

NEVGEN Predictor – a quick way to identify your R1b off-modals and, for a few, predict S16264

Copy-and-paste your Y67 or Y111 data into the entry field on the top left of www.nevgen.org and select “Calculate”. You will then see your predicted haplogroup and a coloured bar by each marker as to where your results are positioned relative to the modal values for R1b. The bars are black where your results match the modal and red or red+black where they are off-modal.

For example, here are my results clearly showing off-modals at 393=12, 019=15, 391=10, etc.

The screenshot shows the NEVGEN Predictor interface. On the left, there's a table of marker values for various markers. The 'Calculate' button is highlighted. In the center, a pie chart shows 'The calculated group' as R1b (for 67+ markers, try level for R1b-s, 300+ subclades) with 100% probability. Below this is a 'Fitness chart of most probable haplogroup' showing a bar chart of marker values. On the right, a table titled 'Graphical view of probability and fitness' lists various haplogroups with their respective probabilities and fitness scores.

Haplogroup	Probability	Fitness	Fitness 2
1 R1b (for 67+ markers, try level for R1b-s, 300+ subclades)	100	49.39	0.95
2 R1a (for 67+ markers, try level for R1a-s, 70+ subclades)	0	19.31	0.37
3 R1b V88	0	14.32	0.29
4 R1b M73	0	13.17	0.25
5 R2 M479	0	11.38	0.26
6 I2a2a M223 (for 67+ markers, try level for I-s)	0	9.67	0.21
7 J1a2a1a2 P58	0	9.48	0.17
8 Q M346>> Z780	0	9.28	0.21
9 I1 (for 67+ markers, try level for I-s, 40+ subclades)	0	9.17	0.17
10 Q M346>> M3> M848	0	9.02	0.21
11 Q M346>> Y2659> F835	0	8.81	0.17

This screenshot shows a more detailed view of the NEVGEN Predictor results. On the left, there's a large table of marker values for various markers. The 'Calculate' button is highlighted. In the center, a bar chart shows the 'Fitness chart of most probable haplogroup' with marker values. On the right, a table titled 'Graphical view of probability and fitness' lists various haplogroups with their respective probabilities and fitness scores.

Haplogroup	Probability	Fitness	Fitness 2
5 R2 M479	0	11.38	0.26
6 I2a2a M223 (for 67+ markers, try level for I-s)	0	9.67	0.21
7 J1a2a1a2 P58	0	9.48	0.17
8 Q M346>> Z780	0	9.28	0.21
9 I1 (for 67+ markers, try level for I-s, 40+ subclades)	0	9.17	0.17
10 Q M346>> M3> M848	0	9.02	0.21
11 Q M346>> Y2659> F835	0	8.81	0.17
12 J1a3 Z1828	0	8.12	0.17
13 I2a2b L38	0	8.09	0.15
14 J2b2a M241	0	7.94	0.15
15 Q M346>> L330	0	7.85	0.12
16 R1a YP1272	0	7.79	0.1
17 R1b V1636	0	7.71	0.11
18 Q M346>> M3> Y4308	0	7.47	0.13
19 J2a1 Z7671	0	7.29	0.15
20 T>PF5633>CTS11451	0	7.29	0.15
21 R1b PH155	0	7.26	0.1
22 R1a YP4141	0	7.19	0.11
23 I2a1 Isles	0	7.08	0.14

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NEVGEN is also able to predict some R1b subclades. To use that feature, click on the three slider bar symbol top left and a new menu will be displayed. Select "Subclades of R1b (67+ markers)" and then "Calculate" again. You can see below that NEVGEN correctly predicts S16264 for me. I also tested it with some other S16264 haplotype data. It made a correct prediction for our Grouazel and Hawk Y111 haplotypes. It did not succeed with Collinson or Mann and was very uncertain about Leprovost. Please try it yourself and let me know if it works for you.

The calculated group

Graphical view of probability and fitness

Haplogroup	Probability	Fitness	Fitness 2
1 R1b L21>DF13> S16264	100	82.06	1.24
2 R1b L21>DF13> Z39589>Z251>> S11556	0	42.81	0.78
3 R1b DF27>Z212> Z225	0	42.41	0.78
4 R1b L21>DF13> Z39589>Z251> Z16943	0	42.12	0.76
5 R1b U152>L2> Z258>L20	0	41.82	0.77
6 R1b Z2103> Z2106	0	41.04	0.82
7 R1b L21>DF13> FGC5494	0	41.42	0.75
8 R1b L21>> ZZ10>Z253> Z2186>L1066	0	41.26	0.72
9 R1b L21>DF63> BY592	0	39.51	0.7
10 R1b DF27>Z212> ZZ19>Z31644> A431	0	39.67	0.68

Fitness chart of most probable haplogroup

Graphical view of probability and fitness

Haplogroup	Probability	Fitness	Fitness 2
4 Z39589>Z251> Z16943	0	42.12	0.76
5 R1b U152>L2> Z258>L20	0	41.82	0.77
6 R1b Z2103> Z2106	0	41.04	0.82
7 R1b L21>DF13> FGC5494	0	41.42	0.75
8 R1b L21>> ZZ10>Z253> Z2186>L1066	0	41.26	0.72
9 R1b L21>DF63> BY592	0	39.51	0.7
10 R1b DF27>Z212> ZZ19>Z31644> A431	0	39.67	0.68
11 R1b U152>L2> Z49>Z142> Z51	0	39.08	0.71
12 R1b L21>DF13> CTS1751	0	38.26	0.67
13 R1b U106>Z381> Z301>L48> L47>Z159> S3251	0	38.35	0.85
14 R1b L21>DF13> FGC5494> FGC7448	0	38.12	0.7
15 R1b DF27>Z212> Z251> Z2560	0	37.86	0.66
16 R1b L21>> Z39589>DF49> ZP20> ZP21	0	38.28	0.67
R1b L21>DF13>			