IIDT	ESLF	ALMP	PFQHV	NDKT	FTTY	VR	-----	EGTL	SE	----	GEF	57	
96	AERLS	SNNQL	VAGI	IEE	IIER	DDL	FAIL	PF	TG	INGK	AYVY	NR	-----	ENTL	AG	----	ASW	57
97	AAKLS	VNQL	ERGV	IEE	IIDV	DEL	FALF	PF	MQV	NGK	AYDY	IR	-----	ESTL	SE	----	GDF	57
98	AEKLS	QEEM	LRGV	IEE	IIDR	DDL	LALL	PF	ARTE	GKAL	VYIR	-----	ELTN	SE	----	GSF	57	
99	AEKLS	QDYLE	RGV	IEE	IIDQ	DEM	FALV	PF	MFV	NGK	AYDY	VR	-----	EKEL	SE	----	GAF	57
100	AETLS	QEDM	LRGV	IEE	IIHR	DDL	LALL	PF	SRVD	GKAL	VYIR	-----	ELTN	SE	----	GTF	57	
101	AEKLS	NNTLV	QG	IVEE	LIDR	DEL	FSLP	PF	EQVN	SKAY	VYNR	-----	EKTL	SE	----	ADF	57	
102	AQYLS	RDAL	AMWL	LETD	PWRN	ELAA	AVFP	YMP	IDGP	ALKV	AR	-----	QTKV	AI	----	GSL	57	
103	AEKLS	QEEM	LRGV	IEE	IIDR	DDL	LALL	PF	ARTE	GKAL	VYIR	-----	ELTN	SE	----	GSF	57	
104	AAKLS	SNNQL	VSGV	VEE	IIDK	DEM	FAFL	PF	VG	VKGK	AYVY	NR	-----	EKTL	AD	----	ADF	57
105	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	57
106	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	55
107	AEKLS	SNNQL	VSGV	IDEI	IFRD	DM	FAIL	PF	MGV	NGK	AYVY	NR	-----	ENTL	GD	----	AEF	57
108	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	57
109	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	57
110	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	57
111	ADKLS	SNNQL	ERGV	IEE	VI	ERDE	L	FALF	PF	MRV	NSKAY	VYNR	-----	ENGL	SG	----	AAF	57
112	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	59
113	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	57
114	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	57
115	AETLS	QEDM	VRGV	IEE	IVHK	DDL	MALM	PF	SRTD	GKAY	VYVR	-----	EKTN	SE	----	GSF	57	
116	AEKLS	SNNQL	LRGV	ITEI	IIDK	DDM	FAIL	PF	TQV	NGK	AYVY	NR	-----	EGEL	AD	----	GQW	57
117	AAKLS	SNNQL	VSGV	VEE	IIDK	DEM	FAFL	PF	VG	VKGK	AYVY	NR	-----	EKTL	AD	----	ADF	57
118	AAKLS	SNNQL	VSGV	VEE	IIDK	DEM	FAFL	PF	VG	VKGK	AYVY	NR	-----	EKTL	AD	----	ADF	57
119	AEKLS	SNNQL	LRGV	ITEI	IIDK	DDM	FAIL	PF	TQV	NGK	AYVY	NR	-----	EGEL	AD	----	GQW	57
120	AEKLS	QDQV	VQG	IVEE	IFTT	NEMY	NMLP	FT	TKV	SGKAY	LYKR	-----	EGTL	AT	----	VDY	57	
121	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	57
122	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGK	AYVY	NR	-----	EKTL	GG	----	ANW	57
123	AEKLS	NNTLV	VAGV	IDEI	IIER	DDL	F	SVLP	FAV	NSKAY	VYNR	-----	EATL	AD	----	ADF	57	
124	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAVLP	PF	VQV	NGKAY	VYNR	-----	EKTL	GG	----	ANW	57	
125	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGKAY	VYNR	-----	EKTL	GG	----	ANW	57	
126	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGKAY	VYNR	-----	EKTL	GG	----	ANW	57	
127	AAKLS	V	DQL	ERGI	IEE	IVQ	DDL	FALF	PF	VHV	NGKAY	DYIR	-----	EATL	SE	----	GSF	57
128	AAKLS	V	DQL	ERGI	IEE	IVQ	DDL	FALF	PF	VHV	NGKAY	DYIR	-----	EATL	SE	----	GAF	57
129	AEKLS	SNNQL	VAGV	IEE	IIER	DEL	FALIP	PF	IG	INGKAY	VYDR	-----	ENSL	PT	----	ADF	57	
130	AEKLS	SNNQL	VAGV	IEE	IIER	DEL	FALIP	PF	IG	INGKAY	VYDR	-----	ENTL	PT	----	ADF	57	
131	AEKLS	SNNQL	VAGV	IEE	IIER	DEL	FALIP	PF	IG	INGKAY	VYDR	-----	ENTL	PT	----	ADF	57	
132	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGKAY	VYNR	-----	EKTL	GG	----	ANW	57	
133	AAKL	CQDEL	VSG	LIEN	VITV	NPFY	NILP	DS	IDGN	GLTY	NR	-----	EDVL	GD	----	VQV	58	
134	AEKLS	SNNQL	VAGV	IEE	IIER	DEL	FALIP	PF	IG	INGKAY	VYDR	-----	ENSL	PT	----	ADF	57	
135	AEKLS	SNNQL	VQGV	VEE	IIDR	DDL	FAIL	PF	TQV	NGKAY	VYNR	-----	EKTL	GG	----	ANW	57	
136	AAKLS	SNNQL	EAGV	ITEI	YTR	DDL	FAVLP	PF	TRV	NGKAY	VYNR	-----	ENEL	AT	----	ADW	57	
137	AEKLS	SNNV	LEQGV	IEE	IIDN	DAM	FAMLP	PF	KRV	VGKAY	MYNR	-----	EKTL	SE	----	GEF	57	
138	AETLS	SNNQL	VAGV	IDQI	IIDR	DDL	FAIL	PF	ERV	NGKAY	VYNR	-----	EDTL	GG	----	ADW	57	
139	ANKLS	ESLM	ERGV	IEE	IIDR	EAL	FALF	PF	KTVD	GKAY	LYHR	-----	ENTI	SE	----	GDF	57	
140	AKKLS	NNNE	LEQGI	IIET	IIDR	EEL	FAVLP	PF	MKV	NSKAY	LYNR	-----	EKEL	SE	----	ASF	57	
141	ADKLS	NNDL	VRGV	IEE	VIDR	DDL	FAVLP	PF	TRTD	GKAY	VYNR	-----	ENG	VVE	----	AEF	57	
142	AAKLS	I	EDRQ	RGV	IEE	IKDD	ALFAL	LP	VG	VTDE	VSYVR	-----	EATL	AQ	----	GAF	57	
143	AKKLS	NNNE	LEQGI	IIET	IIDR	EEL	FAVLP	PF	MKV	NSKAY	LYNR	-----	EKEL	SE	----	ASF	57	
144	AEKLS	QEDM	ERGV	IEE	IIDK	DEL	FALV	PF	MHV	TDKTY	TYVR	-----	EGNL	PS	----	AEF	57	
145	AEKL	SEEFM	ERGV	IEE	IIDR	DEL	FQFL	PF	MGV	DNKAY	TYNR	-----	EGTL	SE	----	GQF	57	
146	AEKLS	NNI	LEQGV	IEE	IIDN	DAM	FALL	PF	KRIV	GKAY	VYNR	-----	EKSL	SE	----	GAF	57	
147	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAVLP	PF	MKID	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
148	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAVLP	PF	MKID	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
149	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAVLP	PF	MKID	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
150	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAVLP	PF	MKID	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
151	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAIL	PF	MKIN	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
152	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAVLP	PF	MKID	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
153	AEKLS	QEDM	ERGV	IEE	IIDK	DEL	FALV	PF	MHV	TDKTY	TYVR	-----	EGNL	PS	----	AEF	57	
154	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAVLP	PF	MKID	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
155	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAIL	PF	MKIN	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
156	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAVLP	PF	MKID	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
157	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAVLP	PF	MKID	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
158	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAIL	PF	MKIN	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
159	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAIL	PF	MKIN	SKAY	LYNR	-----	EATL	SE	----	ATF	57	
160	AEKLS	NNNE	LEQGV	IIET	IIDR	DDL	FAIL	PF	MKIN	SKAY	LYNR	-----	EATL	SE	----	ATF	57	

161	AAKLSNNQLVSGVVEEIIIDKDEMFAFLPFGVGKVKAYVYNR	-----	EKTLAD	----	ADF	57
162	AKKLSNNQLEIGVVEEIIIDKEDLFSVLPMGKNGKAYVYNR	-----	EKTLSE	----	GDF	57
163	AEKLSNNELEQGVIIETIIDRDDLFSILPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
164	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
165	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
166	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
167	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
168	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
169	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
170	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
171	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
172	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
173	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
174	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
175	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
176	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
177	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
178	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
179	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
180	AEKLSNNELEQGVIIETIIDRDDLFAVLPMFKIDSKAYLYNR	-----	EATLSE	----	ATF	57
181	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
182	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
183	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
184	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
185	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
186	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
187	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
188	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
189	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
190	AAKLTQDLLLRGVIEAIVKESAVFDYLPFMAITGSALKYNR	-----	EATLGD	----	AEF	57
191	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
192	AEKLSIEDLVRGVIEEIIHKDELFAALLPWVTEGKSYDYVR	-----	ELTISE	----	GEF	57
193	AEKLSNNELEQGVIIETIIDRDDLFAIMPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
194	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
195	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
196	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
197	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
198	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
199	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
200	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
201	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
202	AAKLSQEDMERGIIEEIIIDRDELFALMPFLHVNDKVYTYNR	-----	EKELSS	----	ATF	57
203	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
204	AEKLSNNQLISGVIDQIITRDDLFAVLPMFGVNGKAYVYNR	-----	ENTLPS	----	ADF	57
205	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKITSKAYLYNR	-----	EKTLSE	----	ATF	57
206	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
207	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
208	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
209	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
210	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
211	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKITSKAYLYNR	-----	EKTLSE	----	ATF	57
212	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
213	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
214	AEKLSNNELEQGVIIETIIDRDDLFAILPFIKINSKAYLYNR	-----	EATLSE	----	ATF	57
215	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
216	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
217	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
218	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
219	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
220	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
221	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
222	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
223	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKITSKAYLYNR	-----	EKTLSE	----	ATF	57
224	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
225	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
226	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
227	AEKLSNNELEQGVIIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57

362	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
363	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
364	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
365	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
366	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
367	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
368	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
369	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
370	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
371	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
372	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
373	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
374	AEKLSNNELEQGVIETIIDRDDLFVLPFMKITSKAYLYNR	-----	EATLSE	----	ATF	57
375	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
376	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
377	AKLTDMDMLLRGVIETI VMESPVLQRLPFMEVVGGLTYNR	-----	EATLPA	----	ASF	57
378	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
379	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
380	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
381	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
382	SAKLAQDTLITGLIESIITVNHMFQLLPFEGINGNALAYNR	-----	ENALGD	----	VES	58
383	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDAKAYLYNR	-----	EATLSE	----	ATF	57
384	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDAKAYLYNR	-----	EATLSE	----	ATF	57
385	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAHLYNR	-----	EATLSE	----	ATF	57
386	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
387	ADRLSATSVERGVEEVIDRDALFALLPFHRIEGKAWVYNR	-----	EGVLSE	----	GAF	57
388	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
389	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
390	AKLCQDELVSGLIENIITVNPFFYQVFPFDSIEGNGLTYNR	-----	EDVLGD	----	VQV	58
391	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
392	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
393	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
394	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
395	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
396	AEKLSNNELEQGVIETIIDRDDLFVLPFMKVNNKAYLYNR	-----	EATLSE	----	ATF	57
397	SAKLAQDELVAGVIEENVITVNELYELLPFDGIDGNALAYNR	-----	ENALGD	----	VQM	58
398	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
399	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
400	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
401	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
402	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
403	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
404	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
405	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
406	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
407	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
408	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
409	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
410	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
411	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
412	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDAKAYLYNR	-----	EATLSE	----	ATF	57
413	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
414	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
415	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
416	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDAKAYLYNR	-----	EATLSE	----	ATF	57
417	AEKLSNNELEQGVIETIIDRDDLFVLPFMKVNNKAYLYNR	-----	EATLSE	----	ATF	57
418	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
419	AKLSIEDKQRGVIEEIIDRDELFALVPFVRAKDKVYSYVR	-----	EGELPT	----	GDW	57
420	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
421	AEKLSNNELEQGVIETIIDRDDLFVLPFMKITSKAYLYNR	-----	EKTLSE	----	ATF	57
422	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
423	AEKLSNNELEQGVIETIIDRDDLFVLPFMKVNNKAYLYNR	-----	EATLSE	----	ATF	57
424	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
425	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
426	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
427	AEKLSNNELEQGVIETIIDRDDLFVLPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
428	AEKLSNNELEQGVIETIIDRDDLFVLPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57

429	AEKLSNNELEQGVIETIIDRDDLFAILPFMKITSKAYLYNR	-----	EKTLSE	----	ATF	57
430	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
431	AEKLSNNELEQGVIETIIDRDDLFAILPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
432	SAKLAQDELVAGVIENVI TVNKM YQLLPFDGIDGNSLAYNR	-----	ENVLGD	----	VQV	58
433	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
434	AEKLSNNELEQGVIETIIDRDDLFAVL PFMKINSKAYLYNC	-----	EKTLSE	----	ATF	57
435	AEKLSNNELEQGVIETIIDRDDLFAVL PFMKINSKAYLYNC	-----	EKTLSE	----	ATF	57
436	AEKLSNNELEQGVIETIIDRDDLFAILPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
437	AERLSNNELEQGVIETIIDRDDLFAIMPFFKINSKAYLYNR	-----	EKTLSE	----	AEF	57
438	AEKLSNNELEQGVIETI VDRDDLFAILPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
439	AERLSNNTLISGIITEIIDRDDLFSILPFFVKVNSKAYVYNR	-----	ENTLAG	----	ADW	57
440	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
441	AAKLTDDMLLRGVIETI VMESPVLQRLPFMEVVG TGLTYNR	-----	EATLPA	----	ATF	57
442	AEKLSNNTLEQGVIETIIDREDLFAVL PFMKVDSKAYLYNR	-----	ESELSE	----	ASF	57
443	AEKLSNNELEQGVIETIIDRDDLFAILPFFKVNSKAYLYNR	-----	EATLSE	----	AGF	57
444	AAKLSNNDLVAGI IENI VTVDRFFGVL PFEVGPAAVYNR	-----	ENVLGD	----	VQM	58
445	SAKLCQDVL IQGVIESI VTVDDFYWMLPFE GIDGNALSYNR	-----	ENALGD	----	VES	58
446	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
447	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
448	AAKLTNDLLLRGVIETI VKESSVLLMLPFMEV TGTALTYNR	-----	EATMPQ	----	AQF	55
449	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
450	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
451	AAKLTDDLLLRGVIETI VMESPVLQRLPFMEVVG TGLTYNR	-----	EGTLPA	----	TDF	57
452	AAKLTNDMLLRGVIETI VMESSVLTMLPFM NVTGTALTYNR	-----	EKTMPA	----	AKF	57
453	AEKLSNNELEQGVIETIIDRDDLFAILPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
454	SAKLAQDELVAGVIENVI TVNEL YELL PFDGIDGNALAYNR	-----	ENVLGD	----	VQM	58
455	AEKLSNNQLVAGVIEEII ERDEL FALIPF IGINGKAYVYDR	-----	ENSLPT	----	ADF	57
456	AEKLSNNELEQGVIETIIDRDDLFAVL PFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
457	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
458	AEKLSNNELEQGVIETIIDRDDLFAILPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
459	AEMLSQN DVVVG IIEEII TVNEL FGLLPF VKTEGKAYVYHR	-----	ENTLPS	----	VSY	57
460	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
461	SAKLAQDELVAGVIENVI TVNEIFEQLPFDGIDGNALAYNR	-----	ENVLGD	----	VQM	58
462	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
463	-----	-----	-----	-----	-----	-----
464	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EATLSE	----	ATF	57
465	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
466	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
467	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
468	AEKLSNNELEQGVIETIIDRDDLFAILPFMKITSKAYLYNR	-----	EKTLSE	----	ATF	57
469	AEKLSNNELEQGVIETIIDHEDLFAVL PFFHKINSKAYLYNR	-----	EATLSE	----	AQF	57
470	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
471	SAKLALDDL VAGVIENVI TVNRM YEMIPFDGIAGNALAYNR	-----	ENVLGD	----	VQV	58
472	AERLSAN QMVQGVIEEII ERDDLFSILPFFVQTEGKAYLYNR	-----	EKTIGG	----	ADW	57
473	SAKLALDDL VAGVIENVI TVNRM YEMIPFDGIAGNALAYNR	-----	ENVLGD	----	VQV	58
474	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
475	AEKLSNNELEQGVIETIIDRDDLFAILPFMKITSKAYLYNR	-----	EATLSE	----	ATF	57
476	SAKLAQDELVAGVIENVI TVNEIFEQLPFDGIDGNALAYNR	-----	ENVLGD	----	VQM	58
477	SAKLSQN LLYAGI IESI VEVNPF FEILPFFEIEGNALSYNR	-----	EKTLGD	----	IQF	58
478	AAKLSQDDL VSGI IANI VTVDRFYGLLPFEVGPAAVYNR	-----	ENVLGD	----	VQM	58
479	SAKLAQDELVAGVIENVI TVNEMFDLLPFDGIDGNALAYNR	-----	ENVLGD	----	VQV	58
480	SAKLALDELVAGVIENVI TVNRM FEVIPFDGISGNALAYNR	-----	ENVLGN	----	VQV	58
481	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
482	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
483	AEKLSNNTLEQGVIETIIDREDLFAVL PFMKVDSKAYLYNR	-----	ESELSE	----	AEF	57
484	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
485	AAKLTNDMLLRGVIETI VMESSVLTLLPFM NVTGTALTYNR	-----	EKTMPA	----	AQF	57
486	AEKLSNNTLEQGVIETIIDREDLFAVL PFMKVDSKAYLYNR	-----	ESELSE	----	AAF	57
487	AEKLSNNELEQGVIETIIDRDDLFAILPFMKIDSKAYLYNR	-----	EATLSE	----	ATF	57
488	AEKLSNNTLEQGVIETIIDREDLFAVL PFMKVDSKAYLYNR	-----	ESELSE	----	AQF	57
489	AEKLSNNTLEQGVIETIIDREDLFAVL PFMKVDSKAYLYNR	-----	ESELSE	----	ATF	57
490	SAKLAQDELVAGVIENVI TVNEIFEQLPFDGIDGNALAYNR	-----	ENVLGD	----	VQM	58
491	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
492	AAKLSNNDLVAGI VENI VTVDRFFGVL PFEVGPAAVYNR	-----	ENVLGD	----	VQM	58
493	AEKLSNNELEQGVIETIIDRDDLFAILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
494	AAKLTNDLLLRGVETI VRESSVLALLPFT EVTGTALTYVR	-----	EATLPA	----	ASW	57
495	AEKLSNNELEQGVIETIIDRDDLFAVL PFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57

496	AEKLSNNELEQGV	ETIIDRDDLF	AVLPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
497	SAKLSQDLLLSGV	IESIVDVNPIYEV	FPFMGIEGNSLAYNR	-----	ENVLGD	----	VQF	58
498	AEKLSNNELEQGV	ETIIDRDDLF	AILPFMKINSKAYLYNR	-----	EKTLSE	----	ATF	57
499	AEKLSNNTLEQGV	ETIIDREDLF	AVLPFMKVDSKAYLYNR	-----	ESELSE	----	AQF	57
500	SAKLAQDEL	VAGVIENVITVNEI	FEQLPFDGIDGNA	LAYNR-----	ENVLGD	----	VQM	58



1	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
2	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
3	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
4	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
5	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
6	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
7	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	V	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	D	H	L	108
8	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
9	I	A	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	V	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	D	H	L	108
10	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
11	I	G	F	G	-	-	-	-	D	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
12	I	G	F	G	-	-	-	-	D	P	I	S	D	N	T	T	I	P	D	E	P	I	-	T	F	S	M	S	E	L	A	T	S	F	L	V	A	Y	K	G	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L	E	E	H	L	108
13	I	G	F	G	-	-	-	-	V	P	I	P	D	N	T	T	I	P	D	E	P	I	-	T	F	P	M	S	E	L	A	T	S	F	L	V	A	Y	K	V	Q	D	I	Y	-	S	-	Y	T	N	D	L	V	K	L					

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57 NT----GC-SNVAETADTL--ASITFPVVDFVVRKQICFTDADRY-H-LPNNPDEDEYLV 107
58 ATILADGAD--ITDQTAGVDET-VTFTCGELASRYKIDYNAQDRW-R-Y-QSIDNALAI 114
59 -DEGG----SAISDTSAVPSSPNVTFFPKLVATSFKNVNDTAEALM-S-SVNDQVETQSV 112
60 VD----PC-QSADDISTSV--TPARFGMVVEYVARVPVCMADQDIF-Q-HPNDITDFNITL 106
61 -DAGG----TAVSDTPAVPTSPNATFSLKLLISAAKNTNYTAQYDM-S-NVNDQEGVQINA 112
62 MT----AC-GTVDLEQLPDL--SQAEMVFVDYATRYTICASDLDRY-R-NPLLLQAILFAV 106
63 AG----AC-LPIKDHSDA--TQVQFGMVVEYATRVVICNADEDTQ-R-GPNTPELNETVL 106
64 -DAGG----TALSDTPAVPNDPNVSFSLKLLATSFKVNYTAEYDM-S-NVNDQVEVQTV 112
65 -DAGG----TAVSDTPAVPTSPNPTFSLKLLISMVKTNQTAQYTM-S-NVNNQEKVALAA 112
66 RN----DC-GEVIEQLPTV--SQAANFLYDFIAHYSICSIDLDRV-Q-YPTQLDAAMFAI 106
67 VP----PC-DAVPDRSSVF--SQATFGMTYLNTRVRVCHANQDTF-R-TPITPEAAEYPL 106
68 LPF----C-APIADQTT--VPVARSYSFGEATSRIVCYGTQDLQ-S-NVNDQSAVQLEM 108
69 LPF----C-GPIADQTT--VPAARSYSFGEVATSRVVCYGTQDLQ-S-NVNDQAAVQIEM 124
70 LGQ----CKDYTDQSFD--SWQERVFDGAPATMYQSCESAIDKYTS-SINDVIDAQYAK 114
71 LGQ----CEDYTDQSFD--SWQERVFSFGAPATMYQSCESAIDKYTS-SINDVIDVQYAK 165
72 LGQ----CEDYTDQSFD--SWQERVFSFGAPATMYQSCESAIDKYTS-SINDVIDVQYAK 160
73 LGQ----CEDYLDQSFD--SWQERVFDGAPATLYQSCESAIDKYTS-SINDVIDVQFAK 114
74 IDV-N---DDVP EGAA--TFEEVVCRRLARLAGDVDVDKFLDETM-S-DINDQKATQIAS 108
75 FT----SC-AGVPEQEATV--SQAEFQFVDFATRYAICASDLDRF-R-NPQLLQTVLYAI 106
76 -----VTDRTSQPTDPEVVFGLANIITRYSVCFDDQDKF-S-NPNNLDRTEYVL 47
77 VA----PC-EPADDISTQV--TPARFGMVQYVARVPVCMADQAIY-R-HPTDIVDGNVAL 106
78 LDP-Y---EDVP EGAA--TFDPVSTRRLRILAGQVLLDKFLIKTQ-S-DVNDQLAEQISA 108
79 ANFNS-EC-GPVTDRTSQPANPEVVFGLANIITRYSVCFDDQDKF-S-NPNNLDHAEYVL 112
80 LDP-N---EVVP EEAS--TFEEVVARLRILIGDVDVDKFLNTTM-D-DTNNQKAIQIAQ 108
81 LDPVN---DTVNEEAS--TFTEVTANLRVLAGDVDVDKFLDATM-G-DHNSQKAIQIAQ 109
82 LDP-N---EAIPESGS--DFDEVTAKLKILAGDVDVDKFLMETM-S-DVNSQLGLQLAA 108
83 LDA-Y---EAVP EGAA--TFDEVTTKLKVLAGDVIDDKFTAAVQ-S-NLNPQVAIQLAA 108
84 LDA-Y---EAVP EGAA--TFDEVTTKLKVLAGDVIDDKFTAAVQ-S-NLNPQIAIQLAA 108
85 LDA-Y---EAVP EGAA--TFDEVTTKLKVLAGDVIDDKFTAAVQ-S-NLNPQIAIQLAA 108
86 LDA-Y---EAVP EGAA--TFDEVTTKLKVLAGDVIDDKFTAAVQ-S-NLNPQIAIQLAA 108
87 LGA----CLDYTLQDYE--I-EQATYVYGE LVSAFQTCSTTQD-ITG-GPNNLNNALRKK 106
88 AQVLGDNTPA-IADKTADADTS-VTFTVGE LATSyllDYTAKDRFSS-Y-QSIDNVESVL 57
89 LDA-Y---EAVP EGAA--TFDEVTTKLKVLAGDVIDDKFTAAVQ-S-NLNPQVAIQLAA 108
90 LDP-Y---EVVP EGAA--TFKEVMTKLRLILAGDVDL DKFLITTQ-S-DTNDQLAIQIAS 108
91 VS----DC-SLVD EQVPTI--SEAEFALQEFITRYKICTFDLDSY-Q-FPNQLETVLYAL 65
92 LGA----CLDYTLQDYE--I-EQATYIYGE LVSAFQTCSTTQD-ITG-GPNNLNNALRKK 106
93 LGA----CLDYTLQDYE--I-EQATYIYGE LVSAFQTCSTTQD-ITG-GPNNLNNALRKK 106
94 LSP-Y---DPVP EGAA--TFDEVSTKLRLILAGDVIDDKFTAETQ-S-DLNDQIAIQLQG 108
95 LDA-Y---EAVP EGAA--TFDEVTAKLKVLAGDVIDDKFTAAVQ-S-HLNPQIAIQLAA 108
96 LDP-N---DVVP EEAS--TFQEVVAKLRILAGDVIDDKFLQATM-S-DTNSQIVTQLAA 108
97 LDP-Y---EDIKEGAA--TFEEVQAKLRILAGHVDLDFLVETQ-S-DTHDQLAIQLAA 108
98 LDV-N---EVVP EGTS--DVEEVVTKLRILAGDVDVDKFLIDETM-S-DKNSQLALQIAM 108
99 LDP-Y---EDIPEGAA--TFDEVQAKLRILAGHVDLDFNFILETQ-S-ETNPQLAIQLAA 108
100 LDV-N---EIVPEGAS--DVEEVVTKLRILAGDVDVDNFLNETM-S-DTNSQLALQIAL 108
101 IDPVT---DTVPEGAA--TFESVTETLKVLIAGDVDVDNFLRETM-S-DTNNQFETQIAA 109
102 AQPL--DYNAAIADSTMAP-SANVTFTPGVVASRYRIAYSALGRF-D-ANQDLDAVEAAL 112
103 LDV-N---EVVP EGTS--DVEEVVTKLRILAGDVDVDKFLIDETM-S-DKNSQLALQIAM 108
104 LDP-N---EEIKESAS--TFEEVTAKLRILAGDVIDDKFLDSTM-D-DTNNQMIAIQVTQ 108
105 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 108
106 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 106
107 LDP-N---DPITESAA--TFTEVVAKLRILVGDVDVDKFLQATM-G-DTNDQMIAQIAK 108
108 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 108
109 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 108
110 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 108
111 LDP-N---EEVPEESAA--TFTPIVTLLKIAGDVDVDKFLIQATE-S-DTNDQKAVQIAA 108
112 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 110
113 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 108
114 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 108
115 LDV-N---EVVP EGAS--EVEEVVTKLRILAGDVDVDKFLNETM-S-DTNQQLAIQIAM 108
116 LDP-N---DEVPEESAS--KFVEVTTKLRLILAGDVDVDKFLASTM-G-DTNPQKALQIAA 108
117 LDP-N---EEIKESAS--TFEEVTAKLRILAGDVIDDKFLGSTM-D-DTNNQMIAIQVTQ 108
118 LDP-N---EEIKESAS--TFEEVTAKLRILAGDVIDDKFLDSTM-D-DTNNQMIAIQVTQ 108
119 LDP-N---DEVPEESAS--KFVEVTTKLRLILAGDVDVDKFLASTM-G-DTNPQKALQIAA 108
120 LDV-N---EVVP ENAS--TFKEVTTKLRLILIGDVDVDKFLMAETM-S-DTEDQLGVQIAL 108
121 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 108
122 LDP-N---EVIIEEGS--TFDEVTAHLRLILAGDVDVDKFLDSTM-G-DTNAQKAIQIKQ 108
123 LDP-N---DEITEGAS--TFTEVVAKLRILAGDVIDDKFLETTM-G-DTNSQMKIQISK 108

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124	LDP-N	----	EVIEEEGS	--	TFDEVT	AHLRILAGD	V	V	D	K	F	L	D	S	T	M	-	G	-	D	T	N	A	Q	K	A	I	Q	I	K	Q	108		
125	LDP-N	----	EVIEEEGS	--	TFDEVT	AHLRILAGD	V	V	D	K	F	L	D	S	T	M	-	G	-	D	T	N	A	Q	K	A	I	Q	I	K	Q	108		
126	LDP-N	----	EVIEEEGS	--	TFDEVT	AHLRILAGD	V	V	D	K	F	L	D	S	T	M	-	G	-	D	T	N	A	Q	K	A	I	Q	I	K	Q	108		
127	LDP-Y	----	EDITEGAA	--	TFEEVQ	AKLRILAGH	V	D	L	N	F	L	V	E	T	Q	-	S	-	D	T	Q	D	Q	L	A	V	Q	L	A	A	108		
128	LDP-Y	----	EDITEGAA	--	TFEEVQ	AKLRILAGH	V	D	L	N	F	L	V	E	T	Q	-	S	-	D	T	Q	D	Q	L	A	V	Q	L	A	A	108		
129	LSP-N	----	DTVNEDAG	--	TFDEVV	SKLRILAGD	V	V	D	K	F	L	Q	E	T	D	-	S	-	D	T	N	D	Q	R	A	T	Q	I	A	M	108		
130	LSP-N	----	DTVNEDAG	--	TFDEVV	SKLRILAGD	V	V	D	K	F	L	Q	E	T	D	-	S	-	D	T	N	D	Q	R	A	T	Q	I	A	M	108		
131	LSP-N	----	DTVNEDAG	--	TFDEVV	SKLRILAGD	V	V	D	K	F	L	Q	E	T	D	-	S	-	D	T	N	D	Q	R	A	T	Q	I	A	M	108		
132	LDP-N	----	EVIEEEGS	--	TFDEVT	AHLRILAGD	V	V	D	K	F	L	D	S	T	M	-	G	-	D	T	N	A	Q	K	A	I	Q	I	K	Q	108		
133	AGVGD	----	TITAKNAT	--	TFTSVT	SVLTSILG	D	A	E	V	N	G	L	V	Q	A	T	Q	-	S	-	G	E	T	N	Q	T	A	Q	Q	I	A	S	110
134	LSP-N	----	DTVNEDAG	--	TFDEVV	SKLRILAGD	V	V	D	K	F	L	Q	E	T	D	-	S	-	D	T	N	D	Q	R	A	T	Q	I	A	M	108		
135	LDP-N	----	EVIEEEGS	--	TFDEVT	AHLRILAGD	V	V	D	K	F	L	D	S	T	M	-	G	-	D	T	N	A	Q	K	A	I	Q	I	K	Q	108		
136	LDP-N	----	DEIHESAS	--	KFTEVT	TNLRILAGD	V	V	D	K	F	L	M	A	T	M	-	G	-	D	T	N	D	Q	L	A	L	Q	L	A	Q	108		
137	LDP-Y	----	DTVPEGGA	--	EFDEVV	AKLRILIGD	V	D	I	N	F	L	D	E	T	M	-	S	-	D	T	N	D	Q	T	A	T	Q	I	A	A	108		
138	LDP-N	----	DPVNESAA	--	TFTEVV	AKLRILAGD	V	V	D	K	F	L	Q	S	T	M	-	G	-	D	T	N	D	Q	M	A	I	Q	I	A	K	108		
139	LDP-Y	----	DPVPEGAA	--	TFTEVT	TRLRILAGD	V	M	D	K	F	L	L	S	T	Q	-	S	-	D	K	N	P	Q	L	A	I	Q	I	A	A	108		
140	LDP-N	----	DAVPEGAA	--	KFSEHV	AKLRITAGD	V	V	D	K	F	L	I	Q	T	T	M	-	S	-	D	T	S	D	Q	L	A	T	Q	V	R	L	108	
141	LDP-N	----	EEVPEGAA	--	KFTEVT	TALRVLAH	D	V	D	I	D	K	F	L	A	S	S	E	-	S	-	D	V	N	D	Q	V	A	L	Q	I	A	A	108
142	VDP-Y	----	EVLEESAS	--	TFTSHS	TKIRRFAG	Q	V	D	I	N	F	M	D	E	V	Q	-	S	-	N	L	N	P	Q	T	A	I	Q	L	A	S	108	
143	LDP-N	----	DAVPEGAA	--	KFSEHV	AKLRITAGD	V	V	D	K	F	L	I	Q	T	T	M	-	S	-	D	T	S	D	Q	L	A	T	Q	V	R	L	108	
144	MDP-Y	----	DDFEESAA	--	TFTEVST	KLKILGGD	I	L	L	D	K	F	T	T	A	T	Q	-	S	-	A	L	N	D	Q	V	G	I	Q	L	Q	K	108	
145	LDP-Y	----	DVVPEGAA	--	TFEEVV	TRLRILAGD	V	D	L	D	K	F	L	M	S	T	M	-	S	-	D	A	N	P	Q	L	A	I	Q	L	A	A	108	
146	LDP-Y	----	DVVPEGGA	--	DFDEVV	AKLRILIGD	V	D	I	N	F	L	D	E	T	M	-	S	-	D	T	N	D	Q	T	A	I	Q	I	A	A	108		
147	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
148	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
149	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
150	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
151	IDV-N	----	DTITEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
152	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
153	MDP-Y	----	DDFEESAA	--	TFQEVST	KLKILGGD	I	L	L	D	K	F	T	T	A	T	Q	-	S	-	A	L	N	D	Q	V	G	I	Q	L	Q	K	108	
154	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
155	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
156	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
157	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
158	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
159	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
160	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
161	LDP-N	----	EEIKESAS	--	TFEEVT	AKLRILAGD	V	D	I	D	K	F	L	D	S	T	M	-	D	-	D	T	N	N	Q	M	A	I	Q	V	T	Q	108	
162	LDP-S	----	ETVNEGAA	--	TFEEIV	TRLRILIGD	V	V	D	K	F	L	M	Q	G	T	L	-	S	-	D	H	N	N	Q	K	A	I	Q	I	A	Q	108	
163	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
164	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
165	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	T	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
166	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
167	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
168	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
169	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
170	IDV-N	----	DTIPEGAA	--	TFEECV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
171	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
172	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
173	IDV-N	----	DTIPEGAA	--	TFEECV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
174	IDV-N	----	DTIPEGAA	--	TFEEKV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
175	IDV-N	----	DTIPEGAA	--	TFEEKV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
176	IDV-N	----	DTIAEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
177	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
178	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
179	IDV-N	----	DTIPEGAA	--	TFEECV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
180	IDV-N	----	DTITEGAA	--	TFTEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
181	IDV-N	----	DTIPEGAA	--	TFEEKV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
182	IDV-N	----	DTIPEGAA	--	TFEECV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
183	IDV-N	----	DTIPEGAA	--	TFEEKV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
184	IDV-N	----	DTIPEGAA	--	TFEECV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
185	IDV-N	----	DTIAEGAA	--	TFSEHV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	S	-	D	T	N	N	Q	L	A	V	Q	V	R	Q	108		
186	IDV-N	----	DTIPEGAA	--	TFEEKV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D	T	N	N	Q	L	A	I	Q	V	R	Q	108		
187	IDV-N	----	DTIPEGAA	--	TFEECV	AKLRILAGD	V	V	D	K	F	L	A	T	T	M	-	A	-	D														


191	IDV	-N	---	DTIA	EGAA	---	TFSE	HVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
192	LSA	-Y	---	EDV	PEGAA	---	TFDE	VSTKCKVLAG	QILL	DNFTTESM	-S	DLNPQLGIQIRS	108		
193	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
194	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
195	IDV	-N	---	DTI	TEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
196	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
197	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
198	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
199	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLSTTM	-A	DTNNQLAIQVRQ	108		
200	IDV	-N	---	DTI	PEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
201	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
202	LDP	-Y	---	EDF	TEGAA	---	TFDP	VSTRLRV	LGGD	ILMDKFTTTVQ	-S	GINDQIGIQLQL	108		
203	IDV	-N	---	DTI	PEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
204	LDP	-N	---	DTV	NESAA	---	TFTE	VVTKLRLAGD	V	IDKFLQTTM	-G	DTNDQMAIQIAK	108		
205	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
206	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKL	C	ILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
207	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
208	IDV	-N	---	DTI	PEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
209	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
210	IDV	-N	---	DTI	TEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
211	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
212	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
213	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
214	IDV	-N	---	DTI	AEGAA	---	TFSE	HVAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAVQVRQ	108		
215	IDV	-N	---	DTI	TEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
216	IDV	-N	---	DTI	TEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
217	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
218	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
219	IDV	-N	---	DTI	TEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
220	IDV	-N	---	DTI	TEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
221	IDV	-N	---	DTI	PEGAA	---	TFEE	C	IAKLRLAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108	
222	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
223	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
224	IDV	-N	---	DTI	TEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
225	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
226	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
227	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
228	LDP	-N	---	EVV	NESAS	---	TFTE	VVAKLRIL	I	IGD	V	VDKFLQTTQ	-S	DHNNQLAIQIAK	108
229	IDV	-N	---	DTI	TEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
230	LDP	-N	---	EVV	NESAS	---	TFTE	VVAKLRIL	I	IGD	V	VDKFLQTTQ	-S	DHNNQLAIQIAK	108
231	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
232	IDV	-N	---	DTI	AEGAA	---	TFSE	HVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
233	IDV	-N	---	DTI	TEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
234	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
235	IDV	-N	---	DTI	PEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
236	IDV	-N	---	DTI	TEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
237	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
238	IDV	-N	---	DTI	TEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
239	YDV	-G	---	DTW	TESTP	---	TFEQ	VTTGLK	I	LGGDADIDHFL	LQTY	-R	DPNQLEAVVLQQ	108	
240	IDV	-N	---	DTI	AEGAA	---	TFSE	HVAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAVQVRQ	108		
241	IDV	-N	---	DTI	TEGAA	---	TFSE	HVAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108		
242	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
243	IDV	-N	---	DTI	TEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
244	IDV	-N	---	DTI	TEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
245	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
246	IDV	-N	---	DTI	TEGAA	---	TFEE	KVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
247	IDV	-N	---	DTI	TEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
248	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
249	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
250	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
251	IDV	-N	---	DTI	TEGAA	---	TFTE	HVAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108		
252	IDV	-N	---	DTI	SEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
253	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
254	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
255	IDV	-N	---	DTI	PEGAA	---	TFEE	CVAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108		
256	IDV	-N	---	DTI	TEGAA	---	TFSE	HVAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108		
257	IDV	-N	---	DTI	TEGAA	---	TFSE	HVAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108		

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325	IDV	-N	---	DTI	PEGAA	--	TFEE	C	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
326	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
327	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
328	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
329	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
330	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
331	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
332	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
333	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
334	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
335	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
336	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
337	IDV	-N	---	DN	I	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																	
338	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
339	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
340	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
341	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
342	IDV	-N	---	DTI	AEGAA	--	TFSE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAVQVRQ	108																		
343	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
344	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
345	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
346	IDV	-N	---	DTI	TEGAA	--	TFEE	C	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
347	IDV	-N	---	DTI	PEGAA	--	TFEE	C	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
348	IDV	-N	---	DTI	SEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
349	IDV	-N	---	DTI	TEGAA	--	TFSE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
350	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
351	LDP	-N	---	EV	I	EEEGS	--	TFDE	V	TAHLRILAGD	V	VDKFL	DST	M	-G	DTNAQKAIQIKQ	89															
352	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
353	AGVGT	---	---	TIT	AKSPA	--	TFTQ	V	TSS	L	TSL	L	GD	AE	V	NGLIQATR	-S	NIQDQKAIQVAS	110													
354	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	105																		
355	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
356	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
357	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
358	IDV	-N	---	DTI	TEGAA	--	TFSE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
359	IDV	-N	---	DTI	TEGAA	--	TLEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
360	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
361	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
362	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
363	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
364	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
365	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
366	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
367	IDV	-N	---	DTI	SEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
368	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
369	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
370	IDV	-N	---	DTI	IEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
371	IDV	-N	---	DTI	SEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
372	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
373	IDV	-N	---	DTI	TEGAA	--	TFIE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
374	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
375	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
376	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
377	YEV	-G	---	DTW	ESTP	--	TFTQ	V	T	TGL	K	I	L	G	G	D	A	I	D	H	F	L	L	Q	T	Y	-R	DPNELEAIVIQS	108			
378	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
379	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
380	IDV	-N	---	DTI	SEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
381	IDV	-N	---	DTI	SEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
382	IGVGD	---	---	TIT	AKAAA	--	TFTQ	V	T	S	N	L	T	K	I	I	G	D	A	E	V	D	G	L	I	Q	A	T	R	-S	ADNDQTGVQIAS	110
383	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
384	IDV	-N	---	DTI	SEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
385	IDV	-N	---	DTI	TEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108																		
386	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
387	IDPYN	---	---	DTV	PEEAS	--	TVTD	V	T	V	T	L	K	T	L	I	G	D	V	D	K	F	L	A	T	T	M	-S	DTNDQKALQIAM	109		
388	IDV	-N	---	DTI	AEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		
389	IDV	-N	---	DTI	TEGAA	--	TFEE	K	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108																		
390	AGVGA	---	---	TIT	AKAAT	--	TFTS	V	T	S	V	L	T	S	I	L	G	D	A	E	V	N	G	L	V	Q	A	T	Q	-S	PDTDQTAQQIAS	110
391	IDV	-N	---	DTI	SEGAA	--	TFTE	H	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108																		

392	IDV	-N	---	DTIT	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108
393	IDV	-N	---	DTIT	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIRVRQ	108
394	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
395	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
396	IDV	-N	---	ETIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
397	AGVGS	---	---	TITAKNPA	---	---	TFTQVTSTL	TTIIGDAE	V	NGLIQATR	-SG	DGNDQTAVQVAS	111
398	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
399	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108
400	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
401	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
402	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
403	IDV	-N	---	DTIT	EGAA	---	TFEEK	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
404	IDV	-N	---	DTIT	EGAA	---	TFEEK	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
405	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
406	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVQC	108
407	IDV	-N	---	DTIT	EGAA	---	TFEEK	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
408	IDV	-N	---	DTIT	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108
409	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
410	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
411	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
412	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
413	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
414	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
415	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
416	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
417	IDV	-N	---	ETIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
418	IDV	-N	---	DTIT	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAIQVRQ	108
419	YDA-Y	---	---	EDIE	ESAA	---	KYVE	VETKLKV	L	AGQVDIDNFTAETQ	-S	ELNDQVALQLAA	108
420	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
421	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
422	IDV	-N	---	DTIA	EGAA	---	TFSEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAVQVRQ	108
423	IDV	-N	---	ETIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
424	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
425	IDV	-N	---	DTIA	EGAA	---	TFSEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAVQVRQ	108
426	IDV	-N	---	DTIA	EGAA	---	TFSEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAVQVRQ	108
427	IDV	-N	---	DTIA	EGAA	---	TFSEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAVQVRQ	108
428	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
429	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
430	IDV	-N	---	DTIA	EGAA	---	TFSEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNNQLAVQVRQ	108
431	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
432	ATVGD	---	---	TITAKNAA	---	---	TFTKVNSNL	TTILGDAE	V	NGLIQATR	-S	ATTDQEATQIAS	110
433	IDV	-N	---	DTIT	EGAA	---	TFEEK	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
434	IDV	-N	---	DTIT	EGAA	---	TFEEK	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
435	IDV	-N	---	DTIT	EGAA	---	TFEEK	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
436	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
437	IDV	-N	---	DVVPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
438	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
439	LDP	-N	---	DTVQ	ESAS	---	TFTEV	VAKLRILIGD	V	VDKFLQATM	-S	DHNNQLAIQIAK	108
440	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
441	YEV	-G	---	DTWTE	STP	---	TFTQVT	TGLKILGGDAD	I	DHFLQQTY	-R	DPNELEAIVIQS	108
442	IDV	-N	---	DVIPE	EGAA	---	KFTEH	VAKLRILAGD	V	VDKFLASTM	-G	DTNSQLAIQIRA	108
443	IDV	-N	---	EVIPE	EGAA	---	TFTEHT	AKLRIMAGD	V	VDKFLATTM	-D	DTNSQLAIQVRQ	108
444	LGVGG	---	---	TITAKAAT	---	---	TFTQVTSPL	KRIVGDAE	V	DNFVEATH	-S	DTTDQEAVQVAG	110
445	IGVGG	---	---	TITAKTAA	---	---	TFTQINSNL	TKIIGDAE	V	DNMIQATR	-S	SINDQTGQQIAS	110
446	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
447	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
448	YDV	-G	---	DTWAE	ATP	---	TFTQVT	VPLRILGGDAD	I	DNFLQQTY	-A	NPNDLEAVVLES	106
449	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLSTTM	-A	DTNNQLAIQVRQ	108
450	IDV	-N	---	DTIT	EGAA	---	TFEEK	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
451	YDV	-G	---	DTWTE	STP	---	TFEQVT	TGLKILGGDAD	I	DHFLQQTY	-R	DPNQLEAVVLQQ	108
452	YDV	-G	---	DTWEE	ATP	---	EFTQVT	VALKILGGDAD	V	DNFLQQTY	-A	DPNDLEAVVIES	108
453	IDV	-N	---	DTIA	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108
454	AGVGS	---	---	TITAKAPA	---	---	TFTQVTSTL	TTIIGDAE	V	NGLIQATR	-SG	DGNDQTAVQVAS	111
455	LSP	-N	---	DTVN	EDAG	---	TFDEV	VSKLRILAGD	V	VDKFLQETD	-S	DTNDQRATQIAM	108
456	IDV	-N	---	DTIT	EGAA	---	TFEEK	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
457	IDV	-N	---	DTIPE	EGAA	---	TFEEC	VAKLRILAGD	V	VDKFLATTM	-A	DTNNQLAIQVRQ	108
458	IDV	-N	---	DTIS	EGAA	---	TFTEH	VAKLRILAGD	V	VDKFLATTM	-S	DTNSQLAIQVRQ	108

459	LDP-N----	DVVPESTG--	DFTEVVT	TKLRILAGD	VDVDFLAETM-S-	DTENQLATQ	IGL	108
460	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
461	AGVGS----	TITAKNPA--	TFTQVTSTL	TTIIGDAEV	NGLIQATR-SG	DGNDQTAVQ	VAS	111
462	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
463	-----	-----	-----	-----	MASQDIF-R-	HRNDLVDFS	VTL	20
464	IDV-N----	DTIAEGAA--	TFSEH	VAKLRILAGD	VDVDFLATTM-S-	DTNNQLAVQ	VRQ	108
465	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
466	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
467	IDV-N----	DTITEGAA--	TFEEK	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
468	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
469	IDV-N----	DVVPEGAA--	TFTEH	VAKLRILAGD	VDVDFLASTM-G-	DTNSQLAIQ	VRQ	108
470	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
471	AGVDA----	TITAKAPA--	TFTKVTSEL	TTIIGDAEV	NGLIQATR-SS	DGNDQTAVQ	VAS	111
472	LDP-N----	DPINESAA--	TFEEV	VAKLRILAGD	VDVDFLNQTM-S-	DTNSQMATQ	IAK	108
473	AGVDA----	TITAKAPA--	TFTKVTSEL	TTIIGDAEV	NGLIQATR-SS	DGNDQTAVQ	VAS	111
474	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
475	IDV-N----	DTITEGAA--	TFTEH	VAKLRILAGD	VDVDFLATTM-S-	DTNNQLAIQ	VRQ	108
476	AGVGS----	TITAKNPA--	TFTQVTSTL	TTIIGDAEV	NGLIQATR-SG	DGNDQTAVQ	VAS	111
477	AGVGD----	TITAKNPA--	TFEQITSSL	TTLIGDAEV	NGLIQATR-S-	NINDQKTVQ	IMS	110
478	LGVGG----	TITAKAPT--	TFTQVTSAL	KRIVGDAEV	DNFVEATH-S-	DTTDQLAVQ	VAG	110
479	AGVGT----	TITAKNPA--	TFTHVTSTL	TTIIGDAEV	NGLIQATR-SG	DGNDQTAVQ	VAS	111
480	AGVDA----	TITAKAPA--	TFTKVTSEL	TTIIGDAEV	NGLIQATR-SS	DGNDQTAVQ	VAS	111
481	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
482	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
483	IDV-N----	DVVPEGAA--	KFTEH	VAKLRILAGD	VDVDFLATTM-A-	DTNSQLAIQ	IRS	108
484	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
485	YDV-G----	DTWQEATP--	EFTQVTVAL	KILGGDAD	VDNFLQQTY-A-	DPNDLEAIV	IES	108
486	IDV-N----	DIVPEGAA--	KFTEH	VAKLRILAGD	VDVDFLATTM-A-	DTNSQLAIQ	IRA	108
487	IDV-N----	DTISEGAA--	TFTEH	VAKLRILAGD	VDVDFLATTM-S-	DTNSQLAIQ	VRQ	108
488	IDV-N----	DEVPEGAA--	KFSEH	VAKLRILAGD	VDVDFLASTM-G-	DTNSQMAIQ	IRS	108
489	IDV-N----	DVVPEGAA--	KFTEH	VAKLRILAGD	VDVDFLATTM-A-	DTNSQLAIQ	IRA	108
490	AGVGS----	TITAKNPA--	TFTQVTSTL	TTIIGDAEV	NGLIQATR-SG	DGNDQTAVQ	VAS	111
491	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
492	LGVGS----	SITAKAAT--	TFTQVTSPL	KRIVGDAEV	DNFIEATH-S-	DTTDQLAVQ	VAG	110
493	IDV-N----	DTITEGAA--	TFEEK	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
494	YDV-G----	DTWSEATP--	TYTQVTASL	KILGGDAD	VDTFLQQTY-A-	DPNDLEALV	LES	108
495	IDV-N----	DTITEGAA--	TFEEK	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
496	IDV-N----	DTITEGAA--	TFEEK	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
497	AGNDD----	TITAKSPA--	TFTRVSADL	TTIIGDAE	INGLIQATR-S-	NITDQKAVQ	IAS	110
498	IDV-N----	DTIPEGAA--	TFEEC	VAKLRILAGD	VDVDFLATTM-A-	DTNNQLAIQ	VRQ	108
499	IDV-N----	DEVPEGAA--	KFTEH	VAKLRILAGD	VDVDFL SSTM-G-	DTNSQMAIQ	IRS	108
500	AGVGS----	TITAKNPA--	TFTQVTSTL	TTIIGDAEV	NGLIQATR-SG	DGNDQTAVQ	VAS	111



	190	200	210	220	230	240		
1	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IQP-----	SNVTDLN-	144
2	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IQP-----	SNVTDLN-	144
3	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IQP-----	SNVTDLN-	144
4	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IQP-----	SNITDLN-	144
5	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IKP-----	SNVTDLN-	144
6	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IQP-----	SNVTDLN-	144
7	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IKP-----	SNVTNLN-	144
8	ATRQLLYKF	FSEQLES	GSNG----	FLGFTQL	-----	IKP-----	SNVTDLN-	144
9	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IKP-----	SNVTNLN-	144
10	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	VQP-----	SNITDLN-	144
11	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IKP-----	SNVVDLN-	144
12	ATRQLLYKF	FSEQLES	GTNG----	FLGFTQL	-----	IKS-----	SNVTDLN-	144
13	ATRQLLYKF	FSEQLES	GSNG----	FLGFKQL	-----	IKP-----	SNVVDVN-	144
14	AIRQLLYRF	FSKELQ	NGSDG----	FLGFKQL	-----	ISL-----	ENSVDLR-	144
15	AVRELLLYK	FWTLFES	GDSSVNPDE	FDGLLKL	-----	VDP-----	SKVVDLG-	152
16	AVRELLLYK	FWILFER	GDASANPEE	FDGLLSL	-----	VNP-----	GNTIDLQ-	152
17	AVRELLLYR	FWILFER	GDASTNPPEE	FDGLLSL	-----	VNP-----	GNTIDLQ-	152
18	AVRELLLYK	FWVLFES	GD TLVNPDE	FDGLLRL	-----	VDP-----	SNTIDLQ-	152
19	AIRELLLYK	FWTLFES	GD SA-NPGE	FDGLLQKL	-----	VDP-----	SRVLDLG-	151

20	AVRELLLYKFWMLFEGGDSATNPDEFDGLLKL-----VDP-----SKVVVDLE-	153
21	AIRELLLYKFWTLFESGDSV-NAGEFDGLHKL-----ADP-----SRVLDLG-	151
22	AIRELLLYKFWILFESGDSA-NAGEFDGLHKKI-----VDP-----SRVLDLG-	151
23	AIRELLLYKFWTLFESGDSV-NAGEFDGLHKL-----ADP-----SRVLDLG-	152
24	AIRELLLYKFWTLFESGDSA-NTGEFDGLYKL-----VDP-----SRVLDLG-	151
25	AIRELLLYKFWMLFESGDSA-NPGEFDGLQKL-----VDP-----SRILDLG-	151
26	AIRELLLYKFWTLFESGDSA-NTGEFDGLHRL-----VDS-----SRVLDLG-	151
27	AVRELLLYRFWILFERGDTSTNPDEFDGLLRL-----VNP-----DNTIDLQ-	152
28	AIRELLLYKFWTLFESGDSA-NTGEFDGLYKL-----VDP-----SRVLDLG-	151
29	AVQRLVYRYFRQLGLGATGS--FNFPSLQDV-----VGT-----GQTIDMG-	151
30	AVQRLVYRYFRQLGLGATGS--FNFPSLQDV-----VGT-----GQTIDMG-	157
31	AQMRLVYRYFRRLGQAAAGT--FDFPTLQDV-----VGT-----GQTINMG-	153
32	AQMRLIYRYFRRLGQAAAGT--FDFPTLQDV-----VGT-----GQTIDMG-	153
33	AQMRLIYRYFRRLGQAAAGT--FDFPTLQDV-----VGT-----GQTIDMG-	153
34	AIRRLMYMYFRKLDLGGTTGGN-GDFPSLADM-----AVL-----GNVVTSA-	159
35	ACKRLMYMYARKLDLNNGGG-SGDFDSLADM-----CAA-----GQKVAGG-	170
36	ATRQLLYKFSEQLESNGSNG----FLGFTQL-----IKP-----SNVTDLN-	67
37	AIRRLTYMFYRKLDLATTGNP-GDFPSLSDM-----CAA-----GQRFNSA-	159
38	AKIRLLYRYFQRLGETTGAV--TTFPGLTGM-----VGT-----GQTIAMG-	151
39	ANRRLLYAFCRLLLEVGDTTANPNEFDGFLKL-----VNP-----ANVVDKA-	149
40	AIRRLMYMYFRKLDLDNAGTKVGD FDSLGE L-----AT-----NITTA-	156
41	AIQRLLYKFFNLLEIGNPAINPNEFAGLKKL-----VDP-----FNVVNLG-	149
42	ADMRLMYRYFQRLDEVTGGI--SQFPGLQDM-----VGA-----GKTINMG-	151
43	AKIRLLYGYFRRLGEATGGI--SQFPGLQDM-----VGA-----GKTINMA-	150
44	ADMRLMYRYFQRLGQATGGV--SQFPGLQDI-----VGA-----GKTINMG-	151
45	AKIRLLYRYFQRLGETTGAV--TTFPSLTGM-----VGA-----GQTIAMG-	151
46	AKRRILYAYAQQLDSE--GS--AVGPGLPDL-----CAA-----SQLVDMG-	143
47	AKRRILYAYAARLGAAT-GN--PAQGGLRDL-----ADP-----ARVINLA-	144
48	AKRRILYAYAQQLDSE--GS--AVGPGLPDL-----CAA-----GQLVDMG-	143
49	AKRRILYAYAQQLDSE--GS--AVGPGLPDL-----CAA-----GQLVDMG-	143
50	AKRRILYAYAQQLDSE--GS--AVGPGLPDL-----CAA-----GQLVDMG-	143
51	AKRQVLYAYAQWIV-----NTATGLVTL-----CDA-----SRIVDMA-	139
52	AKIKLDYGYAHLDVAT-GD--PVFGGLQDI-----VAP-----GNVINVG-	144
53	AVKRLYYKFWETFNTGDNANPQEFDGLRRL-----VAS-----GQTVTARD	154
54	ACKRLMYMYFRKLDLDNGNTLSGDFDSLFDIANDVAPTMSVG-----ANVVDMG-	151
55	AIRRMYYQFWATFNTGNEGANPQEFNGLQQ L-----VTG-----GQTIITANA	154
56	AVQRLIYRYFRQLGLAATGS--FNFPSLQDV-----VGA-----GQTIDMG-	151
57	ALAEILIYGYFAWLD---GT--PGTGGLRDY-----IAA-----ARIVDMG-	142
58	ACTRLLLSFRKLDKVNNGGT-EGDYDSLADM-----CDA-----NQIVAGG-	154
59	AIKRLYYKFWGTFTNTGNSSLNPDEFDGLRQL-----VSS-----GQTLTARD	154
60	AEVQNWYGFYARMDVLT-GN--PSLGGLPDL-----VAP-----SRTLNLG-	144
61	AIRRMYYQFWTTLNTGNEGTPNPQEFNGLRQL-----VVA-----GQTIITANA	154
62	AKRRILYSYAAQLDSA--GV--LAAPGLPDL-----CAA-----GQLVDMG-	143
63	AEIKCDYGYGYARMDTLT-GD--PVHGGLLDL-----VAP-----GNIINPG-	144
64	AVKRLYYKFWETFNTGDNVNVQEFDGLRRL-----VVS-----GQTLTARD	154
65	AVRRMTYQFWTAFNTGNEGTPNPQEFNGLRQL-----VVA-----GQTVTANG	154
66	AKRQILYAYAEHIV-----SPTIGLPAA-----CDS-----DRNVDMG-	139
67	MIRQLLYGFSERLDAAP-SP--ANPLALRNY-----IEP-----DRIVNLA-	144
68	ACRQLLYGFFRLLFIGN-PVNPGEFIGFDNI-----ITGA-----AFAGQIVDAL-	152
69	ATRQVLYGFFRLLFVGN-PANPGEFIGFDNI-----ITGA-----PFAGQIVDAL-	168
70	ACRQCMYEGFRLLLESGISGND-GEFAGLRSL-----VPA-----NMTVTVG-	154
71	ACRQCMYQGFRLLESGISGND-GEFAGLRSL-----VPA-----NMTVTVG-	205
72	ACRQCMYQGFRLLESGISGND-GEFAGLRSL-----VPA-----NMTVTVG-	200
73	ACRQCMYDGFRLLENGIAGND-GEFAGLRSL-----VPA-----NMTVTVG-	154
74	KAKALGRKFKRTLATGDRSVNSKAFDGI AKL-----VAA-----GQTIISAGT	150
75	AKRRILYSYAQRLGTAT-GN--PAQAGLRDL-----ADP-----ARVIDLA-	144
76	AVQRLVYRYFRQLGLGATGS--FNFPSLQDV-----VGT-----GQTIDMG-	86
77	GEIENWYGYGYGRMDTAT-GD--PVFGGLLDL-----VAP-----GRIVNMG-	144
78	KAKAMGRKFRRTLAIIGDSGSNAKEFDGIASL-----TPA-----GQTLAAAT	150
79	AVQRLIYRYFRQLGLAATGS--FNFPSLQDV-----VGA-----GQTIDMG-	151
80	KAKGIARKFRRTLANGNASVNAKEFDGVHRL-----VTA-----NQTIISAGT	150
81	KAKGLARKFRRTLAIIGDNGTNAKEFDGVASL-----VTG-----GQTIITAGA	151
82	KAKGMARQFHRTLAMGDS SKNRKEFDGLASL-----TPA-----AQTLVAGK	150
83	KAKGLGRKFKRTIVNGDS AVNAKSFDGIKKL-----TPA-----AQTLVAGA	150
84	KAKGLGRKFKRTIVNGDS SVNAKSFDGIKKL-----TPA-----AQTLIAGT	150
85	KAKGLGRKFKRTIVNGDS SVNAKSFDGIKKL-----TPA-----SQTLIAGT	150
86	KAKGLGRKFKRTIVNGDS SVNAKSFDGIKKL-----TPS-----AQTLIAGT	150

87	AERRLQQLFWELIDTGVAGS--GSFLGLSGL-----LPA-----GQKVVVG-	145
88	ACKRLMYMYFRKLDLVNGNTLSGDFDSLFDIAGDV-----NSG-----SQIIDMS-	102
89	KAKALGRKFKRTIVNGDSSVNAKSFDFGVKKL-----TPA-----SQTLIAGT	150
90	KSKALGRKFRRALVQGDSSVNAKEFDGIRAL-----TPA-----AQTLVAGA	150
91	AKRRLLYAYATFIAD---S---NQSGSLVGI-----CDA-----ARVVNMA-	100
92	AERRLQQLFWELIDTGVSGS--GSFLGLSGL-----LPA-----GQRVVVG-	145
93	AERRLQQLFWELIDTGVAGS--GRFLGLAGL-----LPA-----GQRVVVG-	145
94	KAKGITRKFRRLAQQGDSSVNAKEFDGIDRL-----VYN-----DQVIIVGG-	149
95	KAKGLGRKFKRTIVNGDSSVNPKEFDGIAKKL-----TPA-----AQTLVAGT	150
96	KAKGVAREFHRTLMLGDSATNAKEFDGLPKL-----VSG-----SQTISAGA	150
97	KAKGIGRQFRRTLNVNGDSSVNRKEFDGVKKL-----VPA-----KQTLIAGK	150
98	KAKGMARTFRRRAVVQGNSTDPKSFDFGIEKL-----VADT-----GNFFEAGL	151
99	KAKALGRQFRRTLNVNGDSSVNRKEFDGIAKKL-----VPA-----KQTLVAGL	150
100	KAKGMATTFRRRALVVGDSSTVNPKQFDGLEKL-----VTDT-----GNFIEAGV	151
101	KAKGMARKFRRTLAIGDATSNPKEFNGVAKL-----VTA-----GQTIITAGT	151
102	AVRNCMNGFFYLILADAAGG-TGSPPTLVSL-----CTGT-----SQMNDFN-	153
103	KAKGMARTFRRRAVVQGDSTVDNKSFDGIEKL-----VKDT-----GNFFEAGV	151
104	KAKGVGRKFHKTLATGDASVNPKEFDGIAKL-----VTE-----EQTISAGP	150
105	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
106	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	148
107	KAKSLAMTFHKTLAQQGDASANPKAFDGLPKM-----VTP-----TQTVDVG-	149
108	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
109	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
110	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
111	KSKALNRLFKQTLVSGDATANPKQFDGLSKL-----VTA-----GQTMDAAP	150
112	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	152
113	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
114	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
115	KAKGLATTFRRRALIQGDSSVNPKEFDGLNKL-----VNDT-----GNYFEAGP	151
116	KAKGMSRQYRAALVEGDSSTNAKQFDGLKKL-----VTT-----TQTLDAK-	149
117	KAKGVGRKFHKTLATGDASVNPKEFDGIAKL-----VTE-----EQTISAGP	150
118	KAKGVGRKFHKTLATGDASVNPKEFDGIAKL-----VTE-----EQTISAGP	150
119	KAKGMSRQYRAALVEGDSATNAKQFDGLKKL-----VTT-----AQTLDAK-	149
120	KAKSMARAFQKSVVNGDSSVNEKEFDGLKAL-----VTA-----EQTIEAGV	150
121	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
122	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
123	KAKGVGRKFHQTLATGDATANTKAFDGLPKL-----VDA-----SQTITAGD	150
124	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
125	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
126	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
127	KAKALGMQFRRTLNVNGDSTKNRKEFDGVKML-----VPA-----KQTLIAGA	150
128	KAKALGMQFRRTLNVNGDTTKNRKEFDGVKAL-----VPA-----KQTLIAGA	150
129	KAKAVGRIFKKTIAQGNASKNPKEFDGLPQL-----VTS-----AMTLDADT	150
130	KAKAVGRIFKKTIAQGNAAKNPKEFDGLPQL-----VTS-----AMTLDADT	150
131	KAKAVGRIFKKTIAQGNAAKNPKEFDGLPQL-----VTS-----AMTLDADA	150
132	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
133	KTKTASRKYQDMLINGTGAGN--EFLGLLGL-----VPS-----AQKVPTGA	150
134	KAKAVGRIFKKTIAQGNASKNPKEFDGLPQL-----VTS-----AMTLDADT	150
135	KAKGVAREFHRTLARGDSKTNAKEFDGFDFKL-----VTS-----TQIVDAGA	150
136	KAKAVGREFRKVLAEGDHDTNAKQFDGISKL-----VTT-----TQKIDAG-	149
137	KAKGMARKFQRTLATGNSGTDPKSFDFGISEL-----CAD-----NQVLPTSG	150
138	KAKAVAREFHRTLAKGNATANPKEFDGLPQL-----AAAA-----PNSQVQVAGA	153
139	KAKALTRKLRKRTLNVGNNAVNAKEFDGLKVL-----TPA-----EQTLIAGT	150
140	KVKGLARSFKRALVLGDETSNSKSFDFGLGRL-----TAS-----DQIIDAA-	149
141	KAKGLRTKFQKTLINGDRSVHSKEFDGIAAI-----SNG-----LGSSQVQVGA	153
142	KAKGMSLQFRSELVNGDTAVNAKSFDFGLRKL-----TPA-----GQTLGAGT	150
143	KVKGLARSFKRALVLGDETSNSKSFDFGLGRL-----TAS-----EQIIDAA-	149
144	KAKAINRTFRNTLVNGDSSVNAKAFDFGVKKL-----TPA-----GQTLVAGA	150
145	KAKALGRALRRTIINGDNSVNAKEFDGLKKL-----MPA-----NQTLVAGN	150
146	KAKGMSRKFRRTLATGNSGTDPKSFDFGIAEL-----CAD-----NQVISADG	150
147	KVKGLARAFRRNLILGDSSTNSKAFDFGIPKL-----MHK-----DQKVDIA-	149
148	KVKGLARAFRRNLILGDSSTNSKAFDFGIPKL-----MHN-----DQKIDIA-	149
149	KVKGLARAFRRNLILGDSSTNSKAFDFGIPKL-----MHK-----DQKVDIA-	149
150	KVKGLARAFRRNLILGDSSTNSKAFDFGIPKL-----MHD-----DQKIDIA-	149
151	KVKGLARAFRRNLILGNSSETNTKAFDFGIPRL-----MHK-----DQKIDIA-	149
152	KVKGLARAFRRNLILGDSSTNSKAFDFGIPKL-----MHD-----DQKIDIA-	149
153	KAKAINRTFRNTLVNGDSSVNAKAFDFGVKKL-----TPA-----GQTLVAGA	150

154	KVKGLARAFRRNLILGDS	TTNTKAFDGI	PKL	----	MID	-----	DQKIDIA	149
155	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQNIDIA	149
156	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHD	-----	DQKIDIA	149
157	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHD	-----	DQKIDIA	149
158	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQKIDIA	149
159	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQKIDIA	149
160	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQNIDIA	149
161	KAKGVGRKFHKTL	ATGDASVNP	KEFDGIAKL	----	VTE	-----	EQTISAGP	150
162	KAKGLARKFKRTL	VVGDATSSPK	EFDGLGKI	----	AEA	-----	ITAGDASRTVVAGT	156
163	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQKIDIA	149
164	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHD	-----	DQKIDIA	149
165	KVKGLARAFRRNLILGDS	SANSKAFDGI	PKL	----	MHN	-----	DQKIDIA	149
166	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHD	-----	DQKIDIA	149
167	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHK	-----	DQNV	149
168	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHN	-----	DQKIDIA	149
169	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHK	-----	DQNV	149
170	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	IHA	-----	DQKIDIA	149
171	KVKGLARAFRRNLILGDS	TANSKAFDGI	PKL	----	MHN	-----	DQKIDIA	149
172	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQNIDIA	149
173	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
174	KVKGLARAFRRNLIVGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
175	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
176	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHK	-----	DQKV	149
177	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQKIDIA	149
178	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQKIDIA	149
179	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
180	KVKGLARAFRRNLILGDS	TTNSKAFDGI	PKL	----	MHK	-----	DQNV	149
181	KVKGLARAFRRNLIVGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
182	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
183	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
184	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
185	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQKIDIA	149
186	KVKGLARAFRRNLIVGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
187	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
188	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
189	KVKGLARAFRRNLILGDS	SSNTKAFDGI	PR	----	MHA	-----	DQKIDIA	149
190	KAKAVAHKFMETFY	YGD	TAEDENAFDGLAKL	----	VDA	-----	GQEVSMGT	150
191	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQKIDIA	149
192	KAKGLGIKFRRTL	VNGDS	SSQNKKSFDGIKTL	----	TPA	-----	GQTLVAGA	150
193	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
194	KVKGLARAFRRNLILGDS	STNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
195	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
196	KVKGLARAFRRNLILGDS	ISNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
197	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
198	KVKGLARAFRRNLILGDS	SSNSKAFDGI	PR	----	MHA	-----	DQKIDIA	149
199	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
200	KVKGLARAFRRNLIVGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
201	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
202	KAKSINRVFRNAIV	NGDS	DVNAKSFDGIKKL	----	TPA	-----	SQTLVAGA	150
203	KVKGLARAFRRNLIVGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
204	KAKALAYAFQQT	VATGDS	GSNAKQFDGLAVL	----	NDN	-----	TNQVVSAGT	151
205	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
206	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
207	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
208	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
209	KVKGLARAFRRNLILGDS	SSNNKAFDGI	TR	----	MHA	-----	DQKIDIA	149
210	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
211	KVKGLARAFRRNLILGDS	STNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
212	KVKGLARAFRRNLILGDS	STNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
213	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
214	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PR	----	MHK	-----	DQKIDIA	149
215	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
216	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
217	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
218	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PR	----	MHA	-----	DQKIDIA	149
219	KVKGLARAFRRNLILGDS	SSNTKAFDGI	PR	----	MHA	-----	DQKIDIA	149
220	KVKGLARAFRRNLILGDS	SSNSKAFDGI	PR	----	MHT	-----	DQKIDIA	149

221	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
222	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHE	-----	DQKIDIA	149			
223	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
224	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
225	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
226	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
227	KVKGLARAFRRNLILGDS	NTNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
228	KAKGMGREFSKVLIQ	GDS	AVNAKQFDG	VAKL	-----	VTS	-----	DQTI	DGK	149	
229	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
230	KAKGMGREFSKVLIQ	GDS	AVNAKQFDG	VAKL	-----	VTS	-----	DQTI	DGK	149	
231	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
232	KVKGLARAFRRNLILGN	SETNTKAFDGI	PRL	-----	MHK	-----	DQKIDIA	149			
233	KVKGLARAFRRNLILGDS	SSNTKAFDGI	PRL	-----	MHT	-----	DQKIDIA	149			
234	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
235	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
236	KVKGLARAFRRNLILGDS	SSNTKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
237	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
238	KVKGLARAFRRNLIVGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
239	KAKAVAHAFLLQAFYR	GN	SVVNP	KQFDGLRKL	-----	VPA	-----	SQTI	QPGP	150	
240	KVKGLARAFRRNLILGN	SETNTKAFDGI	PRL	-----	MHK	-----	DQKIDIA	149			
241	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	-----	MHD	-----	DQKIDIE	149			
242	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
243	KVKGLARAFRRNLIVGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
244	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
245	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
246	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
247	KVKGLARAFRRNLILGDS	SSNTKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
248	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
249	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
250	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
251	KVKGLARAFRRNLILGDS	SSNSKAFDGI	PRL	-----	MHE	-----	DQKIDIA	149			
252	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
253	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
254	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
255	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
256	KVKGLARAFRRNLILGN	S	STNTKAFDGI	PKL	-----	MHD	-----	DQKIDIE	149		
257	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	-----	MHD	-----	DQKIDIE	149			
258	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
259	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
260	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	-----	MHD	-----	DQKIDIA	149			
261	KVKGLARAFRRNLIVGDS	STNNKAFDGI	PKL	-----	MHD	-----	DQKIDIS	149			
262	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
263	KVKGLARAFRRNLILGN	S	TENTKAFDGI	PKL	-----	MHD	-----	DQKIDIA	149		
264	KVKGLARAFRRNLILGDS	STNNKAFDGI	PKL	-----	MHD	-----	DQKIDIA	149			
265	KVKGLARAFRRNLIVGDS	ITNNKAFDGI	PKL	-----	MHD	-----	DQKIDIS	149			
266	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
267	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	-----	MHD	-----	DQKIDIS	149			
268	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	-----	MHD	-----	DQKIDIS	149			
269	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	-----	MHD	-----	DQKIDIE	149			
270	KAKGMGREFSKVLIQ	GN	S	TTNAKQFDGI	AKL	-----	VTS	-----	DQTI	DGK	149
271	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
272	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	-----	MHD	-----	DQKIDIS	149			
273	KVKGLARAFRRNLIVGDS	TTNSKAFDGI	PKL	-----	MHD	-----	DQKIDIS	149			
274	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	-----	MHD	-----	DQMIDIS	149			
275	KVKGLARAFRRNLILGDS	SSNSKAFDGI	PRL	-----	MHT	-----	DQKIDIA	149			
276	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
277	KVKGLARAFRRNLILGDS	SSNTKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
278	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	-----	MHD	-----	DQKIDIS	149			
279	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
280	KVKGLARAFRRNLIVGDS	TTDNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
281	KAKGVAREFHRTLARG	DS	KTNAKEFDG	FDKL	-----	VTS	-----	TQIV	DAGA	150	
282	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	-----	MHD	-----	DQKIDIS	149			
283	KVKGLARAFRRNLILGDF	S	TTNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149		
284	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
285	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			
286	KVKGLARAFRRNLILGDS	STNNK	S	FDGI	PKL	-----	MHD	-----	DQKIDIE	149	
287	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	-----	MHA	-----	DQKIDIA	149			

288	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
289	KVKGLARAFRRNLI	V	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
290	KVKGLARAFRRNLI	LGDS	SSNT	KAFD	GIP	RL	-----	MHT	-----	DQKID	I	A	-	149		
291	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	RL	-----	MHA	-----	DQKID	I	A	-	149		
292	KVKGLARAFRRNLI	LGDS	SSNN	KAFD	GIP	RL	-----	MHA	-----	DQKID	I	A	-	149		
293	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
294	KVKGLARAFRRNLI	V	LGDS	SSNN	KAFD	GIP	RL	-----	MHE	-----	DQKID	I	A	-	149	
295	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
296	KVKGLARAFRRNLI	V	LGDS	TTNS	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
297	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
298	KVKGLARAFRRNLI	LGDS	SSNN	KAFD	GIP	RL	-----	MHE	-----	DQKID	I	A	-	149		
299	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
300	KVKGLARAFRRNLI	LGDS	SSNN	KAFD	GIP	RL	-----	MHA	-----	DQKID	I	A	-	143		
301	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
302	KVKGLARAFRRNLI	V	LGDS	ITNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
303	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
304	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
305	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
306	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
307	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
308	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
309	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
310	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
311	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
312	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
313	KVKGLARAFRRNLI	LGDS	SSNN	KAFD	GIP	RL	-----	MHA	-----	DQKID	I	A	-	149		
314	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
315	KVKGLARAFRRNLI	LGDS	SSNN	KAFD	GIP	RL	-----	MHT	-----	DQKID	I	A	-	149		
316	KVKGLARAFRRNLI	V	LGDS	TANN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
317	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	A	-	149		
318	KVKGLARAFRRNLI	V	LGDS	ASTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
319	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
320	KVKGLARAF	C	RNLI	LGDS	TTNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149
321	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
322	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
323	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
324	KVKGLARAFRRNLI	LGDS	SSNN	KAFD	GIP	RL	-----	MHA	-----	DQKID	I	A	-	149		
325	KVKGLARAFRRNLI	LD	DS	STNN	KAFD	GIP	RL	-----	MHA	-----	DQKID	I	A	-	149	
326	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	N	QKID	I	S	-	149
327	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
328	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
329	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
330	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
331	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
332	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
333	KVKGLARAFRRNLI	LGDS	STD	T	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149	
334	KVKGLARAFRRNLI	LG	N	STENT	KAFD	GIP	KL	-----	MHN	-----	DQKID	I	A	-	149	
335	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
336	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	RL	-----	MHA	-----	DQKID	I	A	-	149	
337	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
338	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	RL	-----	MHD	-----	DQKID	I	S	-	149	
339	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
340	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
341	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
342	KVKGLARAFRRNLI	LG	N	SETNT	KAFD	GIP	RL	-----	MHK	-----	DQ	N	I	A	-	149
343	KVKGLARAFRRNLI	LGDS	TTNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
344	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
345	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
346	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	149	
347	KVKGLARAFRRNLI	LGDS	SSNN	KAFD	GIP	RL	-----	MHA	-----	DQKID	I	A	-	149		
348	KVKGLARAFRRNLI	LG	N	STENT	KAFD	GIP	KL	-----	MHN	-----	DQKID	I	A	-	149	
349	KVKGLARAFRRNLI	LGDS	STNT	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
350	KVKGLARAFRRNLI	LGDS	STNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149		
351	KAKG	VAREFHRT	LARGDS	KTNAKE	FDGFDKL			VTS	-----	TQIV	DAGA			131		
352	KVKGLARAFRRNLI	LG	N	STENN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	E	-	149	
353	KA	KS	VG	RQYQDTM	INGDGTSE	-TF	QGLLSL	VAA	-----	GQTIT	GTDT			150		
354	KVKGLARAFRRNLI	V	LGDS	TTNN	KAFD	GIP	KL	-----	MHD	-----	DQKID	I	S	-	146	

355	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
356	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
357	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	MHD	DQKIDIS	149
358	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
359	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	MHD	DQKIDIS	149
360	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
361	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	MHA	DQKIDIA	149
362	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	MHD	DQKIDIS	149
363	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
364	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
365	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
366	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
367	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MHD	DQKIDIA	149
368	KVKGLARAFRRNIIILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
369	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
370	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
371	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
372	KVKGLARAFRRNLILGDS	STNNKAFDGI	PKL	MHD	DQKIDIE	149
373	KVKGLARAFRRNLILGDS	TTNTKAFDGI	PKL	MHD	DQKIDIE	149
374	KVKGLARAFRRNLILGDS	SSNSKAFDGI	PRL	MHE	DQKIDIA	149
375	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
376	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PRL	MHA	DQKIDIA	149
377	KAKAVAHAF	LATFYTG	ASADPKQFDGLRR	VPA	SQTIQPGP	150
378	KVKGLARAFRRNLILGDS	STNNKAFDGI	PKL	MHD	DQKIDIE	149
379	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
380	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MNN	DQKIDIA	149
381	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
382	KAKSAGRNYQNQL	INGSGASD	EFNGLINL	CAS	GQKATTGG	150
383	KVKGLARAFRRNIIILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
384	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
385	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	NQKIDIE	149
386	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PRL	MHA	DQKIDIA	149
387	KAKGMGRFRRTLV	QGD	SAANSKEFDGLWKL	VTA	QQSIAAGA	151
388	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
389	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	MHD	DQKIDIS	149
390	KTKTASRKYQDM	LINGTGAGD	EFLGLLGL	VPV	AQKVATGA	150
391	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
392	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
393	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
394	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
395	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
396	KVKGMARAFRRNLILGNS	ETNNKAFDGI	PRL	MHE	DQKIDIA	149
397	KAKSCGRKYQDQMV	NGDGTGN	NMTGMFGL	VAA	GQTIITANN	151
398	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	MHA	DQKIDIA	149
399	KVKGLARAFRRNLILGDS	STNNKAFEGIP	PKL	MHD	DQKIDIA	149
400	KVKGLARAFRRNLILGNS	TANNKAFDGI	PKL	MHN	DQKIDIA	149
401	KVKGLARAFRRNLILGNS	TANNKAFDGI	PKL	MHN	DQKIDIA	149
402	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	MRN	DQKIDIA	149
403	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	MHD	DQKIDIS	149
404	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	MHD	DQKIDIS	149
405	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	MHA	DQKIDIA	149
406	KVKGLARAFRRNLILGNS	TANTKAFDGI	PKL	MHN	DQKIDIA	149
407	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	MHD	DQKIDIS	149
408	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	MHD	DQKIDIE	149
409	KVKGLARAFRRNLILGNS	TANNKAFDGI	PKL	MHN	DQKIDIA	149
410	KVKGLARAFRRNLILGNS	TANTKAFDGI	PKL	MHN	DQKIDIA	149
411	KVKGLARAFRRNLILGNS	TANTKAFDGI	PKL	MHN	DQKIDIA	149
412	KVKGLARAFRRNLILGNS	TANNKAFDGI	PKL	MHN	DQKIDIA	149
413	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	MHA	DQKIDIA	149
414	KVKGLARAFRRNIIILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
415	KVKGLARAFRRNLILGNS	TANTKAFDGI	PKL	MHN	DQKIDIA	149
416	KVKGLARAFRRNLILGNS	TANTKAFDGI	PKL	MHN	DQKIDIA	149
417	KVKGMARAFRRNLILGNS	ETNNKAFDGI	PRL	MHE	DQKIDIA	149
418	KVKGLARAFRRNLILGDS	STNNKAFDGI	PKL	MHD	DQKIDIE	149
419	KAKGLGRKFRMNL	VTGDTSVNSKQFDGVR	KL	VTA	DQTLDAGV	150
420	KVKGLARAFRRNIIILGNS	TENTKAFDGI	PKL	MHN	DQKIDIA	149
421	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	MHA	DQKIDIA	149

422	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PRL	----	MHK	-----	DQNIDIA	149	
423	KVKGMARAFRRNLILGNS	SEANNKAFDGI	PRL	----	MHE	-----	DQKIDIA	149	
424	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	----	MHN	-----	DQKIDIA	149	
425	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PRL	----	MHK	-----	DQKIDIA	149	
426	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PRL	----	MHK	-----	DQKIDIA	149	
427	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PRL	----	MHK	-----	DQKIDIA	149	
428	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	----	MHN	-----	DQKIDIA	149	
429	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
430	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PRL	----	MHK	-----	DQKIDIA	149	
431	KVKGLARAFRRNLILGNS	TANNKAFDGI	PKL	----	MHN	-----	DQKIDIA	149	
432	KAKSAGRQYQTM	LATGDTGN	-TFAGLPTL	----	VDA	-----	SQKVVTGT	150	
433	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
434	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	----	MHD	-----	DQKIDIS	149	
435	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	----	MHD	-----	DQKIDIS	149	
436	KVKGLARAFRRNIIILGNS	TENTKAFDGI	PKL	----	MHN	-----	DQKIDIA	149	
437	KVKGLARAFRRNLILGDS	GANSKSFDGI	PLL	----	MHA	-----	DQKIDIA	149	
438	KVKGLARAFRRNIIILGNS	TENTKAFDGI	PKL	----	MHN	-----	DQKIDIA	149	
439	KAKGMGREFSKVL	IQGNS	TTNAKQFDGIAKL	----	VTS	-----	DQTIDGK	149	
440	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
441	KAKAVAHAF	LATFYTG	DASADPKQFDGLRRLL	----	VPA	-----	SQTFQPGP	150	
442	KVKGLARSFRRSL	ILGDS	TTNAKSFDGI	PKL	----	IHA	-----	DQKI-IA	148
443	KVKGLARAFRRNLILGDS	STNTKAFDGI	PKL	----	MHD	-----	DQKIDIE	149	
444	KAKAVGRKYSSLL	INGTGANE	-EFVGLLGL	----	VSS	-----	GQTLTAGT	150	
445	KAKSAGRNYRNQL	INGSGAAD	-EFNGMINL	----	CAT	-----	SQKVD	TGN 150	
446	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
447	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
448	RAKAVAYAF	TESFFIG	DS	TANPKSFDGLRKL	----	VPA	-----	AQTISPGA	148
449	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
450	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
451	KAKAVAHAF	LNAFYRG	DS	AVNPKQFDGLRKL	----	VPA	-----	SQTIQPGP	150
452	RAKAVAHLF	SDTFFNG	DS	TANPKAFDGLAKL	----	VPP	-----	SQTLLEPGP	150
453	KVKGLARAFRRNIIILGNS	TENTKAFDGI	PKL	----	MHN	-----	DQKIDIA	149	
454	KAKSCGRKYQDQ	MVNGDGTAN	-NMTGLFGL	----	VAA	-----	GQTI	TANN 151	
455	KAKAVGRIF	KKTVAQGN	NATANPKEFDGLPQL	----	VTS	-----	PMTLAAGA	150	
456	KVKGLARAFRRNLIVGDS	TTNNKAFDGI	PKL	----	MHD	-----	DQKIDIS	149	
457	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
458	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	----	MHN	-----	DQKIDIA	149	
459	KAKALARTF	QDSVVNGD	NVARPKEFDGLKAL	----	TTA	-----	AQTI	TAGA 150	
460	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
461	KAKSAGRQYQS	QMVNGDGTGN	-NMAGLFGL	----	VAG	-----	SQTI	TANN 151	
462	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
463	GEIQTWYGY	YGRMDVLT	-GN--PVFGGLPDL	----	VAP	-----	ARTINMG	58	
464	KVKGLARAFRRNLILGNS	ETNTKAFDGI	PRL	----	MHK	-----	DQKIDIA	149	
465	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
466	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
467	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
468	KVKGLARAFRRNLILGDS	STNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
469	KVKGLARAFRRNLILGDE	SVDAKAFNGI	PKL	----	MVP	-----	DQSI	-VA 148	
470	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHE	-----	DQKIDIA	149	
471	KAKSCGRKFQDM	LINGTGASD	-QFEGLINL	----	VAA	-----	GQTL	DNGT 151	
472	KAKTVAREFHRA	LATGDS	SVNSKVFDGLPRL	----	LKQAQDFAATAGGS		QIVSAGT	160	
473	KAKSCGRKFQDM	LINGTGAND	-QFEGLINL	----	VAA	-----	GQTL	DNGT 151	
474	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
475	KVKGLARAFRRNLILGDS	SSNSKAFDGI	PRL	----	MHE	-----	DQKIDIA	149	
476	KAKSAGRQYQS	QMVNGDGTGN	-NMAGLFGL	----	VAG	-----	SQTI	TANN 151	
477	KAKSLGRKFQDS	LINGDGTGN	-SFQGLASL	----	ASA	-----	SQIID	VGT 150	
478	KAKAVGRKYANLL	LNGTGANE	-EFEGLLTL	----	ASA	-----	GQTLIAGA	150	
479	KAKSAGRKYQDQ	LINGDGTGN	-TFTGLLGL	----	AAA	-----	GQTI	GANN 151	
480	KAKSCGRKYQDM	LINGTGASD	-EFEGIINL	----	CAE	-----	GQKVATGD	151	
481	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
482	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
483	KVKGLARAFRRNLILGDS	ATNTKSFDGI	PKL	----	IHK	-----	DQKI-IA	148	
484	KVKGLARAFRRNLILGDS	SSNNKAFDGI	PRL	----	MHA	-----	DQKIDIA	149	
485	RAKAVAHLF	SDTFFNG	DS	TANPKAFDGLATL	----	VPA	-----	SQTLLEPGP	150
486	KVKGLARAFRRSL	ILGNADENAK	SFDGI	PRL	----	IHK	-----	DQKI	-VA 148
487	KVKGLARAFRRNLILGNS	TENTKAFDGI	PKL	----	MHN	-----	DQKIDIA	149	
488	KVKGLARAFRRNLILGDS	SANAKTFDGI	PKL	----	IHN	-----	DQKI	-IA 148	

489	KVKGLARAFRRNLILGDSVTNAKSFDGIPKL-----IHN-----DQKI-VA-	148
490	KAKSAGRQYQNQMVGNDGTGN--NVAGLFSL-----VAA-----SQTITANN	151
491	KVKGLARAFRRNLILGDS SSNNKAFDGIPL-----MHA-----DQKIDIA-	149
492	KAKAVGRKYSNLLINGTGAND--EFVGLLGL-----ASS-----GQTLTAGA	150
493	KVKGLARAFRRNLIVGDS TTNNKAFDGIPL-----MHD-----DQKIDIS-	149
494	RAKAVAHAFSDAFYNGDSAANPKQFDGLKKL-----VSA-----AQTIAPGA	150
495	KVKGLARAFRRNLIVGDS TTNNKAFDGIPL-----MHD-----DQKIDIS-	149
496	KVKGLARAFRRNLIVGDS TTNNKAFDGIPL-----MHD-----DQKIDIS-	149
497	KAKSIGRQFQTTMVTGDGSGN--TFEGLMSL-----VAS-----TQSFEVGT	150
498	KVKGLARAFRRNLILGDS SSNNKAFDGIPL-----MHA-----DQKIDIA-	149
499	KVKGLARAFRRNLILGDS SSNAKTFDGIPL-----IHN-----DQKI-IA-	148
500	KAKSAGRQYQNQMVGNDGTGN--NVAGLFSL-----VAG-----SQTITANN	151



250 260 270 280 290 300

1	-----GNI-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--NQIP--	191
2	-----GNT-----LKLEDLDHAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--NQIP--	191
3	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--NQIP--	191
4	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--NQIP--	191
5	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--NQIP--	191
6	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRRAYYNR--NQIP--	191
7	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--NQIP--	191
8	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--DQIP--	191
9	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--NQIP--	191
10	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--NQIP--	191
11	-----GNI-----LNLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--DQIP--	191
12	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQPGYEQIRKAYYNR--NQIP--	191
13	-----GNI-----LRLEDLDRAKGQIRVKEGEYGVIFTNQSGYEQIRKAYYNR--NQIP--	191
14	-----GAT-----LTLEDLDRAKGKIRIRNGESGIITNEPGYRLIRKAYYNR--NILP--	191
15	-----GRE-----LTLEDMDSAKEMVRTNDGRHTVIFTSSIGKRAIHAAYWNR--AVAPEY	201
16	-----GRP-----LTLEDLDRAKELVRANDGRCVVIFTSSIGKRAINASHYVR--GLRPDS	201
17	-----GRP-----LTLEDLDRTKELVRANDGRCVVIFTSSIGKRAINASHYVR--GLRPDS	201
18	-----GRA-----LTLEDLDRARERVRANDGRCVVIFTSSIGKRAINASHYVR--GFKPDS	201
19	-----FKP-----LTLEVLEQGKELVRTNDGRGTVVFTNSIGKRAIHAAHWTR--GLTPQY	200
20	-----GRE-----LTLEDMDRAKEMVRTNDGRCIVIFTSTIGKRAIHAAYWNR--GVAPEY	202
21	-----FQP-----LTLEVLEQGKELVRTNDGRGTVLFTNSTGKRAIHAAHWTR--GLTPQY	200
22	-----FQP-----LTLETLEQGKELVRTNDGRGTVLFTNSIGKRAIHAAHWTR--GLTPQY	200
23	-----FQP-----LTLEVLEQGKELVRTNDGRGTVLFTNSTGKRAIHAAHWTR--GLTPQY	201
24	-----FQP-----LTLEVLEQGKELVRTNDGRGTVLFTNSTGKRAIHAAHWTR--GLTPQY	200
25	-----FRP-----LTLEVLEQGKELVRTNDGRGTVVFTNSIGKRAIHAAHWTR--GLTPQY	200
26	-----FNP-----LTLEALEQGKELVRTNDGRGTVLFTNSIGKRAIHAAHWTR--GLTPQY	200
27	-----GRA-----LTLEDLDSAKELVRANDGRCIVIFTSSIGKRAINASHYVR--GLRPAS	201
28	-----FQP-----LTLEVLEQGKELVRTNDGRGAVLFTNSTGKRAIHAAHWTR--GLTPQY	200
29	-----GAA-----LTFAALDQAYHLISENNGRPNAIMSNSRALRTYRNL FVAT-HGIEPPT	201
30	-----GAA-----LTFAALDQAYHLISENNGRPNAIMSNSRALRTYRNL FVAT-HGIEPPT	207
31	-----AVN-----LTFAALDQAYNLVTENEGRPNAIMSNSRALRTYQNL FVAT-HGILPPT	203
32	-----GVA-----LTFAALDQTYNLVTENEGRPNAIMSNSRALRTYQNL FVAT-HGILPPT	203
33	-----GVA-----LTFAALDQAYNLVTENEGRPNAIMSNSRALRTYQNL FATT-YGILPPT	203
34	-----GASLDTAGQMEELQQTYNLVTANNGRPTAIMCNSRALRYIVSTFYGL--GANLEY	212
35	-----SAA-----PTLAKLQETYHLVAANAGMANCIMCNTRGSRAIIKAYNDV--GMHPLY	219
36	-----GNT-----LKLEDLDRAKGQIRVKEGESGVIFTNQSGYEQIRKAYYNR--DQIP--	114
37	-----AAP-NAAARIDELQKAYSLITSNNGRPNAIMCNSRAYRWIMAAAYFGV--GANPEY	211
38	-----GAA-----LTFAAMDQAYNLIKSNQGRPTAIMSNSRAQRTFANLYFGA-GAGEPPM	201
39	-----GAT-----LTCLKDLIAKGNVRANNGAPIIITTNQHGYEAIRTAHYDA--GITPEI	198
40	-----TNT-DKYTKLRSLQEAYFKITANNGRPNAIMCNSAAMRWIINAYYLA--GMNPEV	208
41	-----GTP-----LTLEAVDRAKGYIRTSEMKNKII-TNTTGYYLYREAVHNA--GISFS-	196
42	-----GAA-----LTFAALDQAYHLIDSNQGRANAIMSNSRALRTFRNLYFGD-GGGEPKD	201
43	-----GAA-----LTFAAVDQAYHLIESNQGRPNAIMSNSRALRTFRSLYFGA-GGGEPE	200
44	-----GAA-----LTFAALDQAYHLIESNQGRANAIMSNSRALRTFRNLYFGD-GGGEPKD	201
45	-----GAA-----LTFAALDQAYNLIRSNGRPSAIMSNSRAQRTFASLYFGA-GGGEPPM	201
46	-----GGA-----LTLDCLDDAYERITAGTGRPTLIMSHSRSRLTYRKL CRDA--GFKAER	192
47	-----GGA-----LTLPCLDEAYERVITAGTGRPTLIMSHSRSRLTYRNL CRVA--GFKPER	193
48	-----GGA-----LTLDCLDDAYERITAGTGRPTLIMSHSRSRLTYRKL CRDS--GLVPER	192
49	-----GGA-----LTLDCLDDAYERITAGTGRPTLIMSHSRSRLTYRKL CRDA--GFKAER	192

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50  -----GGA-----LTLACLD DAYERITAGTGRPTLIMSHSRSLRITYRKL CRDA--GFKPER 192
51  -----AGA-----LTLDCLD DAYERVVAGTGRPTLIMSSKRGRLITYRSLCRAA--GFKPER 188
52  -----GAP-----LSFPCLEATFGKV TANNNRPSVIMSNLRSRESYRNLCWAA--GIEPPM 193
53  ---GAGGV---PALRELDQLVGKITTNNGRPHVLYTSRKGAESAIRRAHYRA--SVTP-E 204
54  -----SAS-----PSLAKLQETYHLVVAGGAEANCVMCNSRASRAIIAAYNAA--GMHPQR 200
55  ---GAGGV---PTLAEFDNLLDLVKASADGRATVLYSCRTGFD AWKKAHYNL--NSVPTE 205
56  -----GAA-----LTFAALDQAFHLISENNGRPNAIMSNRA LRTYRNLFVAT-HGIEPPT 201
57  -----GGA-----LTFPCLNLAYNFVVSNNGRPTVIVSSSRELRTYEQLCRDN--GFAPPQ 191
58  -----SVA-----PTLDLLQQTWHLVTAGNARANCIMCNNRASRAIIKAYNDQ--GMHPTE 203
59  ---GAGGI---PSLRELDQLVGKITANGGRPHVLYTSRKGAESIRRAYYRA--GITP-E 204
60  -----GGL-----LTFACLEEAHDLVTANQ GKPTVIMSNARSLRSYRNLCWNA--GIKPPE 193
61  ---GAGGQ---PTLAEFDQLMALVKASADGRPTVLYSSRKGFDSWKKAHYAL--STVPAE 205
62  -----GLG-----LTLDCLD DAYERITAGTGRPTLIMSHSRSLRITYRKL CRDA--GFKAE 192
63  -----GAP-----LSFPCLEAAFDKITGNNNRPSFIMSNLASRASRYRNLCWAT--GIKPPE 193
64  ---GAGGI---PALRELDQLIGKITTNNGRPHVFYTSRKGAESAIRRAYYRE--QVTP-E 204
65  ---GAGGV---PTLAEFDQLIGKVKASDGHPTVLYTSRKGLEALKKAHYNL--NSVPSE 205
66  -----LSS-----LTLDCLD DAYSRVTAGTGRPTLIMSSTKGLRTYRSLCRAA--GIPQER 188
67  -----GGA-----LNFHCLGD AWHRV DANDGRPTMIMSATPALATYELLCRMS--GFEP PK 193
68  -----GLA-----LTTRLLDRAQRRPKSGDNFDGYICTSAQGYIEIRQAFLAS--GTLPQE 201
69  -----GLA-----LTTRLLDRAQRRIKAGDNFEGMIWTSAQGYIEIRQAFLAS--GTLPQE 217
70  -----GVP-----TLQQFDDAFFSVVDNEGYPNAIMGRTGSLKRYLNL MRAA--NQDIVY 202
71  -----GVP-----TLQQFDDAFFKVVDNEGYPNAVMGRTGSLKRFLNL MRAA--NQDIVY 253
72  -----GVP-----TLQQFDDAFFKVVDNEGYPNAVMGRTGSLKRFLNL MRAA--NQDIVF 248
73  -----GVP-----TLQQFDDAFFRVVDNEGYPSVIMGRTGSLKRFLNL MRAA--NQDIKY 202
74  ---N-GNA-----LSFSMLDELLDAVPY--GA-DAIIMRSGTVRAYRALLRAT-GATGPTE 198
75  -----GGA-----LTLPCLD EAYERVAAGTGRPTLIMSHSRSLRITYRNLCRAA--GLKPER 193
76  -----GAA-----LTFAALDQAYHLISENNGRPNAIMSNRA LRTYRNLFVAT-HGIEPPT 136
77  -----AAP-----LSFPCLSRAYHLVAANN GKPTVIMSNARSL ESYENLCRLN--GQNLEY 193
78  ---N-GAA-----VTCEMLDELKDTV LN--GA-DVLM MRQGTWRAIR SILRNM-GGNDASH 198
79  -----GAA-----LTFAALDQAFHLISENNGRPNAIMSNRA LRTYRNLFVAT-HGIEPPT 201
80  ---N-GNA-----LTL SMLDELLDAVPN--GA-DVLM MRSGTIRAYRALLRAS-GGLEPAH 198
81  ---N-GAP-----ITL TMLDELLDAVPN--GA-DAIIMRSGTLRAYRALLRAM-GGTLPE 199
82  ---D-GAA-----LTL SMLDELCD AIPN--GA-DVLMVMSRGAIRAYRTLLRAT-YGTDAM 198
83  ---N-GAA-----VSAEMLDELLDAVKL--GA-DVLM MRRGTWRAIRAIMRSF-GGNTGDM 198
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86  ---N-GAA-----VSAEMLDELLDAVKL--GA-DVLM MRRGTWRAIRAIMRSF-GGNTGDM 198
87  -----GVP-----TLQQFDEALSLVVDNEAHPTAIMSNWGA LKRYLALLRAA--GLKPD 193
88  -----SAA-----PTLAKLQETYHLVVAGGAEANCIMCNSRASRAIIAAYNAA--GLHPNR 151
89  ---N-GAA-----ISA EMLDELLDAVKL--GA-DVLM MRRGTWRAIRAIMRSF-GGNTGDM 198
90  ---N-GSA-----VNFGMLDELKDAVKN--GA-DVLM MRQGTWRAVRALLRAA-GGNEAAT 198
91  -----GAA-----LTLDCLD DAYERVVAGTGRPTLIMSHSRSLRITYRSLCRAA--GI-YQR 148
92  -----GVP-----TLAQFDQAYSLVVDNEAHPTAIMSNWGA LRRYLDLLRAA--GLKPD 193
93  -----GVP-----TLAQFDRALSLVVDNEAHPTAIMSNWGA LRRYLDLLRTA--GLKPD 193
94  -----GNA-----MSFTMLDELLDAVPN--GA-DAIFMTSAHIRALRAMLRAT-GGLEPAH 196
95  ---N-GAA-----VSAEMLDELLDAVKL--GA-DVLM MRRGTWRAIRAIMRSF-GGNTGDM 198
96  ---N-GGS-----LTLAMLDELCD AVPK--GA-DVLM MRRGTIRAYRNLLRAT-SGTDAM 198
97  ---D-GAA-----VSFTMLDEL RDVVKN--GC-DVLM MRRGTWRSIKALLRAM-GGNDAGT 198
98  ---N-GAA-----ISLSMLDELIDKLEG--RRPDALMMRTGT LRALKALWRLA-GGNTGGM 200
99  ---N-GSA-----VTFTMLDEL RD A VKN--GC-DVLM MRRGTWRAIKQLLRAM-GGNDATT 198
100  ---N-GGA-----VSLAILDELVDKLTG--KKPD AFV MRSGLRALKALWRAA-GGNTGGM 200
101  ---N-GAA-----LTL SMLDELLDAVPY--GA-DVIMMRAGTLRAHRALLRSL-GGTSVDN 199
102  -----GAA-----LALADYDTYYFKVSA--GRCNAIVSNSAQVIRYLTLMRAA--GLTPEF 200
103  ---N-GGA-----ISLSMLDELIDKLDG--RRPDALMMRTGT LRALKALWRLA-GGNTGGM 200
104  ---D-GGA-----ITLALLDELLDKVPH--GA-DCLVMRRGTIRAYRNLLRVT-SGTDAM 198
105  ---D-GNP-----LTL TMLDELCD AVPN--GA-DVIMVRRGTIRAYRALLRAT-YGTDAM 198
106  ---D-GNP-----LTL TMLDELCD AVPN--GA-DVIMVRRGTIRAYRALLRAT-YGTDAM 196
107  -----GQA-----LTL SMLDELCD TVPH--GA-DALVMRRGTIRAVRGLLRAT-YGTDAM 196
108  ---D-GNP-----LTL TMLDELCD AVPN--GA-DVIMVRRGTIRAYRALLRAT-YGTDAM 198
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111  ---N-GGA-----LTL SMLDQLYDMVLT--GA-DAFFMRAGTIRAYRALVRAT-GGTDATQ 198
112  ---D-GNP-----LTL TMLDELCD AVPN--GA-DVIMVRRGTIRAYRALLRAT-YGTDAM 200
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114  ---D-GNP-----LTL TMLDELCD AVPN--GA-DVIMVRRGTIRAYRALLRAT-YGTDAM 198
115  ---N-GSA-----LSLAALDELIDMVNG--RPDALMMRPGTFRALKT LWRAA-GGNTGGM 199
116  -----GSA-----LTF SMLDELVD A VPL--KP-DC LIMRSGTYRAYLQLLRAT-SGTNAPL 196

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117 ---D-GGA----ITLALLDELLDKVPH--GA-DCLVMRRGTIRAYRNLLRVT-SGTDAMV 198
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119 ----NAA----LTFSMLDELVDVAVPL--KP-DCLIMRSGTYRAYLQLLRAT-SGTNAPL 196
120 ---D-GGA----LTLSALDHLVDSVPN--GGPDFLMMRSGTRRAYVAQLRAA-GGNTGAM 199
121 ---D-GNP----LTLTMLDELCDVAVPN--GA-DVIVMRRGTIRAYRALLRAT-YGTDAMV 198
122 ---D-GNP----LTLTMLDELCDVAVPN--GA-DVIVMRRGTIRAYRALLRAT-YGTDAMV 198
123 ---N-GGA----LTLAKLDELCDLVPN--GA-DVIVMRRGTIRAFRSLLRAT-YGTDAMV 198
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136 ----SNA----LTFSMLDELLDAIPL--GA-DCLMMRSGTYRAYLNLLRAT-SGTNAPL 196
137 ---D-GEA----LTFERLDQLLRMVPL--GA-DALVMRGGTHDAILAMLRNL-GGTTTPND 198
138 ---N-GGA----LTLSMLDELCDVAVPN--GA-DVIVMRRGTIRAFRGLLRAT-YGTDAMV 201
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141 ---N-GSA----LTLSMLDELVDMPN--GA-DCLVMRSGTVRAYRALLRAA-GGTSPSE 201
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144 ---N-GAA----ISPSMLDELKDAVKY--GA-DVLMMRQGTWRALREIMRQF-GGNTGDM 198
145 ---D-GGA----VSLMALDELIDAVSL--GA-DCLMMREGTWRAIRALLRAT-GGITPEY 198
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147 ----KAA----MTFSMFDELVDVAVKDL--GA-DCIMMRSEHLRAYRALLRTV--NIGPSE 196
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161 ---D-GGG----ITLALLDELLDKVPH--GA-DCLVMRRGTIRAYRNLLRVT-SGTDAMV 198
162 ---N-GAA----LNLSLLDKLLDAVPN--GA-DALFMPSSVIRAFRALMRTTGGGTSAAE 205
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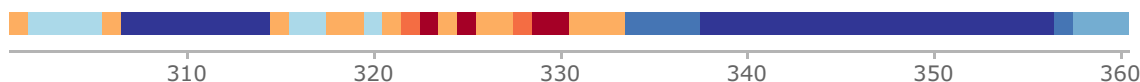
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411	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
412	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
413	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
414	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
415	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
416	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
417	----	AAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
418	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--SLGPSE	196		
419	---	D	GNP	----	ISYAAL	DELKDMVKL	-GA-	DVFMMSRSGTWRAI	RELNR	IHGGNTAET	198	
420	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
421	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
422	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
423	----	AAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
424	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
425	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
426	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
427	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
428	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
429	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
430	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
431	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
432	---	N	GGA	----	LSFAFL	DELLDL	LVVDKD	GNVDYITMHSRTI	RSYKALIRAL	-GGVTADD	201	
433	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
434	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
435	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
436	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
437	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--SVGPSE	196		
438	----	KAS	----	MTFSMFDELVD	AIKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
439	----	ASA	----	LN	FAMLD	ELLDKVPN-	-GA-	DVLVMNRPTIRAYR	QILRAT	-SGTDAVM	196	
440	----	GVS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
441	---	N	GGG	----	LTLELLD	QLVDLVKP-	-GKPD	ALLMSKRTRRKLS	QLRRQS	-GTVLESD	199	
442	----	NSA	----	MTFSML	DELVD	AVKDL	-GA-	DAIMMRSEH	IRAYRALLRTV	--NVGPQ	195	
443	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--SLGPSE	196		
444	---	N	GAD	----	VSFSL	LLDELLDAV	KAKD	GKVDFLMMHARTI	RSVKTLLRGQ	-SGAGIIE	201	
445	---	N	GGA	----	LSFEWL	DNLLDL	LVVSKD	GDVDYLI	MHARTRRSYKTLLRAL	-GGVPMEE	201	
446	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
447	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
448	---	N	GGG	----	LTLDLMD	QLIDL	LVKP-	-GKPD	ALLMSKRTRRKLS	ALRRAS	-GNLLET	197
449	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
450	----	GAS	----	MTFSMFDELVD	AVKDL	-GA-	DCIMMRSEHL	RAYRALLRTV	--NVGPSE	196		
451	---	N	GGG	----	LTLELLE	QLIDL	LVKP-	-GKPD	ALLMAKRTTRKLA	QLRRSS	-GSVLETE	199

452	---	D	GGA	---	LTLDLMD	DELID	LVRP	---	GRP	DALLM	HKRTRR	KLSQL	LRRTS	---	GNLLET	TD	199		
453	---	KAS	---	MTFSMF	DELVD	AIKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
454	GAAN	GAA	---	LSFEDL	DALID	LVTDKD	---	GQV	DYLM	MHGRT	RRKY	LALLR	SL	---	GGTSP	AD	205		
455	---	N	GAA	---	LTLSMM	DELADQ	VIN	---	GA	DAFIM	RP	GTIRAY	RALLY	AS	---	GGIQ	PAM	198	
456	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
457	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
458	---	KAS	---	MTFSMF	DELVD	AIKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
459	---	N	GAA	---	MTLGM	LDQLID	AVPN	---	GA	DFLM	MRS	GT	RRAY	TALV	RAA	---	GGNT	ASM	198
460	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
461	GAAN	GAG	---	LSFEDL	DALID	LVTDKD	---	GQV	DYLM	MHSR	TRRKY	LALLR	RAL	---	GGTSP	GD	205		
462	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
463	---	GAP	---	LSFPCL	SKAWHL	VKAN	---	NGK	PTVIM	SNAR	SLE	SYEN	LCRL	---	S	---	107		
464	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
465	---	GVS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
466	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
467	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
468	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
469	---	GAA	---	ITFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTM	---	NAGPA	E	195			
470	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
471	---	N	GAA	---	LSFEKL	DELMD	TVTDKD	---	GEV	DYLT	MHARS	LRSF	NALL	RGL	---	GGAS	IGD	202	
472	---	N	GNP	---	LTLT	MMDEL	CDAV	PN	---	GA	DVLV	MRRGT	IRAY	RALL	RAT	---	YGTD	AVM	208
473	---	N	GAA	---	LSFEKL	DELMD	TVTDKD	---	GEV	DYLT	MHARS	LRSF	NALL	RGL	---	GGAS	IGD	202	
474	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
475	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
476	GAAN	GAA	---	LSFEDL	DALID	LVTDKD	---	GQV	DYLM	MHSR	TRRKY	LALLR	RAL	---	GGTSP	GD	205		
477	---	N	GSA	---	LQFELL	DELID	SVKDKD	---	GQV	DYI	LASAR	TIRSY	YALL	RGL	---	GGAT	IGD	201	
478	---	N	GAT	---	LSFELL	DELL	DRV	TAKD	---	GKV	DFLM	MHGRT	IRSL	KALL	RQA	---	GGAG	I	201
479	GAAN	GAA	---	LSFEDL	DALID	LVTDKD	---	GQV	DYI	MHGRT	TRRKY	LALLR	RAL	---	GGTSP	GD	205		
480	---	N	GSA	---	LSFEIL	DELMD	LVVDKD	---	GQV	DYLT	MHART	LRSY	NALL	RSL	---	GGAS	IGD	202	
481	---	GVS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
482	---	GVS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
483	---	DSA	---	MTFSM	LDEL	VDAVKDL	---	GA	DAIMMR	SEHL	RAYRALL	RTV	---	NVGP	Q	195			
484	---	GVS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
485	---	D	GGA	---	LTLDLMD	DELID	LVRP	---	GRP	DALLM	HKRTRR	KLSQL	LRRTS	---	GNLLET	TD	199		
486	---	DSA	---	MTFSM	LDEL	VDAVKDL	---	GA	DAIMMR	SEH	IRAY	RALL	RTV	---	NVGP	Q	195		
487	---	KAS	---	MTFSMF	DELVD	AIKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
488	---	DSA	---	MTFSM	LDEL	VDAVKDL	---	GA	DAIMMR	SEH	IRAY	RALL	RTV	---	NVGP	TE	195		
489	---	DSA	---	MTFSM	LDEL	VDAVKDL	---	GA	DAIMMR	SEH	IRAY	RALL	RTV	---	NVGP	Q	195		
490	GAAN	GAG	---	LSFEDL	DALID	LVTDKD	---	GQV	DYLM	MHSR	TRRKY	LALLR	RAL	---	GGTSP	GD	205		
491	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
492	---	N	GGA	---	LSFEM	LDELL	DAVKAKD	---	GKV	DFLM	MHGRT	IRSL	KSL	LLRG	---	GGAG	I	201	
493	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
494	---	N	GG	---	LTLDLMD	Q	LIDLV	KP	---	GRP	DALLM	SKRSR	RKLSA	LLRR	---	GNLLET	TD	199	
495	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
496	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
497	--	DN	GAN	---	LSFDQ	L	DQLIDY	VKDKD	---	GQV	DYMM	M	PARTIR	SFYALL	RQL	---	GGAT	IND	202
498	---	GAS	---	MTFSMF	DELVD	AVKDL	---	GA	DCIMMR	SEHL	RAYRALL	RTV	---	NVGP	SE	196			
499	---	DSA	---	MTFSM	LDEL	VDAVKDL	---	GA	DAIMMR	SEH	IRAY	RALL	RTV	---	NVGP	TE	195		
500	GAAN	GAG	---	LSFEDL	DALID	LVTDKD	---	GQV	DYLM	MHSR	TRRKY	LALLR	RAL	---	GGTSP	GD	205		



1	---	PVL	-	NGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	KIK	---	---	---	---	DK	DK	221
2	---	PVL	-	NGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	KIK	---	---	---	---	DK	DK	221
3	---	PVV	-	NGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	KIK	---	---	---	---	DK	DK	221
4	---	PVL	-	NGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	KIK	---	---	---	---	DK	DK	221
5	---	PVL	-	NGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	KIK	---	---	---	---	DK	DK	221
6	---	TVV	-	NGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	KIK	---	---	---	---	DK	DK	221
7	---	PVL	-	NGKS	---	SFD	G	WKI	YI	NDF	-	QPIH	KI	---	---	---	---	K	DK	219
8	---	PVI	-	DGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	CI	---	---	---	---	K	DK	219
9	---	PVL	-	TGKS	---	SFD	G	WKI	YI	NDF	-	QPIH	KI	---	---	---	---	K	DK	219
10	---	PVV	-	DGKA	---	SFD	G	WKI	YI	NDF	-	QPTH	CI	---	---	---	---	K	DK	219
11	---	PVV	-	DGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	CI	---	---	---	---	K	DK	219
12	---	PVV	-	NGKS	---	SFD	G	WKI	YI	NDF	-	QPTH	KI	---	---	---	---	K	DK	219

13	-----PVI-DGKS-----SFDG	WKIYI	NDF-QPTHCI-----	KDK	219				
14	-----PEV-NGHT-----VFDG	WLIYI	NDM-QPLNCN-----	DSE	219				
15	EEMTFPGP-DGSSRMQQV	LKFDG	APVYI	NDLNQIYACDGSKPKDKLIPPEKALNLDGFDPS	260				
16	EEMEFTCP-DGTIKFEHV	LKFDG	APVYI	NDLNQVYECGHNHVGAAISPENVLELNGMEPP	260				
17	EEMEFACP-DGTTKFEHV	LKFDG	APVYI	NDLNQVYECGHNHVGAAISPENVLELNGMEPP	260				
18	EEMEFTSP-DGTAKFEQV	LKFDG	APVYI	NDLNQIYECNDNNTGTPIPSEKISRINDNEPP	260				
19	TDMIFPCP-RNENQVERV	LTVDG	APVYV	NDLNQNLGSGSPDNPDGEPVHENPGELG--NSD	257				
20	EEMAFPS-P-DGSSKMQQV	LKFDG	APVYI	NDLNQIYACDGSKPGKLIPPPKNALNLDGFDLP	261				
21	TDMIFPCP-RNENQAEQV	LTFDG	APVYV	NDLNQNLGGSPDAPDGEVPENPLAPD--SAG	257				
22	TDMIFPCP-RNENQMERV	LTFDG	APVYI	NDLNQNLGSGSPDNPSGELVHENPQILG--SPG	257				
23	TDMIFPCP-RNENQAEQV	LTFDG	APVYV	NDLNQNLGGSPDAPDGEVPENPLAPD--SAG	258				
24	TDMIFSCP-YNENQAEQV	LTFDG	APVYV	NDLNQNLGRSPDTPDGESIVENPLAFG--SAG	257				
25	TDMIFPCP-RNENHTERV	LTVDG	APVYV	NDLNQNLGSGSPDAPDGEVPENPLAPD--SAG	257				
26	TDMIFPCP-RNENQGERV	LTVDG	APVYV	NDLNQNLGSGSPDTPDGEPVHENPLASD--STG	257				
27	EEMEFTCP-DGTTKFEHV	LKFDG	APVYI	NDLNQIFECSHNQVGAAIPPERVLALNGTEPP	260				
28	TDMIFSCP-YNENQAEQV	LTFDG	APVYV	NDLNQNLGRSPDTPDGESIVENPLAFG--SAG	257				
29	VTETWTDVPVKGRVSAP-IT	CFNGT	TPWYI	NDLI	IDDQAG-----	237			
30	VTETWTDVPVKGRVSAP-IT	CFNGT	TPWYI	NDLI	IDDQAG-----	243			
31	VKVARPDPIKGMVLEE-IAAFNGT	TPWYI	NDLI	IDDQAS-----	239				
32	VKVARPDPIKGMVLEE-IAAFNGT	TPWYI	NDLI	IDDQAS-----	239				
33	VKVPRTDPIKGIIVLEE-IASFNGT	TPWFI	NDLI	IDDQAN-----	239				
34	VDAEWTDPTKGTVRVPQI-AINGT	TPVYV	NDMI	IATVEDPGP-----	PAT	254			
35	TEMDWFDP	AQGR	TVKR	LVPS	INGA	PILIND	MDVAT-DG-----	S	256
36	-----PVI-DGKS-----SFDG	WKIYI	NDF-QPTHCI-----	KDK	142				
37	VPYEWTDPIKGR	LT	VQVA-SINGT	PIFI	NDMI	IAT-EDSDP-----	E	250	
38	VMDTWFDPIRGEITAG-ITSFKGT	TPWYI	NDLI	DDDLPG-----	237				
39	VEFI-PLQ-DGPA--QKVMIDG	CPILINDA-QPEHVLGGNP-----	235						
40	VETEWGDPLKGTMRAPQI-AINGT	TPVYI	NDWI	IAT-----	DT	243			
41	-----NFEDW	PICLND--QQPTCSACGVD-----	218						
42	VLDTWMDPVLGEVTAP-ITAFNGT	TPWYI	NDLI	IDDEAG-----	237				
43	VMDTWSDPIHGQITAP-ITAFNGT	TPWYI	NDLI	IDDQAG-----	236				
44	VPASWMDPVLGEVTAP-ITAFNGT	TPWYI	NDLI	IDDQAG-----	237				
45	VMDTWFDPIRGQVSAG-ITSFKGT	TPWYI	NDLI	DDDLPG-----	237				
46	APFRWYNPASRRMEDGSVDAFNGT	PWLANDLCNAAGAP-----	G	231					
47	VPFRWYNPAIGGMQEGSVDALNGT	PWLANDMLGS-----	227						
48	VPFMLYDPASRRMEDDAVDAFNGT	PWLANDLCNADGL-----	229						
49	APFRWYNPASRRMEDGSVDAFNGT	PWLANDLCNAAGTP-----	G	231					
50	VPFMLYNPASRRMEDDVTDAFNGT	PWLANDLCNAAGI-----	229						
51	EPWTWYHPDKRRMGPGSVDSFNGT	PWLND	FINKSGLD-----	226					
52	VPWTWYDPFKG-WQQGKVTSFHG	VPWL	VNTKMNAAGLLP-----	230					
53	TIEMRIEDADGSTRVMPV	LAWDGI	PVLVDDQVP	PSDET-----	SNNY	245			
54	VEMEWIDPLTGGKKRQWM	NAINGA	PILINDMI	IET-DE-----	G	237			
55	FEVMELPAPGGGTRMVKVP	CWDGI	PWVIDDNP	PANEQP-----	GGTS	247			
56	VMETWTDVPVQGRMSAP-IT	CFNGT	TPWYI	NDLI	IDDQAG-----	237			
57	MPWQWYNPSLGRMEESLVTQFNGT	PWLINGCMAGEASPK-----	P	231					
58	VEMPFPDPISGGVKMVRVPAINGT	PILVNDLI	IET-TSP-----	G	241				
59	MKATTSEDVDGSRREI	PGLAFDGI	PVVVDDLVP	NDEG-----	SGSQ	245			
60	VQWRWYCPATRMWHDDWISAFRG	VPWVIN	QEMNPGLLP-----	231					
61	YEMMEIPVAGGGSRMIKVP	CWDGVP	PWVIDDNP	PNDEQP-----	SGTN	247			
62	AAFKWYNPASRRMEDGSVDAFNGT	PWLANDLCNADGT-----	229						
63	MPWRWYDPLRG-WQVGKVTFHGV	PWL	VNTKMNAAGLLA-----	230					
64	TVLMQVEDADGASRTVSALAFDGI	PVVVDDQVP	NNET-----	SNSY	245				
65	YMDWEVPRPGGGTRTVRT	LCWEGVP	IVDDSV	PNDEQP-----	GGTS	247			
66	SPWTWYYPAGKSSGPGSVDSFNGT	PWLND	FINKDGH-----	226					
67	VDFMWYDPVRRRMTPVKVTA	FNGT	PWL	VNDRMEGKTNP-----	A	233			
68	VAVVVPDG-NGGLKTVT	MMHVNGWL	VMTDFVP	PIEQFQ-----	GSTV	242			
69	VSAVPDG-NGGLKTIS	MMHVNGWL	VSWTDFVP	PIEQFQ-----	GSTV	258			
70	AEIEVPDPRTGTR-LARVPSIHG	VPWYI	NDAMEVP	PEGE-----	240				
71	ADIEVPDPRTGTR-IARVPSIHG	VPWYI	NDAMEVP	PEGE-----	291				
72	ADIEVPDPRTGTR-IARVPSIHG	VPWYI	NDAMEVP	PEGE-----	286				
73	VEIDAPDPLTGTK-KQWVPSIHG	VPWYI	NDAMEVP	PEGE-----	240				
74	VMIENF-----GRPMLCHNG	VPI	IVND	FLPLNEVQ-----	GSSS	232			
75	VPYRWYNPTVGGMQEGSVDAFNGT	PWLANDMLGS-----	227						
76	VTETWTDVPVKGRVSAP-IT	CFNGT	TPWYI	NDLI	IDDQAG-----	172			
77	VPWRWYCPATGRWKDGVVPSFNGT	PWVIN	DEMNP	GVQP-----	231				
78	ITVENF-----G-TV	RAYDGT	PVI	IND	FLPGDEVQ-----	GTEN	231		
79	VTETWTDVPVKGRVSAP-IT	CFNGT	-----	-----	223				

80	VMMENF	-----	GRPMLTHNGVPIIV	NDFLPSNEVQ	-----	GSSS	232
81	IMIENF	-----	GRAVPGHNGIPII	VNDFLPIDEVQ	-----	GTET	233
82	QQLENF	-----	GRPMLTHNGIPIIL	MNEFLPKNEVQ	-----	GASS	232
83	IQIPNF	-----	GKPVPAYDGVPII	INDFMTADEVQ	-----	GSAN	232
84	IQIPNF	-----	GKPVPAYDGIPII	INDFLTADAEVM	-----	GSAN	232
85	IQIPNF	-----	GKPVPAYDGIPII	INDFLTADAEVM	-----	GSAN	232
86	IMIPNF	-----	GKPVPAYDGVPII	INDFLTADAEVM	-----	GSAN	232
87	VETHWADPVKGVV	-RGKVISMYP	TPWYI	NAAMTTRPEGT	-----		231
88	VEMEWVDPLTGGKKRQW	MNAINGAPILI	INDMIET-DG	-----	S	188	
89	IQIPNF	-----	GKPVPAYDGIPII	INDFLTADAEVM	-----	GSAN	232
90	MMIKNF	-----	GQAVPCYDGKPII	INDFLPADEVQ	-----	GTAD	232
91	VPWRWYDPARGRMVEGSVDAFNG	TPWLAND	DFVN-AGAD	-----	P	186	
92	VDAPWADPIRGVA	-LGKVVSMYP	TPWYI	NGAMNTRPEGT	-----		231
93	VETQWADPIRGVV	-PGKVVSVYP	TPWYI	NGAMTTRPEGT	-----		231
94	IMMENF	-----	GRPMLTHNGVPIIL	VNDFLNVAQ-D	-----	GEGK	229
95	IQIANF	-----	GKPVPAYDGIPII	INDFITADEVQ	-----	GSAN	232
96	QMLDNF	-----	GRPMLTHNGVPII	MNEFSPGTEDQ	-----	GTAT	232
97	IIVKDF	-----	GKALPAFDGTPII	INDFMTADEVQ	-----	GTNE	232
98	LQIENF	-----	GM-MAHNDGIPII	INDFIPVK-AQ	-----	GTTA	232
99	IMIPNF	-----	GRPIPAFDGTPVI	INDYMNADETQ	-----	GTAE	232
100	LQLDNF	-----	GV-IPAHDGVPII	INDFIPVK-AQ	-----	GTNA	232
101	VVQGEY	-----	G-PIPAHNGVPII	VNDFLPADEVQ	-----	GNSS	232
102	IECVKEDPILGPVRVKQL	-CLYGT	TPWYICDLIQARTVNS	-----	Q	239	
103	LQLDNY	-----	GQ-IPAHDGIPII	INDFIPVK-AQ	-----	GTTA	232
104	QMVENF	-----	GRPMLTHNGVPIVM	NNEFLPADEVQ	-----	GTNT	232
105	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
106	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	230
107	QQGLNFD	-----	GRPVLTHNGIPII	MNEYLDGNENG	-----	N--	228
108	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
109	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
110	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
111	VMIKDF	-----	GM-VMAHNGTPLL	RNDFLPGNETL	-----	GTGN	231
112	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	234
113	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
114	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
115	LQIDNF	-----	GLSVPAHDGIPII	NEFIPGNVAQ	-----	GSTA	233
116	VMLKNF	-----	GHPMLTHNGVPII	VNDYIKVDE	-----	GDES	228
117	QMVENF	-----	GRPMLAHNGVPIVM	NNEFLPADEVQ	-----	GTNT	232
118	QMVENF	-----	GRPMLTHNGVPIVM	NNEFLPADEVQ	-----	GTNT	232
119	VMLKNF	-----	GHPMLTHNGVPII	VNDYIKVDE	-----	GDES	228
120	IQHPNF	-----	DVPVLAHNGCPII	INDFMPGDELM	-----	GSNS	233
121	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
122	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
123	QQLENF	-----	GRPMLTHNGIPII	MNEFLAADEAQ	-----	GTAT	232
124	QQLSNF	-----	GRPMLTHNGIPII	MNEWIAGDEVK	-----	GTNQ	232
125	QQLSNF	-----	GRPMLTHNGIPII	MNEWIAGDEVK	-----	GTNQ	232
126	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
127	IIVKDF	-----	GKPLPAFDGTPVI	INDYIGADEVQ	-----	GAST	232
128	IIVKDF	-----	GKALPAFDGTPVI	INDYITADEVQ	-----	GAST	232
129	VEIPNF	-----	GQAVLAHNGIPII	LRNDWLANDETM	-----	GTNA	232
130	VEIPNF	-----	GQAVLAHNGIPII	LRNDWLANDETM	-----	GTNA	232
131	VEIPNF	-----	GQAVLAHNGIPII	LRNDWLANDETM	-----	GTNA	232
132	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
133	VMEMPN	-----	GARVIAYEGVPI	FRNDYIPTNQTK	-----	GGYA	235
134	VEIPNF	-----	GQAVLAHNGIPII	LRNDWLANDETM	-----	GSNA	232
135	QQLSNF	-----	GRPMLTHNGIPII	MNDWIAGDEVK	-----	GTNS	232
136	VMMENF	-----	GRPMLTHNGTPII	VNDFI-AKT	-----	GDAG	227
137	VTLPGT	-----	GISVPAYRRTPII	INDFLPGDELH	-----	GTKS	232
138	QQLENF	-----	GRPMLTHNGIPII	MNEFLAADEAQ	-----	GSAN	235
139	IMLPNF	-----	GHPVPAIDGMPVI	INDFIPANEVT	-----	GSSS	232
140	VMLPQF	-----	GKVMLTHNGVPII	VNDFLPPVTD	-----	GEGT	229
141	LILPNF	-----	GRPMLCHNGMPII	VNDYI-GTEAQ	-----	GSAD	234
142	TMIENF	-----	GHPVKAYDGTPII	INDFLPANDEVQ	-----	GTAN	232
143	VMLPQF	-----	GKVMLTHNGVPII	VNDFLPPVTD	-----	GEGT	229
144	IMIPNF	-----	GHPVKAYDGTPII	INDFLTANEVQ	-----	GSAT	232
145	IMLENF	-----	GQSIPAYNGKPII	INNYITADETQ	-----	GAGD	232
146	VTLPGT	-----	GINVPAYRRTPII	INDFLPGDEVH	-----	AAGT	232

147	IMMENF	-----	SRPMLCHNGVPFIV	NDFIPK	-----	NEGD	226
148	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NEGD	226
149	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NEGD	226
150	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
151	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
152	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
153	IMIPNF	-----	GHPVKAYDGTPI	INDFLTADEVQ	-----	GSAT	232
154	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	TEEN	226
155	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
156	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
157	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
158	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
159	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
160	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
161	QMVENF	-----	GRPMLTHNGVPIVM	NEFLPADEV	-----	GTNT	232
162	VMMPAF	-----	GRPMLTHNGVPI	INDFILNETT	-----	GTSN	239
163	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
164	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
165	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
166	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
167	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDGD	226
168	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
169	IMMEDF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDGD	226
170	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
171	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
172	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
173	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
174	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
175	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
176	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDGD	226
177	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
178	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
179	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
180	IMMENF	-----	GRPMLCHNGVPFIV	NDFIPK	-----	NDN	226
181	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
182	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
183	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
184	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
185	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
186	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
187	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
188	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
189	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
190	V--NAF	-----	GRRIETYDGIPIA	ADDFILNTETQ	-----	GTSS	231
191	IMMENF	-----	GRPMLCHNGIPFIV	NDFIPK	-----	KTEGQE	239
192	MMIENF	-----	G-MVPAIDGMPVI	INDFIRADEVQ	-----	GTND	231
193	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
194	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
195	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
196	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
197	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
198	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
199	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
200	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
201	IMMENF	-----	DRPMLCHNGVPFIV	NDFIP	-----	TDA	224
202	ITIKDF	-----	G-TVKAYDGTPI	INDFLTDNEVQ	-----	GTAN	231
203	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
204	QQLENF	-----	GRPMLTHNGIPVIM	NEWLPANETQ	-----	GTSV	233
205	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
206	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
207	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
208	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
209	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
210	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
211	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDS	224
212	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224
213	IMMENF	-----	GRPMLCHNGVPFIV	NDFIP	-----	TDA	224

214	IMMENF	-----	GRPMLCHNGI	PFIV	NDFIP	KNGVKVTEGSEQ	-----	KTEGQE	239
215	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
216	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
217	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
218	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
219	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
220	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
221	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
222	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
223	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
224	IMMENF	-----	GRSMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
225	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
226	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
227	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
228	QMLPAF	-----	GHPMLVHQGMPILM	NEFIP	MGE-D	-----	-----	G	226
229	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
230	QMLPAF	-----	GHPMLVHQGMPILM	NEFIP	MGE-D	-----	-----	G	226
231	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TGA	224
232	IMMENF	-----	GRPMLCHNGI	PFIV	NDFIP	KNGVKVTEDESEQ	-----	KTEGQE	239
233	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
234	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
235	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
236	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
237	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
238	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDS	224
239	I--DQF	-----	GQRIVTYDGI	PVLVD	DFVP	DDETL	-----	GSGT	231
240	IMMENF	-----	GRPMLCHNGI	PFIV	NDFIP	KNGVKVTEDESEQ	-----	KTEGQE	239
241	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
242	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
243	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
244	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
245	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
246	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
247	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
248	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
249	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
250	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
251	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
252	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
253	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
254	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
255	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
256	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
257	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
258	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
259	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDA	224
260	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
261	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	VADS	225
262	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
263	IMLENF	-----	GRPMLCHNGI	PFII	NDFIP	K	-----	TEEN	226
264	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	K	-----	NEDN	226
265	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	VSDS	225
266	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
267	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	VADS	225
268	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	VSDS	225
269	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
270	QMLPAF	-----	GHHMLVHQGMPILM	NEFIP	MET-D	-----	-----	G	226
271	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
272	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
273	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	VADS	225
274	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	VADS	225
275	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
276	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224
277	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	TDS	224
278	IMMENF	-----	GRPMLCHNGVPFI	I	NDFIP	-----	-----	VADS	225
279	IMMENF	-----	GRPMLCHNGVPFI	I	NDFI	T	-----	TDA	224
280	IMMENF	-----	GRPMLCHNGVPFI	V	NDFIP	-----	-----	TDA	224

281	QQLSNF	-----	GRPMLTHNGIPIIMNDWIAGDEVK	-----	GTNS	232
282	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
283	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
284	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
285	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
286	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
287	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VVDS	225
288	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
289	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
290	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
291	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
292	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
293	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
294	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
295	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
296	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
297	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
298	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
299	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
300	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	218
301	IMIENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
302	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
303	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
304	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VVDS	225
305	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
306	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
307	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	ADA	224
308	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
309	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
310	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
311	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	ADA	224
312	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VVDS	225
313	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
314	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
315	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
316	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
317	IMMENF	-----	GRPMLCHNGVPFIVNDFIPK	-----	NEDN	226
318	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
319	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
320	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
321	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
322	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
323	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
324	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
325	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
326	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
327	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
328	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
329	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
330	IMMENF	-----	GRPMLCYNGVPFIVNDFIP	-----	TDA	224
331	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	IADS	225
332	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
333	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
334	IMMENF	-----	GRPMLCHNGVPFIVNDFIPK	-----	SEDN	226
335	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
336	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
337	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDS	224
338	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
339	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	ADA	224
340	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
341	IMMENF	-----	GRPMLCHNGIPFIVNDFIP	-----	TDA	224
342	IMMENF	-----	GRPMLCHNGIPFIVNDFIPKNGVKVTEDSEQ	-----	KTEGQE	239
343	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
344	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
345	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	VADS	225
346	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224
347	IMMENF	-----	GRPMLCHNGVPFIVNDFIP	-----	TDA	224

348	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	NEDG	226
349	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
350	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDS	224
351	QQLSNF	-----	GRPMLTHNGIPI	IMNDWIAGDEVK	-----	GTNS	213
352	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
353	VITLPD	-----	GSQIPAYRNIPI	FRNDYIPTDQTK	-----	GATS	236
354	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	VADS	222
355	IMMENF	-----	GRPMLCHNGVPFI	INDFIPK	-----	SEDN	226
356	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
357	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	VADS	225
358	IMMENF	-----	GRPMLCHNGVPFI	VNDFIS	-----	TDA	224
359	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	VADS	225
360	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	ADA	224
361	IMMENF	-----	GRPMLCHNGVPFI	VNDFIPL	-----	TTEK	226
362	IMMENF	-----	GRPMLCHNGVPFI	INDFIP	-----	VADS	225
363	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
364	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	ADA	224
365	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
366	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
367	IMLENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
368	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	GE DG	226
369	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
370	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDS	224
371	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	ADA	224
372	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	ADA	224
373	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
374	IMMENF	-----	GRPMLCHNGVPFI	INDFIP	-----	TDS	224
375	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	ADA	224
376	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
377	V--DQF	-----	GQRVLFYDGI	PVLVDVFVPDNETL	-----	GTGT	231
378	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
379	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDS	224
380	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
381	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
382	VFELPS	-----	GKNVPAYSGI	PILRNDWIPINQTK	-----	GSGT	235
383	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	SE DG	226
384	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	SE DG	226
385	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
386	IMMENF	-----	GRPMLCHNDVPFI	VNDFIP	-----	TDA	224
387	IMIPNF	-----	GLALPAHNGVPI	IINDFMPTTENV	-----	GGTA	234
388	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
389	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	VADS	225
390	VVEMPN	-----	GTRIMAYEGVP	IFRNDYIPVNQAK	-----	GGQA	235
391	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
392	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
393	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	TDA	224
394	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
395	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
396	IMIENF	-----	GRPMLCHNGIPFI	VNDFIPKNGVTI-EGSEE	-----	KAEGTE	238
397	VYTMAS	-----	GRQVPAYRGI	PLFRNDWIPINQTTQ	-----	GSAT	239
398	IMMENF	-----	GRPMLCHNGVPFI	INDFIP	-----	TDS	224
399	IMMENF	-----	GRPMLCHNGVPFI	INDFIPK	-----	DTAN	226
400	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
401	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
402	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
403	IMMENF	-----	GRPMLCHNGVPFI	VNDFIP	-----	VADS	225
404	IMMENF	-----	GRPMLCHNDVPFI	VNDFIP	-----	VADS	225
405	IMMENF	-----	GRPMLCHNGVPFI	INDFIP	-----	TDS	224
406	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DS	226
407	IMMENF	-----	GRPMLCHNGVPFI	INDFIP	-----	VADS	225
408	IMMENF	-----	GRPMLCHNGVPFI	VNDFIS	-----	TDA	224
409	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
410	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
411	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DS	226
412	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	TE DG	226
413	IMMENF	-----	GRPMLCHNGVPFI	INDFIP	-----	TDA	224
414	IMMENF	-----	GRPMLCHNGIPFI	INDFIPK	-----	SE DG	226

415	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	TE	DG	226	
416	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	TE	DG	226	
417	IMIENF	-----	GRPMLCHNG	IPFIV	NDFIPK	NGVTI-EGSEE	-----	KAEGTE	238	
418	IMMENF	-----	GRPMLCHNG	VPFI	INDFIL	-----	T	DA	224	
419	MMVKNF	-----	GMPIKCYDG	TPVI	INDFIP	PADEKQ	-----	GSAT	232	
420	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	SE	DG	226	
421	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
422	IMMENF	-----	GRPMLCHNG	IPFIV	NDFIPK	NGVKVTE	EDSEQ	-----	KTEGQE	239
423	IMIENF	-----	GRPMLCHNG	IPFIV	NDFIPK	NGVTI-EGSEE	-----	KAEGTE	238	
424	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	TE	DG	226	
425	IMMENF	-----	GRPMLCHNG	IPFIV	NDFIPK	NGVKVTE	EDSEQ	-----	KTEGQE	239
426	IMMENF	-----	GRPMLCHNG	IPFIV	NDFIPK	NGVKVTE	EDSEQ	-----	KTEGQE	239
427	IMMENF	-----	GRPMLCHNG	IPFIV	NDFIPK	NGVKVTE	EDSEQ	-----	KTEGQE	239
428	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	TE	DG	226	
429	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
430	IMMENF	-----	GRPMLCHNG	IPFIV	NDFIPK	NGVKVTE	EDSEQ	-----	KTEGQE	239
431	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	TE	DD	226	
432	VYQMPS	-----	GETVIAYS	GVPI	FRND	YLATNQVK	-----	GS	GS	235
433	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DA	224	
434	IMIENF	-----	GRPMLCHNG	VPFIV	NDFIP	-----	V	ADS	225	
435	IMMENF	-----	GRPMLCHNG	VPFIV	NDFIP	-----	V	ADS	225	
436	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	SE	GG	226	
437	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	N	EG	224	
438	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	SE	DG	226	
439	QMLPAF	-----	GHHMLVHQ	GMPIL	MEFIP	MAD-D	-----	G	--	226
440	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
441	V--DQF	-----	GQRVLFYD	GIPVL	DDFVP	DNETL	-----	GT	GT	231
442	IMIENF	-----	GRPMLTHNG	VPFIV	NDFIPK	TG	-----	E	AKS	227
443	IMMENF	-----	GRPMLCHNG	VPFIV	NDFIP	-----	T	DA	224	
444	TLTLPS	-----	GEETLVYEG	VPIFR	NDWVP	TNQTQ	-----	GS	ST	235
445	VFTLPS	-----	GKEMLAYSG	VPIFR	NDYIP	VNQTK	-----	GT	GS	235
446	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
447	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
448	V--DQF	-----	GRRALFYD	GIPIL	DDFIP	DNETL	-----	GT	GT	229
449	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
450	IMMENF	-----	GRPMLCHNG	VPFIV	NDFIP	-----	T	DA	224	
451	V--DQF	-----	GQRIVTYD	GIPVL	DDFVP	PEDETL	-----	GT	GN	231
452	V--DAF	-----	GRRALFYD	GIP	IIVDDFIP	IDETL	-----	G	AGS	231
453	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	SE	DG	226	
454	VYTMAS	-----	GRQVPAYRG	IP	IFRNDWIP	INQTQ	-----	GS	SAS	239
455	VEIPNF	-----	GQPVLAHNG	IPIL	RNDWLSN	SETM	-----	GS	NS	232
456	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	V	ADS	225	
457	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
458	IMMENF	-----	GRPMLCHNG	IPFI	INDFIPK	-----	TE	DG	226	
459	IQHKNF	-----	DNPVLAHNG	TP	IIVNDFL	PATEAK	-----	GT	GT	232
460	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
461	VYVMAS	-----	GRSVPAYRG	IP	IFRNDWIP	INQTQ	-----	GT	SA	239
462	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
463	MPWRWYCPAKRHWV	-----	DGKVP	SFNGT	TPWVI	NDEMNP	GVLP	-----	--	145
464	IMMENF	-----	GRPMLCHNG	IPFIV	NDFIPK	NGVKVTE	EDSEQ	-----	KTEGQE	239
465	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
466	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
467	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DA	224	
468	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DA	224	
469	VMVENF	-----	GRPMLTHNG	VPFI	INDFIP	VAD	-----	NG	GT	227
470	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
471	VVTLP	-----	GAEVPAYRG	VP	IFRNDFIP	VNQTV	-----	GT	ST	236
472	QMMENF	-----	GRPMLTHNG	IP	IIMNE	FLSGAEVK	-----	GT	SI	242
473	VVTLP	-----	GAEVPAYRG	VP	IFRNDFIP	VNQTV	-----	GT	ST	236
474	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DA	224	
475	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	
476	VYTMAS	-----	GRTVPAYRG	IP	IFRNDWIP	INQTQ	-----	GT	SA	239
477	VVTLP	-----	GRQVPAYRG	VP	IFRNDYI	ATNQTK	-----	GT	AT	235
478	TLELPS	-----	GEEVLEYEG	VPVFR	NDWMP	TNQTQ	-----	GT	ST	235
479	IYTMPS	-----	GRQVPAYRG	IP	IFRNDWIP	INQTQ	-----	GT	SV	239
480	VVTLP	-----	GAEVPAYRG	VP	IFRNDYI	PTNQTK	-----	GT	GT	236
481	IMMENF	-----	GRPMLCHNG	VPFI	INDFIP	-----	T	DS	224	

482	IMMENF	GRPMLCHNGVPFI	INDFIP	TD	224
483	IMIENF	GRPMLTHNGIPFLV	NDFIPVAG	DGNA	227
484	IMMENF	GRPMLCHNGVPFI	INDFIP	TD	224
485	V--DAF	GRRALFYDGIPI	IIVDDFIPIDETL	GAGS	231
486	IMIENF	GRPMLTHNGVPFIV	NDFIPVVG	DAKA	227
487	IMMENF	GRPMLCHNGIPFI	INDFIPK	TE	DG 226
488	IMIENF	GRPMLTHNGVPFLV	NDFIPKTG	DTKA	227
489	IMIENF	GRPMLTHNGVPFIV	NDFIPVVG	DTKA	227
490	VYTMAS	GRTVPAYRGIPI	IFRNDWIPITQTQ	GTAT	239
491	IMMENF	GRPMLCHNGVPFI	INDFIP	TD	224
492	TLKLPS	GEEVLLEYEGVPV	FRNDWMPNTNQTQ	GSST	235
493	IMMENF	GRPMLCHNGVPFIV	NDFIP	VV	D 225
494	V--DAF	GRRALFYDGIPI	ILVDDFISDSETL	GSGT	231
495	IMMENF	GRPMLCHNGVPFIV	NDFIP	V	D 225
496	IMMENF	GRPMLCHNGVPFIV	NDFIP	V	D 225
497	VLELPS	GRRVPVYRDIPI	IFRNDFIPTDQTV	GTSD	236
498	IMMENF	GRPMLCHNGVPFI	INDFIP	T	D 224
499	IMIENF	GRPMLTHNGVPFLV	NDFIPKTG	DTKA	227
500	VYTMAS	GRTVPAYRGIPI	IFRNDWIPITQTQ	GTAT	239

1	L	TT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGDNMF	V	TRNT	-----	254				
2	L	TT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGDNMF	V	TRNT	-----	254				
3	P	TT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	254				
4	P	TT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	254				
5	P	TT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	254				
6	P	TT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	254				
7	P	TT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	252				
8	S	TT	---	N	IWFAS	LG	-----	TDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	252				
9	P	TT	---	N	IWFAS	LG	-----	IDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	252				
10	S	TT	---	N	IWLAS	LG	-----	TDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	252				
11	L	TT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGNMNF	V	TRKT	-----	252				
12	P	AT	---	N	IWFAS	LG	-----	MDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	252				
13	S	TT	---	N	IWFAS	LG	-----	TDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	252				
14	P	TT	---	N	IWFVT	LG	-----	PG	GMHG	IIPES	-	VGGNMF	V	TRQT	-----	252			
15	V	AT	---	N	IWFFV	LG	-----	QGNLHG	IMPEK	-	ARS	-	I	TRST	-----	291			
16	L	AT	---	N	IWFL	SLG	-----	PGNLHG	IKPEK	-	AQN	-	I	TRST	-----	291			
17	L	AT	---	N	IWFL	SLG	-----	PGNLHG	IKPEK	-	AQN	-	I	TRST	-----	291			
18	L	AT	---	N	IWFFS	LG	-----	PGSLHG	IKPEK	-	AQN	-	I	TRST	-----	291			
19	V	GT	---	N	IWFFT	LG	-----	ENNLHG	MTPAA	-	LDRDLF	V	TRST	-----	290				
20	V	AT	---	N	IWFFV	LG	-----	QGNLHG	IMPEK	-	AQS	-	I	TRST	-----	292			
21	T	GT	---	N	IWFFS	MG	-----	ENNLHG	MTPAA	-	LDT	GLF	V	TRST	-----	290			
22	V	GV	---	N	IWFFS	LG	-----	ENNLHG	MTPAA	-	LDT	GLF	V	TRST	-----	290			
23	T	GT	---	N	IWFFS	MG	-----	ENNLHG	MTPAA	-	LDT	GLF	V	TRST	-----	291			
24	I	GT	---	N	IWFFS	MG	-----	ENNLHG	MTPAA	-	LDT	GLF	V	TRST	-----	290			
25	I	GT	---	N	IWFFS	MG	-----	ENNLHG	MTPAA	-	LDT	GLF	V	TRST	-----	290			
26	I	GT	---	N	IWFFS	MG	-----	ENNLHG	MTPAA	-	LDT	GLF	V	TRST	-----	290			
27	L	AT	---	N	IWFFS	LG	-----	PGSLHG	IKPEK	-	AQS	-	I	TRST	-----	291			
28	I	GT	---	N	IWFFS	MG	-----	ENNLHG	MTPAA	-	LDT	GLF	V	TRST	-----	290			
29	A	RG	---	I	VFFMV	LG	-DDRGP	GHFR	GISG	I	VPRG	-	RERNMFI	KRQVDG	VVGD	-	IVVP	287	
30	A	RG	---	I	VFFMV	LG	-DDRGP	GHFR	GISG	I	VPKG	-	RERNMFI	KRQVDG	VVGD	-	IVVP	293	
31	S	TG	---	I	VFFMV	LG	-DDKGP	GHFR	GITG	I	VPKG	-	RERNMFI	KRQTDG	HTD	---	---	284	
32	S	RG	---	I	VFFMV	LG	-DDKGP	GHFR	GITG	I	VPKG	-	RERDMFI	KRQTAG	HTD	---	---	284	
33	S	TG	---	I	VFFMV	LG	-DDKGP	GHFR	GITG	I	VPKG	-	RERDMFI	KRQTDG	VVSM	-	TLDP	289	
34	S	LT	---	K	IYFMV	LG	-DSGEA	GPTR	GITG	I	VP	GP	-	LKDTMF	FIRRESSE	PV	---	---	298
35	N	LT	---	R	IYFMV	VG	-ENCDRG	-IH	GVTG	I	VL	LD	-	LKDKLF	V	RR	EAAEP	-----	298
36	S	TT	---	N	IWFAS	LG	-----	TDALHG	IIPEN	-	VGDNMF	V	TRKT	-----	175				
37	F	YT	---	R	IYFMV	LG	-DACESG	PVR	GITG	I	VP	GP	-	LKDTLF	FIRRESTE	PA	---	---	294
38	N	QG	---	I	IYFMV	LG	-DDEGPG	HER	GIVGL	V	PRD	-	LADTWF	IKREANG	VVGT	-	QVIT	287	
39	--	VT	---	N	IWFTY	TG	-----	PN	GLFG	I	PHL	-	KDGS	LF	FRKRQV	-----	---	267	
40	N	LT	---	K	IYFMV	LG	-DACEAG	PVR	GITG	I	VP	GP	-	IKPTMF	V	RHETAEP	-----	---	286
41	--	TT	---	N	MWFS	LG	-----	LN	GLCG	I	PPK	-	EN	GSMF	RI	RQV	-----	---	250
42	E	TG	---	I	IYFMV	LG	-DDGGPG	HSR	GITGL	V	PQG	-	MRDRWF	V	RRDANGL	VGTGEATV	G	289	

43	E-TG----	IIFYFMVL	LG-DDGGPGHYRG	ITGLVPKK--	LEHGW	VVKRESNGVSGTGEALVT	288
44	E-TG----	IIFYFMVL	LG-DDGGPGHYRG	ITGLVPQG--	FENRWF	VRRDANGLVGTGEATVG	289
45	D-QG----	IIFYFMVL	LG-DDEGPGHERG	IVGLVPHD--	LSDTWFIKREANGVIGT--	QTIT	287
46	G-VE----	RTYFMVVG	-DDGKSGPTRG	VTGIVPAH--	LGSEMF	IKRTVPALV-----	275
47	T-PE----	RTYFMVVG	-DDGNAGPTRG	VTGIVPAH--	LGRNMF	IKRTVPAIISVE-----	274
48	G-TE----	RTYFMVVG	-DDGKAGPTRG	VTGIVPAN--	LGREMF	IKRTVPALV-----	273
49	G-VE----	RTYFMVVG	-DDGKAGPTRG	VTGIVPAH--	LGREMF	IKRTVPALV-----	275
50	G-TE----	RTYFMVVG	-DDGKAGPTRG	VTGIVPAH--	MGREMF	IKRTVPALL-----	273
51	--GE----	YIFYFMVTG	-DDGGKGPTRG	VTGILPRQ--	QMSNPF	NKRVRVQGIYNPD-----	272
52	V-DR----	RIYFMVMG	-DDGGPGHTRG	ITCIRPAD--	LMNRRY	IKRAVNGVPDF-----	276
53	T-----	SIYALVL	LG-RE-----	GIYGV	IPEG--	FQGRMIRANRA-----	276
54	N-LT----	RIYMMVVG	-EVCDRQ-IH	GVTVGIVPKD--	LENKLF	FIRREAAEP-----	279
55	T-----	SVYALVL	LG-QE-----	GLHG	IVPAG--	TKNSMFRVARS-----	278
56	T-RG----	IVFFMVL	LG-DDKGPGRF	RG-----	-----	-----	258
57	S-NQ----	RIYFMVL	LG-DDGGEGTTRG	VTGIVPQH--	LISWPF	VKRVNTNGTHTFD-----	278
58	N-LT----	RIYMMVMG	-EDCERQ-IY	GVTVGIIPKD--	LEGKLF	FIRRESAEP-----	283
59	T-----	SIYALVVG	-RE-----	GLYGV	IPRG--	FGGRMFRIQAG-----	276
60	A-DR----	RIYFMVL	LG-DDDGKGPTRG	LTIRMVPAG--	MEYNPF	ILRMTNGVPDF-----	277
61	T-----	SVYALVL	LG-QD-----	GLHG	IVPQG--	TKDSMFRVART-----	278
62	G-TE----	RTYFMVVG	-DDGKASPTRG	VTGIVPAH--	LGSEMF	IKRTVPALLPGP-----	276
63	P-DR----	RIYFIVMG	-DDGGKGPTRG	LTGIRPAD--	MMNRPY	VKRAVNGVPDF-----	276
64	T-----	SIYALVL	LG-RE-----	GIYGV	IPRG--	SEGRMIQAARV-----	276
65	T-----	SVYALAL	LG-RE-----	GLHG	IVPRG--	TRESMFRVSKS-----	278
66	--GE----	YIFFMVTG	-DDGGQGPTRG	VTGITPRQ--	QVGRMF	NKRTVQGIIFAPD-----	272
67	G-AQ----	RIYFMVL	LG-DDGSSGPTRG	VTGIVPQE--	LLHSMF	VKRVVPAAYNIE-----	280
68	T-----	KIWFFKFG	-----	RRHIHG	IVPASG--	GRRSMFKIRS-----	273
69	T-----	KIWFKVL	LG-----	RRHIHG	IVPASS--	GTRSMFKVRS-----	289
70	-----	NVYFMVMG	-DNGHHTPGH	GLQLIMPQV--	RRGDMF	VKRHIPITPSND-----	284
71	-----	NVYFMVMG	-DNGHHTPGH	GLQLILPQV--	RRGDMF	VKRHIPITPSND-----	335
72	-----	NVYFMVMG	-DNGHHTPGH	GLQLILPQV--	RRGDMF	VKRHIPITPSND-----	330
73	-----	NVYFMVL	LG-DNGHHTPGH	GLQLIMPAA--	RRGDMF	VKRHIPITPTAD-----	284
74	T-TC----	SIYAARFN	-EAD-----	GLHGI	YGGG--	SAGIRIEDIG-----	265
75	T-PE----	RTYFMVVG	-DDGGAGPTRG	VSS--PRH--	-----	-----	254
76	A-RG----	IVFFMVL	LG-DDRGPGHFRG	ISGIVPRG--	RERNMF	IKRQVDGVVGD--IVVP	222
77	A-DR----	RIWFMVL	LG-DDGGKGHTRG	LTRIVPAG--	MERSPF	ILRMTNGVPDF-----	277
78	N-SC----	SIYAMRLN	-TAD-----	GFHGI	YGGD--	SAGLVFEDLG-----	264
79	-----	-----	-----	-----	-----	-----	223
80	A-TA----	SIYAMRLN	-EVD-----	GLHGI	FGGG--	NAGFVVEDIG-----	265
81	A-AT----	SIYAMRLN	-EVD-----	GLHAI	YGGG--	SAGIVVEDIG-----	266
82	A-TG----	SIYAVRLN	-EVD-----	GLHGI	YGGG--	NAGFSVEDIG-----	265
83	A-TC----	SIYALRLN	-EAD-----	GFHGI	FGGG--	SAGIQFEEIG-----	265
84	E-TC----	SIYALRLN	-EAD-----	GFHGI	YGGG--	SAGIQFEEIG-----	265
85	A-TC----	SIYALRLN	-EAD-----	GFHGI	YGGGA--	SAGIQFEEIG-----	265
86	A-TC----	SIYALRLN	-EAD-----	GFHGI	YGGG--	SAGIQFEEIG-----	265
87	-----	NIYFMVL	LG-DNGEARPGH	GLTMIMPAE--	RMGNPY	VEREWPMKTDG-----	275
88	N-LT----	RIYMMVVG	-EVCDRQ-IH	GVTVGIVPKD--	LENKYF	FIRREAHEP-----	230
89	A-TC----	SVYALRLN	-EAD-----	GFHGI	YGGGP--	SAGIQFEEIG-----	265
90	A-TC----	SIYALRLN	-ETD-----	GFHGI	YGGGP--	NAGIQVESIG-----	265
91	T-EE----	RTFFMVMG	-DDGGQGPTRG	VTGIVPAA--	QGRNLF	NRRRIEGVFAAD-----	233
92	-----	NIYFMVL	LG-DNGEARPGH	GLTMIMPAE--	RRGNPY	VEREWPMKTDG-----	275
93	-----	NIYFMVL	LG-DNGEARPGH	GLTMIMPAE--	RRGNPY	IEREWPMKTDG-----	275
94	R-TA----	PIFAARLN	-ETD-----	GLHGI	FGGGA--	SAGVRMEEIG-----	262
95	E-TT----	SIYALRLN	-EAD-----	GFHGI	FGGGP--	SAGIQFEDIG-----	265
96	D-TC----	SVYALRLN	-ELD-----	GLHGI	YGGGG--	NAGIVVENLG-----	265
97	T-TC----	SIYALRLN	-EVD-----	GIHGLY	GGGA--	SAGLRVEEIG-----	265
98	N-TC----	SVYALRLN	-EVD-----	GLHGLY	GGGA--	SAGIRVEDIG-----	265
99	N-TC----	SIYALRLN	-EAD-----	GFHGI	YGGGA--	SAGLRVEEIG-----	265
100	N-TT----	SIYAVRLN	-EVD-----	GLHGLY	GGGA--	SAGVRVEDIG-----	265
101	A-CC----	SIYAMRLN	-VAD-----	GLHGLY	GGGP--	ELGIRIEDVG-----	265
102	T-VS----	NIYMMVL	GANNKDPQGP	FVTGIIPKQNV	QPD	TMFMRRESNIVY-----	286
103	N-TC----	SVYALRLN	-EVD-----	GLHGLY	GGGA--	SAGIRVEDIG-----	265
104	K-TC----	SIYAIRAN	-EVD-----	GLHGI	YGGGG--	PAGIVVENIG-----	265
105	K-TT----	SIYAVRLN	-EVD-----	GLHGLY	GGGG--	NAGIVVEDIG-----	265
106	K-TT----	SIYAVRLN	-EVD-----	GLHGLY	GGGG--	NAGIVVEDIG-----	263
107	--TC----	SVYAVRMN	-ELD-----	GLHGI	YGGGD--	NAGIVVENIG-----	260
108	K-TT----	SIYAVRLN	-EVD-----	GLHGLY	GGGG--	NAGIVVEDIG-----	265
109	K-TT----	SIYAVRLN	-EVD-----	GLHGLY	GGGG--	NAGIVVEDIG-----	265

110	K-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
111	N-LC----	SVY	AARFN	ESD-----	GLH	AIYGGD	---	NAG	I	V	V	E	D	I	G	-----	264		
112	K-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	267		
113	K-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
114	K-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
115	N-TC----	SVY	ALRLN	EVD-----	GVH	GLFGGE	---	SAG	I	R	I	E	D	I	G	-----	266		
116	SKSC----	YIY	AARFN	EVD-----	GVH	GLFGGP	---	NAG	M	V	V	E	D	I	G	-----	262		
117	K-TC----	SIY	AIRAN	EVD-----	GLH	GIYGGG	---	PAG	I	V	V	E	N	I	G	-----	265		
118	K-TC----	SIY	AIRAN	EVD-----	GLH	GIYGGG	---	PAG	I	V	V	E	N	I	G	-----	265		
119	SKSC----	YIY	AARFN	EVD-----	GVH	GLFGGP	---	NAG	M	V	V	E	D	I	G	-----	262		
120	S-TC----	SVY	AVRAN	ELD-----	GLH	GLYGGA	---	SAG	I	R	V	E	T	I	G	-----	266		
121	K-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
122	K-TT----	SIY	AGRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
123	A-TC----	SVY	ALRLN	EAD-----	GLH	GLYGGE	---	SAG	I	V	V	E	N	L	G	-----	265		
124	N-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
125	N-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
126	K-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
127	A-ST----	SIY	ALRLN	EVD-----	GVH	GLYGGA	---	TAG	L	R	V	E	E	I	G	-----	265		
128	A-ST----	SIY	ALRLN	EVD-----	GIH	GLYGGA	---	TAG	L	R	V	E	E	I	G	-----	265		
129	K-TC----	SIY	AVRLN	ELD-----	GMH	GLWGGK	---	DAG	I	R	V	E	D	V	G	-----	265		
130	K-TC----	SIY	AVRLN	ELD-----	GMH	GLWGGK	---	DAG	I	R	V	E	D	V	G	-----	265		
131	K-TC----	SIY	AVRLN	ELD-----	GMH	GLWGGK	---	DAG	I	R	V	E	D	V	G	-----	265		
132	K-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
133	N-CT----	TIF	AGCID	DGSR----	KV	GLTGLTARN	---	AY	G	L	E	V	E	Q	V	G	-----	271	
134	K-TC----	SVY	AIRLN	ELD-----	GMH	GLWGGK	---	DAG	I	R	V	E	D	V	G	-----	265		
135	K-TT----	SIY	AVRLN	EVD-----	GLH	GLYGGG	---	NAG	I	V	V	E	D	I	G	-----	265		
136	SEVC----	PIY	AMRLN	EVD-----	GLH	GLYGGN	---	NAG	I	V	V	E	N	I	G	-----	261		
137	K-SC----	SIY	AVRFN	EAD-----	GMH	GIFGGP	---	TAG	F	R	V	Q	S	I	G	-----	265		
138	A-TT----	SVY	ALRLN	ELD-----	GLH	GIYGGG	---	DAG	I	V	V	E	N	I	G	-----	268		
139	V-TT----	SIY	ALRLN	EVD-----	GFH	GIVGGE	---	AAG	L	K	V	E	E	I	G	-----	265		
140	K-KA	PIY	ALHLS	EEN-----	GVT	GLYGGD	---	NAG	I	V	V	E	S	I	G	-----	262		
141	A-TT----	SVY	ALRLN	EDD-----	GLH	GLHGGG	---	AAG	I	R	L	E	A	L	G	-----	267		
142	E-TC----	SIY	ALRLN	EAD-----	GLH	GIYGGH	---	SAG	V	R	M	E	E	I	G	-----	265		
143	K-KA	PIY	ALHLS	EEN-----	GVT	GLYGGD	---	NAG	I	V	V	E	S	I	G	-----	262		
144	A-TC----	SIY	ALRLN	EAD-----	GFH	GIYGGA	---	NAG	V	Q	L	E	D	I	G	-----	265		
145	D-LT----	SIY	ALRLN	ETD-----	GFH	MLYGGE	---	SAG	I	V	V	E	N	V	G	-----	265		
146	K-TA	SIY	AVRFN	EAD-----	GMH	GIFGGP	---	QAG	L	R	V	S	H	V	G	-----	265		
147	D-SA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
148	D-SA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
149	D-SA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
150	T-TA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
151	G-TA	NIY	CLHLS	EEN-----	GLT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	272		
152	T-TA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
153	A-TC----	SIY	ALRLN	EAD-----	GFH	GIYGGA	---	NAG	V	Q	L	E	D	I	G	-----	265		
154	D-AA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
155	G-TA	NIY	CLHLS	EEN-----	GLT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	272		
156	T-TA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	N	V	G	I	V	V	E	N	I	G	-----	259
157	T-SA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
158	G-TA	NIY	CLHLS	EEN-----	GLT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	272		
159	G-TA	NIY	CLHLS	EEN-----	GLT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	272		
160	G-TA	NIY	CLHLS	EEN-----	GLT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	272		
161	K-TC----	SIY	AIRAN	EVD-----	GLH	GIYGGG	---	PAG	I	V	V	E	N	I	G	-----	265		
162	V-TT----	SVY	ALRLN	EYD-----	GLH	GLYGGG	---	TAG	V	V	V	E	D	I	G	-----	272		
163	G-TA	NIY	CLHLS	EEN-----	GLT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	272		
164	T-AA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
165	T-GA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
166	T-AA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
167	D-SA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
168	T-GA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
169	D-SA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
170	G-KA	SIY	CLHLS	EEN-----	GVT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	257		
171	T-GA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		
172	G-TA	NIY	CLHLS	EEN-----	GLT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	272		
173	S-KA	SIY	CLHLS	EEN-----	GVT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	257		
174	G-KA	SIY	CLHLS	EEN-----	GVT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	257		
175	G-KA	SIY	CLHLS	EEN-----	GVT	GLYGGD	---	NAG	I	V	V	E	N	I	G	-----	257		
176	D-SA	NIY	CLHLS	EEN-----	GVT	GLYGGE	---	NAG	I	V	V	E	N	I	G	-----	259		

177	G-TA	---	NIYCLHLS	EEN	---	GLTGLYGGD	---	NAGIVVENIG	---	272
178	G-TA	---	NIYCLHLS	EEN	---	GLTGLYGGD	---	NAGIVVENIG	---	272
179	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
180	T-GA	---	NIYCLHLS	EEN	---	GVTGLYGGE	---	NAGIVVENIG	---	259
181	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
182	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVESIG	---	257
183	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
184	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
185	G-TA	---	NIYCLHLS	EEN	---	GLTGLYGGD	---	NAGIVVENIG	---	272
186	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
187	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
188	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
189	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
190	D-CT	---	SIWFIQFG	MMR	---	GVIIGLE	---	NGGIVHEDVG	---	261
191	G-TA	---	NIYCLHLS	EEN	---	GLTGLYGGD	---	NAGIVVENIG	---	272
192	K-TT	---	SIYALRLN	EAD	---	GFHGLWAGA	---	QAGIRYEHLG	---	264
193	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
194	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
195	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
196	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
197	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
198	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
199	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
200	G-KA	---	SIYCLHMS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
201	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
202	E-TC	---	SIYALRLN	ETD	---	GFHGIYGGP	---	TAGVQFEDIG	---	264
203	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
204	GNTC	---	SVYAARLN	EVD	---	GLHGLYGGD	---	NAGLVVENIG	---	267
205	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
206	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
207	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
208	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
209	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
210	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
211	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
212	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
213	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
214	G-TA	---	NIYCLHLS	EEN	---	GLTGLYGGD	---	NAGIVVENIG	---	272
215	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
216	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
217	G-KA	---	SIYCLHLS	EES	---	GVTGLYGGD	---	NAGIVVENIG	---	257
218	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
219	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
220	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
221	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
222	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
223	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
224	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
225	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGE	---	NAGIVVENIG	---	257
226	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
227	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
228	--TC	---	PIYAIRAN	ELD	---	GLHGLFGGD	---	NAGIVVENLG	---	258
229	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
230	--TC	---	QIYAIRAN	ELD	---	GLHGLFGGD	---	NAGIVVENLG	---	258
231	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
232	G-TA	---	NIYCLHLS	EEN	---	GLTGLYGGD	---	NAGIVVENIG	---	272
233	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
234	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
235	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
236	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
237	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
238	G-KA	---	SIYCLHMS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
239	N-LS	---	SIYAVKFG	-PS	---	GLMGLE	---	NGGITVEEVG	---	260
240	G-TA	---	NIYCLHLS	EEN	---	GLTGLYGGD	---	NAGIVVENIG	---	272
241	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGE	---	NAGIVVENIG	---	257
242	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257
243	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGGD	---	NAGIVVENIG	---	257

311	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
312	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	258
313	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
314	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
315	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
316	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
317	T-AA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	259
318	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
319	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
320	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
321	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
322	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
323	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
324	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
325	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
326	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
327	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
328	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
329	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
330	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
331	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
332	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
333	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
334	T-AA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	259
335	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
336	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
337	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
338	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
339	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
340	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
341	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
342	G-TA	---	NIYCLHLS	EEN	---	GLTGLYGG	D---	NAGIVVENIG	---	272
343	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
344	G-KA	---	SIYCLHMS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
345	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
346	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
347	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
348	S-AA	---	DIYGLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	259
349	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
350	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
351	K-TT	---	SIYAVRLN	EVD	---	GLHGLYGG	G---	NAGIVVEDIG	---	246
352	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
353	T-CT	---	SVVAGTLD	DGSM	---	QSGIAGLTAMD	---	ASGIQVEEVG	---	272
354	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	255
355	T-AA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	259
356	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
357	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
358	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
359	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
360	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
361	D-AA	---	DIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	259
362	T-KA	---	DIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	258
363	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
364	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
365	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
366	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
367	A-AA	---	DIYGLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	259
368	A-AA	---	DIYGLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	259
369	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
370	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
371	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
372	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
373	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
374	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
375	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	E---	NAGIVVENIG	---	257
376	G-KA	---	SIYCLHLS	EEN	---	GVTGLYGG	D---	NAGIVVENIG	---	257
377	G-LS	---	SIYAVKWG	-PS	---	GLMGLE	---	NGGIVVEEVG	---	260

378	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	257
379	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	257
380	S-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
381	S-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
382	A-CT	---	TIFAGVFD	DGDM	---	KTGLLGLTAAN	---	AYGMHVVDVG	-----	271
383	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
384	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
385	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	257
386	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGGD	---	NAGIVVENIG	-----	257
387	L-TGGSFR	SVY	AMRLN	EAD	----	GLFGVYGG	S--	EAAGFTVEDIG	-----	272
388	S-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
389	T-KA	---	DIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	258
390	N-CT	---	TILAGVLD	DGSR	---	KVGVTGLTAKN	---	AYGLAVEPVG	-----	271
391	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
392	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	257
393	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	257
394	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
395	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
396	G-TA	---	NIYCLHLS	EEN	----	GLTGLYGG	E--	NAGIVVENIG	-----	271
397	N-AT	---	SVFAGTFD	DGSR	---	THGIAGLTAER	---	QAGMHIKYVG	-----	275
398	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGGD	---	NAGIVVENIG	-----	257
399	S-TA	---	DIFCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
400	T-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
401	S-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
402	S-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
403	T-KA	---	DIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	258
404	T-KA	---	DIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	258
405	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGGD	---	NAGIVVENIG	-----	257
406	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
407	T-KA	---	DIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	258
408	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	257
409	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
410	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
411	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
412	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
413	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGGD	---	NAGIVVENIG	-----	257
414	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
415	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
416	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
417	G-TA	---	NIYCLHLS	EEN	----	GLTGLYGG	E--	NAGIVVENIG	-----	271
418	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	257
419	A-TT	---	SVYALRLN	EID	----	GFHGLYGGN	---	AAGIRIDDLG	-----	265
420	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
421	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGGD	---	NAGIVVENIG	-----	257
422	G-TA	---	NIYCLHLS	EEN	----	GLTGLYGGD	---	NAGIVVENIG	-----	272
423	G-TA	---	NIYCLHLS	EEN	----	GLTGLYGG	E--	NAGIVVENIG	-----	271
424	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
425	G-TA	---	NIYCLHLS	EEN	----	GLTGLYGGD	---	NAGIVVENIG	-----	272
426	G-TA	---	NIYCLHLS	EEN	----	GLTGLYGGD	---	NAGIVVENIG	-----	272
427	G-TA	---	NIYCLHLS	EEN	----	GLTGLYGGD	---	NAGIVVENIG	-----	272
428	S-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
429	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGGD	---	NAGIVVENIG	-----	257
430	G-TA	---	NIYCLHLS	EEN	----	GLTGLYGGD	---	NAGIVVENIG	-----	272
431	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
432	A-QT	---	TIFAGTLD	DGSR	---	THGIAGLTAAN	---	DAGIVIEDVG	-----	271
433	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGGD	---	NAGIVVENIG	-----	257
434	T-KA	---	DIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	258
435	T-KA	---	DIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	258
436	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
437	G-KA	---	SIYGLHMS	EEN	----	GLTGLYGGD	---	NAGIVVENIG	-----	257
438	A-AA	---	DIYGLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	259
439	--TC	---	QIFALRAN	ELD	----	GLHGLYGG	E--	NAGIVVENIG	-----	258
440	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGGD	---	NAGIVVENIG	-----	257
441	G-LS	---	SIYAVKWG	-PS	----	GLMGLE	---	NGGIVVEEVG	-----	260
442	Q-KA	---	DIYCLHMS	EEN	----	GLTGLYGGD	---	TAGIVVEDIG	-----	260
443	G-KA	---	SIYCLHLS	EEN	----	GVTGLYGG	E--	NAGIVVENIG	-----	257
444	T-CT	---	SI IAGCLD	DGSR	---	KVG IAGLHAKK	---	AMGIQVKALG	-----	271

445	A-QT	---	TVFAGVFD	-DGDR	---	KT	GLAGL	TATN	---	AFGLH	VERVG	---	---	---	---	271
446	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
447	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
448	N-LS	---	SIYAVKFG	-SA	---	---	GVMGLE	---	NGGIQVVRVG	---	---	---	---	---	---	258
449	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
450	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
451	N-LS	---	SIYAVKFG	-PS	---	---	GLMGLE	---	NGGITVEEVG	---	---	---	---	---	---	260
452	N-LS	---	SIYAVKFG	-PS	---	---	GVMGIE	---	NGGIQIEAIG	---	---	---	---	---	---	260
453	A-AA	---	DIYGLHLS	-EEN	---	---	GVTGLYGGE	---	NAGIVVENIG	---	---	---	---	---	---	259
454	N-AT	---	SVFAGTFD	-DGSR	---	TH	GIAGL	TAER	---	QAGMHIKYVG	---	---	---	---	---	275
455	S-TC	---	SIYAVRLN	-ELD	---	---	GFHGLWGGK	---	DAGIRVEDVG	---	---	---	---	---	---	265
456	T-KA	---	DIYCLHLS	-EEN	---	---	GVTGLYGGE	---	NAGIVVENIG	---	---	---	---	---	---	258
457	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
458	A-AA	---	DIYGLHLS	-EEN	---	---	GVTGLYGGE	---	NAGIVVENIG	---	---	---	---	---	---	259
459	N-LA	---	SVYAVRAN	-ELD	---	---	GFHGLYGGD	---	AAGVRVEAIG	---	---	---	---	---	---	265
460	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
461	N-AT	---	SVFAGTFD	-DGSR	---	TH	GIAGL	TAER	---	QAGMHVKYVG	---	---	---	---	---	275
462	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
463	A-NR	---	RIWFMVLG	-DDGGKGPTR	---	---	GLSRIVPAG	---	MERRPFVVRMTNGVPDF	---	---	---	---	---	---	191
464	G-TA	---	NIYCLHLS	-EEN	---	---	GLTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	272
465	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
466	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
467	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
468	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
469	K-SA	---	SIYCLHMS	-EEN	---	---	GLTGLYGGD	---	NAGIVVEDIG	---	---	---	---	---	---	260
470	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
471	N-CT	---	TVFAGTFD	-DGSR	---	TH	GIAGL	TAE	---	AAGIQIEDVG	---	---	---	---	---	272
472	A-TA	---	SVYALRLN	-EQD	---	---	GLHGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	275
473	N-CT	---	TVFAGTFD	-DGSR	---	TH	GIAGL	TAE	---	AAGIQIEDVG	---	---	---	---	---	272
474	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
475	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
476	N-AT	---	SVFAGTFD	-DGSR	---	TH	GIAGL	TAER	---	QAGMHVKYVG	---	---	---	---	---	275
477	N-TT	---	TLFAGTLD	-DGSG	---	KH	GIAGL	TAAG	---	EAGIRVTEIG	---	---	---	---	---	271
478	N-CT	---	SIIAGCLD	-DGSQ	---	RV	GIAGL	HAKK	---	AMGIQVKDIG	---	---	---	---	---	271
479	N-AT	---	SVFAGTFD	-DGSR	---	TH	GIAGL	TAAT	---	EAGVKIKYVG	---	---	---	---	---	275
480	N-TT	---	SIFAGTLD	-DGSR	---	TH	GLAGL	TAE	---	AAGIRVEDVG	---	---	---	---	---	272
481	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
482	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
483	K-KS	---	DIFCLHMS	-EEN	---	---	GLTGLYGGE	---	NAGIVVEDIG	---	---	---	---	---	---	260
484	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
485	N-LS	---	SIYAVKFG	-PS	---	---	GVMGIE	---	NGGIQIEAIG	---	---	---	---	---	---	260
486	K-KS	---	DIYCLHMS	-EEN	---	---	GLTGLYGGD	---	TAGIVVEDIG	---	---	---	---	---	---	260
487	A-AA	---	DIYGLHLS	-EEN	---	---	GVTGLYGGE	---	NAGIVVENIG	---	---	---	---	---	---	259
488	Q-KA	---	DIYCLHLS	-EEN	---	---	GLTGLYGGD	---	NAGIVVEDIG	---	---	---	---	---	---	260
489	K-KA	---	DIYCLHLS	-EEN	---	---	GLTGLYGGD	---	NAGIVVESIG	---	---	---	---	---	---	260
490	N-AT	---	SVFAGTFD	-DGSR	---	TH	GIAGL	TAEK	---	QAGMHVKYVG	---	---	---	---	---	275
491	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
492	T-ST	---	SIVAGCLD	-DGSQ	---	RV	GIAGL	HAKK	---	AMGIQVKNIG	---	---	---	---	---	271
493	T-KA	---	DIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	258
494	G-LS	---	SIYAVKFG	-PA	---	---	GLMGLE	---	HGGIQVERVG	---	---	---	---	---	---	260
495	T-KA	---	DIYCLHLS	-EEN	---	---	GVTGLYGGE	---	NAGIVVENIG	---	---	---	---	---	---	258
496	T-KA	---	DIYCLHLS	-EEN	---	---	GVTGLYGGE	---	NAGIVVENIG	---	---	---	---	---	---	258
497	N-CT	---	TVFAGTFD	-DGSG	---	MH	GVSGITPTM	---	NAGMSVTEIG	---	---	---	---	---	---	272
498	G-KA	---	SIYCLHLS	-EEN	---	---	GVTGLYGGD	---	NAGIVVENIG	---	---	---	---	---	---	257
499	Q-KA	---	DIYCLHLS	-EEN	---	---	GLTGLYGGD	---	NAGIVVEDIG	---	---	---	---	---	---	260
500	N-AT	---	SVFAGTFD	-DGSR	---	TH	GIAGL	TAEK	---	QAGMHVKYVG	---	---	---	---	---	275



1	-----	IRTEGSEIVV----	HKTWPVG	LALGSQAALSS	LKNVAI	288
2	-----	IRTEGSEIVV----	HKTWPVG	LALGSQAALSS	LKNVAI	288
3	-----	LRTEGSEIVV----	HKTWPVG	LALGSQAAL	ASVKNVAI	288
4	-----	IRTEGSEIVV----	HKTWPVG	LALGSQAAL	ASVKNVAI	288
5	-----	VRTEGSEIVV----	HKTWPVG	LALGSQAAL	ASVKNVAI	288

6	-----IRTEGSEIVV----	HKTWPVGLALGSQAALASVKNVAI--	288
7	-----IRTEGSEIVV----	HKTWPVGLALGSQAALASLKNVAI--	286
8	-----VRTEGSEIVV----	HKTWPVGLALGSQAALASVKNVAI--	286
9	-----IRTEGSEIVV----	HKTWPVGLALGSQAALASLKNVAI--	286
10	-----VRTEGSEIVV----	HKTWPVGLALGSQAALASVKNVAI--	286
11	-----IRTEGSEIIL----	HKTWPVGLALGSQAALASVNNVAI--	286
12	-----LRTEGSEIVV----	HKTWPVGLALGSQAALASVKNVAI--	286
13	-----VRTEGSEIVV----	HKTWPVGLALGSQAALASVKNVAIQ-	287
14	-----SQADQSQTVV----	SVTWPVGLALGSQGALSGILNVGIN-	287
15	-----IQADASTLVY----	HLTMPVGIALGSACALAVIKNATIPK	327
16	-----ILADASTLVY----	HLTMPVGIALGSSAALSVIRNATIPV	327
17	-----ILADASTLVY----	HLTMPVGIALGSSAALSVIRNATIPV	327
18	-----ILADASTLVY----	HLAMPVGIALGSAAALSVIKNVITPK	327
19	-----MLPDGSTLVY----	HVTMPVSIALGSASSLAVIKNVAIPS	326
20	-----ILADASTLVY----	HMMMPVGIALGSACALSVIKNATIPR	328
21	-----MLPDGSTLVY----	HVTMPASIALGSASSLAVIKNAVIPA	326
22	-----MLPDGSTLVY----	HVTMPASIALGSASSLAVIKNAVIPA	326
23	-----MLPDGSTLVY----	HVTMPASIALGSASSLAVIKNAVIPA	327
24	-----MLPDGSTLVY----	HVTMPASIALGSVSSLAVIKNAVIPA	326
25	-----MLPDGSTLVY----	HVTMPASIALGSASSLAVIKNALIPA	326
26	-----MLPDGSTLVY----	HVTMPASIALGSASSLAVIKNAVIPA	326
27	-----ILADASTLVY----	HLAMPVGIALGSSAALSVIRHATIPG	327
28	-----MLPDGSTLVY----	HVTMPASIALGSVSSLAVIKNAVIPA	326
29	SQQVLVPDVPTTITVNGATI	TPSLNAVTTN----WVSWPCGMAMGAQGSLSILKGFGL-V	342
30	SQQVLVPDVPTTITVNGATI	TPSLNAVTTN----WVSWPCGMAMGAQGSLSILKGFGL-V	348
31	----EVPEAP-----	YLKAITNT----WVSWPCGMAMGAQGSLSILKGFNL-V	323
32	----EVPEAP-----	YLKAITNT----WVSWPCGMAMGAQGSLSILKGFNL-V	323
33	---VTVPEVPTTIQPTG---	SVTVNAITDT----WVSMPCGLAVGAQGSLSILKGFNL-V	338
34	-----AASSTSQINV----	DYTFPVATAMGSSGALAILEGVD--V	332
35	-----SAATTSRINV----	TYTFPVATAMGTQGALAILENVL--V	332
36	-----VRTEGSEIVV----	HKTWPVGLALGSQAALASVKNVAI--	209
37	-----SAHSTSLINV----	DYTFPVAIAMGSSGALSILDQVD--V	328
38	---APDPGKPF-----	TVQLPTLPTL-DT--WVSWPTGVAMGSQGSLSILSGFAL-V	332
39	-----TMPDGSETVG----	QIFLPIGLALATESALAGITNIA--	300
40	-----STSTKSRICV----	TYTFPVATAVGSSGALSILEGVD--V	320
41	-----YDPDNGTIIIV----	FVTWPVSIISLATKAALSAAVNNIAITP	286
42	---LDIPSVPPFIGSVLAPVTIPTLPTV-DT--	WVSWPTGVAMGSQGSLSILRGFPL-V	340
43	---LDIPSVPPFIGTAEGAVTVPTLPTV-DT--	WASWPTGIAMGSQGSLSILKGFNL-V	339
44	---LDIASVPFIGSVQAPVTIPTLPTV-DT--	WVSWPTGVAMGSQGSLSILKGFNL-V	340
45	---VPDPGNPI-----	TVQLPTLPTL-DT--WVSWPTGIAMGSQGSRLAYP--KI-P	330
46	-----TIDGPGEDT----	FVTMPAGIAGVGSQGALSIIQNYTT-V	309
47	-----A-----	AESQPGEET----WVTMPAGIALGSQGALSIIENYTI-I	309
48	-----TIDGPGEDT----	FVTMPAGIAGVGSQGALSIIQNYTT-A	307
49	-----TIDGPGEDT----	FVTMPAGIAGVGSQGALSIIQNYTT-V	309
50	-----PNDGPGEDT----	FVTMPAGIAGVGSQGALSIIQNYTT-A	307
51	-----AGGPGSPGMQPGIDV----	WVSMPAGVAGVGSQGALSIIIRNFTT-V	312
52	-----ANGEVNMARNV----	WLTMPAGLAMGSQGSLSILTNFEN-V	312
53	-----LVDGKGQDCW----	VAYWPVGVAVLESQGGVARLQQVG--	309
54	-----SGATSSQMRV----	TYTFPVATAMGTGSALAVLKNVV--V	313
55	-----LVDGKAQDNL----	TVHWAVGLALASDQAIARLQKVAK-A	313
56	-----	-----	258
57	-----VGQ-----	TLPVRDM----WVSFSPGLAIGSQGATISMIQNFEPLV	314
58	-----SAATTSRMNV----	TYTYPTATAMGCASALAILENVL--V	317
59	-----DVGDKGQRSW----	VVSWPVSVAVLESQSGVARLQKVG--	309
60	-----ANQTVNMTKDI----	WLTMPAGIALGSQGALSMLTNFEH-V	313
61	-----LIDGKAQDTN----	TLYWAVGLALAAEQAVARLQKVS--	311
62	-----I-----	QPDAGPGEDT----FVTMPAGIAGVGSQGALSIIQNYTT-V	312
63	-----ANAEVNMARNI----	WLTMPAGIALGSQGCLSILTNFAN-V	312
64	-----LIDGKGQDGW----	IAYWPVGVAVLESQAGVARLQQVG--	309
65	-----LVDGKAQDQQ----	IVSWAVGLALASEQAIARLEKVAS-S	313
66	-----GGG-GQPAMLPGV DV----	WVSTPAGYAGVGSQGALSIIIRNFTP-V	311
67	-----AGI-----	GDPIAADDV----FLGWVPVGTAVGSPAATISLLQNFSA-A	317
68	-----TLSQGSIGIRY----	DVVFVPAISVPAVSDIAVISNVLV--	307
69	-----TLSQGSIGTRY----	DVVFVPAISVPAVTDIAVISNVLV--	323
70	-----PSADAGTLSSRNAVS----	VIWPMGIAYGSAGAVSRLANITP-L	323
71	-----RGADTGTLASRHAVS----	VIWPMGIAYGSAGAVSRLANITP-L	374
72	-----RGADTGTLASRHAVS----	VIWPMGIAYGSAGAVSRLANITP-L	369

73	-----RLADAGTLSSRQAISCIWPMGIAYGSAGAVSR	LANITP-L	323	
74	-----TVQTKDASRT-----RLKWYAAALALKSTKSLARIKGV	VTN-S	300	
75	-----HQQSG-----		259	
76	SQQVLVPDVPTTITVNGATI	TPSLNAVTTN---WVSWPCGMAMGAQGSLSILKGFGL-V	277	
77	-----ANQTVNMT-----		285	
78	-----THATKDAMSF-----RMKWYVGTALKATHAVAR	LKGITN-I	299	
79	-----		223	
80	-----TVQNKDATRT-----RVKWCGLALKSTSTRSLARVRGV	VTN-V	300	
81	-----TVQNKDATRT-----RLKWYCGTALKSTKSLARIQGIQN-I	301		
82	-----TVQNKDAQRF-----RMKWYVGTALKSTKSLARLKGVT	TT-V	300	
83	-----TVQNKDASRY-----RVKWCAGTALKATHSVAR	LKGILN-I	300	
84	-----TIQNKDASRY-----RVKWCAGTALKATHSVAR	LKGILN-I	300	
85	-----TIQNKDASRY-----RVKWCAGTALKATHSVAR	LKGILN-I	300	
86	-----TIQNKDASRY-----RVKWCAGTALKATHSVAR	LKGILN-I	300	
87	-----SLTPTSTITR-----ALHWPVGYALGSMGAVSM	LENITP-L	310	
88	-----SGATTSTQTRV-----TYTFPVATAMGTGSALAILKNV	V--V	264	
89	-----TIQNKDASRY-----RVKWCAGTALKATHSVAR	LKGILN-I	300	
90	-----TIQNKDAVRY-----RVKWCAGTALKATHSVAR	LQGV	VTN-V	300
91	-----AGA-GAPDMLPGVD	T---WVSMPAGLALGSQGALSIIENYTT-V	272	
92	-----SLTPTSTITR-----ALHWPVGYALGSMGAVSM	LENITP-L	310	
93	-----SLMPTSTITR-----ALHWPVGYALGSMGAVSM	LENITP-L	310	
94	-----TVQNKDAIRY-----RVKWCAGLALKSTKSLAKVADVAM-G	297		
95	-----TIQNKDASRY-----RVKWCAGTALKATHSVAR	LKGILN-I	300	
96	-----TVQNKDATRI-----RMKWYTGALALKSTKSVAR	LKGVTN-I	300	
97	-----KLQGKDAQRW-----RLKWYCGTALKATHSVAR	LKGITN-V	300	
98	-----TVQNKDATRT-----RLKWYCGLALKSTKSLAAVKGITN-V	300		
99	-----KLEGKDAQRW-----RLKWYAGTVLRATHSVAR	LKGITN-V	300	
100	-----TVQNKDATRT-----RLKWYVGLALKSTHSLAAIKGITN-V	300		
101	-----LVQNKDARRT-----RLKWYCGIALKSTKSLARIKGITN-I	300		
102	-----EGASGASELNV-----DYIFTAGVALGQEMALSIMRNARE--	321		
103	-----TVQNKDATRT-----RLKWYCGLALKSTKSLAAVKGITN-V	300		
104	-----TVQNKDATRI-----RLKWYVGLVLKSTKSLARLKGVTN-I	300		
105	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN-I	300	
106	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN-I	298	
107	-----TVQNKDATRI-----RLKWYAGLALKSTRSIAR	LKGVTN-I	295	
108	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	T--	298	
109	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN--	299	
110	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN-I	300	
111	-----TVQNKDATRT-----RLKWYTATALKSTKSLAR	LRGITN-I	299	
112	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN-I	302	
113	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN-I	300	
114	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	---	297	
115	-----TVQNKDATRT-----RLKWYCGLALKATKSLAAIRGV	VTN-V	301	
116	-----TVQNKDATRT-----RIKWYCGLALKSTKSLAALKGV	PN-I	297	
117	-----TVQNKDATRI-----RLKWYVGLVLKSTKSLARLKGVTN-I	300		
118	-----TVQNKDATRI-----RLKWYVGLVLKSTKSLARLKGVTN-I	300		
119	-----TVQNKDATRT-----RIKWYCGLALKSTKSLAALKGV	PN-I	297	
120	-----TVQNKDAIRT-----RLKWYCGLALKSTKSLARLAGV	VTN-V	301	
121	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRG	----	296	
122	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN-I	300	
123	-----TVQNKDATRI-----RLKWYCGLALKSTKSIAR	LKGVTN-I	300	
124	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN-I	300	
125	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIRGV	VTN-I	300	
126	-----TVQNKDATRT-----RIKWYCGLALKSTRSIAAIR	----	295	
127	-----KLEGKDAQRW-----RLKWYCGTALKRTTSVAR	LKGVTN-I	300	
128	-----KLEGKDAQRW-----RLKWYCGTALKRTTSVAR	LKGVTN-I	300	
129	-----TVQNKDADRI-----RVKWCAGTALKSTSTRSLAR	LRGV	VTN-I	300
130	-----TVQNKDADRI-----RVKWCAGTALKSTSTRSLAR	LRGV	VTN-I	300
131	-----TVQNKDADRI-----RVKWCAGTALKSTSTRSLAR	LRGV	VTN-I	300
132	-----TVQNKDATRT-----RIKWYCGLALKSTRSI	-----	291	
133	-----VHQTKDERIW-----RVKWCGLALFSQLGVASADGIRD--	305		
134	-----TVQNKDADRI-----RVKWCAGTALKSTSTRSLAR	LRGV	VTN-I	300
135	-----TVQNKDATRT-----RIKWYCGLALKSTR-----	289		
136	-----TVQNKDAIRT-----RLKWYCGLALKSTKSLAALT	NV	PN-V	296
137	-----TVQNKDVERY-----RMKWYCGTALKSTSTRSLAR	LKGITN-I	300	
138	-----TVQNKDATRI-----RLKWYTGALALKSTRSIAR	LKGVTN-I	303	
139	-----TIQNKDAVRY-----RVKWCAGTALKATHSVAR	LAGITN-I	300	

140	TVQNKDAVRT	RVKWCYGLANKHDYAIARIDNVKF	296
141	TVQNKDAWRY	RLKWYVGLALKSTRSMARLKGITN	302
142	TLEDKDATRY	RLKWYAGLVLKATHGVARLKGITN	300
143	TVQNKDAVRT	RVKWCYGLANKHDYAIARIDNVKF	296
144	THHTKDARKW	RVKWCYAGTALKATHSVARLKGITN	300
145	TVQNKDAERW	RVKWCYVGSALKATHSVARLRAISN	300
146	TVQNKDVERY	RMKWYVGTALKSTKSLARLKGITN	300
147	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
148	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
149	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
150	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
151	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
152	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
153	THHTKDARKW	RVKWCYAGTALKATHSVARLKGITN	300
154	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	293
155	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
156	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
157	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
158	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
159	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
160	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
161	TVQNKDATRI	RLKWYVGLVLKSTK	289
162	TVQTkdSSRT	RLKWYCGLALKSTKSMARLKGITN	307
163	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
164	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
165	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
166	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
167	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
168	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
169	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
170	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
171	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
172	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
173	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
174	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
175	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
176	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
177	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
178	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNV	304
179	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	291
180	TVQNKDATRT	RVKWCYCSLANKHDKAIAALTNVKI	293
181	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
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185	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
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188	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
189	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
190	PMETKDARRH	RIKWYCGLALFRKAALARLKGIRP	296
191	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALNNVKI	306
192	TSHVKDADLH	RLKWYCGTALKATHALARLKGVTN	299
193	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
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201	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
202	THATKDAHKW	RLKWYAGTALKATHSVARLKGILN	299
203	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
204	TVQNKDATRI	RLKWYAGLALKSTKSLARLKGVTN	302
205	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291
206	TVQNKDAVRT	RVKWCYCSLANKHDKAIAALTNVKI	291

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208	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
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210	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
211	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
212	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
213	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKV	--	291
214	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALNNVKI	--	306
215	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
216	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
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221	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
222	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
223	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
224	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
225	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
226	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVK	--	290
227	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
228	-----	TVQNKDAIRT	----	RLKWYCGLALKSTKSLACLKNVQI	-G	293
229	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
230	-----	TVQNKDAIRT	----	RLKWYCGLALKSTKSLACLKNVQI	-G	293
231	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
232	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALNNVKI	--	306
233	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
234	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
235	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
236	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
237	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALT	LTNVKI	291
238	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
239	-----	ALETKNARRW	----	RVRWYVGLALFSTVAVAQLQGITA	-N	295
240	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALNN	----	303
241	-----	TVQNKDATRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
242	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
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248	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNV	----	289
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256	-----	TVQNKDATRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
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267	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	292
268	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	292
269	-----	TVQNKDATRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
270	-----	TVQNKDAIRT	----	RLKWYCGLALKSTKSLACLKNVQI	-G	293
271	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
272	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	291
273	-----	TVQNKDAVRT	----	RVKWYCSLANKHDKAIAALTNVKI	--	292

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342	TVQNKDAVRT	RVKWYCSLANKHDKAIAAL	301
343	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
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345	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVK	291
346	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	291
347	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTN	288
348	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
349	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
350	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVK	290
351	TVQNKDATRT	RIKWYCSGLALKSTRSIAAIRGVTN	281
352	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
353	TSETKDEIT	RVKWYCSGLALFSEKGLAALTGITN	306
354	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNV	287
355	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
356	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
357	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNV	290
358	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
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362	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	292
363	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKT	291
364	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
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367	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
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374	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	291
375	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
376	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	291
377	ALETKNARRW	RVRWYCSGLALFSTVAVARLQGIAA	295
378	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
379	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
380	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
381	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
382	EAEAKDEHIW	RVKWYCSGLALFSELGLSAEIGILN	305
383	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
384	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
385	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
386	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	291
387	TVQNKDATRT	RLKWYCSNLALKSTKSLARLYGVSN	306
388	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
389	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	292
390	VHQSKDERIW	RVKWYCSGLALFSQLGIAAADGIRN	305
391	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
392	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
393	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
394	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
395	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
396	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	305
397	EKEDADESIT	RISWYCSGLALFSEKGLAVLKGVIP	310
398	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTN	287
399	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
400	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
401	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
402	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
403	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTN	289
404	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	292
405	TVQNKDAVRT	RVKWYCSLANKHDKAIAAL	286
406	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
407	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNV	290

408	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
409	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
410	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
411	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
412	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
413	TVQNKDAVRT	RVKWYCSLANKHDKAIAALT	287
414	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
415	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
416	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
417	TVQNKDAVRT	RVKWYCSLANKHDKAIAALANVKI	305
418	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
419	LLEKRDAARRW	RLRWYCGAALKATHSLARLKGVTN-V	300
420	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
421	TVQNKDAVRT	RVKWYCSLANKHDKAIAALT	287
422	TVQNKDAVRT	RVKWYCSLANKHD	295
423	TVQNKDAVRT	RVKWYCSLANKHDKAIAALANVKI	305
424	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
425	TVQNKDAVRT	RVKWYCSLANK	293
426	TVQNKDAVRT	RVKWYCSLANKHD	295
427	TVQNKDAVRT	RVKWYCSLA	291
428	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNV	291
429	TVQNKDAVRT	RVKWYCSLANKHDKAIAAL	286
430	TVQNKDAVRT	RVKWYCSLANKHDKAI	298
431	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
432	IHQSKDEHIT	RVKWYCGLALFSLKGLAADGITN	305
433	TVQNKDAVRT	RVKWYCSLANKHDKAIAAL	286
434	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	292
435	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	292
436	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
437	TVQNKDATRT	RVKWYVSLANKHDKAIASLNNVKI	291
438	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTNVKI	293
439	TVQNKDAIRT	RLKWYCGLALKSTKSLACLKNVQI-G	293
440	TVQNKDAVRT	RVKWYCSLANKHDKAIAALT	287
441	ALETKNARRW	RVRWYCGLALFSTVAVARLQGIAA-N	295
442	TVQNKDSTRT	RVKWYCSLANKHDKAISALTGVAL	294
443	TVQNKDATRT	RVKWYCSLANKHDKAIAALTNVKI	291
444	ESESKDESIT	RVKFYCGLACYSDLALAVVKGISN	305
445	ISETKDETIW	RVKWYCGLALFSELGLAAAEGITN	305
446	TVQNKDAVRT	RVKWYCSLANKHDKAIA	284
447	TVQNKDAVRT	RVKWYCSLANKHDKAIAA	285
448	DLETKDASRW	RVKWYVSLAVFSELGVARLQGITA-N	293
449	TVQNKDAVRT	RVKWYCSLANKHDKAIA	284
450	TVQNKDAVRT	RVKWYCSLANKHDKAIAAL	286
451	ALETKNARRW	RVRWYVGLALFSTVAVARLQGITA-N	295
452	ELETKDASRH	RIKWYAGLALFSELGVARLRGIEG-A	295
453	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTKVKI	293
454	EKEDADESIT	RISWYCGLALFSEKGLAVLKGVIP-G	310
455	TVQNKDADRI	RVKWYCGTALKSTRSLARLQGITN-I	300
456	TVQNKDAVRT	RVKWYCSLANKHDKAIAALT	288
457	TVQNKDAVRT	RVKWYCSLANKHDKA	282
458	TVQNKDAVRT	RVKWYCSLANKHDKAIAALTN	290
459	TVQNKDATRT	RLKWYVGAALKSTKSVARLEAVTN-V	300
460	TVQNKDAVRT	RVKWYCSLANKHDKAI	283
461	EKEDADESIT	RISWYCGLALFSEKGLAVLKGVTP-G	310
462	TVQNKDAVRT	RVKWYCSLANK	278
463	VNQTVNMTKDI	WVSMPAGLALGSQAALSLLTNFEH-V	227
464	TVQNKDAVRT	RVKWYCSL	290
465	TVQNKDAVRT	RVKWYCSLANKHDKAIAA	285
466	TVQNKDAVRT	RVKWYCSLA	276
467	TVQNKDAVRT	RVKWYCSLANKHD	280
468	TVQNKDAVRT	RVKWYCSLANKHDK	281
469	TVQNKDATRT	RVKWYCGLANKHEKAIAALTDVQL	294
470	TVQNKDAVRT	RVKWYCSLANKHDKA	282
471	ASETKDNYIT	RVKWYCGLALFSEKGLAALPGVTN	306
472	TVQNKDATRI	RLKWYTSLALKSTRSIAALQGVTN-I	310
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474	TVQNKDAVRT	RVKWYCSLA	276

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477	-- -- -- -- --	ESETKDETIT	-- --	RVKMYCGLANFSQLGLYAMP	GITN--	305
478	-- -- -- -- --	ESETKDESIT	-- --	RVKFYCGLAVYSDLALAVAQGV	KN--	305
479	-- -- -- -- --	EKEDADESIT	-- --	RITWYCGLALFSEKGLAVLEGV	TP--	309
480	-- -- -- -- --	PAEDKDNYIT	-- --	RVKWYCSLALFSEKGLAMADG	ITN--	306
481	-- -- -- -- --	TVQNKDAVRT	-- --	RVKWYCSLANK	-- -- -- -- --	278
482	-- -- -- -- --	TVQNKDAVRT	-- --	RVKWYCSLA	-- -- -- -- --	276
483	-- -- -- -- --	TVQNKDSTRT	-- --	RVKWYCSLANKHDKALAALTGV	VAL--	294
484	-- -- -- -- --	TVQNKDAVRT	-- --	RVKWYCSLAN	-- -- -- -- --	277
485	-- -- -- -- --	ELETKDASRH	-- --	RIKWYAGLALFSELGVARLRGIEG	-A	295
486	-- -- -- -- --	TVQNKDSTRT	-- --	RVKWYCSLANKHDKAISALTGV	VAL--	294
487	-- -- -- -- --	TVQNKDAVRT	-- --	RVKWYCSLANKHDKAIAAL	-- -- -- --	288
488	-- -- -- -- --	TVQNKDATRT	-- --	RVKWYCSLANKHDKAIAALTGV	VAL--	294
489	-- -- -- -- --	TVQNKDATRT	-- --	RVKWYCSLANKHDKAISALTGV	VAL--	294
490	-- -- -- -- --	EKEDADESIT	-- --	RISWYCGLALFSEKGLAVLKGV	TP-A	310
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494	-- -- -- -- --	ALETKDATRW	-- --	RVKWYVGLALASDLGVARLQGITA	-N	295
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15	GDGY-	-SSKRKG-	337
16	CGK-	- - - - -	330
17	CGK-	- - - - -	330
18	CR-	- - - - -	329
19	SRIPL-	-INFENHGA-	339
20	G-	- - - - -	329
21	QRSPL-	-IDFDIRGA-	339
22	HRSP L-	-IDFDIRGA-	339
23	QRSPL-	-IDFDIRGA-	340
24	HRSP L-	-IDFDIRGA-	339
25	HRSP L-	-IDFDIRRA-	339
26	H RG PL-	-IDFDIQGA-	339
27	CR-	- - - - -	329
28	HRSP L-	-IDFDIRGA-	339
29	ANLT-	- - - - TT-	348
30	ANLT-	- - - - TT-	354
31	ADLP-	- - - - TT-	329
32	ADLP-	- - - - TT-	329
33	ANLA-	- - - - AT-	344
34	VDFA-	- - - - -	336
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37	AAYT - - - - -	332
38	ANLP - - - - - VT - - - - -	338
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41	- - - - -	286
42	ADLP - - - - - TT - - - - -	346
43	ADLP - - - - - TT - - - - -	345
44	ADLP - - - - - TT - - - - -	346
45	AHL - - - - -	333
46	GSCG - - - - - GG - - - - -	315
47	GPCV - - - - - PDPA - - - - -	317
48	ASCG - - - - - GG - - - - -	313
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50	ASCG - - - - - GGT - - - - -	314
51	ADCG - - - - - GG - - - - -	318
52	GECA - - - - - GIVP - - - - -	320
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57	EDCN - - - - - GAELAMEAGATSAKSKSKRSK	339
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60	GECA - - - - - GGPPPA - - - - -	323
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62	ASCG - - - - - GGGG - - - - -	320
63	GECT - - - - - GIVP - - - - -	320
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66	SDCS - - - - - VG - - - - -	317
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Compare to: the consensus

Amino acids that match the reference are marked with yellow highlighting.

Created: 4 Aug 2022

Last Modified: 4 Aug 2022

Feature	Location	Size		Type
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