

	A	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	V	W	Y
1:E	1.43%	0.00%	2.97%	89.76%	0.00%	1.41%	0.05%	0.02%	1.34%	0.03%	0.00%	0.08%	0.02%	1.36%	0.04%	0.01%	0.02%	1.41%	0.00%	0.02%	
2:I	0.06%	0.03%	0.03%	0.00%	2.27%	0.04%	0.06%	81.68%	0.02%	4.32%	0.72%	1.18%	0.11%	0.00%	0.03%	1.35%	3.19%	4.90%	0.00%	0.02%	
3:V	0.74%	0.00%	0.01%	0.54%	0.04%	0.46%	0.00%	0.16%	0.01%	2.88%	1.48%	0.00%	0.02%	0.01%	0.01%	0.01%	0.02%	93.62%	0.00%	0.00%	
4:L	0.01%	0.00%	0.00%	0.00%	0.41%	0.01%	0.00%	0.00%	0.00%	93.77%	0.49%	0.00%	0.02%	0.00%	0.02%	2.96%	0.01%	0.53%	1.75%	0.00%	
5:T	1.48%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.06%	0.81%	0.00%	0.49%	0.02%	0.82%	0.01%	0.39%	0.31%	95.60%	0.01%	0.00%	0.00%	
6:Q	0.01%	0.00%	0.01%	0.46%	0.00%	0.01%	2.08%	0.00%	2.29%	2.40%	0.03%	0.03%	1.46%	89.22%	1.91%	0.02%	0.02%	0.03%	0.02%	0.01%	
7:S	0.45%	0.48%	0.00%	0.00%	0.46%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.94%	0.00%	0.00%	97.27%	0.26%	0.00%	0.00%	0.12%	
8:P	0.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.95%	0.00%	0.00%	97.82%	0.19%	0.15%	0.39%	0.09%	0.00%	0.00%	0.00%	
9:G	0.38%	0.09%	0.82%	0.06%	0.00%	97.95%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.19%	0.21%	0.00%	0.27%	0.00%	0.00%	
10:T	1.69%	0.00%	0.01%	0.00%	0.01%	0.01%	0.00%	0.51%	0.01%	0.00%	0.01%	0.44%	0.57%	0.00%	0.01%	1.51%	95.17%	0.03%	0.00%	0.00%	
11:L	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	96.69%	0.18%	0.00%	1.31%	0.86%	0.58%	0.00%	0.00%	0.36%	0.00%	0.00%	
12:S	0.59%	0.46%	0.00%	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	1.23%	0.00%	0.00%	97.01%	0.34%	0.00%	0.00%	0.16%	
13:L	0.01%	0.01%	0.00%	0.00%	0.95%	0.00%	0.00%	0.00%	0.00%	96.98%	0.23%	0.00%	0.02%	0.00%	0.01%	0.68%	0.00%	0.68%	0.41%	0.00%	
14:S	0.59%	0.49%	0.00%	0.00%	0.45%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	1.20%	0.00%	0.00%	96.79%	0.33%	0.00%	0.00%	0.12%	
15:P	0.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.97%	0.00%	0.00%	97.80%	0.18%	0.15%	0.38%	0.09%	0.00%	0.00%	0.00%	
16:G	0.09%	0.00%	0.02%	0.39%	0.00%	98.97%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.36%	0.01%	0.00%	0.11%	0.05%	0.00%	
17:E	0.99%	0.00%	2.03%	91.86%	0.00%	2.15%	0.01%	0.03%	1.77%	0.02%	0.00%	0.05%	0.01%	0.45%	0.10%	0.15%	0.06%	0.32%	0.00%	0.00%	
18:R	0.01%	0.01%	0.00%	0.02%	0.00%	2.70%	0.00%	0.20%	0.60%	0.01%	0.00%	0.02%	0.01%	0.01%	95.32%	0.64%	0.46%	0.00%	0.00%	0.00%	
19:A	88.97%	0.00%	1.71%	0.04%	0.01%	1.91%	0.01%	0.07%	0.00%	0.02%	0.00%	0.02%	0.86%	0.00%	0.00%	0.49%	1.78%	4.12%	0.00%	0.00%	
20:T	1.75%	0.00%	0.01%	0.00%	0.01%	0.01%	0.00%	0.36%	0.01%	0.00%	0.01%	0.37%	1.18%	0.00%	0.01%	1.34%	94.91%	0.03%	0.00%	0.00%	
21:L	0.01%	0.00%	0.00%	0.00%	0.98%	0.00%	0.22%	0.22%	0.00%	95.94%	0.00%	0.00%	1.29%	0.00%	0.45%	0.00%	0.00%	0.88%	0.00%	0.00%	
22:S	0.70%	0.49%	0.00%	0.00%	0.50%	0.00%	0.01%	0.00%	0.00%	0.03%	0.00%	0.00%	1.88%	0.00%	0.01%	95.72%	0.30%	0.01%	0.01%	0.32%	
23:C	0.01%	93.09%	0.03%	0.00%	0.75%	0.49%	0.05%	0.00%	0.00%	0.02%	0.00%	0.03%	0.02%	0.00%	0.44%	1.76%	0.00%	0.00%	0.10%	3.20%	
24:R	0.00%	0.00%	0.00%	0.01%	0.00%	1.25%	0.00%	0.00%	0.23%	0.00%	0.05%	0.00%	0.00%	0.00%	97.52%	0.26%	0.09%	0.00%	0.58%	0.00%	
25:A	98.31%	0.00%	0.23%	0.00%	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.25%	0.00%	0.00%	0.14%	0.53%	0.42%	0.00%	0.00%	
26:S	0.01%	0.71%	0.01%	0.00%	0.00%	1.14%	0.01%	0.52%	0.01%	0.00%	0.00%	1.34%	0.01%	0.00%	1.98%	92.61%	1.62%	0.01%	0.00%	0.01%	
27:Q	0.00%	0.00%	0.00%	0.13%	0.00%	0.00%	1.08%	0.00%	0.18%	0.80%	0.00%	0.00%	0.88%	95.62%	1.29%	0.00%	0.00%	0.00%	0.00%	0.00%	
28:S	0.01%	0.26%	0.01%	0.00%	0.00%	0.97%	0.01%	2.17%	0.02%	0.01%	0.01%	2.08%	0.01%	0.00%	2.02%	90.36%	2.03%	0.01%	0.00%	0.00%	
29:V	2.51%	0.01%	1.00%	0.03%	1.55%	1.05%	0.02%	2.59%	0.00%	3.05%	0.04%	0.02%	0.08%	0.00%	0.03%	0.04%	0.06%	87.92%	0.00%	0.01%	
30:S	0.06%	1.57%	0.17%	0.00%	0.06%	3.61%	0.05%	2.63%	0.10%	0.05%	0.02%	4.63%	0.02%	0.00%	14.75%	70.30%	1.82%	0.05%	0.02%	0.09%	
31:S	0.03%	0.43%	0.06%	0.00%	0.01%	0.87%	0.05%	1.06%	0.12%	0.01%	0.01%	4.27%	0.01%	0.00%	14.50%	76.35%	2.18%	0.01%	0.01%	0.03%	
32:S	0.03%	0.46%	0.08%	0.00%	0.01%	0.83%	0.05%	1.14%	0.15%	0.01%	0.03%	5.15%	0.01%	0.00%	6.74%	82.84%	2.40%	0.01%	0.02%	0.03%	
33:Y	0.01%	3.89%	0.69%	0.00%	2.14%	0.01%	2.72%	0.01%	0.03%	0.11%	0.00%	1.35%	0.02%	0.01%	0.04%	1.73%	0.01%	0.00%	0.03%	87.19%	
34:L	0.01%	0.01%	0.00%	0.00%	2.94%	0.00%	0.00%	0.34%	0.00%	93.30%	0.01%	0.00%	0.10%	0.02%	0.03%	2.88%	0.01%	0.32%	0.02%	0.00%	
35:A	92.57%	0.01%	0.96%	0.02%	0.01%	0.98%	0.00%	0.03%	0.00%	0.01%	0.00%	0.02%	0.82%	0.00%	0.00%	0.73%	1.58%	2.24%	0.00%	0.01%	
36:W	0.01%	5.88%	0.00%	0.02%	0.05%	3.25%	0.00%	0.00%	0.00%	0.24%	0.00%	0.00%	0.00%	0.01%	1.17%	0.36%	0.00%	0.01%	88.83%	0.16%	
37:Y	0.02%	3.25%	2.95%	0.02%	1.64%	0.04%	3.37%	0.06%	0.13%	0.07%	0.00%	4.92%	0.02%	0.05%	1.37%	0.03%	0.02%	0.01%	0.00%	82.03%	
38:Q	0.01%	0.00%	0.01%	0.67%	0.00%	0.01%	3.06%	0.00%	0.49%	0.82%	0.01%	0.02%	0.96%	92.60%	1.33%	0.01%	0.01%	0.01%	0.00%	0.01%	
39:Q	0.02%	0.00%	0.02%	2.13%	0.00%	0.02%	0.55%	0.00%	11.87%	0.63%	0.12%	0.07%	0.41%	82.49%	1.50%	0.01%	0.08%	0.02%	0.04%	0.01%	
40:K	0.02%	0.00%	0.02%	0.86%	0.00%	0.03%	0.01%	0.75%	89.24%	0.01%	0.03%	2.55%	0.02%	0.56%	3.50%	0.07%	2.32%	0.01%	0.00%	0.00%	
41:P	1.99%	0.09%	0.03%	0.00%	0.07%	0.06%	0.69%	0.06%	0.00%	2.02%	0.00%	0.02%	88.36%	0.02%	1.59%	3.01%	1.88%	0.09%	0.00%	0.02%	
42:G	0.23%	0.14%	0.52%	0.00%	0.00%	98.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.38%	0.00%	0.10%	0.00%	0.00%	
43:Q	0.00%	0.00%	0.00%	0.33%	0.00%	0.00%	0.20%	0.00%	0.24%	0.40%	0.00%	0.00%	1.17%	96.78%	0.84%	0.00%	0.01%	0.00%	0.00%	0.00%	
44:A	85.54%	0.01%	0.14%	0.01%	0.01%	0.37%	0.00%	0.05%	0.00%	0.01%	0.00%	0.01%	3.62%	0.00%	0.01%	1.64%	8.00%	0.59%	0.00%	0.00%	
45:P	0.61%	0.01%	0.00%	0.00%	0.01%	0.00%	0.64%	0.01%	0.00%	1.06%	0.00%	0.00%	96.19%	0.01%	0.49%	0.61%	0.35%	0.01%	0.00%	0.00%	
46:R	0.00%	0.03%	0.00%	0.00%	0.00%	0.86%	0.00%	0.02%	0.24%	0.00%	0.08%	0.03%	0.00%	0.00%	93.17%	5.09%	0.12%	0.00%	0.37%	0.00%	
47:L	0.00%	0.00%	0.00%	0.00%	0.64%	0.00%	0.16%	0.14%	0.00%	97.06%	0.00%	0.01%	1.17%	0.00%	0.36%	0.00%	0.00%	0.44%	0.00%	0.00%	
48:L	0.01%	0.01%	0.00%	0.00%	1.24%	0.00%	0.20%	0.35%	0.00%	95.44%	0.00%	0.00%	1.21%	0.00%	0.40%	0.01%	0.00%	1.11%	0.00%	0.00%	
49:I	0.03%	0.01%	0.01%	0.00%	1.39%	0.01%	0.00%	88.25%	0.03%	1.97%	2.79%	0.51%	0.02%	0.00%	0.04%	0.50%	1.38%	3.06%	0.00%	0.00%	
50:Y	0.01%	3.25%	0.75%	0.01%	3.60%	0.01%	2.34%	0.01%	0.02%	0.09%	0.00%	1.27%	0.03%	0.04%	0.04%	3.39%	0.03%	0.01%	0.01%	85.09%	
51:Q	1.47%	0.57%	2.26%	0.04%	0.01%	92.93%	0.03%	0.02%	0.00%	0.01%	0.00%	0.05%	0.02%	0.00%	0.56%	1.54%	0.05%	0.43%	0.00%	0.02%	
52:A	95.88%	0.00%	0.03%	1.30%	0.00%	0.26%	0.00%	0.02%	0.01%	0.02%	0.00%	0.00%	0.32%	0.00%	0.01%	0.46%	1.37%	0.29%	0.00%	0.00%	
53:S	0.49%	0.66%	0.01%	0.00%	0.67%	0.01%	0.01%	0.01%	0.00%	0.03%	0.00%	0.01%	1.21%	0.00%	0.01%	96.15%	0.31%	0.01%	0.00%	0.42%	
54:S	0.03%	0.75%	0.04%	0.00%	0.01%	1.26%	0.05%	1.01%	0.12%	0.02%	0.01%	4.17%	0.02%	0.00%	14.99%	75.31%	2.14%	0.02%	0.00%	0.04%	
55:R	0.00%	0.00%	0.00%	0.00%	0.00%	1.25%	0.00%	0.00%	0.22%	0.00%	0.05%	0.00%	0.00%	0.00%	97.53%	0.25%	0.10%	0.00%	0.59%	0.00%	
56:A	98.33%	0.00%	0.22%	0.00%	0.00%	0.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.24%	0.00%	0.00%	0.14%	0.53%	0.41%	0.00%	0.00%	
57:T	1.38%	0.01%	0.01%	0.00%	0.01%	0.02%	0.01%	1.50%	0.01%	0.01%	0.01%	0.62%	1.02%	0.00%	0.02%	2.41%	92.92%	0.04%	0.00%	0.00%	
58:G	1.75%	0.13%	3.86%	0.03%	0.00%	92.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.16%	0.33%	0.01%	0.82%	0.00%	0.01%	
59:I	0.02%	0.01%	0.01%	0.00%	1.24%	0.01%	0.00%	93.13%	0.02%	0.88%	0.99%	0.32%	0.01%	0.00%	0.03%	0.50%	1.24%	1.61%	0.00%	0.00%	
60:P	0.51%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.01%	0.00%	0.41%	0.00%	0.00%	96.95%	0.17%	0.21%	1.06%	0.66%	0.01%	0.00%	0.00%	
61:D	1.00%	0.00%	95.94%	0.39%	0.00%	1.90%	0.07%	0.00%	0.00%	0.00%	0.00%	0.19%	0.00%	0.00%	0.00%	0.01%	0.00%	0.38%	0.00%	0.09%	
62:R	0.01%	0.02%	0.00%	0.02%	0.00%	0.99%	0.00%	0.05%	1.65%	0.01%	0.52%	0.10%	0.01%	0.01%	92.37%	3.32%	0.68%	0.01%	0.24%	0.00%	
63:F	0.01%	0.62%	0.00%	0.00%	91.68%	0.01%	0.00%	0.92%	0.00%	4.53%	0.01%	0.00%	0.01%	0.00%	0.01%	0.72%	0.00%	1.32%	0.01%	0.14%	
64:S	0.02%	0.93%	0.03%	0.00%	0.01%	1.43%	0														