# Multiple sclerosis (International Multiple Sclerosis Genetics Consortium, 2019)

International Multiple Sclerosis Genetics Consortium, et al.

Science

Inflammation Autoimmunity

## STUDY SUMMARY

Identification of 233 novel variants associated with multiple sclerosis and the body's immune response system.

### YOUR RESULT

### STUDY DESCRIPTION



Multiple sclerosis is an autoimmune disease that leads to degeneration of the central nervous system. It's characterized by damage to the nerves that can lead to problems with vision, movement, and speech. This study analyzed the genetic data of 115,803 individuals of European ancestry and discovered 233 variants that appear to correlate with a risk of developing multiple sclerosis. These variants help explain ~48% of the heritability of multiple sclerosis. Many of these variants are located near genes that are expressed in the brain and play a role in <u>antigen</u> recognition by the immune system. To date, this is the largest genome-wide association analysis of multiple sclerosis and it explains almost half of the genetic contribution to the disease risk.

#### DID YOU KNOW!

Though multiple sclerosis cannot be cured, doctors recommend lowering inflammation levels by maintaining a healthy diet (e.g. mediterranean diet rich in fish, whole grains, fruits, vegetables and olive oil) and exercising regularly.

## YOUR DETAILED RESULTS

To calculate your genetic predisposition to multiple sclerosis we summed up the effects of genetic variants that were linked to multiple sclerosis in the study that this report is based on. These variants can be found in the table below. The variants highlighted in green have positive effect sizes and increase your genetic predisposition to multiple sclerosis. The variants highlighted in blue have negative effects sizes and decrease your genetic predisposition to multiple sclerosis. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to multiple sclerosis. By adding up the effect sizes of the highlighted variants we calculated your polygenic score for multiple sclerosis to be 1.48. To determine whether your score is high or low, we compared it to the scores of 5,000 other Nebula Genomics users. We found that your polygenic score for multiple sclerosis is in the 20th percentile. This means that it is higher than the polygenic scores 20% of people. We consider this to be a below average genetic predisposition to multiple sclerosis. However, please note that genetic predispositions do not account for important non-genetic factors like lifestyle. Furthermore, the genetics of most traits has not been fully understood yet and many associations between traits and genetic variants remain unknown. For additional explanations, click on the column titles in the table below and visit our Nebula

Library tutorial.  VARIANT <sup>©</sup>	YOUR GENOTYPE <sup>®</sup>	EFFECT SIZE <sup>®</sup>	VARIANT FREQUENCY <sup>©</sup>	SIGNIFICANCE <sup>®</sup>
rs1071743_G	G / G		VARIANTI FREQUENCY™	1.05 × 10 <sup>-280</sup>
		-0.37 (↓)		2.19 × 10 <sup>-131</sup>
rs3097671_C	G / G	0.29 (-)	14%	
rs2844482_A	NA O / O	0.30 (-)	< 1%	7.13 × 10 <sup>-124</sup>
rs4081559_T	C/C	0.27 (-)	11%	4.69 x 10 <sup>-82</sup>
rs10801908_C	C/C	0.26 (↑)	69%	4.55 x 10 <sup>-70</sup>
rs11256593_T	C/T	0.19 (1)	42%	2.96 x 10 <sup>-65</sup>
rs9266629_C	Т/Т	-0.20 (-)	17%	8.88 x 10 <sup>-57</sup>
rs438613_C	T/C	0.14 (1)	37%	2.31 x 10 <sup>-49</sup>
rs1800693_T	Т/Т	-0.14 (↓)	64%	2.24 × 10 <sup>-47</sup>
rs7454108_C	Т/Т	0.22 (-)	86%	1.70 × 10 <sup>-41</sup>
rs6670198_C	Т/Т	-0.13 (-)	43%	1.54 x 10 <sup>-36</sup>
rs62420820_A	G / A	0.13 (1)	19%	9.26 x 10 <sup>-36</sup>
rs1738074_T	Т/Т	-0.12 (↓)	50%	3.48 x 10 <sup>-35</sup>
rs35540610_C	T/C	0.13 (1)	21%	2.98 x 10 <sup>-33</sup>
rs1323292_A	A / A	0.15 (1)	86%	3.64 x 10 <sup>-33</sup>
rs1077667_C	C/C	0.14 (1)	80%	7.88 × 10 <sup>-33</sup>
rs35486093_A	A / A	-0.19 (↓)	90%	2.27 x 10 <sup>-31</sup>
rs2150879_G	G / A	0.11 (1)	58%	4.05 x 10 <sup>-31</sup>
rs701006_G	A / G	0.12 (1)	56%	9.63 x 10 <sup>-31</sup>
rs11809700_C	C / T	-0.12 (↓)	70%	2.95 x 10 <sup>-30</sup>
rs9843355_G	G / G	0.14 (1)	81%	4.14 × 10 <sup>-30</sup>
rs4939490_G	G / G	0.12 (1)	38%	2.00 x 10 <sup>-29</sup>
rs4896153_A	A / A	-0.11 (↓)	70%	2.72 x 10 <sup>-29</sup>
rs72928038_G	G / A	-0.14 (↓)	90%	8.38 x 10 <sup>-29</sup>
rs10063294_A	G / A	-0.12 (↓)	59%	1.58 x 10 <sup>-28</sup>
rs1026916_G	A / G	-0.11 (↓)	57%	2.32 x 10 <sup>-28</sup>
rs1014486_C	c/c	0.10 (1)	39%	3.13 × 10 <sup>-28</sup>
rs11751659_G	A/G	0.16 (1)	12%	5.75 x 10 <sup>-28</sup>
rs11079784_C	T/C	0.10 (1)	46%	1.99 x 10 <sup>-27</sup>
rs6589706_A	G / G	0.10 (-)	38%	4.53 × 10 <sup>-26</sup>
rs11749040_G	G / G	-0.14 (↓)	84%	4.54 x 10 <sup>-25</sup>
rs631204_A	0/0	0.11 (-)	44%	4.92 × 10 <sup>-25</sup>
rs4808760_G	c/c	-0.11 (-)	76%	5.83 x 10 <sup>-25</sup>
rs12478539_G	G/C	0.11 (1)	75%	1.65 x 10 <sup>-24</sup>
rs58166386_G	A / A	0.10 (-)	38%	4.42 × 10 <sup>-24</sup>
rs7977720_C	C/T	-0.09 (↓)	47%	4.96 × 10 <sup>-24</sup>
rs34947566_C	C/C	0.14 (1)	88%	1.30 × 10 <sup>-23</sup>
rs1250551_G	G / T	-0.10 (↓)	69%	1.68 × 10 <sup>-23</sup>
rs114071505_C	G / G	-0.25 (-)	5%	3.84 x 10 <sup>-22</sup>

March   Marc					
MATERIAN   TOTAL   MATERIAN   M	rs28703878_A	A / A	-0.10 (↓)	66%	5.27 x 10 <sup>-22</sup>
Martin   M	rs3809627_A	C / A	-0.09 (↓)	42%	1.23 x 10 <sup>-21</sup>
Marchane   177   1817   1817   1816   1818	rs140522_C	т/т	-0.11 (-)	63%	1.31 x 10 <sup>-21</sup>
Section   1,77		A / A		40%	3.18 x 10 <sup>-21</sup>
12570564_C					
1437004.3					
March   1978					
MEMBER   M.   M.   M.   M.   M.   M.   M.   M					
195000000000000000000000000000000000000					
1999    1999	rs2327586_T				
	rs12925972_C	Т/Т	0.10 (-)	50%	
SECONT_C    9/8	rs9610458_T	C/T	0.09 (1)	46%	1.16 × 10 <sup>-19</sup>
1975    1975	rs9591325_T	T/C	0.21 (↑)	94%	1.26 x 10 <sup>-19</sup>
## 177020_0	rs2248137_G	G / G	-0.09 (↓)	48%	1.92 x 10 <sup>-19</sup>
NETHERS   C	rs12365699_G	G/G	0.12 (1)	87%	2.10 × 10 <sup>-19</sup>
	rs1177228_G	G / G	0.09 (1)	78%	2.31 x 10 <sup>-19</sup>
Marie No.   Marie No.   Marie No.   Marie No.	rs1076928_C	T/C	-0.12 (↓)	45%	2.75 x 10 <sup>-19</sup>
Marie No.   Marie No.   Marie No.   Marie No.	rs1087056 G	A / A	-0.08 [-]	63%	3.50 × 10 <sup>-19</sup>
Marie   Mari					
1900  1900					
1000000000000000000000000000000000000					
100   100					
	rs9878602_T	G / G	0.10 (-)		
	rs1465697_C	C/T	-0.09 (1)	74%	3.02 x 10 <sup>-18</sup>
### ### ### ### ### ### ### ### ### ##	rs483180_G	C/C	-0.08 (-)	27%	1.45 × 10 <sup>-17</sup>
### ### #### #########################	rs1112718_A	A / G	0.08 (1)	57%	2.08 x 10 <sup>-17</sup>
NA	rs35703946_G	G / G	0.12 (↑)	88%	2.83 x 10 <sup>-17</sup>
MECONSTONE	rs12434551_A	A/T	0.08 (1)	55%	4.14 × 10 <sup>-17</sup>
March   Marc	rs34026809_C	NA	-0.09 (-)	4%	7.68 x 10 <sup>-17</sup>
######################################	rs62013236_C	C/C	0.10 (↑)	87%	8.53 x 10 <sup>-17</sup>
### 17	rs9909593_A	A / G	-0.08 (↓)	62%	8.57 x 10 <sup>-17</sup>
MAY			-0.11 [↓]	62%	8.91 x 10 <sup>-17</sup>
ratS227021_O         0 / T         -0.08 (4)         665         155 x 10 ° 8           rat2153763_C         0 / 0         0.12 (2)         845         1.07 x 10 ° 8           rat2053763_C         0 / 0         -0.53 (4)         315         1.57 x 10 ° 8           rat2053763_C         6 / T         0.00 (1)         745         3.01 x 10 ° 8           rat20526_G         6 / T         0.00 (1)         534         3.25 x 10 ° 8           rat20526_G         6 / T         0.00 (1)         635         6.08 x 10 ° 8           rat20526_G         6 / A         0.08 (1)         705         6.03 x 10 ° 8           rat20526_G         6 / A         0.00 (-)         654         7.03 x 10 ° 8           rat20526_G         6 / A         0.00 (-)         654         7.03 x 10 ° 8           rat20526_G         6 / A         0.00 (-)         654         1.53 x 10 ° 8           rat20526_G         6 / A         0.00 (-)         654         1.53 x 10 ° 8           rat20526_G         6 / A         0.05 (-)         805         1.43 x 10 ° 8           rat20626_G         6 / A         0.13 (-)         405 (-)         405 (-)           rat20626_G         6 / A         0.04 (-)         7.75					
rs/25/35/5_0         0 / 0         0.42 (1)         84%         1.67 × 10 ° 0           rs/00083_0         0 / 6         -0.45 (4)         31%         1.67 × 10 ° 0           rs/05082_0         0 / 1         0.09 (1)         74%         8.01 × 10 ° 0           rs/257723_1         0 / 1         0.08 (1)         55%         3.26 × 10 ° 0           rs/25272_1         0 / 1         0.08 (1)         75%         6.00 × 10 ° 0           rs/2522_2         0 / 0         0.09 (-)         64%         7.03 × 10 ° 0           rs/2522_2         0 / 0         0.09 (-)         64%         7.03 × 10 ° 0           rs/252_2         0 / 0         0.09 (-)         60%         1.13 × 10 ° 0           rs/252_2         0 / 0         0.09 (-)         60%         1.41 × 10 ° 0           rs/252_2         0 / 0         0.09 (-)         60%         1.41 × 10 ° 0           rs/252_2         0 / 0         0.09 (-)         60%         1.13 × 10 ° 0           rs/252_2         0 / 0         0.09 (-)         60%         1.14 × 10 ° 0           rs/252_2         0 / 0         0.09 (-)         20%         1.20 × 10 ° 0           rs/252_2         0 / 0         0.09 (-)         20%         1.20 × 10 ° 0					
rationas_6         0 / 6         -0.13 (L)         31%         1.87 × 10 %           ref1863028_0         0 / T         0.09 (t)         74%         3.01 × 10 %           re33723_10         0 / T         0.08 (t)         63%         3.26 × 10 %           re12622870_T         0 / T         0.09 (t)         63%         3.26 × 10 %           re12622870_T         0 / G         0.09 (t)         70%         6.10 × 10 %           re653082_A         0 / G         0.00 (-)         64%         7.03 × 10 %           re4766224_A         0 / G         0.00 (-)         60%         1.43 × 10 %           re47262270_G         0 / G         0.45 (t)         80%         1.44 × 10 %           re12222660_C         0 / A         0.45 (t)         80%         1.76 × 10 %           re12222660_C         0 / A         0.45 (t)         80%         1.76 × 10 %           re12222660_C         0 / A         0.45 (t)         80%         1.76 × 10 %           re12222660_C         0 / A         0.45 (t)         80%         1.76 × 10 %           re12222660_C         0 / A         0.45 (t)         80%         1.28 × 10 %           re12222660_C         0 / A         0.45 (t)         30%         1.28					
### ##################################					
re2377231_6         6 / T         0.08 (1)         63%         3.26 x 10^10           re12622670_T         C / T         0.09 (1)         63%         6.08 x 10^10           re8633082_A         G / A         0.08 (1)         79%         6.10 x 10^10           re8633082_A         G / G         0.09 (-)         64%         7.03 x 10^10           re4706227_G         G / G         0.00 (-)         60%         1.13 x 10^10           re1272226_G         G / G         0.45 (1)         80%         1.47 x 10^10           re1272265_G         G / A         0.13 (1)         80%         1.76 x 10^10           re1272265_G         G / A         0.13 (1)         80%         1.76 x 10^10           re1272265_G         G / A         0.13 (1)         80%         1.78 x 10^10           re1272265_G         G / A         0.13 (1)         80%         1.28 x 10^10           re1272265_G         G / A         0.15 (-)         26%         1.82 x 10^10           re1272265_G         G / A         0.00 (1)         31%         2.31 x 10^10           re1282726_G         G / A         0.00 (1)         77%         3.05 x 10^10           re1282727_G         G / A         0.00 (1)         77% <td< td=""><td>rs10093_G</td><td></td><td></td><td></td><td></td></td<>	rs10093_G				
ref2622570_T         O / T         0.00 (t)         65%         6.08 × 10 - 16           re883484_G         G / A         0.08 (t)         70%         6.10 × 10 - 16           re8633062_A         G / G         0.09 (-)         64%         7.03 × 10 - 16           re4796224_A         G / G         0.00 (-)         60%         1.13 × 10 - 16           re72622276_G         G / G         0.74         0.15 (t)         80%         1.47 × 10 - 16           re12722656_G         G / A         0.13 (t)         80%         1.76 × 10 - 16           re12722656_G         G / A         0.15 (t)         80%         1.76 × 10 - 16           re1272266_G         G / A         0.15 (t)         80%         1.76 × 10 - 16           re27326_G         G / G         -0.00 (4)         40%         1.82 × 10 - 16           re180133_A         G / G         -0.00 (4)         37%         2.31 × 10 - 16           re40534_G         G / T         -0.10 (4)         77%         3.06 × 10 - 16           re180133_A         G / G         -0.10 (4)         77%         3.06 × 10 - 16           re40534_G         G / T         -0.00 (4)         86%         1.37 × 10 - 14           re8053410_T         T / T <td< td=""><td>rs61863928_G</td><td>G/T</td><td>0.09 (↑)</td><td>74%</td><td></td></td<>	rs61863928_G	G/T	0.09 (↑)	74%	
reg85494_6         9 / A         0.08 (t)         79%         6.00 x 10 -80           re6533082_A         0 / 9         0.09 (-)         64%         7.03 x 10 -80           re4796224_A         0 / 9         -0.09 (-)         60%         1.13 x 10 -80           rs72922276_G         0 / 9         0.45 (t)         89%         1.41 x 10 -80           rs12722569_C         0 / A         0.45 (t)         89%         1.47 x 10 -80           rs3355024_C         1 / T         0.46 (-)         26%         1.82 x 10 -80           rs127245_G         0 / G         -0.00 (4)         40%         1.98 x 10 -80           rs180133_A         0 / A         -0.10 (4)         31%         2.21 x 10 -80           rs406534_G         0 / T         -0.10 (4)         77%         3.06 x 10 -80           rs773182_G         A / A         0.09 (-)         71%         3.89 x 10 -80           rs8639410_T         T / T         -0.12 (4)         86%         1.37 x 10 -44           rs86408_A         A / A         0.11 (1)         76%         2.98 x 10 -44           rs86408_A         A / A         0.11 (1)         76%         2.98 x 10 -44           rs86408_A         A / A         0.11 (1)         77%	rs2317231_G	G/T	0.08 (1)	53%	3.25 x 10 <sup>-16</sup>
re6533062_A         9 / 9         0.09 (-)         64%         7.03 × 10 · 6           rs4706224_A         9 / 9         -0.09 (-)         60%         1.13 × 10 · 6           rs72822276_G         9 / 9         -0.06 (-)         60%         1.44 × 10 · 6           rs12722669_C         C / A         0.13 (f)         89%         1.76 × 10 · 6           rs3135024_C         T / T         0.15 (-)         26%         1.82 × 10 · 6           rs12147246_G         9 / 6         -0.09 (4)         49%         1.98 × 10 · 6           rs180133_A         9 / 6         -0.00 (4)         31%         2.23 × 10 · 6           rs7731662_G         A / A         -0.01 (4)         77%         3.06 × 10 · 6           rs863440_T         T / T         -0.42 (4)         86%         1.37 × 10 · 4           rs863440_T         T / T         -0.07 (4)         74%         2.76 × 10 · 4           rs86486_A         A / A         0.11 (f)         76%         2.98 × 10 · 4           rs86486_A         A / A         0.11 (f)         76%         2.90 × 10 · 4           rs8775798_A         A / A         0.07 (f)         44%         4.12 × 10 · 4           rs883871_G         9 / 6         -0.12 (4)         80% </td <td>rs12622670_T</td> <td>C/T</td> <td>0.09 (1)</td> <td>53%</td> <td>5.08 x 10<sup>-16</sup></td>	rs12622670_T	C/T	0.09 (1)	53%	5.08 x 10 <sup>-16</sup>
re4706224_A         6 / 6         -0.00 (-)         60%         1.13 x 10 *6           rs72922276_6         6 / 6         0.46 (r)         80%         1.44 x 10 *6           rs12722656_0         0 / A         0.43 (r)         80%         1.76 x 10 *6           rs3136024_0         7 / T         0.46 (-)         25%         1.82 x 10 *6           rs12147246_6         0 / G         -0.00 (4)         49%         1.98 x 10 *6           rs406343_6         0 / A         -0.40 (4)         31%         2.31 x 10 *8           rs406343_6         0 / T         -0.40 (4)         77%         3.06 x 10 *6           rs7731026_6         A / A         0.09 (-)         71%         3.89 x 10 *6           rs6839410_T         T / T         -0.07 (4)         86%         1.37 x 10 *4           rs884466_A         A / A         0.01 (f)         76%         2.98 x 10 *4           rs1049079_C         C / G         -0.33 (4)         92%         2.99 x 10 *4           rs6742_C         T / C         0.44 (f)         77%         4.11 x 10 *4           rs77788_A         A / A         0.07 (f)         44%         4.12 x 10 *4           rs838371_G         9 / G         -0.02 (4)         90% <td< td=""><td>rs983494_G</td><td>G / A</td><td>0.08 (1)</td><td>79%</td><td>6.10 × 10<sup>-16</sup></td></td<>	rs983494_G	G / A	0.08 (1)	79%	6.10 × 10 <sup>-16</sup>
rs72922276_0         6 / 6         0.16 (t)         88%         1.41 x 10 ° 6           rs12722656_0         C / A         0.43 (t)         88%         1.76 x 10 ° 6           rs3135024_0         T / T         0.46 (-)         26%         1.82 x 10 ° 6           rs12147246_6         6 / 6         -0.00 (4)         49%         1.98 x 10 ° 6           rs1801133_A         6 / A         -0.10 (4)         31%         2.31 x 10 ° 6           rs406543_6         6 / T         -0.10 (4)         77%         3.05 x 10 ° 6           rs7731626_6         A / A         0.09 (-)         71%         3.89 x 10 ° 6           rs68394161_T         T / T         -0.42 (4)         85%         1.37 x 10 ° 4           rs8863496_T         T / T         -0.07 (4)         74%         2.75 x 10 ° 4           rs44666_A         A / A         0.11 (1)         76%         2.96 x 10 ° 4           rs6742_O         C / G         -0.13 (4)         92%         2.99 x 10 ° 4           rs6742_O         T / C         0.44 (1)         77%         4.11 x 10 ° 4           rs77798_A         A / A         0.07 (1)         44%         4.12 x 10 ° 4           rs8737708_A         A / A         0.07 (1)         44%	rs6533052_A	G/G	0.09 (-)	54%	7.03 x 10 <sup>-16</sup>
rs12722569_C         C / A         0.43 (1)         89%         1.76 x 10 ° 6           rs3735024_C         T / T         0.45 (-)         25%         1.82 x 10 ° 6           rs12447246_G         G / G         -0.00 (4)         40%         1.98 x 10 ° 6           rs1801133_A         G / A         -0.10 (4)         31%         2.21 x 10 ° 6           rs405343_G         G / T         -0.10 (4)         77%         3.05 x 10 ° 6           rs773162_G         A / A         0.09 (-)         71%         3.89 x 10 ° 6           rs6839416_T         T / T         -0.12 (4)         85%         1.37 x 10 ° 14           rs244666_A         A / A         0.11 (1)         76%         2.96 x 10 ° 14           rs1049079_C         C / G         -0.13 (4)         92%         2.99 x 10 ° 14           rs6742_C         T / C         0.04 (1)         77%         4.11 x 10 ° 14           rs67742_C         T / C         0.04 (1)         77%         4.11 x 10 ° 14           rs67742_C         T / C         0.04 (1)         77%         4.11 x 10 ° 14           rs67742_G         T / T         0.13 (1)         92%         0.07 * 10 ° 14           rs67742_G         T / T         0.13 (1)         92%	rs4796224_A	G/G	-0.09 (-)	50%	1.13 × 10 <sup>-15</sup>
ra3735024_C         T/T         0.16 (-)         25%         1.82 x 10 <sup>-16</sup> rs12147246_G         6 / 6         -0.00 (4)         49%         1.98 x 10 <sup>-16</sup> rs1801133_A         6 / A         -0.10 (4)         31%         2.31 x 10 <sup>-16</sup> rs405343_G         6 / T         -0.10 (4)         77%         3.05 x 10 <sup>-16</sup> rs773162_G         A / A         0.09 (-)         71%         3.89 x 10 <sup>-16</sup> rs5839416_T         T / T         -0.12 (4)         85%         1.37 x 10 <sup>-14</sup> rs244656_A         A / A         0.11 (1)         76%         2.96 x 10 <sup>-14</sup> rs104907_G         O / G         -0.13 (4)         92%         2.99 x 10 <sup>-14</sup> rs656485_T         O / T         -0.08 (4)         66%         3.70 x 10 <sup>-14</sup> rs6772_G         T / C         0.14 (1)         77%         4.11 x 10 <sup>-14</sup> rs6742_C         T / C         0.14 (1)         77%         4.71 x 10 <sup>-14</sup> rs67724508_T         T / T         0.13 (1)         92%         6.07 x 10 <sup>-14</sup> rs83871_C         6 / G         -0.12 (1)         80%         8.56 x 10 <sup>-14</sup> rs8308424_A         6 / G         -0.09 (-)	rs72922276_G	G / G	0.15 (↑)	89%	1.41 × 10 <sup>-15</sup>
rs3156034_C         T/T         0.16 (-)         25%         1.82 x 10 <sup>-16</sup> rs12147246_G         0 / 6         -0.09 (4)         49%         1.98 x 10 <sup>-16</sup> rs1801133_A         0 / A         -0.10 (4)         31%         2.31 x 10 <sup>-16</sup> rs405343_G         0 / T         -0.10 (4)         77%         3.06 x 10 <sup>-16</sup> rs7731826_G         A / A         0.09 (-)         71%         3.89 x 10 <sup>-16</sup> rs68304161_T         T / T         -0.12 (4)         85%         1.37 x 10 <sup>-14</sup> rs6830461_T         T / T         -0.07 (4)         74%         2.75 x 10 <sup>-14</sup> rs244056_A         A / A         0.11 (1)         76%         2.96 x 10 <sup>-14</sup> rs1049079_C         O / G         -0.13 (4)         92%         2.99 x 10 <sup>-14</sup> rs654468_T         O / T         -0.08 (4)         66%         3.70 x 10 <sup>-14</sup> rs6742_C         T / C         0.14 (1)         77%         4.11 x 10 <sup>-14</sup> rs877788_A         A / A         0.07 (1)         4.4%         4.12 x 10 <sup>-14</sup> rs83871_C         0 / G         -0.12 (4)         80%         8.56 x 10 <sup>-14</sup> rs8308424_A         0 / G         -0.09 (-)	rs12722559_C	C/A	0.13 (1)	89%	1.76 × 10 <sup>-15</sup>
re12147246_6         6 / 6         -0.09 (↓)         49%         1,98 x 10^{-16}           re1801133_A         6 / A         -0.10 (↓)         31%         2,31 x 10^{-16}           re405343_G         6 / T         -0.40 (↓)         77%         3,05 x 10^{-16}           re57373626_G         A / A         0.09 (-)         71%         3,89 x 10^{-16}           re58394461_T         T / T         -0.12 (↓)         86%         1,37 x 10^{-14}           re9863496_T         T / T         -0.07 (↓)         74%         2,75 x 10^{-14}           re244656_A         A / A         0.11 (1)         76%         2,98 x 10^{-14}           re5049079_C         C / G         -0.13 (↓)         92%         2,99 x 10^{-14}           re5646881_T         C / T         -0.08 (↓)         66%         3,70 x 10^{-14}           re5737798_A         A / A         0.07 (1)         44%         4,12 x 10^{-14}           re838871_G         6 / G         -0.12 (↓)         80%         8,56 x 10^{-14}           re9308424_A         6 / G         -0.09 (-)         38%         9,25 x 10^{-14}           re5269434_T         T / C         -0.09 (↓)         57%         1,47 x 10^{-15}		Т/Т		25%	1.82 × 10 <sup>-15</sup>
rs/80/11/35_A         6 / A         -0.10 (¼)         31%         2.31 x 10 · 16           rs/40/5343_G         6 / T         -0.10 (¼)         77%         3.05 x 10 · 16           rs/77/3162_G         A / A         0.09 (-)         71%         3.89 x 10 · 16           rs/58/394161_T         T / T         -0.12 (¼)         85%         1.37 x 10 · 14           rs/98/3962_T         T / T         -0.07 (¼)         74%         2.75 x 10 · 14           rs/98/3962_T         T / T         -0.07 (¼)         76%         2.96 x 10 · 14           rs/10/49079_G         C / G         -0.13 (¼)         92%         2.99 x 10 · 14           rs/10/49079_G         C / G         -0.13 (¼)         92%         2.99 x 10 · 14           rs/10/49079_G         C / G         -0.13 (¼)         92%         2.99 x 10 · 14           rs/10/49079_G         C / G         -0.13 (¼)         92%         2.99 x 10 · 14           rs/10/49079_G         C / G         -0.13 (¼)         92%         2.99 x 10 · 14           rs/10/49079_G         C / G         -0.13 (¼)         92%         2.99 x 10 · 14           rs/10/4907_G         T / C         0.14 (1)         77%         4.11 x 10 · 14           rs/10/4907_G         T / C					
rs405343_G         6 / T         -0.10 (↓)         77%         3.05 x 10.16           rs7731626_G         A / A         0.09 (-)         71%         3.89 x 10.16           rs58394161_T         T / T         -0.12 (↓)         86%         1.37 x 10.14           rs9863496_T         T / T         -0.07 (↓)         74%         2.75 x 10.14           rs244656_A         A / A         0.11 (↑)         76%         2.96 x 10.14           rs1049079_C         C / G         -0.13 (↓)         92%         2.99 x 10.14           rs6664881_T         C / T         -0.08 (↓)         66%         3.70 x 10.14           rs6742_C         T / C         0.14 (↑)         77%         4.11 x 10.14           rs3737798_A         A / A         0.07 (↑)         44%         4.12 x 10.14           rs17724508_T         T / T         0.13 (↑)         92%         6.07 x 10.14           rs838871_G         G / G         -0.12 (↓)         80%         8.56 x 10.14           rs9308424_A         G / G         -0.09 (-)         38%         9.25 x 10.14           rs2269434_T         T / C         -0.09 (↓)         57%         1.47 x 10.18					
rs7731626_G       A / A       0.09 (-)       71%       3.89 x 10 <sup>-16</sup> rs683394161_T       T / T       -0.12 (4)       85%       1.37 x 10 <sup>-14</sup> rs9863496_T       T / T       -0.07 (4)       74%       2.76 x 10 <sup>-14</sup> rs244666_A       A / A       0.11 (1)       76%       2.96 x 10 <sup>-14</sup> rs1049079_C       C / G       -0.13 (4)       92%       2.99 x 10 <sup>-14</sup> rs6664881_T       C / T       -0.08 (4)       66%       3.70 x 10 <sup>-14</sup> rs6742_C       T / C       0.14 (1)       77%       4.11 x 10 <sup>-14</sup> rs3737798_A       A / A       0.07 (1)       44%       4.12 x 10 <sup>-14</sup> rs17724508_T       T / T       0.13 (1)       92%       6.07 x 10 <sup>-14</sup> rs883871_G       G / G       -0.12 (4)       80%       8.56 x 10 <sup>-14</sup> rs9308424_A       G / G       -0.09 (-)       38%       9.25 x 10 <sup>-14</sup> rs2269434_T       T / C       -0.09 (4)       57%       1.47 x 10 <sup>-15</sup>					
rs58394161_T       T/T       -0.12 (\$\psi\$)       85%       1.37 x 10^-14         rs9863496_T       T/T       -0.07 (\$\psi\$)       74%       2.76 x 10^-14         rs244656_A       A / A       0.11 (\$\psi\$)       76%       2.96 x 10^-14         rs1049079_C       C / G       -0.13 (\$\psi\$)       92%       2.99 x 10^-14         rs664681_T       C / T       -0.08 (\$\psi\$)       66%       3.70 x 10^-14         rs6742_C       T / C       0.14 (\$\psi\$)       77%       4.11 x 10^-14         rs3737798_A       A / A       0.07 (\$\psi\$)       44%       4.12 x 10^-14         rs17724508_T       T / T       0.13 (\$\psi\$)       92%       6.07 x 10^-14         rs83871_G       9 / G       -0.12 (\$\psi\$)       80%       8.56 x 10^-14         rs9308424_A       9 / G       -0.09 (-)       38%       9.25 x 10^-14         rs2269434_T       T / C       -0.09 (\$\psi\$)       57%       1.47 x 10^-15					
rs9863496_T					
rs244656_A A / A 0.11 (↑) 76% 2.96 x 10 <sup>-14</sup> rs1049079_C C / G -0.13 (↓) 92% 2.99 x 10 <sup>-14</sup> rs6564681_T c / T -0.08 (↓) 66% 3.70 x 10 <sup>-14</sup> rs6742_C T / C 0.14 (↑) 77% 4.11 x 10 <sup>-14</sup> rs3737798_A A / A 0.07 (↑) 44% 4.12 x 10 <sup>-14</sup> rs17724508_T T / T 0.13 (↑) 92% 6.07 x 10 <sup>-14</sup> rs883871_G G / G -0.12 (↓) 80% 8.56 x 10 <sup>-14</sup> rs9308424_A 6 / G -0.09 (→) 38% 9.25 x 10 <sup>-14</sup> rs2269434_T					
rs1049079_C C C 6 -0.13 (↓) 92% 2.99 x 10 ·14 rs6564681_T C C /T -0.08 (↓) 66% 3.70 x 10 ·14 rs6742_C T /C 0.14 (↑) 77% 4.11 x 10 ·14 rs7373798_A A /A 0.07 (↑) 44% 4.12 x 10 ·14 rs7724508_T T /T 0.13 (↑) 92% 6.07 x 10 ·14 rs883871_G 6 /6 -0.12 (↓) 80% 8.56 x 10 ·14 rs2869434_T T/C 1.09 (↓) 57% 1.47 x 10 ·15 rs2869434_T T/C -0.09 (↓) 57% 1.47 x 10 ·15 rs2869434_T 1.47 x 10 ·15 rs	rs9863496_T		-0.07 (↓)	74%	
rs6564681_T         C / T         -0.08 (↓)         66%         3.70 x 10 · 14           rs6742_C         T / C         0.14 (↑)         77%         4.11 x 10 · 14           rs3737788_A         A / A         0.07 (↑)         44%         4.12 x 10 · 14           rs17724508_T         T / T         0.13 (↑)         92%         6.07 x 10 · 14           rs83871_G         6 / 6         -0.12 (↓)         80%         8.56 x 10 · 14           rs9308424_A         6 / 6         -0.09 (-)         38%         9.25 x 10 · 14           rs2269434_T         T / C         -0.09 (↓)         57%         1.47 x 10 · 15	rs244656_A	A / A	0.11 (1)	76%	
rs6742_C T/C 0.14 (↑) 77% 4.11 x 10-14 rs3737798_A A/A 0.07 (↑) 44% 4.12 x 10-14 rs17724508_T T/T 0.13 (↑) 92% 6.07 x 10-14 rs883871_G 6/6 -0.12 (↓) 80% 8.56 x 10-14 rs9308424_A 6/6 -0.09 (−) 38% 9.25 x 10-14 rs2269434_T T/C -0.09 (↓) 57% 1.47 x 10-15	rs1049079_C	C / G	-0.13 (↓)	92%	2.99 x 10 <sup>-14</sup>
rs3737798_A     A / A     0.07 (↑)     44%     4.12 x 10 <sup>-14</sup> rs17724508_T     T / T     0.13 (↑)     92%     6.07 x 10 <sup>-14</sup> rs883871_G     G / G     -0.12 (↓)     80%     8.56 x 10 <sup>-14</sup> rs9308424_A     G / G     -0.09 (-)     38%     9.25 x 10 <sup>-14</sup> rs2269434_T     T / C     -0.09 (↓)     57%     1.47 x 10 <sup>-15</sup>	rs6564681_T	C/T	-0.08 (↓)	66%	3.70 x 10 <sup>-14</sup>
rs17724508_T     T / T     0.13 (1)     92%     6.07 x 10 <sup>-14</sup> rs83871_G     G / G     -0.12 (↓)     80%     8.56 x 10 <sup>-14</sup> rs9308424_A     G / G     -0.09 (-)     38%     9.25 x 10 <sup>-14</sup> rs2269434_T     T / C     -0.09 (↓)     57%     1.47 x 10 <sup>-15</sup>	rs6742_C	T/C	0.14 (1)	77%	4.11 × 10 <sup>-14</sup>
rs17724508_T     T / T     0.13 (↑)     92%     6.07 x 10 <sup>-14</sup> rs83871_G     G / G     -0.12 (↓)     80%     8.56 x 10 <sup>-14</sup> rs9308424_A     G / G     -0.09 (−)     38%     9.25 x 10 <sup>-14</sup> rs2269434_T     T / C     -0.09 (↓)     57%     1.47 x 10 <sup>-15</sup>	rs3737798_A	A / A	0.07 (↑)	44%	4.12 × 10 <sup>-14</sup>
rs883871_G	rs17724508_T			92%	6.07 × 10 <sup>-14</sup>
rs9308424_A 6 / 6 -0.09 (-) 38% 9.25 x 10 <sup>-14</sup> rs2269434_T T / C -0.09 (↓) 57% 1.47 x 10 <sup>-13</sup>					
rs2269434_T T / C -0.09 (↓) 57% 1.47 x 10 <sup>-15</sup>					
rs719316_T C / T 0.07 (1) 50% 1.62 x 10 <sup>-13</sup>		C/T	-0.09 (↓) 0.07 (↑)	50%	1.47 × 10 <sup>-12</sup>

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Section   1	rs2084007_C	C/T	0.08 (1)	55%	1.91 × 10 <sup>-13</sup>
Mathematical   Math	rs6738544_C	A / C	0.07 (↑)	62%	2.40 × 10 <sup>-13</sup>
1995    1995	rs7975763_C	C/C	-0.08 (↓)	78%	2.99 x 10 <sup>-13</sup>
March   Marc	rs34695601_T	T/T	0.08 (↑)	83%	5.56 x 10 <sup>-13</sup>
Control   Cont				66%	5.66 × 10 <sup>-13</sup>
Marche   M					
MARCESTRA   A   C					
MARCHARD   A   A   A   A   A   A   A   A   A					
Personal					
Page					
	rs4262739_A				
Personant	rs2289746_C	T/C	0.08 (1)	63%	
March   Marc	rs17780048_C	C/C	0.10 (↑)	96%	5.15 x 10 <sup>-12</sup>
Martine   Mart	rs12614091_A	A / A	0.07 (1)	75%	6.18 x 10 <sup>-12</sup>
1000000000000000000000000000000000000	rs766848979_A	NA	-0.17 (-)	< 1%	6.35 x 10 <sup>-12</sup>
PERSONAL   TO   COST   COST	rs4409785_T	T/T	-0.08 (↓)	87%	6.87 x 10 <sup>-12</sup>
	rs57116599_A	G / A	-0.09 (↓)	24%	1.11 × 10 <sup>-11</sup>
Marie   Mari	rs11231749_C	T/C	0.07 (↑)	23%	1.12 × 10 <sup>-11</sup>
1000000000000000000000000000000000000	rs2705616_G	C / G	-0.07 (↓)	40%	1.15 x 10 <sup>-11</sup>
	rs10245867_G	G/T	-0.07 (↓)	62%	1.22 × 10 <sup>-11</sup>
NORMONDOL T					1.34 × 10 <sup>-11</sup>
Marche   M					
1					
100   100					
INTERMENT O T / C O O O O O O O O O O O O O O O O O O					
1.00					
183184004_T					
1-10065054_6 A A A A -0.09 [-] Shi A 4.68 × 10.78	rs2726479_T		-0.07 (-)	49%	
10   10   10   10   10   10   10   10	rs3184504_T	T/C	0.06 (1)	33%	
Part	rs9955954_G	A / A	-0.09 (-)	24%	
TYT	rs760517_C	C/C	0.07 (1)	59%	5.22 x 10 <sup>-11</sup>
MARCON   M	rs5756405_A	A / G	0.06 (1)	56%	5.35 x 10 <sup>-11</sup>
1	rs1399180_T	T/T	-0.10 (↓)	25%	7.16 x 10 <sup>-11</sup>
ret/40038H_G         NA         -0.20 (-)         2%         8.98 × 10 °°           re/80828L_T         T/T         0.07 (t)         07%         1.23 × 10 °°           re/8018L_A         A /A         0.01 (1)         0.0%         1.31 × 10 °°           re/7076R37L_C         0 /O         -0.08 (3)         77%         1.41 × 10 °°           re/7076R37L_C         0 /O         -0.08 (3)         77%         1.41 × 10 °°           re/7076R37L_C         0 /O         -0.00 (1)         80%         2.62 × 10 °°           re/7076R37L_C         0 /O         -0.00 (4)         80%         2.62 × 10 °°           re/7076R37L_C         1 /T         -0.08 (3)         75%         3.33 × 10 °°           re/7076R37L_C         7 /O         -0.08 (3)         67%         3.33 × 10 °°           re/7076R37L_C         7 /O         -0.08 (3)         65%         3.58 × 10 °°           re/7076R37L_C         7 /O         -0.08 (3)         65%         3.58 × 10 °°           re/7076R37L_C         7 /O         -0.08 (3)         65%         3.58 × 10 °°           re/7076R37L_C         7 /O         -0.08 (3)         65%         4.33 × 10 °°           re/7076R37L_C         0 /O         -0.06 (1)         -0.0	rs9277626_G	A / G	-0.09 (↓)	30%	7.16 x 10 <sup>-11</sup>
m7686891_T         T / T         0.07 (1)         074         128 x 10 ° 0           ns8001131_A         A / A         -0.01 (1)         00%         1.33 x 10 ° 0           ns700582_C         0 / C         -0.08 (4)         77%         1.41 x 10 ° 0           ns7222400_A         0 / A         0.06 (1)         43%         2.00 x 10 ° 0           ns222403_A         0 / G         -0.01 (1)         80%         2.82 x 10 ° 0           ns222400_A         0 / G         -0.08 (4)         87%         3.05 x 10 ° 0           ns222400_A         0 / C         -0.08 (4)         87%         3.05 x 10 ° 0           ns222200_C         NA         0.06 (-)         45%         3.49 x 10 ° 0           ns222200_C         NA         0.06 (-)         45%         3.49 x 10 ° 0           ns1019150_T         T / C         0.08 (4)         87%         3.49 x 10 ° 0           ns10223_T         0 / C         0.08 (1)         82%         3.90 x 10 ° 0           ns1110580_T         1 / C         0.06 (1)         9.90%         4.43 x 10 ° 0           ns1110580_T         0 / C         0.06 (1)         9.90%         4.43 x 10 ° 0           ns1110580_T         0 / C         0.06 (1)         9.90%	rs10230723_A	A / A	0.08 (1)	85%	7.69 x 10 <sup>-11</sup>
REGINIST_A	rs17493811_G	NA	-0.20 (-)	2%	8.98 x 10 <sup>-11</sup>
rest7061521_0         0_7C         .0.08 (4)         77%         .141 x 10^10           rs7222460_A         6_7A         0.06 (1)         43%         2.09 x 10^10           rs2828458_G         6_76         -0.00 (4)         89%         2.02 x 10^10           re1008164_T         7_7T         -0.08 (4)         75%         3.06 x 10^10           rs282844_T         7_7C         -0.08 (4)         87%         3.15 x 10^10           rs282822A         C_7C         0.09 (-)         20%         3.19 x 10^10           rs222002_C         MA         0.06 (-)         4%         3.65 x 10^10           rs4040730_A         6_7C         0.08 (1)         66%         3.65 x 10^10           rs4040730_A         6_7C         0.06 (-)         62%         3.00 x 10^10           rs4040730_A         6_7C         0.07 (-)         60%         3.65 x 10^10           rs4040730_A         6_7C         0.07 (-)         60%         4.55 x 10^10           rs4040730_A         6_7C         0.07 (-)         60%         6.65 x 10^10           rs4040730_A         0_7C         0.07 (-)         60%         6.65 x 10^10           rs4040730_A         0_7C         0.07 (-)         60%         6.65 x 10^10 <td>rs7855251_T</td> <td>T/T</td> <td>0.07 (1)</td> <td>67%</td> <td>1.23 x 10<sup>-10</sup></td>	rs7855251_T	T/T	0.07 (1)	67%	1.23 x 10 <sup>-10</sup>
rest/Doilitist_1.0         0,00         .0.08 (4)         .77%         1.41 x 10 ***           res/Ze2450_A         0,7A         0.08 (1)         43%         2.09 x 10 ***           res/Ze2450_A         0,7A         0.00 (4)         89%         2.62 x 10 ***           res/Ze2450_A         0,7A         0.00 (4)         75%         3.05 x 10 ***           res/Ze2450_A         7,7C         0.08 (4)         87%         3.55 x 10 ***           res/Ze240_A         0,7C         0.00 (-)         20         3.00 x 10 ***           res/Ze200_C         NA         0.06 (-)         4%         3.65 x 10 ***           res/Ze200_C         NA         0.06 (-)         66%         3.65 x 10 ***           res/Ze200_C         NA         0.06 (-)         62%         3.65 x 10 ***           res/Ze200_C         NA         0.06 (-)         62%         3.65 x 10 ***           res/Ze200_C         NA         0.06 (-)         62%         3.65 x 10 ***           res/Ze200_C         O,7         0.06 (-)         62%         3.65 x 10 ***           res/Ze200_C         O,7         0.07 (-)         69%         6.45 x 10 ***           res/Ze200_C         O,7         0.07 (-)         69%         6.6	rs6911131_A	A / A	-0.11 (↓)	90%	1.31 × 10 <sup>-10</sup>
re7222660,A         6 / A         0.08 (f)         43%         2.00 × 10 * 10           re2828438_6         0 / 9         -0.10 (4)         89%         2.00 × 10 * 10           re10661164_T         T / T         -0.08 (4)         75%         3.05 × 10 * 10           re2828447_T         T / C         -0.08 (4)         87%         3.13 × 10 * 10           re384928_A         0 / C         0.09 (-)         20%         3.18 × 10 * 10           re20200_C         NA         0.16 (-)         4%         3.66 × 10 * 10           re10191800_T         T / C         0.08 (1)         66%         3.85 × 10 * 10           re10283217_C         0 / C         0.06 (-)         66%         3.00 × 10 * 10           re102833_T         0 / C         0.05 (1)         > 99%         4.13 × 10 * 10           re10283_T         0 / C         0.07 (-)         60%         6.34 × 10 * 10           re10283_T         0 / C         0.02 (1)         91%         6.34 × 10 * 10           re10280_A         A / G         0.00 (1)         82%         6.90 × 10 * 10           re10380_A         A / G         0.06 (1)         70%         7.90 × 10 * 10           re3540_A         0 / A         0.06 (1)         70% <td></td> <td></td> <td></td> <td>77%</td> <td>1.41 × 10<sup>-10</sup></td>				77%	1.41 × 10 <sup>-10</sup>
massacase         6 / 6         -0.10 (4)         88%         2.62 × 10 **0           rs10661164_T         T / T         -0.08 (4)         76%         3.05 × 10 **0           rs288644T_T         T / C         -0.08 (4)         87%         3.15 × 10 **0           rs288644T_T         T / C         -0.08 (4)         87%         3.15 × 10 **0           rs282622_A         C / C         -0.00 (-)         20%         3.45 × 10 **0           rs262020_C         NA         -0.16 (-)         4%         3.65 × 10 **0           rs10101350_T         T / C         -0.08 (1)         66%         3.65 × 10 **0           rs4040730_A         6 / 6         -0.06 (-)         52%         3.30 × 10 **0           rs4040730_A         6 / 6         -0.06 (-)         52%         3.50 × 10 **0           rs101830_T         C / C         -0.06 (-)         -0.52%         4.63 × 10 **0           rs1283217_C         C / C         -0.07 (-)         -0.0%         6.54 × 10 **0           rs284424_C         C / C         -0.02 (1)         -0.02 (1)         -0.02 (1)         -0.02 (1)           rs3540420_C         C / T         -0.02 (1)         -0.03 (1)         -0.03 (1)         -0.03 (1)         -0.03 (1)					
re1086H84_T         T / T         -0.08 (4)         76%         3.06 x 10 <sup>10</sup> re268647_T         T / C         -0.08 (4)         87%         3.15 x 10 <sup>10</sup> re3819282_A         C / C         0.09 (-)         20%         3.19 x 10 <sup>10</sup> re3222092_C         NA         0.46 (-)         4%         3.45 x 10 <sup>10</sup> re3109380_T         T / C         0.08 (f)         66%         3.85 x 10 <sup>10</sup> re440730_A         6 / 8         0.06 (-)         62%         3.50 x 10 <sup>10</sup> re12832171_C         C / C         0.06 (f)         >90%         4.45 x 10 <sup>10</sup> re1284241_C         C / C         0.07 (-)         66%         5.46 x 10 <sup>10</sup> re3744241_C         C / C         0.02 (f)         91%         6.34 x 10 <sup>10</sup> re374424_C         C / C         0.02 (f)         91%         6.34 x 10 <sup>10</sup> re374424_C         C / C         0.02 (f)         91%         6.70 x 10 <sup>10</sup> re3194980_A         A / B         0.08 (f)         37%         7.79 x 10 <sup>10</sup> re33460_A         A / B         0.08 (f)         76%         1.08 x 10 <sup>10</sup> re3560_A         A / A         0.00 (4)         77%<					
m288842T T         T / C         -0.08 (4)         87%         3.15 x 10 10           m3819202_A         C / C         0.09 (-)         20%         3.19 x 10 10           m32819202_C         NA         0.16 (-)         4%         3.46 x 10 10           rs10191800_T         T / C         0.08 (1)         66%         3.86 x 10 10           rs440730_A         6 / G         0.06 (-)         62%         3.90 x 10 10           rs1118803_T         6 / C         0.06 (-)         62%         3.90 x 10 10           rs1118803_T         7 / C         0.06 (-)         62%         3.90 x 10 10           rs1118803_T         6 / C         0.07 (-)         60%         6.48 x 10 10           rs1118803_T         7 / C         0.07 (-)         60%         6.48 x 10 10           rs1118803_T         0 / C         0.02 (1)         91%         6.54 x 10 10           rs1118803_T         0 / C         0.09 (1)         82%         6.54 x 10 10           rs111919880_A         A / G         0.09 (1)         82%         6.00 x 10 10           rs111919880_A         A / G         0.00 (1)         70%         7.70 x 10 10           rs111919880_A         A / G         0.00 (1)         82% <th< td=""><td></td><td></td><td></td><td></td><td></td></th<>					
re389262_A         O / C         0.09 (-)         20%         3.19 x 10 10           re3222002_C         NA         0.16 (-)         4%         3.45 x 10 10           re310191360_T         T / C         0.08 (1)         66%         3.86 x 10 10           re4040730_A         0 / G         0.06 (-)         62%         3.50 x 10 10           re412832171_C         0 / C         0.16 (1)         > 99%         4.13 x 10 10           re512832171_C         0 / C         0.07 (-)         60%         6.45 x 10 10           re512832171_C         0 / C         0.07 (-)         60%         6.45 x 10 10           re512832171_C         0 / C         0.02 (1)         91%         6.34 x 10 10           re512832171_C         0 / A         0.09 (1)         82%         6.90 x 10 10           re51414105_C         0 / A         0.09 (1)         82%         6.90 x 10 10           re51414105_C         0 / A         0.09 (1)         82%         6.90 x 10 10           re51414105_C         0 / A         0.00 (1)         37%         7.79 x 10 10           re5141405_C         0 / A         0.00 (1)         37%         7.79 x 10 10           re514405_C         0 / A         0.00 (1)         80%					
rs2229082_C         NA         0.16 (-)         4%         3.46 x 10 10           rs10191380_T         T/C         0.08 (1)         60%         3.56 x 10 10           rs4940730_A         6 / 6         0.06 (-)         52%         3.90 x 10 10           rs12832171_C         C/C         0.16 (1)         > 99%         4.13 x 10 10           rs7344214_C         C/C         -0.07 (-)         69%         6.45 x 10 10           rs17341410_C         C/A         0.09 (1)         82%         6.90 x 10 10           rs1434140_C         C/A         0.09 (1)         82%         6.90 x 10 10           rs1434140_C         C/A         0.09 (1)         82%         6.90 x 10 10           rs1434140_C         C/A         0.09 (1)         82%         6.90 x 10 10           rs1434140_C         C/A         0.09 (1)         37%         7.79 x 10 10           rs1434140_C         C/A         0.06 (1)         37%         7.79 x 10 10           rs1434140_C         C/T         0.07 (1)         37%         7.79 x 10 10           rs1434140_C         C/T         0.06 (1)         7.0%         1.08 x 10 10           rs24340_C         C/T         0.06 (1)         7.0%         1.08 x 10 10					
restolation         T / C         0.08 (1)         66%         3.66 × 10 ° 0           res4040730_A         6 / 6         0.06 (-)         62%         3.00 × 10 ° 0           rest26832171_C         C / C         0.06 (1)         > 99%         4.43 × 10 ° 0           res172683217         C / C         0.07 (-)         69%         6.45 × 10 ° 0           res7344424_C         C / C         0.42 (1)         91%         6.34 × 10 ° 0           res17344410_C         C / A         0.09 (1)         82%         6.90 × 10 ° 0           res1734410_C         C / A         0.09 (1)         82%         6.90 × 10 ° 0           res17344110_C         C / A         0.09 (1)         82%         6.90 × 10 ° 0           res17410_C         C / A         0.09 (1)         82%         6.90 × 10 ° 0           res174110_C         C / A         0.00 (1)         66%         7.63 × 10 ° 0           res174110_C         C / T         0.07 (1)         37%         7.79 × 10 ° 0           res28023_C         C / T         0.06 (1)         76%         1.08 × 10 ° 0           res28023_C         T / T         0.06 (1)         77%         1.13 × 10 ° 0           res2806_A         A / A         0.09 (1)					
re4940730_A         6 / 6         .0.06 (-)         62%         3.90 x 10^-0           re42632171_C         C / C         .0.16 (r)         > 99%         .4.13 x 10^-0           re71426803_T         C / C         .0.07 (-)         .60%         .6.45 x 10^-0           re7344421_C         C / C         .0.2 (r)         .91%         .6.34 x 10^-0           re1344106_C         C / A         .0.09 (r)         .82%         .6.90 x 10^-0           re1141880_A         A / G         .0.06 (r)         .66%         .7.63 x 10^-0           re134183080_C         C / T         .0.07 (r)         .37%         .7.79 x 10^-0           re354303_G         G / A         .0.08 (r)         .76%         .7.99 x 10^-0           re802730_T         T / T         .0.06 (r)         .89%         .1.13 x 10^-0           re56096240_T         T / T         .0.01 (4)         .89%         .1.13 x 10^-0           re6726063_G         A / A         .0.09 (4)         .77%         .1.19 x 10^-0           re6726048_A         A / C         .0.07 (-)         .60%         .1.21 x 10^-0           re6726048_A         A / C         .0.00 (r)         .20%         .1.43 x 10^-0           re6726048_A         A / T         .0.00 (					
rs1283217_C C C C 0.15 (1) > 99% 4.15 x 10 *10					
re11126803_T         C / C         -0.07 (-)         60%         6.45 x 10 x 10           rs73414214_C         C / C         0.12 (1)         91%         6.34 x 10 x 10           rs13414106_C         C / A         0.09 (1)         82%         6.90 x 10 x 10           rs141919880_A         A / G         0.06 (1)         66%         7.63 x 10 x 10           rs1316820_C         C / T         0.07 (1)         37%         7.79 x 10 x 10           rs802730_T         T / T         0.06 (1)         76%         1.08 x 10 x 10           rs802730_T         T / T         -0.00 (4)         89%         1.13 x 10 x 10 x 10           rs80269240_T         T / T         -0.00 (4)         77%         1.19 x 10 x 10 x 10 x 10 x 10           rs6278663_G         A / A         -0.00 (4)         75%         1.21 x 10 x					
rs73414214_C         C / C         0.12 (f)         91%         6.34 x 10-10           rs73414214_C         C / C         0.12 (f)         91%         6.34 x 10-10           rs13414106_C         C / A         0.09 (f)         82%         6.90 x 10-10           rs119880_A         A / B         0.06 (f)         66%         7.63 x 10-10           rs13136820_C         C / T         0.07 (f)         37%         7.79 x 10-10           rs354033_G         9 / A         0.08 (f)         76%         7.99 x 10-10           rs802730_T         T / T         0.06 (f)         76%         1.08 x 10-9           rs66095240_T         T / T         -0.10 (4)         89%         1.13 x 10-9           rs651012_C         T / T         -0.07 (-)         60%         1.21 x 10-9           rs6789653_G         A / A         0.06 (-)         75%         1.30 x 10-9           rs6427540_C         O, C         0.01 (1)         82%         1.48 x 10-9           rs66272420_T         A / T         -0.06 (4)         56%         1.48 x 10-9	rs12832171_C			> 99%	
rs13414105_C         C / A         0.09 (1)         82%         6.90 x 10 <sup>-10</sup> rs11919880_A         A / 6         0.06 (1)         66%         7.63 x 10 <sup>-10</sup> rs13136820_C         C / T         0.07 (1)         37%         7.79 x 10 <sup>-10</sup> rs354033_G         6 / A         0.08 (1)         76%         7.99 x 10 <sup>-10</sup> rs802730_T         T / T         0.06 (1)         76%         1.08 x 10 <sup>-9</sup> rs56096240_T         T / T         -0.10 (4)         89%         1.13 x 10 <sup>-9</sup> rs1862059_A         A / A         -0.09 (4)         77%         1.19 x 10 <sup>-9</sup> rs631612_C         T / T         -0.07 (-)         50%         1.21 x 10 <sup>-9</sup> rs6789653_G         A / A         0.06 (-)         75%         1.30 x 10 <sup>-9</sup> rs6427640_C         C / C         0.10 (1)         82%         1.48 x 10 <sup>-9</sup> rs66272420_T         A / T         -0.06 (4)         55%         1.48 x 10 <sup>-9</sup>	rs11125803_T	C/C	-0.07 (-)	69%	
rs11919880_A	rs73414214_C	C/C	0.12 (1)	91%	6.34 x 10 <sup>-10</sup>
rsf3136820_C         C / T         0.07 (↑)         37%         7.79 x 10 -10           rs354033_G         G / A         0.08 (↑)         76%         7.99 x 10 -10           rs802730_T         T / T         0.06 (↑)         76%         1.08 x 10 -8           rs66096240_T         T / T         -0.10 (↓)         89%         1.13 x 10 -9           rs631612_C         T / T         -0.09 (↓)         77%         1.19 x 10 -9           rs6789653_G         A / A         0.06 (-)         56%         1.30 x 10 -9           rs6427640_C         C / C         0.07 (↓)         61%         1.43 x 10 -9           rs66272420_T         A / T         -0.06 (↓)         56%         1.48 x 10 -9	rs13414105_C	C / A	0.09 (1)	82%	6,90 x 10 <sup>-10</sup>
rs354033_G         6 / A         0.08 (↑)         76%         7.99 x 10 <sup>10</sup> rs802730_T         T / T         0.06 (↑)         76%         1.08 x 10 <sup>-9</sup> rs56096240_T         T / T         -0.10 (↓)         89%         1.13 x 10 <sup>-9</sup> rs11852059_A         A / A         -0.09 (↓)         77%         1.19 x 10 <sup>-9</sup> rs531612_C         T / T         -0.07 (-)         50%         1.21 x 10 <sup>-9</sup> rs6789653_G         A / A         0.06 (-)         75%         1.30 x 10 <sup>-9</sup> rs7260482_A         A / C         -0.07 (↓)         61%         1.43 x 10 <sup>-9</sup> rs6427540_C         C / C         0.10 (↑)         82%         1.48 x 10 <sup>-9</sup> rs6672420_T         A / T         -0.06 (↓)         55%         1.48 x 10 <sup>-9</sup>	rs11919880_A	A / G	0.06 (1)	66%	7.63 x 10 <sup>-10</sup>
rs802730_T       T / T       0.06 (1)       76%       1.08 × 10 · 9         rs66096240_T       T / T       -0.00 (1)       89%       1.13 × 10 · 9         rs11862069_A       A / A       -0.09 (1)       77%       1.19 × 10 · 9         rs67361612_C       T / T       -0.07 (-)       50%       1.21 × 10 · 9         rs6789663_G       A / A       0.06 (-)       75%       1.30 × 10 · 9         rs7260482_A       A / C       -0.07 (1)       61%       1.43 × 10 · 9         rs6672420_T       A / T       -0.06 (1)       56%       1.48 × 10 · 9	rs13136820_C	C / T	0.07 (↑)	37%	7.79 x 10 <sup>-10</sup>
rs66096240_T         T / T         -0.10 (↓)         89%         1.13 x 10 -9           rs11862069_A         A / A         -0.09 (↓)         77%         1.19 x 10 -9           rs631612_C         T / T         -0.07 (-)         50%         1.21 x 10 -9           rs6789653_G         A / A         0.06 (-)         75%         1.30 x 10 -9           rs7260482_A         A / C         -0.07 (↓)         61%         1.43 x 10 -9           rs6427540_C         C / C         0.10 (†)         82%         1.48 x 10 -9           rs6672420_T         A / T         -0.06 (↓)         55%         1.48 x 10 -9	rs354033_G	G/A	0.08 (1)	76%	7.99 x 10 <sup>-10</sup>
rs11852059_A     A / A     -0.09 (↓)     77%     1.19 x 10 <sup>-9</sup> rs631612_C     T / T     -0.07 (-)     50%     1.21 x 10 <sup>-9</sup> rs6789653_G     A / A     0.06 (-)     75%     1.30 x 10 <sup>-9</sup> rs7260482_A     A / C     -0.07 (↓)     61%     1.43 x 10 <sup>-9</sup> rs6427540_C     C / C     0.10 (↑)     82%     1.48 x 10 <sup>-9</sup> rs6672420_T     A / T     -0.06 (↓)     55%     1.48 x 10 <sup>-9</sup>	rs802730_T	T/T	0.06 (1)	76%	1.08 x 10 <sup>-9</sup>
ref1852059_A       A / A       -0.09 (↓)       77%       1.19 x 10 <sup>-9</sup> rs531612_C       T / T       -0.07 (−)       50%       1.21 x 10 <sup>-9</sup> rs6789653_G       A / A       0.06 (−)       75%       1.30 x 10 <sup>-9</sup> rs7280482_A       A / C       -0.07 (↓)       61%       1.43 x 10 <sup>-9</sup> rs6427540_C       C / C       0.10 (↑)       82%       1.48 x 10 <sup>-9</sup> rs6672420_T       A / T       -0.06 (↓)       56%       1.48 x 10 <sup>-9</sup>	rs56095240_T	Т/Т	-0.10 (↓)	89%	1.13 × 10 <sup>-9</sup>
rs631612_C T / T -0.07 (-) 50% 1.21 x 10-9 rs6789653_G A / A 0.06 (-) 75% 1.30 x 10-9 rs7260482_A A / C -0.07 (↓) 61% 1.43 x 10-9 rs6427540_C C / C 0.10 (↑) 82% 1.48 x 10-9 rs6672420_T A / T -0.06 (↓) 55% 1.48 x 10-9	rs11852059_A			77%	1.19 × 10 <sup>-9</sup>
rs6789653_6 A / A 0.06 (−) 75% 1.30 x 10 -9 rs7260482_A A / C -0.07 (↓) 61% 1.43 x 10 -9 rs6427640_C C / C 0.10 (↑) 82% 1.48 x 10 -9 rs6672420_T A / T -0.06 (↓) 55% 1.48 x 10 -9					
rs7260482_A A / C -0.07 (↓) 61% 1.43 x 10 · 9 rs6427540_C C / C 0.10 (↑) 82% 1.48 x 10 · 9 rs6672420_T A / T -0.06 (↓) 55% 1.48 x 10 · 9					
rs6427540_C C/C 0.10 (1) 82% 1.48 x 10 <sup>-9</sup> rs6672420_T A/T -0.06 (↓) 55% 1.48 x 10 <sup>-9</sup>					
rs6672420_T A / T -0.06 (↓) 55% 1.48 x 10 <sup>-9</sup>					
- '					
rs9808763_G A / A 0.08 (-) 18% 1.60 × 10 <sup>-9</sup>					1.48 × 10 <sup>-9</sup> 1.60 × 10 <sup>-9</sup>

rs12588969_C	C/C	-0.07 (↓)	72%	1.82 x 10 <sup>-9</sup>
rs4325907_T	T/T	-0.07 (↓)	64%	1.99 x 10 <sup>-9</sup>
rs11161550_A	G / A	-0.06 (↓)	43%	2.06 x 10 <sup>-9</sup>
rs11083862_A	A/T	0.07 (1)	53%	2.44 x 10 <sup>-9</sup>
rs6072343_G	G / G	-0.08 (↓)	50%	2.69 x 10 <sup>-9</sup>
rs10271373_C	A / A	-0.06 (-)	42%	3.11 × 10 <sup>-9</sup>
rs4728142_G	G / A	-0.06 (↓)	62%	3.37 x 10 <sup>-9</sup>
rs2286974_G	A / A	-0.10 (-)	50%	4.09 × 10 <sup>-9</sup>
rs8062446_T	C/T	0.08 (1)	39%	4.30 × 10 <sup>-9</sup>
rs2590438_T	T / G	-0.07 (↓)	99%	4.65 × 10 <sup>-9</sup>
rs9568402_A	A / A	-0.09 (↓)	85%	4.80 × 10 <sup>-9</sup>
rs12609500_C	C/C	0.06 (1)	82%	5.27 × 10 <sup>-9</sup>
rs72989863_G	G / G	0.06 (1)	72%	5.55 × 10 <sup>-9</sup>
rs12971909_G	G / G	-0.07 (↓)	61%	5.56 x 10 <sup>-9</sup>
rs4812772_C	T/C	0.07 (1)	69%	6.17 × 10 <sup>-9</sup>
rs61884005_C	C/C	0.09 (1)	84%	6.34 × 10 <sup>-9</sup>
rs962052_C	C/T	0.06 (1)	32%	8.28 x 10 <sup>-9</sup>
rs137955_T	T/T	0.06 (1)	34%	9.63 x 10 <sup>-9</sup>
rs4820955_A	T / A	0.06 (1)	46%	1.06 x 10 <sup>-8</sup>
rs35218683_C	C/T	-0.08 (↓)	72%	1.36 x 10 <sup>-8</sup>
rs13066789_C	T/T	0.06 (-)	49%	1.50 × 10 <sup>-8</sup>
rs11899404_T	T/T	-0.05 (↓)	50%	1.66 x 10 <sup>-8</sup>
rs3923387_T	C/C	0.06 (-)	31%	1.76 × 10 <sup>-8</sup>
rs61708525_G	A / A	0.07 (-)	30%	1.80 x 10 <sup>-8</sup>
rs12211604_A	A / A	-0.06 (↓)	48%	2.15 x 10 <sup>-8</sup>
rs11578655_T	T/T	-0.08 (↓)	89%	2.89 x 10 <sup>-8</sup>
rs2469434_T	T/C	-0.05 (↓)	58%	2.92 x 10 <sup>-8</sup>
rs55858457_G	G / G	-0.06 (↓)	59%	2.95 x 10 <sup>-8</sup>
rs32658_G	G / T	-0.06 (↓)	63%	3.24 × 10 <sup>-8</sup>
rs1415069_C	G / G	-0.07 (-)	80%	3.32 × 10 <sup>-8</sup>
rs1365120_T	C/T	-0.09 (↓)	74%	4.06 x 10 <sup>-8</sup>
rs17741873_G	G / G	0.07 (1)	82%	4.69 x 10 <sup>-8</sup>
rs9900529_C	G / G	0.06 (-)	39%	4.76 x 10 <sup>-8</sup>
rs3093982_T	NA	0.10 (-)	< 1%	4.95 x 10 <sup>-8</sup>
rs10936182_T	NA	0.09 (-)	< 1%	4.99 x 10 <sup>-8</sup>

N/A indicates variants that could not be imputed using the 1000 genomes project datasets and variants that have a frequency of < 5%. Your genome was sequenced at 30x/100x coverage and is not imputed. However, to calculate percentiles, we need to compare your data with other users imputed data. To make the data comparable, we need to exclude some of the variants from your data.