Amino Acid Conservation Scores

- POS: The position of the AA in the SEQRES derived sequence.
- SEQ: The SEQRES derived sequence in one letter code.
- 3LATOM: The ATOM derived sequence in three letter code, including the AA's positions as they appear in the PDB file and the chain identifier.
- SCORE: The normalized conservation scores.
- COLOR: The color scale representing the conservation scores (9 - conserved, 1 - variable).
- CONFIDENCE INTERVAL: When using the bayesian method for calculating rates, a confidence interval is assigned to each of the inferred evolutionary conservation scores.
- CONFIDENCE INTERVAL COLORS: When using the bayesian method for calculating rates. The color scale representing the lower and upper bounds of the confidence interval.
- MSA DATA: The number of aligned sequences having an amino acid (non-gapped) from the overall number of sequences at each position.
- RESIDUE VARIETY: The residues variety at each position of the multiple sequence alignment.

POS	SEQ	3LATOM	SCORE (normalized)	COLOR	CONFIDENCE INTERVAL	CONFIDENCE INTERVAL COLORS	MSA DATA	RESIDUE VARIETY
1	M	-	-0.543	7*	-1.082,-0.245	9,6	3/150	M
2	A	-	0.143	4*	-0.654, 0.608	7,3	4/150	G,A
3	G	-	-0.529	7*	-1.053,-0.245	9,6	5/150	G
4	G	-	0.795	2*	-0.152, 1.353	6,1	6/150	G,S,D
5	E	-	0.611	3*	-0.152, 1.353	6,1	8/150	N,A,E,D
6	A	-	1.135	1	0.219, 2.562	4,1	8/150	A,E,M,S
7	G	-	2.099	1	0.901, 2.562	2,1	12/150	A,E,M,G,R,S,T
8	V	-	2.184	1	0.901, 2.562	2,1	13/150	T,V,I,F,A,D,Y
9	T	-	1.046	1	0.219, 1.353	4,1	14/150	A,G,I,V,T
10	L	-	2.330	1	1.353, 2.562	1,1	18/150	Q,I,S,L,T,V,K,E,C,H
11	G	-	2.415	1	1.353, 2.562	1,1	21/150	R,S,D,A,G,K,V,T
12	Q	-	1.238	1	0.391, 1.353	4,1	24/150	K,E,N,T,R,S,Q,P
13	P	-	2.168	1	0.901, 2.562	2,1	27/150	F,P,Q,S,R,D,A
14	H	-	1.383	1	0.608, 2.562	3,1	30/150	H,G,L,K,A,Q,N
15	L	-	-0.882	8	-1.082,-0.753	9,8	36/150	L,P
16	S	-	1.962	1	0.901, 2.562	2,1	36/150	E,K,M,H,V,A,L,S,R
17	R	-	1.905	1	0.901, 2.562	2,1	38/150	L,R,D,P,Q,H,C,E,K,V,T,N
18	Q	-	-0.924	8	-1.082,-0.841	9,8	38/150	P,Q,T
19	D	-	-0.670	8	-0.919,-0.540	8,7	37/150	D,E,N
20	L	-	-0.111	5	-0.540, 0.219	7,4	38/150	P,V,L,A
21	T	-	2.508	1	1.353, 2.562	1,1	41/150	P,A,D,S,R,T,N,F,E,K
22	T	-	2.520	1	1.353, 2.562	1,1	48/150	D,A,S,L,Q,P,K,E,H,Y,N,V,T
23	L	-	0.752	2	0.219, 0.901	4,2	53/150	V,I,P,A,D,Y,L
24	D	-	0.260	4	-0.152, 0.608	6,3	54/150	R,K,D,P,N,Q

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  25       V              -       2.026           1      0.901, 2.562                    2,1
54/150  L,G,A,P,F,V,I
  26       T              -       2.543           1      1.353, 2.562                    1,1
54/150  N,T,K,E,I,P,D,A,R,S
  27       K              -       2.166           1      0.901, 2.562                    2,1
54/150  K,E,H,N,T,D,A,R,S,L,I,Q
  28       L              -      -0.859           8     -1.053,-0.753                    9,8
54/150  L,H,I
  29       T              -       0.447           3      0.077, 0.608                    5,3
54/150  T,N,I,H,S,D
  30       P              -       0.517           3      0.077, 0.901                    5,2
54/150  T,V,P,A,S
  31       L              -      -0.262           6     -0.599,-0.045                    7,5
54/150  D,S,L,I,V,T,F
  32       S              -       0.030           5     -0.330, 0.219                    6,4
54/150  S,H,T,N
  33       H              -       0.305           4     -0.152, 0.608                    6,3
56/150  F,K,Y,H,Q,I,P,A,S
  34       E              -      -0.288           6     -0.540,-0.152                    7,6
62/150  Q,N,V,E,K,D,H
  35       V              -      -0.027           5     -0.330, 0.219                    6,4
65/150  I,P,D,A,S,T,V,K
  36       I              -      -0.287           6     -0.540,-0.152                    7,6
72/150  T,V,I,Q,M,L,E
  37       S              -       0.077           5     -0.245, 0.219                    6,4
86/150  V,T,N,E,K,H,G,Q,P,A,L,S
  38       R              -       0.600           3      0.219, 0.901                    4,2
104/150 P,Q,I,R,S,L,A,N,T,H,G,M,Y,K
  39       Q              -      -1.124           9     -1.183,-1.109                    9,9
126/150 H,P,T,Q
  40       A       ALA40:P       -0.878           8     -0.989,-0.799                    9,8
129/150 S,A,P
  41       T       THR41:P       -0.625           7     -0.753,-0.540                    8,7
134/150 D,L,S,I,C,K,E,M,T,V,N
  42       I       ILE42:P       -0.398           7     -0.540,-0.330                    7,6
139/150 I,V,T,C,A,M,L
  43       N       ASN43:P       -1.119           9     -1.183,-1.082                    9,9
140/150 S,T,N
  44       I       ILE44:P       -0.937           9     -1.022,-0.881                    9,8
141/150 H,L,F,I,V
  45       G       GLY45:P       -1.062           9     -1.160,-1.022                    9,9
141/150 S,G,A
  46       T       THR46:P       -0.500           7     -0.654,-0.406                    7,7
142/150 M,L,S,T,V,Q,I
  47       I       ILE47:P       -0.642           7     -0.753,-0.540                    8,7
146/150 L,A,C,V,I
  48       G       GLY48:P       -1.015           9     -1.109,-0.955                    9,9
146/150 C,D,G,S
  49       H       HIS49:P       -1.136           9     -1.183,-1.109                    9,9
146/150 A,H,Q
  50       V       VAL50:P       -1.167           9     -1.203,-1.160                    9,9
144/150 V,I
  51       A       ALA51:P       -1.138           9     -1.183,-1.109                    9,9
144/150 S,D,A
  52       H       HIS52:P       -1.053           9     -1.135,-1.022                    9,9
144/150 H,M,E,A,N
  53       G       GLY53:P       -1.165           9     -1.212,-1.160                    9,9
144/150 G
  54       K       LYS54:P       -1.146           9     -1.203,-1.135                    9,9
146/150 K,N
  55       S       SER55:P       -1.047           9     -1.109,-1.022                    9,9
146/150 S,T
  56       T       THR56:P       -0.944           9     -1.022,-0.881                    9,8
146/150 T,Q,M,S,A
  57       V       VAL57:P       -0.604           7     -0.753,-0.540                    8,7
146/150 L,V,T,I
  58       V       VAL58:P       -0.898           8     -0.989,-0.841                    9,8
146/150 C,I,V,T
  59       K       LYS59:P       -0.259           6     -0.406,-0.152                    7,6
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146/150 E,K,Y,N,A,S,R,Q
  60       A       ALA60:P      -0.685           8     -0.799,-0.599                    8,7
146/150 Q,A,L,R,S,T,C,K,M,G
  61       I       ILE61:P      -0.668           8     -0.799,-0.599                    8,7
146/150 L,V,I,F
  62       S       SER62:P      -0.878           8     -0.989,-0.841                    9,8
146/150 T,F,S
  63       G       GLY63:P      -0.803           8     -0.955,-0.705                    9,8
146/150 S,R,G,E,A,T
  64       V       VAL64:P      -0.144           6     -0.330,-0.045                    6,5
146/150 K,E,N,V,T,D,A,R,S,Q,I
  65       H       HIS65:P      -0.276           6     -0.475,-0.152                    7,6
146/150 Q,W,L,R,S,A,F,T,N,M,H,K
  66       T       THR66:P      -1.031           9     -1.109,-0.989                    9,9
147/150 V,T,P,A,S
  67       V       VAL67:P      -0.803           8     -0.919,-0.753                    8,8
147/150 E,N,V,D,A,S,L,I,Q
  68       R       ARG68:P      -0.367           6     -0.540,-0.245                    7,6
147/150 M,E,K,V,T,S,R,A,D,Q
  69       F       PHE69:P      -1.014           9     -1.109,-0.955                    9,9
147/150 F,H,Y,D
  70       K       LYS70:P      -1.008           9     -1.082,-0.955                    9,9
147/150 Q,A,S,R,T,K,E,H
  71       N       ASN71:P      -0.828           8     -0.919,-0.753                    8,8
147/150 K,E,H,T,N,A,R,S,Q
  72       E       GLU72:P      -1.192           9     -1.212,-1.183                    9,9
147/150 E
  73       L       LEU73:P       0.031           5     -0.245, 0.219                    6,4
147/150 I,A,L,R,V,T,F,K,M
  74       E       GLU74:P      -0.712           8     -0.841,-0.654                    8,7
147/150 V,I,E,K,R
  75       R       ARG75:P      -0.976           9     -1.053,-0.919                    9,8
147/150 H,R,M,K,Q
  76       N       ASN76:P      -1.061           9     -1.135,-1.022                    9,9
147/150 N,A,G,S
  77       I       ILE77:P      -1.131           9     -1.183,-1.109                    9,9
147/150 V,I,M
  78       T       THR78:P      -1.108           9     -1.160,-1.082                    9,9
147/150 T,S
  79       I       ILE79:P      -1.173           9     -1.212,-1.160                    9,9
147/150 I,L
  80       K       LYS80:P      -0.726           8     -0.841,-0.654                    8,7
147/150 F,Q,H,R,K
  81       L       LEU81:P      -0.945           9     -1.053,-0.881                    9,8
147/150 I,V,L
  82       G       GLY82:P      -1.167           9     -1.212,-1.160                    9,9
147/150 G
  83       Y       TYR83:P      -1.180           9     -1.212,-1.160                    9,9
146/150 X,Y
  84       A       ALA84:P      -1.145           9     -1.203,-1.135                    9,9
147/150 T,A,S
  85       N       ASN85:P      -1.030           9     -1.109,-0.989                    9,9
147/150 N,Q,E,D
  86       A       ALA86:P      -0.202           6     -0.406,-0.045                    7,5
147/150 T,V,G,M,C,I,S,A
  87       K       LYS87:P      -0.208           6     -0.406,-0.152                    7,6
147/150 E,K,G,H,Y,N,T,V,F,D,A,S,I,P
  88       I       ILE88:P      -0.608           7     -0.753,-0.540                    8,7
147/150 F,I,V,L,Y
  89       Y       TYR89:P      -0.285           6     -0.475,-0.152                    7,6
147/150 W,L,R,S,A,F,V,Y,M,G,K
  90       K       LYS90:P       0.183           4     -0.045, 0.391                    5,4
147/150 T,V,N,Y,H,E,K,Q,L,R,A,D
  91       L       LEU91:P      -0.464           7     -0.654,-0.330                    7,6
147/150 A,S,R,L,E,C,G,T,V,F
  92       D       ASP92:P       2.071           1      0.901, 2.562                    2,1
51/150  G,E,K,V,T,N,S,A,D,Q,I
  93       D       ASP93:P       1.088           1      0.391, 1.353                    4,1
51/150  S,A,D,Y,G,H,E,N
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  94       P       PRO94:P       2.413           1      1.353, 2.562                    1,1
147/150 N,V,T,F,E,K,G,P,D,A,R,S,W,L
  95       S       SER95:P       1.934           1      0.901, 2.562                    2,1
147/150 P,Q,S,R,L,D,A,N,T,H,G,M,K,E,C
  96       C       CYS96:P       0.393           4      0.077, 0.608                    5,3
144/150 C,E,K,M,H,G,V,N,A,L,S,I
  97       P       PRO97:P       1.131           1      0.608, 1.353                    3,1
133/150 R,X,L,D,A,P,I,Q,H,E,K,N,V,T
  98       R       ARG98:P       0.821           2      0.391, 0.901                    4,2
135/150 P,Q,I,S,R,A,D,F,T,Y,G,E,K
  99       P       PRO99:P      -0.092           5     -0.330, 0.077                    6,5
135/150 K,E,M,Y,G,V,T,N,A,D,L,S,Q,P
 100       E      GLU100:P       1.243           1      0.608, 1.353                    3,1
145/150 T,Y,M,Q,D,S,X,N,V,F,K,E,G,H,P,A,R,L
 101       C      CYS101:P       2.194           1      0.901, 2.562                    2,1
147/150 A,S,R,L,N,T,F,K,E,C,G,H,Y,M
 102       Y      TYR102:P      -0.538           7     -0.705,-0.406                    8,7
147/150 F,V,W,L,Y
 103       R      ARG103:P       0.809           2      0.391, 0.901                    4,2
147/150 T,Y,M,Q,I,S,V,N,F,C,K,G,P,A,L,W,R
 104       S      SER104:P      -0.040           5     -0.245, 0.077                    6,5
147/150 T,V,N,E,M,Q,I,P,A,D,L,S,R
 105       C      CYS105:P       2.528           1      1.353, 2.562                    1,1
147/150 Q,I,S,D,T,Y,M,R,W,A,F,N,V,H,G,K,E,C
 106       G      GLY106:P       1.218           1      0.608, 1.353                    3,1
147/150 T,N,G,E,K,P,Q,L,R,S,A,D
 107       S      SER107:P       0.075           5     -0.152, 0.219                    6,4
147/150 N,T,V,F,E,K,H,M,Y,I,D,A,R,S,L
 108       S      SER108:P       0.940           1      0.391, 1.353                    4,1
60/150  T,N,H,G,E,K,S,A,D
 109       T      THR109:P       1.057           1      0.391, 1.353                    4,1
63/150  M,H,K,E,T,V,S,R,A,Q,I
 110       P      PRO110:P       0.822           2      0.391, 0.901                    4,2
69/150  P,R,S,A,D,F,N,M,E,K
 111       D      ASP111:P      -0.040           5     -0.330, 0.219                    6,4
63/150  I,Q,S,L,D,A,N,V,G,K,E
 112       E      GLU112:P       2.556           1      1.353, 2.562                    1,1
59/150  S,R,L,D,A,P,I,Q,G,H,E,N,V,T
 113       F      PHE113:P       1.671           1      0.901, 2.562                    2,1
62/150  T,V,N,F,K,G,P,A,L,R
 114       P      PRO114:P       1.782           1      0.901, 2.562                    2,1
62/150  V,T,N,K,E,H,Q,I,P,A,D,L,S
 115       T      THR115:P      -0.307           6     -0.540,-0.152                    7,6
143/150 S,A,D,I,C,E,K,T,V,N
 116       D      ASP116:P       1.016           1      0.391, 1.353                    4,1
54/150  P,R,S,L,D,A,N,G,K,E
 117       I      ILE117:P       1.232           1      0.608, 1.353                    3,1
51/150  R,L,A,Q,I,K,E,F,N,V
 118       P      PRO118:P       1.282           1      0.608, 1.353                    3,1
142/150 N,V,F,K,E,C,G,H,P,A,R,L,T,Q,D,S
 119       G      GLY119:P       1.233           1      0.608, 1.353                    3,1
129/150 H,G,E,K,F,V,N,L,R,A,Y,T,S,X,D,Q,I
 120       T      THR120:P       0.130           5     -0.152, 0.391                    6,4
123/150 I,S,D,A,F,T,V,G,H,E,K,C
 121       K      LYS121:P       1.671           1      0.901, 2.562                    2,1
143/150 P,D,S,T,N,F,E,K,M,G,H
 122       G      GLY122:P       1.714           1      0.901, 2.562                    2,1
144/150 Q,R,S,L,D,A,F,N,V,T,H,G,E,K
 123       N      ASN123:P       1.556           1      0.901, 1.353                    2,1
146/150 I,Q,P,A,D,R,S,V,T,N,K,E,Y,M
 124       F      PHE124:P       0.565           3      0.219, 0.608                    4,3
145/150 M,Y,T,X,S,D,I,G,C,K,F,V,L,W,A,P
 125       K      LYS125:P       1.044           1      0.608, 1.353                    3,1
148/150 N,V,T,H,K,E,Q,I,S,R,D,A
 126       L      LEU126:P       0.509           3      0.219, 0.608                    4,3
148/150 H,Y,M,E,F,T,V,L,A,P,Q,I
 127       V      VAL127:P       2.352           1      1.353, 2.562                    1,1
148/150 A,D,L,R,S,I,Q,K,E,M,Y,H,T,V,F
 128       R      ARG128:P      -0.918           8     -1.022,-0.881                    9,8
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148/150 N,Q,F,A,K,G,R						
129	H	HIS129:P	-0.201	6	-0.406,-0.045	7,5
148/150 S,R,A,N,T,V,H,M,K						
130	V	VAL130:P	-0.591	7	-0.753,-0.540	8,7
148/150 Q,I,V,F,A,L						
131	S	SER131:P	-1.178	9	-1.212,-1.160	9,9
149/150 R,S						
132	F	PHE132:P	-0.813	8	-0.919,-0.753	8,8
149/150 I,F,Y,L						
133	V	VAL133:P	-0.970	9	-1.053,-0.919	9,8
149/150 V,I,L						
134	D	ASP134:P	-1.188	9	-1.212,-1.183	9,9
149/150 D						
135	C	CYS135:P	-0.713	8	-0.841,-0.654	8,7
149/150 V,T,A,C,S						
136	P	PRO136:P	-1.135	9	-1.203,-1.109	9,9
149/150 P,F						
137	G	GLY137:P	-1.167	9	-1.212,-1.160	9,9
149/150 G						
138	H	HIS138:P	-1.188	9	-1.212,-1.183	9,9
149/150 H						
139	D	ASP139:P	-1.014	9	-1.082,-0.989	9,9
150/150 N,D,E,H,S						
140	I	ILE140:P	-0.691	8	-0.799,-0.599	8,7
150/150 S,A,I,Q,M,E,F,V,T						
141	L	LEU141:P	-1.040	9	-1.135,-0.989	9,9
150/150 Y,L,I,F						
142	M	MET142:P	-1.156	9	-1.203,-1.135	9,9
150/150 M,T,I						
143	A	ALA143:P	-0.862	8	-0.955,-0.799	9,8
150/150 T,V,I,Q,S,A,D						
144	T	THR144:P	-0.961	9	-1.053,-0.919	9,8
150/150 T,V,N,I,K						
145	M	MET145:P	-1.055	9	-1.109,-1.022	9,9
150/150 A,M,V,T						
146	L	LEU146:P	-0.977	9	-1.082,-0.919	9,8
150/150 I,V,L						
147	N	ASN147:P	-0.910	8	-0.989,-0.881	9,8
150/150 C,A,S,N,T						
148	G	GLY148:P	-1.120	9	-1.183,-1.082	9,9
150/150 G,A						
149	A	ALA149:P	-0.782	8	-0.881,-0.705	8,8
150/150 V,T,S,A						
150	A	ALA150:P	-0.730	8	-0.841,-0.654	8,7
150/150 N,T,V,C,A,S,M						
151	V	VAL151:P	-0.412	7	-0.599,-0.330	7,6
150/150 I,V,A,L,M						
152	M	MET152:P	-1.076	9	-1.135,-1.053	9,9
150/150 F,I,V,L,M						
153	D	ASP153:P	-0.963	9	-1.053,-0.919	9,8
150/150 D,N						
154	A	ALA154:P	-0.494	7	-0.654,-0.406	7,7
150/150 Y,G,S,C,A						
155	A	ALA155:P	-0.960	9	-1.053,-0.919	9,8
150/150 A,S,V,T						
156	L	LEU156:P	-0.001	5	-0.245, 0.077	6,5
150/150 M,L,I,V,F						
157	L	LEU157:P	-0.901	8	-1.022,-0.841	9,8
150/150 R,L,M,I,V,F						
158	L	LEU158:P	-0.603	7	-0.753,-0.540	8,7
149/150 L,M,I,V						
159	I	ILE159:P	-0.525	7	-0.654,-0.475	7,7
149/150 I,V,E,A						
160	A	ALA160:P	-0.807	8	-0.919,-0.753	8,8
149/150 G,S,D,A						
161	G	GLY161:P	-0.765	8	-0.881,-0.705	8,8
149/150 V,T,C,A,G,S						
162	N	ASN162:P	-0.681	8	-0.799,-0.599	8,7
149/150 N,T,S,R,D,A						

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 163       E      GLU163:P      -0.903           8     -0.989,-0.841                    9,8
149/150 A,S,Q,E,K,M,N,V
 164       S      SER164:P       1.244           1      0.608, 1.353                    3,1
149/150 V,T,Y,E,K,P,Q,L,R,S,A,D
 165       C      CYS165:P      -0.326           6     -0.540,-0.152                    7,6
149/150 S,C,F,V,T,I
 166       P      PRO166:P      -1.133           9     -1.203,-1.109                    9,9
149/150 M,P
 167       Q      GLN167:P      -1.119           9     -1.183,-1.082                    9,9
148/150 Q,R,G,X,A
 168       P      PRO168:P      -0.939           9     -1.053,-0.881                    9,8
149/150 A,S,P
 169       Q      GLN169:P      -1.139           9     -1.183,-1.109                    9,9
149/150 R,S,H,Q
 170       T      THR170:P      -1.125           9     -1.183,-1.109                    9,9
149/150 S,D,T
 171       S      SER171:P      -0.314           6     -0.475,-0.245                    7,6
150/150 L,R,S,A,Q,I,M,G,K,E,F,V
 172       E      GLU172:P      -1.192           9     -1.212,-1.183                    9,9
150/150 E
 173       H      HIS173:P      -1.188           9     -1.212,-1.183                    9,9
150/150 H
 174       L      LEU174:P      -0.888           8     -0.989,-0.841                    9,8
150/150 I,F,M,L
 175       A      ALA175:P      -0.450           7     -0.599,-0.330                    7,6
150/150 Q,A,L,S,T,V,F,C,E,K,M
 176       A      ALA176:P      -1.076           9     -1.135,-1.053                    9,9
150/150 G,S,A,V
 177       I      ILE177:P      -0.629           7     -0.753,-0.540                    8,7
149/150 F,T,V,I,L,A
 178       E      GLU178:P      -0.050           5     -0.245, 0.077                    6,5
149/150 G,K,E,N,T,R,S,D,A,Q
 179       I      ILE179:P      -0.520           7     -0.654,-0.406                    7,7
150/150 M,Y,N,T,V,A,S,L,I
 180       M      MET180:P       0.041           5     -0.152, 0.219                    6,4
150/150 G,M,T,V,S,L,A,I,Q
 181       K      LYS181:P      -0.239           6     -0.475,-0.152                    7,6
150/150 E,K,G,N,A,D,R,Q
 182       L      LEU182:P      -0.292           6     -0.475,-0.152                    7,6
150/150 T,V,F,D,A,L,I,Q
 183       K      LYS183:P       0.484           3      0.219, 0.608                    4,3
150/150 K,E,H,G,T,N,D,R,S,Q,P
 184       H      HIS184:P      -0.361           6     -0.540,-0.245                    7,6
150/150 D,S,R,Q,P,K,E,H,Y,N,T
 185       I      ILE185:P      -0.252           6     -0.406,-0.152                    7,6
149/150 C,K,M,V,F,L,X,I
 186       L      LEU186:P      -0.440           7     -0.599,-0.330                    7,6
150/150 V,I,L,M
 187       I      ILE187:P      -0.539           7     -0.705,-0.475                    8,7
150/150 F,V,I
 188       L      LEU188:P      -0.613           7     -0.753,-0.540                    8,7
150/150 V,I,A,C,L
 189       Q      GLN189:P      -1.139           9     -1.183,-1.109                    9,9
150/150 Q,L,M
 190       N      ASN190:P      -1.125           9     -1.183,-1.109                    9,9
150/150 S,N,T
 191       K      LYS191:P      -1.171           9     -1.203,-1.160                    9,9
150/150 K,E
 192       I      ILE192:P      -0.660           7     -0.799,-0.599                    8,7
150/150 V,I,A,M
 193       D      ASP193:P      -1.081           9     -1.160,-1.053                    9,9
150/150 E,D
 194       L      LEU194:P      -0.421           7     -0.599,-0.330                    7,6
150/150 R,L,I,V,T
 195       V      VAL195:P      -0.646           7     -0.799,-0.599                    8,7
150/150 L,M,R,C,T,V,I
 196       K      LYS196:P       0.097           5     -0.152, 0.219                    6,4
150/150 N,T,E,K,Q,P,D,A,R,S
 197       E      GLU197:P       0.299           4     -0.045, 0.391                    5,4
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150/150 E,K,M,Y,H,V,A,D,W,L,S,R,Q,P
 198       S      SER198:P       0.140           4     -0.152, 0.219                    6,4
150/150 P,Q,R,S,D,A,N,T,G,K,E
 199       Q      GLN199:P       0.523           3      0.219, 0.608                    4,3
150/150 V,T,N,H,G,E,K,Q,L,S,R,A,D
 200       A      ALA200:P      -0.928           9     -1.022,-0.881                    9,8
150/150 A,V,T,I,N
 201       K      LYS201:P       2.518           1      1.353, 2.562                    1,1
150/150 R,L,A,F,N,V,G,H,E,K,I,Q,D,T,Y,M
 202       E      GLU202:P       0.122           5     -0.152, 0.219                    6,4
150/150 S,R,D,A,P,Q,I,G,M,K,E,N,V
 203       Q      GLN203:P      -0.703           8     -0.799,-0.654                    8,7
150/150 S,G,H,K,Q,N
 204       Y      TYR204:P       0.014           5     -0.245, 0.219                    6,4
150/150 I,Q,R,L,D,H,M,Y,K,C
 205       E      GLU205:P       1.279           1      0.901, 1.353                    2,1
150/150 H,G,E,K,T,N,S,R,A,D,Q
 206       Q      GLN206:P      -0.170           6     -0.330,-0.045                    6,5
150/150 Q,I,L,R,S,A,D,T,E,K
 207       I      ILE207:P      -1.066           9     -1.135,-1.022                    9,9
149/150 L,I,V
 208       L      LEU208:P       0.441           3      0.077, 0.608                    5,3
150/150 R,S,L,A,I,Q,H,M,K,E,C,N,V,T
 209       A      ALA209:P       1.157           1      0.608, 1.353                    3,1
150/150 R,S,L,D,A,Q,G,H,K,E,N,T
 210       F      PHE210:P      -0.967           9     -1.053,-0.919                    9,8
150/150 Y,M,L,F
 211       V      VAL211:P       0.650           3      0.219, 0.901                    4,2
150/150 T,V,I,F,L,S
 212       Q      GLN212:P       0.124           5     -0.152, 0.219                    6,4
150/150 A,D,L,R,S,Q,E,K,G,V,T,N
 213       G      GLY213:P      -0.205           6     -0.475,-0.045                    7,5
148/150 T,N,G,S,E,K,D
 214       T      THR214:P      -0.633           7     -0.753,-0.540                    8,7
150/150 I,S,R,L,N,T,V,F,K,Y
 215       V      VAL215:P       0.981           1      0.608, 1.353                    3,1
150/150 P,W,L,R,A,F,V,N,G,C,E,K,I,Q,S,D,T
 216       A      ALA216:P      -0.706           8     -0.841,-0.654                    8,7
150/150 Y,G,N,F,A,L,I,P
 217       E      GLU217:P      -0.245           6     -0.406,-0.152                    7,6
149/150 N,V,T,G,M,Y,K,E,P,Q,R,S,D,A
 218       G      GLY218:P       0.827           2      0.391, 0.901                    4,2
150/150 L,R,A,F,V,N,H,G,C,K,E,Q,S,D,T,M
 219       A      ALA219:P      -0.516           7     -0.654,-0.406                    7,7
150/150 A,L,G,S,V,P
 220       P      PRO220:P      -0.970           9     -1.082,-0.919                    9,8
150/150 P,T,S,L,E
 221       I      ILE221:P      -0.717           8     -0.841,-0.654                    8,7
149/150 V,I,X
 222       I      ILE222:P      -0.570           7     -0.705,-0.475                    8,7
150/150 I,V,L
 223       P      PRO223:P      -1.175           9     -1.212,-1.160                    9,9
150/150 P
 224       I      ILE224:P      -0.159           6     -0.330,-0.045                    6,5
150/150 I,L,A,F,V,T,M,C
 225       S      SER225:P      -1.021           9     -1.082,-0.989                    9,9
150/150 V,C,A,S
 226       A      ALA226:P      -1.146           9     -1.203,-1.135                    9,9
150/150 V,G,A
 227       Q      GLN227:P      -0.584           7     -0.705,-0.475                    8,7
150/150 Y,H,G,E,K,F,T,V,N,L,S,D,I,Q
 228       L      LEU228:P      -0.284           6     -0.475,-0.152                    7,6
150/150 Q,I,R,S,L,N,V,F,K,H,M,Y
 229       K      LYS229:P       0.109           5     -0.152, 0.219                    6,4
149/150 D,A,R,S,X,K,E,C,H,G,M,N
 230       Y      TYR230:P       0.157           4     -0.152, 0.219                    6,4
150/150 Y,M,H,G,C,F,T,V,N,L,R,A,I
 231       N      ASN231:P      -1.161           9     -1.203,-1.135                    9,9
150/150 N,G,R
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 232       I      ILE232:P      -0.071           5     -0.245, 0.077                  6,5
150/150 A,L,Q,I,K,M,V,T,F
 233       E      GLU233:P      -0.917           8     -1.022,-0.881                  9,8
150/150 P,Q,S,D,A,N,H,G,E
 234       V      VAL234:P       0.920           2      0.391, 1.353                  4,1
150/150 I,P,A,S,L,N,T,V,E,K,M,Y
 235       V      VAL235:P      -0.277           6     -0.475,-0.152                  7,6
150/150 W,L,A,V,I
 236       C      CYS236:P      -0.207           6     -0.406,-0.045                  7,5
150/150 I,L,A,N,T,V,M,C
 237       E      GLU237:P       0.475           3      0.219, 0.608                  4,3
150/150 A,D,L,W,R,S,Q,E,K,Y,M,G,H,T,N
 238       Y      TYR238:P       0.075           5     -0.152, 0.219                  6,4
150/150 A,L,S,R,E,Y,M,G,H,V,T,N,F
 239       I      ILE239:P      -0.355           6     -0.540,-0.245                  7,6
150/150 F,I,V,L,M
 240       V      VAL240:P       0.005           5     -0.245, 0.077                  6,5
150/150 L,S,A,D,Q,I,Y,H,C,E,T,V,N
 241       K      LYS241:P       0.619           3      0.219, 0.901                  4,2
150/150 A,D,S,R,Q,K,E,H,G,T,N
 242       K      LYS242:P       2.539           1      1.353, 2.562                  1,1
146/150 Q,I,D,T,M,Y,A,L,R,V,N,F,C,K,E,H
 243       I      ILE243:P      -0.654           7     -0.799,-0.599                  8,7
150/150 V,T,F,M,I,A,W,S
 244       P      PRO244:P      -0.336           6     -0.540,-0.245                  7,6
149/150 A,D,L,R,S,Q,I,P,E,K,V
 245       V      VAL245:P      -0.338           6     -0.540,-0.245                  7,6
148/150 I,P,A,L,S,V,T,N,K,E,M
 246       P      PRO246:P      -0.872           8     -0.989,-0.799                  9,8
149/150 P,I,T,S,R,D,K
 247       P      PRO247:P       2.189           1      0.901, 2.562                  2,1
149/150 D,S,I,Q,Y,M,T,A,L,R,P,E,K,G,H,V,N
 248       R      ARG248:P      -0.614           7     -0.753,-0.540                  8,7
149/150 Q,P,A,R,W,L,T,V,F,K,H,Y
 249       D      ASP249:P      -0.261           6     -0.475,-0.152                  7,6
149/150 E,K,M,T,N,D,R,S,I
 250       F      PHE250:P       1.968           1      0.901, 2.562                  2,1
149/150 Q,I,S,D,T,M,Y,P,L,R,A,F,V,G,H,E,K
 251       T      THR251:P       0.885           2      0.391, 0.901                  4,2
149/150 E,K,M,G,H,T,V,N,A,D,L,R,S,Q,I
 252       S      SER252:P       0.506           3      0.219, 0.608                  4,3
149/150 K,E,G,M,N,V,T,D,A,R,S,L,I,Q
 253       E      GLU253:P       1.701           1      0.901, 2.562                  2,1
149/150 P,I,Q,L,R,S,A,D,V,T,N,H,G,K,E
 254       P      PRO254:P       0.394           4      0.077, 0.608                  5,3
149/150 P,S,L,A,F,V,T,G,C
 255       R      ARG255:P       1.208           1      0.608, 1.353                  3,1
150/150 F,T,V,N,Y,M,H,K,E,I,Q,L,W,R,S
 256       L      LEU256:P      -0.773           8     -0.881,-0.705                  8,8
149/150 A,X,L,M,I,F
 257       I      ILE257:P       0.332           4      0.077, 0.391                  5,4
150/150 I,Q,P,A,S,R,L,N,V,T,F,H,M,Y
 258       V      VAL258:P      -0.413           7     -0.599,-0.330                  7,6
150/150 A,T,V,I
 259       I      ILE259:P      -0.689           8     -0.799,-0.599                  8,7
150/150 A,L,S,T,V,I
 260       R      ARG260:P      -1.187           9     -1.212,-1.183                  9,9
150/150 R
 261       S      SER261:P      -1.179           9     -1.212,-1.160                  9,9
150/150 F,S
 262       F      PHE262:P      -1.180           9     -1.212,-1.160                  9,9
150/150 F
 263       D      ASP263:P      -1.113           9     -1.183,-1.082                  9,9
149/150 D,E,X,N
 264       V      VAL264:P      -0.479           7     -0.654,-0.406                  7,7
150/150 A,I,V
 265       N      ASN265:P      -1.161           9     -1.203,-1.135                  9,9
150/150 S,N,T
 266       K      LYS266:P      -0.539           7     -0.705,-0.475                  8,7
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150/150 P,Q,V,R,L,K
 267       P      PRO267:P      -1.096           9     -1.160,-1.053                    9,9
150/150 S,P,Q
 268       G      GLY268:P      -1.069           9     -1.160,-1.022                    9,9
150/150 G,A,E
 269       C      CYS269:P      -0.137           6     -0.330,-0.045                    6,5
150/150 A,S,Q,I,P,E,C,M,T,V
 270       E      GLU270:P       0.853           2      0.391, 0.901                    4,2
150/150 C,E,K,H,G,T,N,A,D,L,S,R,I,P
 271       V      VAL271:P       0.575           3      0.219, 0.901                    4,2
150/150 Y,C,F,V,T,L,W,A,P,I
 272       D      ASP272:P       1.318           1      0.901, 1.353                    2,1
150/150 A,D,R,S,Q,K,E,G,H,T,N
 273       D      ASP273:P       1.206           1      0.608, 1.353                    3,1
150/150 Q,R,S,A,D,T,N,M,G,H,K,E
 274       L      LEU274:P      -0.242           6     -0.475,-0.152                    7,6
150/150 F,V,I,Y,M,L
 275       K      LYS275:P       0.977           1      0.608, 1.353                    3,1
150/150 H,M,E,K,C,N,T,V,S,R,L,A,Q,I
 276       G      GLY276:P      -1.167           9     -1.212,-1.160                    9,9
150/150 G
 277       G      GLY277:P      -1.120           9     -1.183,-1.082                    9,9
150/150 A,G
 278       V      VAL278:P      -0.978           9     -1.053,-0.919                    9,8
150/150 I,V,A
 279       A      ALA279:P      -0.281           6     -0.475,-0.152                    7,6
150/150 A,L,V,I,F
 280       G      GLY280:P      -1.120           9     -1.183,-1.082                    9,9
150/150 G,S
 281       G      GLY281:P      -1.119           9     -1.183,-1.082                    9,9
150/150 G,R
 282       S      SER282:P      -0.679           8     -0.799,-0.599                    8,7
150/150 S,G,C,A,T,V
 283       I      ILE283:P      -0.575           7     -0.705,-0.475                    8,7
150/150 L,I,V
 284       L      LEU284:P       0.785           2      0.391, 0.901                    4,2
150/150 T,V,M,G,K,I,Q,L,S,R,A
 285       K      LYS285:P       0.098           5     -0.152, 0.219                    6,4
149/150 N,V,T,H,G,M,E,K,C,Q,R,S,W,D,A
 286       G      GLY286:P      -1.167           9     -1.212,-1.160                    9,9
149/150 G
 287       V      VAL287:P       0.837           2      0.391, 0.901                    4,2
149/150 A,R,S,L,I,Q,E,K,H,M,Y,N,T,V,F
 288       L      LEU288:P       0.035           5     -0.245, 0.219                    6,4
149/150 I,V,F,M,W,L
 289       K      LYS289:P       0.976           1      0.608, 1.353                    3,1
149/150 N,V,T,G,H,Y,E,K,C,S,R,D,A
 290       V      VAL290:P       0.638           3      0.219, 0.901                    4,2
149/150 P,I,S,R,L,D,A,N,V,T,M,E,K
 291       G      GLY291:P       0.024           5     -0.245, 0.219                    6,4
149/150 N,G,S,K,E,D
 292       Q      GLN292:P      -0.569           7     -0.705,-0.475                    8,7
149/150 D,E,M,H,Q
 293       E      GLU293:P      -0.226           6     -0.406,-0.152                    7,6
149/150 V,T,N,K,E,G,Q,I,P,A,D,S
 294       I      ILE294:P      -0.557           7     -0.705,-0.475                    8,7
149/150 V,I,L
 295       E      GLU295:P      -0.868           8     -0.955,-0.799                    9,8
149/150 I,Q,L,S,T,V,H,K,E
 296       V      VAL296:P      -0.636           7     -0.753,-0.540                    8,7
149/150 F,V,I,L
 297       R      ARG297:P      -0.142           6     -0.330,-0.045                    6,5
149/150 R,S,L,A,I,G,Y,K,C,N,T,V
 298       P      PRO298:P      -1.174           9     -1.212,-1.160                    9,9
149/150 P
 299       G      GLY299:P      -1.119           9     -1.183,-1.082                    9,9
149/150 M,G
 300       I      ILE300:P       0.407           3      0.077, 0.608                    5,3
149/150 K,E,M,Y,V,T,F,D,A,R,S,L,I,Q
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 301       V      VAL301:P       0.416           3      0.077, 0.608                  5,3
149/150 I,Q,D,S,T,M,P,A,R,L,N,V,F,K,E,H
 302       S      SER302:P       1.082           1      0.608, 1.353                  3,1
149/150 A,L,R,V,N,F,E,K,G,H,Q,I,D,S,T,Y,M
 303       K      LYS303:P       0.212           4     -0.045, 0.391                  5,4
142/150 D,L,S,R,Q,I,P,E,K,G,V,T,N
 304       D      ASP304:P       0.685           2      0.219, 0.901                  4,2
134/150 I,P,D,A,R,S,L,N,V,T,K,E,G
 305       S      SER305:P       2.251           1      1.353, 2.562                  1,1
69/150  E,K,G,H,T,N,A,D,L,S,Q,P
 306       E      GLU306:P       1.211           1      0.608, 1.353                  3,1
121/150 N,T,V,H,G,E,K,P,Q,R,S,D,A
 307       G      GLY307:P       0.234           4     -0.045, 0.391                  5,4
124/150 P,A,D,S,R,T,N,K,E,G
 308       K      LYS308:P       0.262           4     -0.045, 0.391                  5,4
137/150 L,R,S,A,D,Q,M,G,E,K,T,V,N
 309       L      LEU309:P       2.509           1      1.353, 2.562                  1,1
143/150 T,Y,M,I,Q,S,D,F,V,N,G,H,C,E,K,W,L,R,A
 310       M      MET310:P       2.391           1      1.353, 2.562                  1,1
146/150 A,L,R,P,E,K,H,G,V,N,F,S,I,Q,M,T
 311       C      CYS311:P      -0.352           6     -0.540,-0.245                  7,6
145/150 A,L,W,R,X,C,Y,F
 312       K      LYS312:P       1.625           1      0.901, 1.353                  2,1
146/150 I,Q,D,R,S,L,N,T,V,E,K,H,M,Y
 313       P      PRO313:P      -0.146           6     -0.406,-0.045                  7,5
149/150 P,N,T,H,S,K,E
 314       I      ILE314:P      -0.229           6     -0.406,-0.152                  7,6
149/150 V,I,F,L,M
 315       F      PHE315:P       2.559           1      1.353, 2.562                  1,1
149/150 R,S,L,A,P,Q,I,Y,M,K,E,F,N,T,V
 316       S      SER316:P      -0.622           7     -0.753,-0.540                  8,7
149/150 T,Q,I,A,G,S
 317       K      LYS317:P       0.818           2      0.391, 0.901                  4,2
149/150 N,V,T,E,K,C,Q,R,S,D
 318       I      ILE318:P      -0.170           6     -0.330,-0.045                  6,5
149/150 I,V,W,A
 319       V      VAL319:P       0.943           1      0.608, 1.353                  3,1
149/150 D,A,R,S,L,Q,I,E,K,G,M,T,V
 320       S      SER320:P      -0.709           8     -0.841,-0.654                  8,7
149/150 L,S,R,A,M,G,E,K,T
 321       L      LEU321:P      -0.368           6     -0.540,-0.245                  7,6
148/150 V,I,M,L
 322       F      PHE322:P       1.447           1      0.901, 1.353                  2,1
148/150 Y,M,I,Q,S,X,F,N,V,H,G,K,E,C,R,L,A
 323       A      ALA323:P       0.047           5     -0.152, 0.219                  6,4
149/150 E,G,H,M,Y,V,T,F,A,S,I
 324       E      GLU324:P      -0.647           7     -0.799,-0.540                  8,7
149/150 E,G,M,N,T,D,A,S
 325       H      HIS325:P       1.305           1      0.901, 1.353                  2,1
149/150 F,N,V,T,H,G,Y,K,E,Q,I,S,R,D,A
 326       N      ASN326:P       0.281           4     -0.045, 0.391                  5,4
149/150 Q,I,D,A,R,S,L,N,T,V,F,E,K,H,G
 327       D      ASP327:P       2.552           1      1.353, 2.562                  1,1
149/150 I,Q,D,S,T,Y,M,P,A,L,R,N,F,E,K,G,H
 328       L      LEU328:P      -0.201           6     -0.406,-0.045                  7,5
145/150 A,L,R,S,X,I,Y,T,V,F
 329       Q      GLN329:P       0.483           3      0.219, 0.608                  4,3
149/150 Q,D,A,R,L,N,T,F,K,E,M
 330       Y      TYR330:P       0.409           3      0.077, 0.608                  5,3
149/150 Y,K,E,F,N,V,T,S,R,L,D,A,I
 331       A      ALA331:P      -0.715           8     -0.841,-0.654                  8,7
149/150 G,M,L,A,I,V
 332       A      ALA332:P       0.825           2      0.391, 0.901                  4,2
149/150 H,G,E,K,C,F,V,R,L,A,P,Y,M,T,S,Q,I
 333       P      PRO333:P      -0.771           8     -0.919,-0.705                  8,8
149/150 S,L,A,C,P,Q
 334       G      GLY334:P      -1.119           9     -1.183,-1.082                  9,9
149/150 S,G
 335       G      GLY335:P      -1.015           9     -1.109,-0.955                  9,9
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148/150 I,G,A,C
 336 L LEU336:P -1.115 9 -1.183,-1.082 9,9
148/150 T,L,S
 337 I ILE337:P -0.372 6 -0.540,-0.245 7,6
148/150 C,M,T,V,F,A,L,I
 338 G GLY338:P -0.568 7 -0.753,-0.475 8,7
148/150 A,E,S,G
 339 V VAL339:P -0.361 6 -0.540,-0.245 7,6
148/150 L,M,F,V,I
 340 G GLY340:P -0.109 5 -0.330, 0.077 6,5
148/150 A,S,R,L,Q,K,E,G,M
 341 T THR341:P -1.024 9 -1.109,-0.989 9,9
148/150 R,L,P,T
 342 K LYS342:P 1.662 1 0.901, 2.562 2,1
148/150 N,G,H,K,E,C,P,R,L,A,T,Y,M,I,Q,S,D
 343 I ILE343:P -0.598 7 -0.753,-0.540 8,7
148/150 V,I,F,M,L
 344 D ASP344:P -1.081 9 -1.160,-1.053 9,9
147/150 D,E,C,H
 345 P PRO345:P -1.135 9 -1.203,-1.109 9,9
147/150 A,P
 346 T THR346:P -0.312 6 -0.475,-0.245 7,6
147/150 Q,I,A,S,L,N,V,T,F,G,H,Y,M
 347 L LEU347:P 0.731 2 0.391, 0.901 4,2
147/150 H,M,Y,E,F,T,V,S,L,I
 348 C CYS348:P -0.611 7 -0.753,-0.540 8,7
146/150 V,T,C,A,S
 349 R ARG349:P -0.895 8 -0.989,-0.841 9,8
146/150 W,R,K,V,T,Q
 350 A ALA350:P -0.184 6 -0.406,-0.045 7,5
146/150 Q,S,A,V,T,N,G,K,E
 351 D ASP351:P -1.188 9 -1.212,-1.183 9,9
146/150 D
 352 R ARG352:P 0.296 4 -0.045, 0.391 5,4
146/150 N,V,T,K,E,G,H,M,Q,D,A,S,R,L
 353 M MET353:P -0.701 8 -0.841,-0.599 8,7
146/150 L,M,F,I
 354 V VAL354:P -0.011 5 -0.245, 0.077 6,5
146/150 K,M,G,V,T,A,L,S,R,I
 355 G GLY355:P -1.118 9 -1.183,-1.082 9,9
146/150 G,D
 356 Q GLN356:P -0.304 6 -0.475,-0.245 7,6
146/150 K,C,G,H,M,N,T,F,A,R,S,Q
 357 V VAL357:P -0.556 7 -0.705,-0.475 8,7
146/150 I,V,C,M,Y,L
 358 L LEU358:P -0.043 5 -0.245, 0.077 6,5
146/150 V,I,A,L,M
 359 G GLY359:P -0.514 7 -0.705,-0.406 8,7
146/150 V,T,L,G,S,A
 360 A ALA360:P 1.235 1 0.608, 1.353 3,1
146/150 Y,T,S,D,Q,I,H,E,K,F,N,V,R,L,A,P
 361 V VAL361:P 0.981 1 0.608, 1.353 3,1
145/150 I,P,A,S,R,L,V,T,K,E,C,G
 362 G GLY362:P -0.358 6 -0.599,-0.245 7,6
145/150 N,T,G,K,E,D
 363 A ALA363:P 1.241 1 0.608, 1.353 3,1
147/150 Q,S,D,T,M,L,R,A,F,V,N,G,H,C,E,K
 364 L LEU364:P -0.406 7 -0.599,-0.330 7,6
147/150 V,T,K,E,G,M,I,D,A,S,L
 365 P PRO365:P -0.868 8 -0.989,-0.799 9,8
147/150 E,D,L,I,P,F
 366 E GLU366:P 1.095 1 0.608, 1.353 3,1
147/150 D,A,S,L,Q,P,K,E,N,V
 367 I ILE367:P 0.048 5 -0.152, 0.219 6,4
147/150 M,C,F,N,T,V,L,D,A,P,I
 368 F PHE368:P 2.217 1 0.901, 2.562 2,1
147/150 M,Y,H,F,V,T,L,W,S,R,A,I
 369 T THR369:P 1.829 1 0.901, 2.562 2,1
147/150 G,H,E,K,C,F,N,V,R,W,L,A,M,Y,T,S,D,Q,I

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 370       E      GLU370:P       0.822            2      0.391, 0.901                    4,2
147/150 F,T,V,N,G,H,K,E,I,Q,S,R,A,D
 371       L      LEU371:P       0.609            3      0.219, 0.901                    4,2
147/150 I,T,V,F,A,L,M
 372       E      GLU372:P       0.853            2      0.391, 0.901                    4,2
147/150 M,Y,T,D,S,I,Q,E,K,G,V,N,F,A,L,R
 373       I      ILE373:P       0.442            3      0.077, 0.608                    5,3
147/150 V,F,C,M,I,Q,A,L,S
 374       S      SER374:P       0.463            3      0.219, 0.608                    4,3
146/150 Q,I,D,A,R,S,N,V,T,K,E,G
 375       Y      TYR375:P       0.860            2      0.391, 0.901                    4,2
145/150 F,V,T,M,Y,P,I,L,S,A,D
 376       F      PHE376:P       0.933            1      0.391, 1.353                    4,1
145/150 Y,M,H,G,K,E,F,T,N,S,R,D,Q
 377       L      LEU377:P      -0.672            8     -0.799,-0.599                    8,7
145/150 M,H,E,F,V,L,P,I
 378       L      LEU378:P      -0.486            7     -0.654,-0.406                    7,7
146/150 C,M,L,V,I,F
 379       R      ARG379:P       0.124            5     -0.152, 0.219                    6,4
146/150 P,Q,S,R,D,F,N,H,E,K
 380       R      ARG380:P      -0.513            7     -0.654,-0.406                    7,7
144/150 V,T,N,Y,M,H,K,Q,S,X,R
 381       L      LEU381:P      -0.513            7     -0.654,-0.406                    7,7
144/150 M,Y,T,V,A,L,S,I,P
 382       L      LEU382:P      -0.664            8     -0.799,-0.599                    8,7
141/150 A,L,I,V
 383       G      GLY383:P      -0.551            7     -0.753,-0.406                    8,7
140/150 S,L,D,A,I,G,Y,C,T,V
 384       V      VAL384:P       0.557            3      0.219, 0.608                    4,3
139/150 D,A,S,L,I,Q,P,E,G,M,N,V,T,F
 385       R      ARG385:P       0.662            3      0.219, 0.901                    4,2
130/150 T,N,E,K,G,H,Q,I,P,A,D,S,R
 386       T      THR386:P       0.298            4     -0.045, 0.608                    5,3
51/150  V,T,F,A,E,M,S
 387       E      GLU387:P       0.394            4     -0.045, 0.608                    5,3
49/150  T,Q,A,D,K,E,S
 388       G      GLY388:P       0.163            4     -0.330, 0.391                    6,4
33/150  G,S,E,D,A
 389       D      ASP389:P       0.413            3     -0.045, 0.608                    5,3
53/150  D,S,K,E,G,N,V,T
 390       K      LYS390:P       1.438            1      0.608, 2.562                    3,1
54/150  K,E,M,G,F,A,D,R,S,Q
 391       K      LYS391:P       0.341            4      0.077, 0.391                    5,4
135/150 T,V,N,M,G,K,E,I,Q,S,R,A,D
 392       A      ALA392:P       1.118            1      0.608, 1.353                    3,1
138/150 A,D,L,S,I,Q,P,E,K,M,Y,G,T,N
 393       A      ALA393:P       2.277            1      1.353, 2.562                    1,1
139/150 V,H,G,E,K,P,L,R,A,T,M,Y,I,Q,S,D
 394       K      LYS394:P       0.632            3      0.219, 0.901                    4,2
145/150 P,Q,I,L,S,R,A,D,T,V,N,M,G,K,E
 395       V      VAL395:P      -0.260            6     -0.475,-0.152                    7,6
145/150 I,Q,S,L,D,A,F,V,G,Y,M,E,K
 396       Q      GLN396:P       0.477            3      0.219, 0.608                    4,3
145/150 H,G,Y,K,E,N,T,S,R,L,D,A,P,I,Q
 397       K      LYS397:P       0.257            4     -0.045, 0.391                    5,4
146/150 K,E,G,N,A,D,L,S,R,I,Q,P
 398       L      LEU398:P      -0.517            7     -0.654,-0.406                    7,7
146/150 P,F,V,I,L,M
 399       S      SER399:P       0.376            4      0.077, 0.608                    5,3
146/150 C,E,K,T,V,N,A,D,L,S,R,Q
 400       K      LYS400:P       0.674            2      0.391, 0.901                    4,2
146/150 P,R,L,A,F,N,V,G,H,K,E,Q,I,S,T,M
 401       N      ASN401:P       0.752            2      0.391, 0.901                    4,2
144/150 N,F,E,K,H,G,Q,A,D,R,S
 402       E      GLU402:P      -0.994            9     -1.082,-0.955                    9,9
146/150 P,Q,L,S,D,E
 403       V      VAL403:P       1.235            1      0.608, 1.353                    3,1
146/150 K,E,M,Y,T,V,N,F,A,L,S,R,I,Q,P
 404       L      LEU404:P      -0.597            7     -0.753,-0.475                    8,7
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146/150 F,I,V,L
 405 M MET405:P -0.522 7 -0.654,-0.406 7,7
145/150 L,R,Q,I,K,M,V,T,F
 406 V VAL406:P 0.158 4 -0.152, 0.219 6,4
145/150 M,L,S,V,I,Q,F
 407 N ASN407:P -0.710 8 -0.841,-0.654 8,7
145/150 A,S,G,H,I,N,T
 408 I ILE408:P -0.011 5 -0.245, 0.077 6,5
145/150 V,N,F,C,M,I,A,L,S
 409 G GLY409:P -0.726 8 -0.881,-0.654 8,7
145/150 N,A,K,Y,S,G
 410 S SER410:P -0.861 8 -0.955,-0.799 9,8
145/150 T,I,G,S,A
 411 L LEU411:P -0.374 6 -0.540,-0.245 7,6
145/150 A,S,R,L,P,K,C,G,M,N,T
 412 S SER412:P -0.208 6 -0.406,-0.152 7,6
145/150 C,E,K,M,G,V,T,N,A,W,L,S,I,Q,P
 413 T THR413:P -0.314 6 -0.475,-0.245 7,6
145/150 N,T,V,G,E,C,I,R,S,A
 414 G GLY414:P 0.155 4 -0.152, 0.219 6,4
145/150 K,M,G,V,T,N,F,A,D,L,R,S,I,P
 415 G GLY415:P -0.398 7 -0.599,-0.245 7,6
144/150 V,G,C,A
 416 R ARG416:P 0.765 2 0.391, 0.901 4,2
144/150 C,K,M,T,V,N,F,A,L,R,S,I,Q
 417 V VAL417:P -0.564 7 -0.705,-0.475 8,7
144/150 L,A,C,P,I,T,V
 418 S SER418:P 1.199 1 0.608, 1.353 3,1
144/150 K,E,G,H,M,N,V,T,F,A,R,S,L,Q,I
 419 A ALA419:P 0.187 4 -0.045, 0.391 5,4
144/150 Q,D,A,S,R,N,T,E,K,H,G
 420 V VAL420:P 0.412 3 0.077, 0.608 5,3
144/150 N,T,V,G,M,Y,I,S,R,L,A
 421 K LYS421:P 0.144 4 -0.152, 0.219 6,4
145/150 E,K,M,G,T,N,A,D,S,R,Q
 422 A ALA422:P 1.370 1 0.901, 1.353 2,1
145/150 E,K,G,H,N,T,F,D,A,S,R,Q,P
 423 D ASP423:P 0.405 3 0.077, 0.608 5,3
144/150 N,T,V,E,K,G,D,A,S
 424 L LEU424:P 2.554 1 1.353, 2.562 1,1
144/150 S,D,I,Q,M,Y,T,R,L,A,P,G,E,K,F,N,V
 425 G GLY425:P 0.658 3 0.219, 0.901 4,2
144/150 I,S,L,A,F,T,V,G,M,Y,C
 426 K LYS426:P 0.142 4 -0.152, 0.219 6,4
145/150 K,E,M,Y,H,V,T,N,D,S,R,Q
 427 I ILE427:P -0.092 5 -0.330, 0.077 6,5
145/150 C,A,L,M,I,V,F
 428 V VAL428:P 2.514 1 1.353, 2.562 1,1
145/150 E,K,M,V,T,N,A,D,L,S,R,Q,I
 429 L LEU429:P -0.930 9 -1.022,-0.881 9,8
145/150 M,L,F,T
 430 T THR430:P -0.225 6 -0.406,-0.152 7,6
144/150 A,D,L,R,S,I,Q,E,K,V,T,N
 431 N ASN431:P 0.584 3 0.219, 0.901 4,2
144/150 A,L,R,S,I,Q,K,E,Y,G,V,T,N
 432 P PRO432:P -0.917 8 -1.022,-0.841 9,8
144/150 F,P,V,T,R,A
 433 V VAL433:P -0.574 7 -0.705,-0.475 8,7
144/150 I,V,T,A,M,L
 434 C CYS434:P -0.359 6 -0.540,-0.245 7,6
145/150 S,Y,A,C,P,I,V
 435 T THR435:P -0.418 7 -0.599,-0.330 7,6
145/150 C,T,V,F,A,L,I,Q,P
 436 E GLU436:P 0.834 2 0.391, 0.901 4,2
144/150 T,M,Y,Q,I,D,S,V,N,F,E,K,G,P,A,W,L,R
 437 V VAL437:P 2.155 1 0.901, 2.562 2,1
144/150 Y,T,S,D,I,Q,G,K,E,F,V,N,L,R,A,P
 438 G GLY438:P 0.562 3 0.219, 0.901 4,2
144/150 Q,P,D,R,S,T,N,E,K,G

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 439       E      GLU439:P       0.168           4     -0.045, 0.219                    5,4
144/150 Q,I,S,W,L,D,A,F,N,T,V,G,M,E
 440       K      LYS440:P      -0.249           6     -0.406,-0.152                    7,6
144/150 K,H,Y,M,N,T,F,D,R,S,L,Q,P
 441       I      ILE441:P      -0.211           6     -0.406,-0.152                    7,6
143/150 V,I,F,A,L,S
 442       A      ALA442:P      -0.853           8     -0.955,-0.799                    9,8
143/150 A,S,G,V,T
 443       L      LEU443:P      -0.488           7     -0.654,-0.406                    7,7
142/150 L,M,V,T,I,F
 444       S      SER444:P      -1.032           9     -1.109,-0.989                    9,9
142/150 M,S,G,T,V,I,N
 445       R      ARG445:P      -0.866           8     -0.989,-0.799                    9,8
142/150 Q,I,V,K,R,M
 446       R      ARG446:P      -0.450           7     -0.599,-0.330                    7,6
142/150 R,L,M,K,Q,N,V
 447       V      VAL447:P       0.099           5     -0.152, 0.219                    6,4
142/150 L,R,S,D,I,K,E,F,V,N
 448       E      GLU448:P       1.123           1      0.608, 1.353                    3,1
142/150 Q,I,P,D,A,R,S,L,N,T,E,K,G,M,Y
 449       K      LYS449:P       0.126           5     -0.152, 0.219                    6,4
142/150 T,N,G,H,K,E,Q,S,R,A,D
 450       H      HIS450:P      -0.737           8     -0.841,-0.654                    8,7
141/150 N,K,H,G,R,S
 451       W      TRP451:P      -0.754           8     -0.919,-0.654                    8,7
141/150 M,W,N,I,F
 452       R      ARG452:P      -0.946           9     -1.053,-0.881                    9,8
141/150 H,R,K,D,C,I
 453       L      LEU453:P      -1.000           9     -1.082,-0.955                    9,9
140/150 V,I,L,Y
 454       I      ILE454:P      -0.694           8     -0.799,-0.599                    8,7
138/150 I,A,X,R,S,V,F,Y
 455       G      GLY455:P      -1.066           9     -1.160,-1.022                    9,9
138/150 A,G,N
 456       W      TRP456:P      -0.101           5     -0.330, 0.077                    6,5
138/150 H,M,Y,V,F,A,R,S,W,I
 457       G      GLY457:P      -0.916           8     -1.022,-0.841                    9,8
138/150 A,C,G
 458       Q      GLN458:P       1.109           1      0.608, 1.353                    3,1
135/150 T,V,N,F,K,E,Y,M,Q,I,L,R,S
 459       I      ILE459:P      -0.479           7     -0.654,-0.406                    7,7
128/150 C,L,V,I
 460       R      ARG460:P       0.935           1      0.391, 1.353                    4,1
80/150  I,Q,R,L,N,T,V,H,M,K,E
 461       R              -      1.979           1      0.901, 2.562                    2,1
55/150  Q,D,A,S,R,N,T,E,K,G
 462       G              -     -0.936           9     -1.109,-0.841                    9,8
53/150  R,G
 463       V              -      2.547           1      1.353, 2.562                    1,1
51/150  P,I,Q,L,S,A,D,T,V,N,G,K,E
 464       T              -      0.516           3      0.077, 0.901                    5,2
46/150  A,S,I,Q,P,K,E,G,V,T
 465       I              -      0.606           3      0.077, 0.901                    5,2
43/150  M,L,I,V
 466       K              -      1.727           1      0.608, 2.562                    3,1
30/150  Q,R,D,T,N,C,E,K
 467       P              -     -0.690           8     -0.989,-0.475                    9,7
23/150  P,E
 468       T              -      1.683           1      0.608, 2.562                    3,1
20/150  L,S,P,V,T,I,Q
 469       V              -      1.093           1      0.219, 1.353                    4,1
11/150  T,V,I,Y,L,M
 470       D              -     -0.528           7     -0.919,-0.330                    8,6
9/150   F,D
 471       D              -      0.484          3*     -0.330, 0.901                    6,2
7/150   P,H,D
 472       D              -     -0.591          7*     -1.082,-0.330                    9,6
4/150   D
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*Below the confidence cut-off - The calculations for this site were performed on less than 6 non-gaped homologue sequences,
or the confidence interval for the estimated score is equal to- or larger than- 4 color grades.