

	A	C	D	E	F	G	H	I	K	L	M	N	P	Q	R	S	T	V	W	Y
1:Q	0.59%	0.03%	0.57%	5.65%	0.03%	0.61%	4.78%	0.10%	5.74%	6.54%	0.53%	0.53%	6.19%	59.17%	6.82%	0.38%	0.60%	0.62%	0.29%	0.25%
2:V	5.56%	0.03%	0.27%	4.18%	0.47%	3.80%	0.02%	3.42%	0.74%	9.13%	6.76%	0.06%	0.37%	0.18%	0.70%	0.37%	1.15%	62.71%	0.07%	0.01%
3:Q	0.15%	0.10%	0.43%	1.67%	0.07%	0.22%	12.36%	0.17%	6.38%	3.74%	0.16%	1.41%	2.97%	62.56%	5.91%	0.37%	0.47%	0.19%	0.44%	0.24%
4:L	1.19%	0.03%	0.04%	0.69%	0.92%	0.60%	0.06%	1.14%	0.64%	64.77%	6.45%	0.04%	2.82%	0.96%	1.87%	1.60%	0.86%	14.90%	0.40%	0.01%
5:V	5.33%	0.03%	0.29%	4.15%	0.38%	3.88%	0.03%	3.09%	0.73%	9.36%	6.54%	0.06%	0.52%	0.25%	0.67%	0.33%	1.25%	63.08%	0.06%	0.00%
6:Q	0.35%	0.05%	0.21%	1.15%	0.06%	0.35%	7.54%	0.07%	4.23%	10.48%	0.37%	0.73%	6.68%	56.93%	7.72%	0.69%	0.54%	0.54%	1.16%	0.15%
7:S	2.21%	2.65%	0.05%	0.00%	2.64%	0.09%	0.07%	0.09%	0.00%	0.46%	0.00%	0.05%	5.20%	0.01%	0.14%	83.25%	2.12%	0.11%	0.11%	0.76%
8:G	0.78%	0.02%	0.12%	3.44%	0.00%	90.03%	0.00%	0.00%	0.12%	0.08%	0.05%	0.01%	0.04%	0.09%	3.25%	0.06%	0.08%	0.85%	0.98%	0.00%
9:A	59.29%	0.08%	0.55%	0.06%	0.11%	1.43%	0.10%	0.58%	0.01%	0.33%	0.01%	0.18%	10.33%	0.01%	0.16%	4.60%	20.62%	1.52%	0.00%	0.03%
10:E	3.76%	0.02%	8.19%	67.43%	0.02%	7.24%	0.45%	0.06%	3.74%	0.31%	0.20%	0.49%	0.38%	4.27%	0.62%	0.18%	0.58%	1.87%	0.05%	0.14%
11:V	6.46%	0.01%	0.34%	5.28%	0.14%	5.36%	0.01%	1.50%	0.46%	9.28%	8.55%	0.03%	0.24%	0.11%	0.53%	0.36%	0.85%	60.34%	0.15%	0.00%
12:K	0.53%	0.01%	0.42%	5.58%	0.01%	0.93%	0.19%	0.90%	55.78%	0.47%	6.41%	2.50%	0.25%	4.05%	14.28%	0.56%	6.40%	0.49%	0.22%	0.03%
13:K	0.46%	0.01%	0.29%	5.93%	0.00%	1.24%	0.08%	0.50%	59.89%	0.44%	5.76%	1.31%	0.21%	3.26%	13.94%	0.41%	5.50%	0.48%	0.26%	0.01%
14:P	4.65%	0.39%	0.06%	0.02%	0.40%	0.12%	0.54%	0.19%	0.03%	1.60%	0.02%	0.17%	71.46%	0.08%	1.24%	12.43%	6.21%	0.27%	0.05%	0.08%
15:G	0.54%	0.01%	0.09%	2.52%	0.00%	91.54%	0.00%	0.00%	0.10%	0.07%	0.04%	0.00%	0.02%	0.08%	3.29%	0.05%	0.06%	0.63%	0.97%	0.00%
16:A	90.26%	0.01%	1.26%	0.06%	0.01%	1.06%	0.02%	0.08%	0.01%	0.03%	0.01%	0.07%	1.59%	0.00%	0.01%	0.95%	2.95%	1.62%	0.00%	0.01%
17:S	1.75%	0.20%	0.02%	0.12%	0.27%	0.05%	0.01%	0.06%	0.02%	2.63%	0.01%	0.01%	6.80%	0.04%	0.12%	86.36%	1.31%	0.06%	0.11%	0.07%
18:V	3.44%	0.00%	0.23%	3.53%	0.12%	3.24%	0.01%	1.17%	0.22%	11.04%	6.16%	0.02%	0.33%	0.17%	0.35%	0.18%	0.46%	69.27%	0.06%	0.00%
19:K	0.31%	0.02%	0.60%	6.31%	0.01%	0.46%	0.37%	0.47%	70.07%	0.16%	1.02%	5.95%	0.16%	4.53%	4.90%	0.95%	3.47%	0.12%	0.07%	0.06%
20:V	9.58%	0.03%	3.83%	0.23%	0.35%	4.67%	0.03%	1.32%	0.03%	1.11%	0.19%	0.10%	0.12%	0.00%	0.05%	0.16%	0.30%	77.86%	0.00%	0.02%
21:S	3.39%	2.14%	0.12%	0.00%	2.28%	0.12%	0.26%	0.09%	0.01%	0.95%	0.01%	0.12%	9.22%	0.01%	0.22%	77.76%	1.50%	0.23%	0.12%	1.43%
22:C	0.27%	61.02%	0.79%	0.04%	3.25%	2.87%	1.54%	0.07%	0.07%	1.23%	0.01%	0.69%	0.59%	0.06%	2.59%	8.75%	0.18%	0.13%	5.01%	10.85%
23:K	1.64%	0.01%	0.18%	6.93%	0.01%	1.07%	0.09%	0.23%	46.58%	0.66%	4.94%	0.97%	1.25%	3.93%	13.78%	0.98%	15.83%	0.59%	0.31%	0.03%
24:A	48.92%	0.13%	1.16%	0.08%	0.13%	1.66%	0.13%	0.73%	0.03%	0.30%	0.02%	0.39%	11.42%	0.01%	0.14%	6.87%	26.33%	1.51%	0.00%	0.06%
25:S	2.72%	11.97%	0.22%	0.02%	9.88%	0.28%	0.33%	0.24%	0.01%	1.86%	0.01%	0.20%	4.08%	0.02%	0.31%	63.35%	1.04%	0.45%	0.45%	2.56%
26:G	5.34%	0.04%	2.77%	11.24%	0.03%	68.85%	0.10%	0.32%	0.67%	0.40%	0.03%	0.17%	0.47%	0.33%	5.82%	0.42%	0.89%	2.04%	0.04%	0.03%
27:Y	0.48%	9.53%	9.83%	0.72%	7.26%	1.24%	13.14%	0.75%	1.00%	2.04%	0.03%	9.66%	0.82%	0.66%	1.68%	8.28%	0.69%	0.45%	0.25%	31.48%
28:T	10.32%	0.24%	0.30%	0.03%	0.40%	0.41%	0.14%	5.29%	0.31%	0.44%	0.55%	1.68%	7.27%	0.01%	0.72%	9.59%	61.18%	0.96%	0.02%	0.15%
29:F	0.15%	4.07%	0.07%	0.01%	65.85%	0.12%	0.19%	0.78%	0.01%	20.12%	0.06%	0.06%	0.71%	0.02%	0.27%	4.26%	0.06%	2.02%	0.16%	1.00%
30:T	7.59%	0.19%	0.37%	0.02%	0.28%	0.46%	0.13%	4.22%	0.18%	0.42%	0.10%	1.56%	5.65%	0.01%	0.52%	7.80%	69.42%	1.02%	0.01%	0.09%
31:G	10.99%	0.44%	20.14%	1.32%	0.06%	57.94%	0.45%	0.15%	0.06%	0.20%	0.02%	0.42%	0.18%	0.05%	1.00%	1.04%	0.39%	4.98%	0.02%	0.15%
32:Y	0.24%	12.15%	3.04%	0.16%	8.25%	0.45%	10.11%	0.26%	0.53%	2.72%	0.02%	4.29%	0.86%	0.44%	1.12%	9.66%	0.45%	0.17%	0.53%	44.56%
33:Y	0.38%	12.25%	2.94%	0.35%	13.62%	0.40%	7.25%	0.39%	0.25%	2.89%	0.02%	3.19%	1.23%	0.50%	0.93%	15.97%	0.57%	0.25%	0.56%	36.07%
34:M	1.47%	0.11%	0.08%	0.66%	3.48%	0.73%	0.05%	17.31%	1.61%	27.25%	19.42%	0.21%	1.89%	0.36%	2.69%	1.76%	6.24%	14.21%	0.44%	0.02%
35:H	0.65%	0.60%	2.88%	0.26%	0.78%	0.29%	48.89%	0.56%	1.80%	6.44%	0.08%	7.02%	8.66%	7.37%	7.40%	1.85%	1.14%	0.61%	0.10%	2.64%
36:W	0.03%	4.60%	0.02%	0.07%	0.15%	4.45%	0.03%	0.00%	0.02%	0.98%	0.02%	0.01%	0.07%	0.04%	6.27%	1.30%	0.02%	0.03%	81.63%	0.25%
37:V	5.07%	0.00%	0.25%	3.68%	0.16%	3.85%	0.02%	1.50%	0.69%	8.73%	5.90%	0.05%	0.67%	0.35%	0.56%	0.38%	1.03%	67.06%	0.05%	0.00%
38:R	0.05%	0.51%	0.01%	0.08%	0.01%	1.31%	0.41%	0.02%	0.26%	0.56%	0.00%	0.04%	1.88%	1.20%	91.79%	0.33%	0.08%	0.02%	1.43%	0.01%
39:Q	0.07%	0.00%	0.03%	1.26%	0.00%	0.11%	1.03%	0.00%	1.02%	1.69%	0.02%	0.04%	2.77%	86.04%	5.65%	0.08%	0.06%	0.04%	0.07%	0.01%
40:A	89.50%	0.02%	0.59%	0.22%	0.02%	1.90%	0.01%	0.09%	0.01%	0.02%	0.00%	0.07%	1.19%	0.00%	0.03%	1.07%	3.36%	1.87%	0.00%	0.01%
41:P	0.81%	0.07%	0.03%	0.01%	0.06%	0.06%	0.88%	0.06%	0.00%	2.44%	0.00%	0.03%	89.70%	0.22%	1.72%	2.38%	1.42%	0.09%	0.00%	0.02%
42:G	1.02%	0.05%	0.31%	2.57%	0.00%	87.09%	0.02%	0.06%	0.14%	0.06%	0.01%	0.02%	0.08%	0.07%	7.55%	0.35%	0.16%	0.40%	0.03%	0.00%
43:Q	0.11%	0.06%	0.45%	1.32%	0.06%	0.15%	24.57%	0.14%	0.91%	4.21%	0.01%	1.17%	4.29%	53.95%	7.49%	0.34%	0.20%	0.17%	0.01%	0.39%
44:G	0.78%	0.17%	0.69%	2.58%	0.00%	90.59%	0.02%	0.03%	0.07%	0.06%	0.03%	0.02%	0.04%	0.05%	3.12%	0.49%	0.08%	0.74%	0.43%	0.00%
45:L	0.16%	0.08%	0.04%	0.01%	2.32%	0.05%	1.12%	1.55%	0.00%	77.20%	0.04%	0.05%	12.47%	0.18%	1.51%	0.37%	0.24%	2.58%	0.00%	0.03%
46:E	4.24%	0.02%	16.23%	58.46%	0.02%	7.44%	0.45%	0.07%	4.20%	0.38%	0.27%	0.47%	0.36%	3.67%	0.60%	0.20%	0.65%	2.10%	0.05%	0.11%
47:W	0.20%	7.63%	0.09%	0.40%	0.38%	4.34%	0.10%	0.04%	0.39%	2.05%	0.13%	0.06%	0.21%	0.12%	9.47%	3.62%	0.21%	0.25%	69.71%	0.60%
48:M	1.54%	0.00%	0.02%	0.90%	0.08%	0.66%	0.01%	3.38%	4.99%	12.31%	46.70%	0.08%	0.63%	0.39%	5.11%	0.40%	7.70%	15.02%	0.09%	0.00%
49:G	8.82%	0.07%	3.70%	17.60%	0.04%	52.53%	0.10%	0.71%	1.48%	0.62%	0.10%	0.30%	0.68%	0.42%	7.52%	0.88%	1.63%	2.73%	0.06%	0.03%
50:W	0.15%	6.09%	0.12%	0.33%	0.50%	6.20%	0.32%	0.05%	0.20%	3.53%	0.11%	0.13%	0.50%	0.41%	13.77%	4.14%	0.14%	0.25%	62.12%	0.93%
51:I	0.56%	0.06%	0.15%	0.04%	1.73%	0.24%	0.06%	70.27%	0.41%	5.23%	2.96%	1.09%	0.28%	0.02%	1.40%	2.53%	4.75%	8.20%	0.01%	0.02%
52:N	0.45%	0.52%	5.30%	1.00%	0.26%	0.82%	5.06%	2.84%	14.33%	0.46%	0.41%	49.75%	0.45%	0.70%	3.30%	6.27%	5.66%	0.35%	0.04%	2.01%
53:P	3.00%	0.31%	0.10%	0.03%	0.40%	0.16%	1.07%	0.29%	0.01%	3.19%	0.01%	0.10%	79.62%	0.17%	2.20%	5.47%	3.37%	0.40%	0.01%	0.10%
54:N	0.91%	0.65%	13.20%	1.54%	0.76%	1.45%	6.03%	4.23%	7.76%	0.84%	0.37%	43.38%	0.37%	0.96%	4.28%	5.95%	4.01%	0.83%	0.04%	2.43%
55:S	0.55%	5.40%	0.76%	0.07%	0.37%	6.88%	0.77%	2.86%	0.72%	0.29%	0.10%	5.87%	0.47%	0.08%	11.04%	55.57%	7.27%	0.32%	0.18%	0.43%
56:G	6.21%	2.71%	8.61%	0.93%	0.26%	66.29%	0.72%	0.42%	0.08%	0.32%	0.01%	0.88%	0.40%	0.07%	3.22%	5.60%	0.67%	2.09%	0.12%	0.40%
57:G	6.92%	0.77%	12.87%	2.30%	0.12%	66.60%	0.33%	0.19%	0.08%	0.18%	0.01%	0.30%	0.17%	0.04%	3.06%	0.90%	0.32%	4.50%	0.04%	0.29%
58:T	5.60%	0.02%	0.08%	0.93%	0.04%	0.57%	0.02%	3.99%	1.90%	0.70%	0.49%	0.31%	4.41%	0.11%	6.22%	4.68%	69.35%	0.56%	0.01%	0.01%
59:N	0.51%	0.99%	10.59%	1.69%	0.75%	0.76%	9.31%	3.57%	9.05%	0.78%	0.55%	39.84%	0.59%	1.25%	2.43%	5.62%	4.93%	0.57%	0.06%	6.15%
60:Y	0.33%	12.21%	3.20%	0.38%	13.10%	0.42%	7.04%	0.37%	0.28%	2.21%	0.02%	3.29%	1.08%	0.53%	0.94%	14.84%	0.58%	0.24%	0.37%	38.57%
61:A	41.44%	0.03%	0.87%	9.21%	0.09%	2.74%	0.08%	1.23%	0.78%	1.51%	0.13%	0.09%	11.13%	0.56%	1.15%	8.22%	18.85%	1.86%	0.02%	0.02%
62:Q	0.26%	0.02%	0.43%	6.86%	0.01%	0.47%	3.30%	0.02%	2.30%	3.83%	0.17%	0.11%	3.15%	71.30%	6.94%	0.14%	0.13%	0.32%	0.15%	0.08%
63:K	0.70%	0.02%	0.70%	5.16%	0.03%	0.84%	0.39%	1.92%	55.38%	0.48%	4.10%	9.83%	0.33%	2.36%	7.87%	1.53%	7.70%	0.45%	0.13%	0.09%
64:F	0.41%																			