```
        Reference sequence (1): S0
        Identities normalised by aligned length.
        Colored by: identity + property

                                1 [        . ] 12
      1 S0        100.0%       SFKIPYHYDSGQ
      2 S1          0.0%       HGGVRLY-----
      3 S2          0.0%       GQSEKHL-----
      4 S3         14.3%       SLSKWSF-----
      5 S4          0.0%       KIAVIST-----
      6 S5          0.0%       TDNTKPK-----
      7 S6          0.0%       TNWRTIN-----
      8 S7          0.0%       VSRDTPQ-----
      9 S8          0.0%       TIPRAPSPANTY
     10 S9          0.0%       NRPDSAQFWLHH
     11 S10         8.3%       DSSNPIFWRPSS
     12 S11         0.0%       FYRHDTYNTHHT
     13 S12         8.3%       HTKQIPRHIYSA
     14 S13        28.6%       HAIYPRH-----
     15 S14         0.0%       LNHHLGF-----
     16 S15         0.0%       CQLLSARSC---
     17 S16        16.7%       SVFLPTRHSPDL
     18 S17         0.0%       ATTHRDVQNAFR
     19 S18         8.3%       QTNDTSRQPSYR
     20 S19         0.0%       AALSMPP-----
     21 S20        16.7%       HYQHNTHHPSRW
     22 S21        25.0%       SHHIPSYQWPLH
     23 S22        14.3%       SVQLQQQ-----
     24 S23        25.0%       LVSKPYSLTKGI
     25 S24         0.0%       QTAGKFNSAAHP
     26 S25         0.0%       HSMPYGLVSGSK
     27 S26         0.0%       THHTLFS-----
     28 S27         0.0%       QPWPTSI-----
     29 S28         0.0%       TPTLIKG-----
     30 S29         8.3%       TTVYPARWGAHP
     31 S30         0.0%       CNNQMLERC---
     32 S31         0.0%       GTTTWLY-----
     33 S32         0.0%       LAHNRTS-----
     34 S33         0.0%       ETALIAA-----
     35 S34         0.0%       LPVRLDW-----
     36 S35         8.3%       SWMPHPRWSPQH
     37 S36         0.0%       VNTGMGSRLTYM
     38 S37        16.7%       SSYYPQLTAHRF
     39 S38         0.0%       HTSSSVKMSDVL
     40 S39         8.3%       DVQEKGHDVLNR
     41 S40        28.6%       YPAIHVL-----
     42 S41         8.3%       SLHSKAYERPLS
     43 S42         0.0%       QLPHTVL-----
     44 S43         0.0%       ETPLQKS-----
     45 S44         0.0%       LARDVQI-----
     46 S45        14.3%       KLPVLYA-----
     47 S46         0.0%       VNPHYLQ-----
     48 S47         8.3%       QHYNIVNTQSRV
     49 S48         0.0%       LPIVKAL-----
     50 S49         0.0%       QSHYRHISPAQV
     51 S50         0.0%       DLNYFTLSSKRE
     52 S51         0.0%       CYQLNTSQC---
     53 S52         0.0%       GSELYGL-----
     54 S53        14.3%       QLWAPPW-----
     55 S54         0.0%       YIGSQTNERYSP
     56 S55         8.3%       FHVNPTSPTHPL
     57 S56         8.3%       RADALNSHLSSP
     58 S57         8.3%       LPPEELHRSRLL
     59 S58         0.0%       KNLNTTAMYAAS
     60 S59         0.0%       NYHLTHPHILKT
     61 S60         0.0%       FAIPLVP-----
     62 S61         8.3%       SVSVGMKPSPRP
     63 S62         0.0%       GQSPHSYQPRTY
     64 S63         8.3%       AQPNWTSLRSLP
```

```
 65  S64    28.6%   LPTPGYH-----
 66  S65     8.3%   HYISPAWPTPPA
 67  S66     0.0%   QHANHQAWNNLR
 68  S67     0.0%   TLPHTRL-----
 69  S68     8.3%   GSLNESWLSSKF
 70  S69    16.7%   YHKPPSPTPLPA
 71  S70     0.0%   HSITKPL-----
 72  S71     0.0%   GETRAPL-----
 73  S72     0.0%   MPAVMSSAQVPR
 74  S73     0.0%   APIHLHSKPLLH
 75  S74     0.0%   ERSWTLDSALSM
 76  S75    20.0%   IPLVP-------
 77  S76    33.3%   STGKPYMMLTGV
 78  S77    14.3%   GSHNPHL-----
 79  S78     0.0%   AKALYSANAPAV
 80  S79     0.0%   NHWASPR-----
 81  S80     0.0%   WSPGQQRLHNST
 82  S81     0.0%   TTGQAWR-----
 83  S82     0.0%   KPLNMTLWPHPI
 84  S83     0.0%   LIPGYSTSYQLS
 85  S84    14.3%   STASYTR-----
 86  S85     0.0%   MPAVMSSVQVPR
 87  S86     0.0%   ALLTGPR-----
 88  S87     0.0%   HHEPGAWLPLSP
 89  S88     0.0%   CVARGAQTC---
 90  S89     0.0%   ATGTNPPGSALS
 91  S90     0.0%   ALHSARV-----
 92  S1      0.0%   GPLWSSN-----
 93  S1     14.3%   SNQWYAS-----
 94  S1      0.0%   WAPGSMPTSRLA
 95  S1      0.0%   DLQSGPMLYWAN
 96  S1     25.0%   FPLLPGPHLSPQ
 97  S1      0.0%   QPPSINLTLYPM
 98  S1      0.0%   CPTPHSGTC---
 99  S1     16.7%   AMNPRNHSDPSV
100  S1      8.3%   SVLPSMRLYTQP
101  S1      9.1%   SNALTDPSRYP-
102  S1      8.3%   HKAPSPKFDWVP
103  S1      0.0%   CHHAWPRGC---
104  S1      8.3%   TNIPHVTIDAQP
105  S1      0.0%   CHSSTWRAC---
106  S1     25.0%   WPKIQNELPPGR
107  S1      0.0%   HPVDAHV-----
108  S1      0.0%   QPPRSTS-----
109  S1      0.0%   CSEWGPNVC---
110  S1      8.3%   TTAYPARWGAHP
111  S1      0.0%   GLAPRSA-----
112  S1     14.3%   SNYNLPV-----
113  S1      9.1%   GKTDPLTSAFL-
114  S1      0.0%   ILANDLTAPGPR
115  S1     20.0%   AWKSPSKLTC--
116  S1      0.0%   YPMRAPTSQARH
117  S1      0.0%   ATRAHQAPHYPP
118  S1      0.0%   TTVQQTV-----
119  S1      8.3%   WNRSPAFSGPYL
120  S1      0.0%   VSTTTTR-----
121  S1      0.0%   LPTATHPMPHHT
122  S1      0.0%   CSRFNPDWC---
123  S1      0.0%   VSRHQSWHPHDL
124  S1      0.0%   LPIAKAL-----
125  S1      0.0%   CMNQHSSAC---
126  S1      0.0%   HDVKYRLTSVE-
127  S1      0.0%   CTMKNGPSC---
128  S1     11.1%   CERMWRSYC---
129  S1      0.0%   YLPLVTPSYDPG
130  S1      0.0%   LTNNANTINKSA
131  S1     14.3%   ANKLTSY-----
132  S1      0.0%   TMGFTAPRFPHY
133  S1     16.7%   TNKDRHTYPYWA
```

```
134 S1          0.0%     VASPERTSPAFP
135 S1          0.0%     THLPWQT-----
136 S1          0.0%     GPHLMLQNKLR-
137 S1          0.0%     AAQTSTP-----
138 S1         16.7%     SMVYGNSLPSAL
139 S1         25.0%     SSLEPWHRTTSR
140 S1          8.3%     APQLPWSARPAV
141 S1          8.3%     SHPWNAQRELSV
142 S1          8.3%     LLADTTHHRPWT
143 S1          8.3%     SNTAAPKPNTTH
144 S1          0.0%     MHALNTNAPATW
145 S1          0.0%     TLHTGTY-----
146 S1          0.0%     AWWWNPPLAY--
147 S1          0.0%     AMSTGHNSGPSV
148 S1          8.3%     HMLNYKIRSGGP
149 S1          0.0%     QPMQTRSTQLAS
150 S1          0.0%     WALDRGA-----
151 S1          8.3%     VAKHEGVSLLRI
152 S1          0.0%     YAYEAMKPTPTP
153 S1          0.0%     RAAGSMPTPRLA
154 S1          0.0%     TPQNGPSTPMHA
155 S1          0.0%     TEQSWIQIIYAR
156 S1          8.3%     NHTISQSHPTLG
157 S1          0.0%     ANNASPT-----
158 S1          0.0%     ATWSHHRSSGAL
159 S1         16.7%     HNTTPL------
160 S1         16.7%     SPATRNHMYTQD
161 S1          0.0%     CLLNKVGQC---
162 S1          0.0%     GPYRTGQAMTAL
163 S1         11.1%     CSLHPLRHC---
164 S1          0.0%     TLSTQSV-----
165 S1          0.0%     QLFTSAS-----
166 S1         14.3%     VYPHPER-----
167 S1          0.0%     AETTAPL-----
168 S1          0.0%     CSPKSLWSC---
169 S1         11.1%     CTPQTKHRC---
170 S1          0.0%     YGPHLMLQNKLR
171 S1          0.0%     CKPSDTRLC---
172 S1          0.0%     THSPGLNTPGER
173 S1          0.0%     DTPTHATNALPA
174 S1          0.0%     MQTGAPL-----
175 S1          0.0%     GSSNATT-----
176 S1          0.0%     CTASHTVTC---
177 S1         28.6%     HVIYPRH-----
178 S1          8.3%     HKAPSPKGDWAP
179 S1         16.7%     SQWHPRSASYPM
180 S1          0.0%     CKSDRTTHC---
181 S1          0.0%     CHSAKSAPC---
182 S1          0.0%     YASAGMKPSPTP
183 S1          0.0%     EHLRMHSGHYFT
184 S1         20.0%     SHSITSKFSV--
185 S1         11.1%     CCSCPNQLC---
186 S1          0.0%     LDDNQDGGHTPT
187 S1          8.3%     ANYFLPPVLSSS
188 S1          8.3%     ELYTPTELAPAR
189 S1          0.0%     GTYLYSSKQHMS
190 S1         14.3%     AETTPRV-----
191 S1          9.1%     LTAETHAYILS-
192 S1          0.0%     CLSNNGKHC---
193 S1          8.3%     SNPWSAQRELSV
194 S1          0.0%     CPNLTSARC---
195 S1          0.0%     AQVTVLGSPLPT
196 S1          0.0%     APTQGSPLPRML
197 S1          0.0%     NPNEREATNTAH
198 S1          0.0%     GETPAPM-----
199 S1          0.0%     CNHSGLLRC---
200 S1          8.3%     VTSPAAPIHSAD
201 S1          9.1%     SLPASWRSMPP-
202 S1         25.0%     STLHPGRPSSHP
```

```
203  S1        0.0%    DCNDKRKPTGDG
204  S1        0.0%    KNLNTTGMYAAS
205  S1       14.3%    KFIPGTY-----
206  S1        0.0%    KMPHFTLSKVWA
207  S1       14.3%    TNPQPSL-----
208  S1        0.0%    AGTGKWQPRG--
209  S1       16.7%    YTYTSYSNSSRA
210  S1        0.0%    NKVTNGGAAQR-
211  S1        8.3%    HLQTPQPEHNNL
212  S1        0.0%    TMDATTPQVTHY
213  S1        0.0%    GMSRFNLDPTPA
214  S1       16.7%    SYSQHYGIPNPW
215  S1        0.0%    EGPPLSR-----
216  S1        8.3%    QPASDYATWPRS
217  S1        0.0%    ATTHRDVQNAFR
218  S1        0.0%    YWAATMP-----
219  S1        0.0%    HHPWRTA-----
220  S1        0.0%    GLCQSIMRERLS
221  S1        0.0%    GDRLIVP-----
222  S1        8.3%    SVSVEVKPIPTP
223  S1        0.0%    TLPAFGPRAHVL
224  S1        0.0%    QYLENNRWKVPS
225  S1        0.0%    QSLHQRL-----
226  S1       14.3%    LTLSPSA-----
227  S1        0.0%    QSANLLNPAKTM
228  S1        0.0%    YPMRAPTSQAWH
229  S1        0.0%    IVPLHLV-----
230  S1       14.3%    WVEVHYL-----
231  S1       14.3%    SPHPSSK-----
232  S1       11.1%    CLTSPMGKC---
233  S1       14.3%    GRLVPPL-----
234  S1        0.0%    AITLAP------
235  S1        8.3%    SPNFSWLPLGTT
236  S1       14.3%    VATPAHH-----
237  S1        8.3%    QVADTTQNTTGT
238  S1       33.3%    SFKPPANHHAWY
239  S1        8.3%    SDQLLLLSSANW
240  S1       14.3%    APAHPLT-----
241  S1        8.3%    AMSPRHHSGPSV
242  S1        8.3%    IPLPPPSRPFFK
243  S1        8.3%    LSTHTTESRSMV
244  S1        8.3%    KPYNLYSGANQP
245  S1        0.0%    CNANSMRLC---
246  S1        0.0%    CGHKNQFHC---
247  S1        0.0%    ALQRISPPQHWM
248  S1        0.0%    RAPASMPTARLA
249  S1        0.0%    ANHLNPNASRVL
250  S1        8.3%    DLNELYLRSLRA
251  S1        0.0%    TMPNMGP-----
252  S1        0.0%    AMNPVSP-----
253  S1        0.0%    WR4PRATDVNLR
254  S1        0.0%    HEGTRSTASYPK
255  S1        0.0%    TAPPTWLQTQWA
256  S1       14.3%    AFPVSHN-----
257  S1        0.0%    CETQAPMNVCPL
258  S1        0.0%    NNQLSDV-----
259  S1       11.1%    CTCRPNNMC---
260  S1       11.1%    CSKSYEYNC---
261  S1       11.1%    CASNLTAYY---
262  S1        0.0%    TTHHYGYKSGY-
263  S1        9.1%    QLSWNNRRFSI-
264  S1       16.7%    QSPVNHHYHYHI
265  S1        9.1%    LRLIGLRAPYS-
266  S1        0.0%    RLHSDRALMID-
267  S1       11.1%    CTQMRTAYC---
268  S1        0.0%    WPQKAQP-----
269  S1        0.0%    CLMRFRRC----
270  S1        0.0%    TEQSWIRILCAW
271  S1        8.3%    MWPTTTHSSPYH
```

```
272  S1      8.3%   SSNSELWPLLSA
273  S1      0.0%   HYTADKRHAERL
274  S1      0.0%   YPMRAPTCQAWH
275  S1     11.1%   GLGASYWWR---
276  S1     14.3%   MLFYPRP-----
277  S1      0.0%   NHHHQPLARNQS
278  S1      0.0%   ETANLRLQWGHS
279  S1     11.1%   CRSDPPRWC---
280  S1     14.3%   SPTSKVP-----
281  S1      0.0%   AWLTGPRALGPL
282  S1      0.0%   CWTSAHAPC---
283  S1      0.0%   CSGKWQPRC---
284  S1      0.0%   CYQKMNPQC---
285  S1      0.0%   CTSKTISAC---
286  S1     14.3%   SPFRAPT-----
287  S1      8.3%   SCSYCLKSSTDL
288  S1      0.0%   YPPRAWDTPHPH
289  S1      0.0%   CYYAHDATC---
290  S1      0.0%   ARYHTHM-----
291  S1      0.0%   AWNTHGWASVTS
292  S1      8.3%   SPVWRSTTNGEA
293  S1      0.0%   GITPSMAPGQRP
294  S1     14.3%   LTPVPGQ-----
295  S1      8.3%   AWRPYQNADYTF
296  S1      8.3%   QHYNIVNTQSRV
297  S1      0.0%   CINWARSAC---
298  S1      0.0%   GSPGQQRAHNST
299  S1     16.7%   QTQALYHSRQVH
300  S1      0.0%   HTNTKPL-----
301  S1      0.0%   QALSWR------
302  S1      0.0%   TPSWTSRPMAMP
303  S1      0.0%   TSFQNLS-----
304  S1      0.0%   EHPTWIAPAAPT
305  S1     14.3%   IPTLPSS-----
306  S1      0.0%   HQITQPRSLLSP
307  S1      0.0%   DETRAPL-----
308  S1      0.0%   AGDTTHGIPC--
309  S1      0.0%   KQLTSPPQLNPV
310  S1      0.0%   RSPEQQRMHNST
311  S1      0.0%   TMNMQPMAAGPG
312  S1     14.3%   SYTTSLK-----
313  S1      0.0%   KVITIWQ-----
314  S1      0.0%   GLQARHI-----
315  S1     14.3%   MPKYYLQ-----
316  S1     16.7%   WHISPLTHTSLV
317  S1      0.0%   CDSHKRLKC---
318  S1      0.0%   TEQHW1KNIYAR
319  S1     14.3%   DGTIGLR-----
320  S1      8.3%   TKTYPPRGGAQS
321  S1     28.6%   AAPRPYR-----
322  S1      8.3%   TPIGNKSPKSHA
323  S1      0.0%   NATLQSWVRDAR
324  S1     14.3%   NQDVPLF-----
325  S1     14.3%   SAPLASF-----
326  S1      0.0%   EANSLAPLAPIW
327  S1     14.3%   HAIYPRQ-----
328  S1      8.3%   LPSQMYLGPDRS
329  S1     11.1%   CQKGHPSSC---
330  S1      0.0%   CWTTRTVAC---
331  S1      0.0%   GSHDWKR-----
332  S1     16.7%   AWKPQPSQFSAS
333  S1      8.3%   QPELPTRLLRSL
334  S1      0.0%   CMSTMMRSC---
335  S1     11.1%   CVKSHAGTC---
336  S1      8.3%   ALPNPPWTSHTA
337  S1      0.0%   NMHKELT-----
338  S1      8.3%   AWPPPSMGPLAY
339  S1      0.0%   THPLHTNLPPTS
340  S1      0.0%   TKNMLSLPVCPG
```

```
341 S1        0.0%    HSGNIHQPLRSM
342 S1        0.0%    GWSSYRG-----
343 S1        9.1%    SVCGMKPSPRP-
344 S1        8.3%    LLPDRNNAYSDT
345 S1        8.3%    YYPASSTIQSRP
346 S1        9.1%    NLTIASYPSWV-
347 S1        8.3%    TIPRITTPTSWV
348 S1        0.0%    HPSLHALQGDHV
349 S1       42.9%    TFINPSH-----
350 S1        0.0%    HGLPVTTRGAFG
351 S1        0.0%    WPSSYLSPIPYS
352 S1        8.3%    HIWSRPMFYSPA
353 S1        0.0%    CSCSNTKWC---
354 S1        0.0%    TWPHSIG-----
355 S1        8.3%    SGMSAPYTTVTA
356 S1        0.0%    HWDPFSLSAYFP
357 S1        0.0%    HHLRTDMRWWAT
358 S1        8.3%    TPLGPILRNAHS
359 S1        8.3%    YYPAGSTIQSRP
360 S1        0.0%    LPPWKHKTSGVA
361 S1       16.7%    DMKSTIPAPTGG
362 S1        0.0%    TLNMHKLHLPDS
363 S1        0.0%    CPSTLRAQC---
364 S1        0.0%    AETRAPL-----
365 S1        0.0%    ADYRSSVGGGK-
366 S1        0.0%    MPTMASS-----
367 S1        8.3%    HNMVPSLLSTSK
368 S1        0.0%    EETSAPL-----
369 S1        0.0%    DMVQTSTRRLAL
370 S1        0.0%    CTNNHANIC---
371 S1       25.0%    SDTISRLHVSMT
372 S1        0.0%    HSIHSALTALAG
373 S1        8.3%    HLFPQSNYGGHS
374 S1        0.0%    FGNSDKLQTRAF
375 S1       14.3%    RPLPPTP-----
376 S1        0.0%    APTPRVAPLPVG
377 S1        8.3%    SWPLYSRDSGLG
378 S1        0.0%    MPLQRTL-----
379 S1        0.0%    WTVQTPTMLPMM
380 S1        0.0%    CIRMDGQKC---
381 S1        0.0%    VRDSVTVNSRHS
382 S1       14.3%    SPFRAPP-----
383 S1        8.3%    APPTSRQAGDGV
384 S1       14.3%    LPSAPRP-----
385 S1        0.0%    YWAQSSNGAARL
386 S1       28.6%    VYKPPGG-----
387 S1        0.0%    TNTSWMTAMTPF
388 S1        8.3%    ARQQTTATTCGC
389 S1        0.0%    QPRPTSI-----
390 S1        0.0%    TSSKAMS-----
391 S1       28.6%    WPTLPYT-----
392 S1       10.0%    DCKPTTPTHC--
393 S1       16.7%    DAADPPHVLTLT
394 S1       16.7%    AFATSYSNLHDT
395 S1        0.0%    GGLLAV------
396 S1        0.0%    CLTDVGRAC---
397 S1        8.3%    AQAKYWSYTKTT
398 S1        8.3%    HPNQADLPPGGL
399 S1        0.0%    RALMDMPAHRHA
400 S1        0.0%    TSVTMSSNEAWM
401 S1        0.0%    CYALKPPEC---
402 S1        0.0%    QLSGMLEWQNLR
403 S1        0.0%    CPDPTTRLC---
404 S1        0.0%    LPRDLHATPQQI
405 S1        0.0%    CDLPTSRIC---
406 S1       16.7%    YHHNPYYQGAHD
407 S1        0.0%    CLLDDLRKC---
408 S1        0.0%    AIPSVP------
409 S1        0.0%    KIIPETY-----
```

```
410  S1      0.0%    TTMFSTQSQKVP
411  S1      8.3%    MNDHKTPNSSLR
412  S1      0.0%    VPPLLPL-----
413  S1      8.3%    ELKLTSAPAHTR
414  S1     25.0%    FMKSPIPAPPGG
415  S1      0.0%    APIHLHSEPLLH
416  S1     11.1%    CYGSTHHQC---
417  S1      0.0%    EPHRTTW-----
418  S1      0.0%    GNTPSRA-----
419  S1      0.0%    HPPTHNTAPWHA
420  S1     14.3%    HDTYTAH-----
421  S1      8.3%    TVSINLPTSTMR
422  S1      0.0%    HSTKANSMLTIA
423  S1      0.0%    DGTRAQDAGGRP
424  S1      0.0%    YTPQKKIERAFG
425  S1      0.0%    NPFNQHLHAQHP
426  S1      8.3%    DHHSSTCRASAG
427  S1      8.3%    HPHQASGWTSPP
428  S1      8.3%    WPTNAAHSLYRL
429  S1      8.3%    SDSAGMKPSPTP
430  S1      0.0%    GGVDAEW-----
431  S1      8.3%    YERPLHRLSSID
432  S1      8.3%    SSSDNHLAQLHT
433  S1      0.0%    TYAQLPI-----
434  S1      0.0%    DSGYHRAPRPWP
435  S1      0.0%    HDEGRRG-----
436  S1      8.3%    SAHGTSTGVPWP
437  S1      0.0%    ALHSARE-----
438  S1      0.0%    MDNQDGMNACAG
439  S1      0.0%    RPSSYMYAIPYR
440  S1     14.3%    STMPKFN-----
441  S1     16.7%    TVKAGWPYEDVP
442  S1     16.7%    SHALPMTWSTAA
443  S1      8.3%    AADYRSSVGGGK
444  S1      0.0%    VLPWYSP-----
445  S1     11.1%    CTDGPESEC---
446  S1      8.3%    QRLIQDSVALWP
447  S1      0.0%    AGPLQPS-----
448  S1     16.7%    SMVYGNRLPSAL
449  S1     14.3%    WPLGDYP-----
450  S1      0.0%    CKHFRTMSC---
451  S1      0.0%    HQITQPTSLLSP
452  S1      0.0%    TKTAASF-----
453  S1      0.0%    GETRAPV-----
454  S1      0.0%    DARHQSWHPHDL
455  S1      0.0%    LQPGHSVHNFSK
456  S1      0.0%    CMWLSQRAC---
457  S1      0.0%    GGSLVAKATAPN
458  S1      0.0%    CPGVHRSTC---
459  S1     11.1%    CFLPDGVRC---
460  S1      8.3%    LPVSKSVTQSHT
461  S1      0.0%    NRAATMP-----
462  S1      0.0%    QPHLTNPGPRHL
463  S1      0.0%    MDAKNPLGPTTY
464  S1      0.0%    YVSAGMKPSP--
465  S1      0.0%    KLQTYNPHFRNP
466  S1      8.3%    SGLPHLSLNAPR
467  S1      0.0%    MHRSDLMSAAVR
468  S1      0.0%    DLIKYPPVTAWS
469  S1     14.3%    STYTNRA-----
470  S1      8.3%    HGHPYQHLLRVL
471  S1     16.7%    VPAWPAHQKLAK
472  S1     16.7%    STWSHHLSSAGL
473  S1      0.0%    CTHSKSSQC---
474  S1      8.3%    QGYRPILPSHFL
475  S1      8.3%    VPPINAVQVPFP
476  S1      8.3%    WTSKDVSILSPA
477  S1     25.0%    TPHKPLTSSSGP
478  S1     16.7%    TPAAPYATFGAP
```

```
479 S1      0.0%    ESLHQRL-----
480 S1      0.0%    IDNHMQL-----
481 S1     11.1%    CLDKPRFLC---
482 S1     11.1%    CNMNRYNTC---
483 S1     11.1%    CSSQYRPYC---
484 S1      8.3%    APRLPQSLLPQL
485 S1     14.3%    TRVQLLH-----
486 S1     14.3%    MPMVPPK-----
487 S1      8.3%    TPGNSFLDHMKQ
488 S1      8.3%    GLPKNMFWDASS
489 S1      8.3%    TTAAVDMPRSTP
490 S1      0.0%    GLQGRHI-----
491 S1     14.3%    YLTMPTP-----
492 S1     11.1%    CQHGRSSYC---
493 S1      0.0%    TQYFYLP-----
494 S1     14.3%    TFLNSLV-----
495 S1      8.3%    STSKTLTDLFSY
496 S1      0.0%    AQDVTKNGLRRW
497 S1      8.3%    ATGHPVWHWHSS
498 S1      0.0%    GETHAPL-----
499 S1      0.0%    GMWFSGL-----
500 S1      0.0%    LIAHSMPPRTRI
501 S1      0.0%    GGTRAPL-----
502 S1      8.3%    SPAANGPQPRPL
503 S1      8.3%    NAHLHITPRSTL
504 S1      0.0%    NPSSKQILSQVP
505 S1      0.0%    KVLHSDRALMID
506 S1      0.0%    CPLSSHPGC---
507 S1      8.3%    QPSKHISEARGF
508 S1     25.0%    SSKIQVSPATVP
509 S1      0.0%    ADWHRTSTSPMS
510 S1      0.0%    EYSLYRILHMDE
511 S1      8.3%    GDTNNPGKRSQI
512 S1      0.0%    ALQHQRAFQHQR
513 S1      0.0%    HPMADHR-----
514 S1      0.0%    TQANAFSPAPRV
515 S1      0.0%    GITSAAT-----
516 S1     11.1%    CQSVPSDRC---
517 S1      0.0%    QAHLEKTAVPRM
518 S1      8.3%    HATPQKPLHSRM
519 S1     11.1%    CLSLKYQSC---
520 S1      0.0%    YPTRAPTSQAWH
521 S1      0.0%    WETRAPL-----
522 S1      0.0%    NEHKDARSPHSP
523 S1      0.0%    ITMPWHDTERSH
524 S1      0.0%    AKHVTAPHIREV
525 S1      0.0%    CNWLLRTPC---
526 S1      0.0%    GTLQLHNTHNST
527 S1      0.0%    CHWPMSASC---
528 S1      0.0%    QDALLAAPVISK
529 S1      8.3%    YHMPPSATPLTA
530 S1      0.0%    CHSGRSEHC---
531 S1      8.3%    WLKDSRAAWIRH
532 S1      8.3%    AILRPQLMPGSS
533 S1     22.2%    CGRINYGTC---
534 S1      0.0%    GSPPRTP-----
535 S1      8.3%    SHSLALLDSVAS
536 S1      0.0%    CTQAFLPFC---
537 S1      0.0%    CLPMNNALC---
538 S1      0.0%    LDYHQAWGHTRA
539 S1      0.0%    FGIHAKYPSPIY
540 S1      0.0%    IPNDLNPRQLRG
541 S1      8.3%    DQRDYHYGRGGT
542 S1      0.0%    CLSNNIVKHC--
543 S1      0.0%    NMFGSLTSHVTA
544 S1      8.3%    YWPRPDDSFWRP
545 S1     22.2%    CTKTQLHVC---
546 S1      0.0%    MNVLSSSASTES
547 S11     0.0%    CELRGDGWC---
```

```
548  S12          9.1%      GCHSSTWRACG-
549  S13         18.2%      GCPTPHSGTCG-
550  S14          9.1%      GCMNQHSSACG-
551  S15          9.1%      GCDSHKRLKCG-
552  S16         11.1%      CPDLHHHMC---
553  S17          0.0%      CLGQHAFTC---
554  S18         25.0%      SSNTAPHC----
555  S19         11.1%      CHVLPNGNC---
556  S20          0.0%      CKPQYPLSC---
557  S21          0.0%      CQTARTPAC---
558  S22          0.0%      CNQSQPKHC---
559  S23          0.0%      CTPSKISVC---
560  S24          0.0%      CVSPGPRLC---
561  S25          0.0%      CYALSGVPC---
562  S26         11.1%      CKHPPQPFC---
563  S27          0.0%      CHQSKPLLC---
564  S28          0.0%      CPGPFSNWC---
565  S29          0.0%      CPHKTHLPC---
566  S30         22.2%      CVFPLSHYC---
567  S31         11.1%      CNNIAPSSC---
568  S32          0.0%      CTLGMQFQC---
569  S33          0.0%      CTNPTGMLC---
570  S34          0.0%      CSNMAPRSC---
571  S35         11.1%      CSMAPNMSC---
572  S36          0.0%      CSDLTMEAC---
573  S37          0.0%      CPWPYKYSC---
574  S38         22.2%      CFGGNFHRC---
575  S39          0.0%      CLTTSQQTC---
576  S40          0.0%      CTANSGSFC---
577  S14          0.0%      CQEPLDESC---
578  S42          0.0%      CQMSMFARC---
579  S43         22.2%      CPLTPKAYC---
580  S44          0.0%      CNNSHTALC---
581  S45          0.0%      CLSSDITLC---
582  S46         11.1%      CLTHGPKYC---
583  S47          0.0%      CLGKDLRTC---
584  S48          0.0%      CAPKTHPLC---
585  S49         11.1%      CPTGLMKYC---
586  S50          0.0%      CTWKAPLQC---
587  S51         11.1%      CSHILGPSC---
588  S52          0.0%      CLSTSQYSC---
589  S53          0.0%      CGNSNPKSC---
590  S54          0.0%      YCPRYVRRKLEN
591  S55          8.3%      NGYEIEWYSWVT
592  S56          8.3%      CNGYEIEWYSWV
593  S57         14.3%      YLTMPTP-----
594  S58         28.6%      WPTPPYA-----
595  S59          0.0%      TPHNTVS-----
596  S60         14.3%      SLPAHAR-----
597  S61          0.0%      HSSLQTP-----
598  S62          0.0%      YSIPKSS-----
599  S63         14.3%      ALQPRYL-----
600  S64          0.0%      GREVD-------
     consensus/100%         ............
     consensus/90%          ............
     consensus/80%          t...........
     consensus/70%          t...........
```