**Supplemental Tables**

**Table S1. Type I error evaluation for CHP method.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Independent variants, no missing data | Variants in perfect LD, one parental genotype missing | 1% meiotic recombination rate in the gene region |
| Type I error |  |  |  |

**Table S2. Power comparisons between two-point (single marker) linkage, multipoint linkage and CHP method, under compound recessive model for gene *GJB2*, for 20 families with different locus heterogeneity rates (see Methods of the main text).**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 0% | 20% | 40% | 60% | 80% | 100% |
| SNV | 0.0 | 0.0 | 0.02 | 0.142 | 0.418 | 0.728 |
| MP | 0.0 | 0.176 | 0.59 | 0.736 | 0.75 | 0.75 |
| CHP | 0.0 | 0.62 | 0.976 | 0.988 | 1.0 | 1.0 |

**Table S3. List of variants from Exome Variant Server for simulation of pedigrees for linkage study of non-syndromic hearing impairment.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gene | Chromosome | Position | MAF in European American | HI-causality in DVD and ClinVar |
| *SLC26A4* | 7 | 107302101 | 0.000128 | non-causal |
| *SLC26A4* | 7 | 107302103 | 0.000127 | non-causal |
| *SLC26A4* | 7 | 107302214 | 0.000364 | non-causal |
| *SLC26A4* | 7 | 107303757 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107303787 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107303801 | 0.000349 | non-causal |
| *SLC26A4* | 7 | 107312540 | 0.000465 | non-causal |
| *SLC26A4* | 7 | 107312600 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107312618 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107312627 | 0.000233 | HI-causal |
| *SLC26A4* | 7 | 107314579 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314593 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314596 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314596 | 0.000363 | non-causal |
| *SLC26A4* | 7 | 107314665 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314679 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314716 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314725 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314758 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314765 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107314815 | 0.000121 | non-causal |
| *SLC26A4* | 7 | 107314817 | 0.000349 | non-causal |
| *SLC26A4* | 7 | 107315373 | 0.003023 | non-causal |
| *SLC26A4* | 7 | 107315415 | 0.000698 | HI-causal |
| *SLC26A4* | 7 | 107315496 | 0.001047 | HI-causal |
| *SLC26A4* | 7 | 107315599 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107323599 | 0.000582 | non-causal |
| *SLC26A4* | 7 | 107323677 | 0.000116 | HI-causal |
| *SLC26A4* | 7 | 107323719 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107323726 | 0.000116 | HI-causal |
| *SLC26A4* | 7 | 107323730 | 0.000233 | HI-causal |
| *SLC26A4* | 7 | 107323753 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107323873 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107323879 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107323951 | 0.000465 | non-causal |
| *SLC26A4* | 7 | 107323982 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107323983 | 0.000581 | HI-causal |
| *SLC26A4* | 7 | 107324011 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107329489 | 0.000465 | non-causal |
| *SLC26A4* | 7 | 107329499 | 0.00186 | HI-causal |
| *SLC26A4* | 7 | 107329536 | 0.000233 | non-causal |
| *SLC26A4* | 7 | 107329537 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107329557 | 0.000349 | non-causal |
| *SLC26A4* | 7 | 107329639 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107330570 | 0.000349 | HI-causal |
| *SLC26A4* | 7 | 107330648 | 0.000349 | HI-causal |
| *SLC26A4* | 7 | 107330649 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107330653 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107330665 | 0.000116 | HI-causal |
| *SLC26A4* | 7 | 107330681 | 0.000116 | HI-causal |
| *SLC26A4* | 7 | 107334815 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107334864 | 0.000121 | non-causal |
| *SLC26A4* | 7 | 107334918 | 0.000233 | HI-causal |
| *SLC26A4* | 7 | 107334926 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107334972 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107335132 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107335210 | 0.000349 | non-causal |
| *SLC26A4* | 7 | 107336364 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107336365 | 0.000969 | non-causal |
| *SLC26A4* | 7 | 107336394 | 0.000116 | HI-causal |
| *SLC26A4* | 7 | 107336428 | 0.000233 | non-causal |
| *SLC26A4* | 7 | 107336431 | 0.000465 | non-causal |
| *SLC26A4* | 7 | 107336481 | 0.000116 | HI-causal |
| *SLC26A4* | 7 | 107336484 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107336493 | 0.000698 | non-causal |
| *SLC26A4* | 7 | 107336528 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107338475 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107338482 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107338556 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107338557 | 0.000116 | HI-causal |
| *SLC26A4* | 7 | 107338563 | 0.000233 | non-causal |
| *SLC26A4* | 7 | 107340625 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107341528 | 0.030123 | non-causal |
| *SLC26A4* | 7 | 107341581 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107341628 | 0.00907 | non-causal |
| *SLC26A4* | 7 | 107341669 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107342235 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107342249 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107342294 | 0.000814 | non-causal |
| *SLC26A4* | 7 | 107342333 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107342369 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107342377 | 0.000233 | non-causal |
| *SLC26A4* | 7 | 107342388 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107342433 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107342461 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107342483 | 0.000349 | HI-causal |
| *SLC26A4* | 7 | 107342485 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107344811 | 0.000117 | non-causal |
| *SLC26A4* | 7 | 107350481 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107350519 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107350527 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107350528 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107350539 | 0.000233 | non-causal |
| *SLC26A4* | 7 | 107350560 | 0.000233 | non-causal |
| *SLC26A4* | 7 | 107350572 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107350599 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107350621 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107350627 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107350628 | 0.000233 | HI-causal |
| *SLC26A4* | 7 | 107352969 | 0.000233 | non-causal |
| *SLC26A4* | 7 | 107353020 | 0.000121 | non-causal |
| *SLC26A4* | 7 | 107353039 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107353040 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107355846 | 0.007326 | non-causal |
| *SLC26A4* | 7 | 107355874 | 0.002209 | non-causal |
| *SLC26A4* | 7 | 107355887 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107355926 | 0.000116 | non-causal |
| *SLC26A4* | 7 | 107355942 | 0.000349 | non-causal |
| *MYO7A* | 11 | 76841633 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76853738 | 0.00024 | non-causal |
| *MYO7A* | 11 | 76853742 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76853746 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76853783 | 0.342275 | non-causal |
| *MYO7A* | 11 | 76853790 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76853814 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76853829 | 0.000118 | HI-causal |
| *MYO7A* | 11 | 76853832 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76853833 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76858797 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76858830 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76858837 | 0.005548 | non-causal |
| *MYO7A* | 11 | 76858860 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76858863 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76858897 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76858950 | 0.000241 | non-causal |
| *MYO7A* | 11 | 76866915 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76866926 | 0.00105 | non-causal |
| *MYO7A* | 11 | 76866929 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76866948 | 0.001051 | non-causal |
| *MYO7A* | 11 | 76866955 | 0.017402 | non-causal |
| *MYO7A* | 11 | 76867026 | 0.000236 | non-causal |
| *MYO7A* | 11 | 76867047 | 0.000237 | non-causal |
| *MYO7A* | 11 | 76867058 | 0.00149 | non-causal |
| *MYO7A* | 11 | 76867062 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76867064 | 0.000356 | HI-causal |
| *MYO7A* | 11 | 76867076 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76867115 | 0.000836 | HI-causal |
| *MYO7A* | 11 | 76867116 | 0.000358 | non-causal |
| *MYO7A* | 11 | 76867135 | 0.018913 | non-causal |
| *MYO7A* | 11 | 76867167 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76867180 | 0.001808 | non-causal |
| *MYO7A* | 11 | 76867183 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76867721 | 0.000715 | non-causal |
| *MYO7A* | 11 | 76867745 | 0.002724 | non-causal |
| *MYO7A* | 11 | 76867784 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76867870 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76867903 | 0.000833 | non-causal |
| *MYO7A* | 11 | 76867967 | 0.000119 | HI-causal |
| *MYO7A* | 11 | 76867991 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76868002 | 0.000478 | non-causal |
| *MYO7A* | 11 | 76868003 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76868045 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76868046 | 0.000961 | HI-causal |
| *MYO7A* | 11 | 76868069 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76868076 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76868090 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76868096 | 0.002421 | non-causal |
| *MYO7A* | 11 | 76868278 | 0.054964 | non-causal |
| *MYO7A* | 11 | 76868310 | 0.001646 | non-causal |
| *MYO7A* | 11 | 76868372 | 0.353282 | non-causal |
| *MYO7A* | 11 | 76868392 | 0.001569 | HI-causal |
| *MYO7A* | 11 | 76868478 | 0.000848 | non-causal |
| *MYO7A* | 11 | 76869285 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76869368 | 0.000354 | non-causal |
| *MYO7A* | 11 | 76869378 | 0.002707 | HI-causal |
| *MYO7A* | 11 | 76869399 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76869443 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76869454 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76869457 | 0.000235 | non-causal |
| *MYO7A* | 11 | 76869495 | 0.000709 | non-causal |
| *MYO7A* | 11 | 76869514 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76870458 | 0.055745 | non-causal |
| *MYO7A* | 11 | 76870495 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76870496 | 0.001927 | non-causal |
| *MYO7A* | 11 | 76870567 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76870609 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76871246 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76871254 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76871260 | 0.000359 | non-causal |
| *MYO7A* | 11 | 76871314 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76871350 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76871358 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76871997 | 0.000242 | non-causal |
| *MYO7A* | 11 | 76872031 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76872050 | 0.000239 | non-causal |
| *MYO7A* | 11 | 76872106 | 0.000239 | non-causal |
| *MYO7A* | 11 | 76872167 | 0.00024 | non-causal |
| *MYO7A* | 11 | 76872169 | 0.05654 | non-causal |
| *MYO7A* | 11 | 76872193 | 0.017233 | non-causal |
| *MYO7A* | 11 | 76872211 | 0.000915 | non-causal |
| *MYO7A* | 11 | 76873138 | 0.001517 | non-causal |
| *MYO7A* | 11 | 76873180 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76873222 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76873225 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76873244 | 0.000466 | non-causal |
| *MYO7A* | 11 | 76873277 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76873384 | 0.002277 | non-causal |
| *MYO7A* | 11 | 76873857 | 0.009204 | non-causal |
| *MYO7A* | 11 | 76873949 | 0.003303 | non-causal |
| *MYO7A* | 11 | 76873950 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76873954 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76873967 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76874015 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76874038 | 0.000241 | non-causal |
| *MYO7A* | 11 | 76874043 | 0.000241 | non-causal |
| *MYO7A* | 11 | 76874072 | 0.000605 | non-causal |
| *MYO7A* | 11 | 76877068 | 0.000239 | non-causal |
| *MYO7A* | 11 | 76877139 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76877250 | 0.000365 | non-causal |
| *MYO7A* | 11 | 76883774 | 0.000127 | non-causal |
| *MYO7A* | 11 | 76883779 | 0.000252 | non-causal |
| *MYO7A* | 11 | 76883780 | 0.000252 | non-causal |
| *MYO7A* | 11 | 76883828 | 0.000122 | non-causal |
| *MYO7A* | 11 | 76883850 | 0.004141 | non-causal |
| *MYO7A* | 11 | 76883863 | 0.000122 | non-causal |
| *MYO7A* | 11 | 76883868 | 0.000123 | non-causal |
| *MYO7A* | 11 | 76883902 | 0.000122 | non-causal |
| *MYO7A* | 11 | 76883912 | 0.000123 | non-causal |
| *MYO7A* | 11 | 76883952 | 0.000124 | non-causal |
| *MYO7A* | 11 | 76883965 | 0.000251 | non-causal |
| *MYO7A* | 11 | 76885779 | 0.456975 | non-causal |
| *MYO7A* | 11 | 76885826 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76885871 | 0.00012 | HI-causal |
| *MYO7A* | 11 | 76885901 | 0.000359 | non-causal |
| *MYO7A* | 11 | 76885947 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76886381 | 0.00024 | non-causal |
| *MYO7A* | 11 | 76886429 | 0.000715 | non-causal |
| *MYO7A* | 11 | 76886504 | 0.000239 | non-causal |
| *MYO7A* | 11 | 76886529 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76886542 | 0.001521 | non-causal |
| *MYO7A* | 11 | 76886543 | 0.000253 | non-causal |
| *MYO7A* | 11 | 76886547 | 0.00121 | non-causal |
| *MYO7A* | 11 | 76886555 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76888569 | 0.00024 | non-causal |
| *MYO7A* | 11 | 76888570 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76888625 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76888657 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76888739 | 0.000224 | non-causal |
| *MYO7A* | 11 | 76890051 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76890069 | 0.008023 | non-causal |
| *MYO7A* | 11 | 76890071 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76890072 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76890091 | 0.001415 | non-causal |
| *MYO7A* | 11 | 76890101 | 0.00059 | non-causal |
| *MYO7A* | 11 | 76890116 | 0.000355 | non-causal |
| *MYO7A* | 11 | 76890131 | 0.000119 | HI-causal |
| *MYO7A* | 11 | 76890156 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76890860 | 0.000625 | non-causal |
| *MYO7A* | 11 | 76890865 | 0.000124 | non-causal |
| *MYO7A* | 11 | 76890889 | 0.000129 | HI-causal |
| *MYO7A* | 11 | 76890902 | 0.000133 | non-causal |
| *MYO7A* | 11 | 76890919 | 0.000546 | non-causal |
| *MYO7A* | 11 | 76890940 | 0.000282 | non-causal |
| *MYO7A* | 11 | 76891450 | 0.000719 | non-causal |
| *MYO7A* | 11 | 76891451 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76891458 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76891557 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76892429 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76892462 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76892485 | 0.002173 | non-causal |
| *MYO7A* | 11 | 76892524 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76892529 | 0.000725 | non-causal |
| *MYO7A* | 11 | 76892561 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76892617 | 0.00072 | non-causal |
| *MYO7A* | 11 | 76892666 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76892677 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76892962 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76893080 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76893435 | 0.000125 | non-causal |
| *MYO7A* | 11 | 76893442 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76893454 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76893494 | 0.000119 | HI-causal |
| *MYO7A* | 11 | 76893517 | 0.00024 | non-causal |
| *MYO7A* | 11 | 76893573 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76893605 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76893606 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76893620 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76893622 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76893630 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76893643 | 0.001077 | non-causal |
| *MYO7A* | 11 | 76894124 | 0.000383 | non-causal |
| *MYO7A* | 11 | 76894235 | 0.425852 | non-causal |
| *MYO7A* | 11 | 76895638 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76895661 | 0.000238 | non-causal |
| *MYO7A* | 11 | 76895684 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76895771 | 0.397308 | non-causal |
| *MYO7A* | 11 | 76895772 | 0.264362 | non-causal |
| *MYO7A* | 11 | 76895777 | 0.000456 | non-causal |
| *MYO7A* | 11 | 76900421 | 0.000239 | non-causal |
| *MYO7A* | 11 | 76900549 | 0.001205 | non-causal |
| *MYO7A* | 11 | 76900558 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76901123 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76901153 | 0.000238 | HI-causal |
| *MYO7A* | 11 | 76901189 | 0.001192 | non-causal |
| *MYO7A* | 11 | 76901193 | 0.003697 | non-causal |
| *MYO7A* | 11 | 76901708 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76901754 | 0.001247 | HI-causal |
| *MYO7A* | 11 | 76901771 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76901775 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76901780 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76901819 | 0.000595 | non-causal |
| *MYO7A* | 11 | 76901828 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76901849 | 0.000238 | non-causal |
| *MYO7A* | 11 | 76901856 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76901927 | 0.486205 | non-causal |
| *MYO7A* | 11 | 76901944 | 0.000245 | non-causal |
| *MYO7A* | 11 | 76901954 | 0.00037 | non-causal |
| *MYO7A* | 11 | 76903086 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76903088 | 0.000238 | non-causal |
| *MYO7A* | 11 | 76903134 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76903149 | 0.000238 | non-causal |
| *MYO7A* | 11 | 76903150 | 0.000119 | HI-causal |
| *MYO7A* | 11 | 76903174 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76903189 | 0.000237 | HI-causal |
| *MYO7A* | 11 | 76903190 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76903195 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76903245 | 0.006004 | non-causal |
| *MYO7A* | 11 | 76903299 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76903341 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76903344 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76903345 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76903362 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76905380 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76905391 | 0.001198 | non-causal |
| *MYO7A* | 11 | 76905392 | 0.00024 | non-causal |
| *MYO7A* | 11 | 76905404 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76905438 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76905441 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76905468 | 0.000239 | non-causal |
| *MYO7A* | 11 | 76905469 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76905482 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76905507 | 0.00024 | non-causal |
| *MYO7A* | 11 | 76905531 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76905604 | 0.463157 | non-causal |
| *MYO7A* | 11 | 76908528 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76908564 | 0.000241 | non-causal |
| *MYO7A* | 11 | 76908589 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76909506 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76909533 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76909548 | 0.00036 | HI-causal |
| *MYO7A* | 11 | 76909559 | 0.006099 | non-causal |
| *MYO7A* | 11 | 76909564 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76909569 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76909585 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76909586 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76909591 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76909678 | 0.003071 | non-causal |
| *MYO7A* | 11 | 76909708 | 0.000237 | non-causal |
| *MYO7A* | 11 | 76909711 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76910532 | 0.001014 | non-causal |
| *MYO7A* | 11 | 76910600 | 0.000314 | non-causal |
| *MYO7A* | 11 | 76910678 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76910679 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76910708 | 0.007009 | non-causal |
| *MYO7A* | 11 | 76910746 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76910750 | 0.000356 | non-causal |
| *MYO7A* | 11 | 76910759 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76910766 | 0.478452 | non-causal |
| *MYO7A* | 11 | 76910815 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76910816 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76910856 | 0.002062 | non-causal |
| *MYO7A* | 11 | 76910862 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76912463 | 0.000707 | non-causal |
| *MYO7A* | 11 | 76912479 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76912524 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76912550 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76912557 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76912560 | 0.000235 | non-causal |
| *MYO7A* | 11 | 76912564 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76912577 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76912590 | 0.000236 | non-causal |
| *MYO7A* | 11 | 76912615 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76912636 | 0.457457 | non-causal |
| *MYO7A* | 11 | 76912646 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76912663 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76912703 | 0.000835 | non-causal |
| *MYO7A* | 11 | 76912724 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76912730 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76913297 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76913409 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76913410 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76913421 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76913440 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76913457 | 0.008959 | non-causal |
| *MYO7A* | 11 | 76914077 | 0.001509 | non-causal |
| *MYO7A* | 11 | 76914104 | 0.087803 | non-causal |
| *MYO7A* | 11 | 76914151 | 0.000125 | non-causal |
| *MYO7A* | 11 | 76914163 | 0.003842 | non-causal |
| *MYO7A* | 11 | 76914189 | 0.00037 | non-causal |
| *MYO7A* | 11 | 76914275 | 0.000492 | non-causal |
| *MYO7A* | 11 | 76915091 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76915140 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76915143 | 0.000358 | non-causal |
| *MYO7A* | 11 | 76915149 | 0.000239 | non-causal |
| *MYO7A* | 11 | 76915150 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76915163 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76915167 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76915168 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76915183 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76915212 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76915294 | 0.000238 | non-causal |
| *MYO7A* | 11 | 76916464 | 0.000372 | non-causal |
| *MYO7A* | 11 | 76916493 | 0.000241 | non-causal |
| *MYO7A* | 11 | 76916549 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76916585 | 0.000472 | non-causal |
| *MYO7A* | 11 | 76916599 | 0.000237 | HI-causal |
| *MYO7A* | 11 | 76916608 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76916645 | 0.023861 | non-causal |
| *MYO7A* | 11 | 76916704 | 0.000362 | non-causal |
| *MYO7A* | 11 | 76916714 | 0.007394 | non-causal |
| *MYO7A* | 11 | 76917106 | 0.00048 | non-causal |
| *MYO7A* | 11 | 76917113 | 0.00024 | non-causal |
| *MYO7A* | 11 | 76917145 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76917146 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76917220 | 0.481731 | non-causal |
| *MYO7A* | 11 | 76917244 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76917274 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76918317 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76918322 | 0.413471 | non-causal |
| *MYO7A* | 11 | 76918366 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76918468 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76918497 | 0.42755 | non-causal |
| *MYO7A* | 11 | 76919457 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76919468 | 0.427672 | non-causal |
| *MYO7A* | 11 | 76919478 | 0.480523 | non-causal |
| *MYO7A* | 11 | 76919484 | 0.002974 | non-causal |
| *MYO7A* | 11 | 76919514 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76919517 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76919522 | 0.000719 | non-causal |
| *MYO7A* | 11 | 76919543 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76919546 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76919596 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76919619 | 0.412634 | non-causal |
| *MYO7A* | 11 | 76919710 | 0.001123 | non-causal |
| *MYO7A* | 11 | 76919727 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76919747 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76919816 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76919865 | 0.42441 | non-causal |
| *MYO7A* | 11 | 76919869 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76919891 | 0.000123 | non-causal |
| *MYO7A* | 11 | 76922186 | 0.000239 | non-causal |
| *MYO7A* | 11 | 76922208 | 0.000714 | non-causal |
| *MYO7A* | 11 | 76922236 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76922353 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76922403 | 0.000121 | non-causal |
| *MYO7A* | 11 | 76922826 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76922856 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76922868 | 0.043291 | non-causal |
| *MYO7A* | 11 | 76922874 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76922875 | 0.000233 | non-causal |
| *MYO7A* | 11 | 76922946 | 0.199136 | non-causal |
| *MYO7A* | 11 | 76922954 | 0.000117 | non-causal |
| *MYO7A* | 11 | 76923001 | 0.000123 | non-causal |
| *MYO7A* | 11 | 76923017 | 0.197294 | non-causal |
| *MYO7A* | 11 | 76923024 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76924005 | 0.000364 | non-causal |
| *MYO7A* | 11 | 76924054 | 0.000362 | non-causal |
| *MYO7A* | 11 | 76924066 | 0.000241 | non-causal |
| *MYO7A* | 11 | 76924068 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76924130 | 0.029022 | non-causal |
| *MYO7A* | 11 | 76924873 | 0.000238 | non-causal |
| *MYO7A* | 11 | 76924874 | 0.336985 | non-causal |
| *MYO7A* | 11 | 76924933 | 0.000119 | non-causal |
| *MYO7A* | 11 | 76924985 | 0.016049 | non-causal |
| *MYO7A* | 11 | 76924986 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76925012 | 0.000472 | non-causal |
| *MYO7A* | 11 | 76925013 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76925018 | 0.000118 | non-causal |
| *MYO7A* | 11 | 76925040 | 0.259518 | non-causal |
| *MYO7A* | 11 | 76925049 | 0.017029 | non-causal |
| *MYO7A* | 11 | 76925075 | 0.028829 | non-causal |
| *MYO7A* | 11 | 76925604 | 0.054302 | non-causal |
| *MYO7A* | 11 | 76925609 | 0.013523 | non-causal |
| *MYO7A* | 11 | 76925626 | 0.000477 | non-causal |
| *MYO7A* | 11 | 76925641 | 0.019281 | non-causal |
| *MYO7A* | 11 | 76925721 | 0.00012 | non-causal |
| *MYO7A* | 11 | 76925733 | 0.0006 | non-causal |
| *GJB2* | 13 | 20763037 | 0.001295 | non-causal |
| *GJB2* | 13 | 20763039 | 0.000587 | non-causal |
| *GJB2* | 13 | 20763045 | 0.000117 | non-causal |
| *GJB2* | 13 | 20763051 | 0.000117 | HI-causal |
| *GJB2* | 13 | 20763058 | 0.000117 | non-causal |
| *GJB2* | 13 | 20763104 | 0.000116 | HI-causal |
| *GJB2* | 13 | 20763210 | 0.000233 | non-causal |
| *GJB2* | 13 | 20763243 | 0.000465 | non-causal |
| *GJB2* | 13 | 20763246 | 0.000116 | HI-causal |
| *GJB2* | 13 | 20763247 | 0.000116 | non-causal |
| *GJB2* | 13 | 20763264 | 0.003372 | non-causal |
| *GJB2* | 13 | 20763269 | 0.000116 | non-causal |
| *GJB2* | 13 | 20763305 | 0.000814 | HI-causal |
| *GJB2* | 13 | 20763341 | 0.003023 | non-causal |
| *GJB2* | 13 | 20763353 | 0.000233 | non-causal |
| *GJB2* | 13 | 20763361 | 0.000121 | HI-causal |
| *GJB2* | 13 | 20763366 | 0.000349 | HI-causal |
| *GJB2* | 13 | 20763380 | 0.00093 | HI-causal |
| *GJB2* | 13 | 20763395 | 0.000116 | non-causal |
| *GJB2* | 13 | 20763395 | 0.000242 | HI-causal |
| *GJB2* | 13 | 20763452 | 0.000581 | HI-causal |
| *GJB2* | 13 | 20763472 | 0.003256 | non-causal |
| *GJB2* | 13 | 20763480 | 0.000116 | HI-causal |
| *GJB2* | 13 | 20763490 | 0.000116 | HI-causal |
| *GJB2* | 13 | 20763534 | 0.000116 | HI-causal |
| *GJB2* | 13 | 20763544 | 0.000116 | non-causal |
| *GJB2* | 13 | 20763552 | 0.000116 | HI-causal |
| *GJB2* | 13 | 20763554 | 0.001454 | HI-causal |
| *GJB2* | 13 | 20763602 | 0.000116 | HI-causal |
| *GJB2* | 13 | 20763612 | 0.00186 | HI-causal |
| *GJB2* | 13 | 20763620 | 0.012907 | HI-causal |
| *GJB2* | 13 | 20763633 | 0.000116 | HI-causal |
| *GJB2* | 13 | 20763642 | 0.002093 | non-causal |
| *GJB2* | 13 | 20763686 | 0.010783 | HI-causal |
| *GJB2* | 13 | 20763744 | 0.000582 | non-causal |
| *GJB2* | 13 | 20763748 | 0.000465 | non-causal |
| *GJB2* | 13 | 20763754 | 0.000815 | non-causal |
| *GJB2* | 13 | 20763759 | 0.000116 | non-causal |
| *MYH9* | 22 | 36678706 | 0.001047 | non-causal |
| *MYH9* | 22 | 36678719 | 0.000349 | non-causal |
| *MYH9* | 22 | 36678779 | 0.002907 | non-causal |
| *MYH9* | 22 | 36678782 | 0.000581 | non-causal |
| *MYH9* | 22 | 36678809 | 0.000233 | non-causal |
| *MYH9* | 22 | 36678816 | 0.000582 | non-causal |
| *MYH9* | 22 | 36678827 | 0.000116 | non-causal |
| *MYH9* | 22 | 36678828 | 0.000116 | non-causal |
| *MYH9* | 22 | 36678834 | 0.000364 | non-causal |
| *MYH9* | 22 | 36678844 | 0.000117 | non-causal |
| *MYH9* | 22 | 36680105 | 0.000233 | non-causal |
| *MYH9* | 22 | 36680183 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680187 | 0.000233 | non-causal |
| *MYH9* | 22 | 36680191 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680195 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680275 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680308 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680315 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680335 | 0.000233 | non-causal |
| *MYH9* | 22 | 36680360 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680420 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680496 | 0.000116 | non-causal |
| *MYH9* | 22 | 36680587 | 0.000121 | non-causal |
| *MYH9* | 22 | 36681148 | 0.000233 | non-causal |
| *MYH9* | 22 | 36681156 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681163 | 0.021977 | non-causal |
| *MYH9* | 22 | 36681180 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681194 | 0.000349 | non-causal |
| *MYH9* | 22 | 36681226 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681272 | 0.000349 | non-causal |
| *MYH9* | 22 | 36681327 | 0.001977 | non-causal |
| *MYH9* | 22 | 36681358 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681380 | 0.000242 | non-causal |
| *MYH9* | 22 | 36681385 | 0.000242 | non-causal |
| *MYH9* | 22 | 36681660 | 0.000349 | non-causal |
| *MYH9* | 22 | 36681666 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681731 | 0.000233 | non-causal |
| *MYH9* | 22 | 36681797 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681802 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681841 | 0.000465 | non-causal |
| *MYH9* | 22 | 36681852 | 0.000606 | non-causal |
| *MYH9* | 22 | 36681918 | 0.002907 | non-causal |
| *MYH9* | 22 | 36681919 | 0.000349 | non-causal |
| *MYH9* | 22 | 36681931 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681937 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681972 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681981 | 0.000116 | non-causal |
| *MYH9* | 22 | 36681995 | 0.000606 | non-causal |
| *MYH9* | 22 | 36682724 | 0.000233 | non-causal |
| *MYH9* | 22 | 36682734 | 0.000349 | non-causal |
| *MYH9* | 22 | 36682754 | 0.000116 | non-causal |
| *MYH9* | 22 | 36682799 | 0.00093 | non-causal |
| *MYH9* | 22 | 36682852 | 0.000116 | non-causal |
| *MYH9* | 22 | 36682853 | 0.000116 | non-causal |
| *MYH9* | 22 | 36682868 | 0.000116 | non-causal |
| *MYH9* | 22 | 36682869 | 0.000116 | non-causal |
| *MYH9* | 22 | 36682873 | 0.001395 | HI-causal |
| *MYH9* | 22 | 36682919 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684247 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684256 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684258 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684280 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684285 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684328 | 0.000581 | non-causal |
| *MYH9* | 22 | 36684331 | 0.035 | non-causal |
| *MYH9* | 22 | 36684334 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684352 | 0.001047 | non-causal |
| *MYH9* | 22 | 36684354 | 0.19814 | non-causal |
| *MYH9* | 22 | 36684358 | 0.198023 | non-causal |
| *MYH9* | 22 | 36684412 | 0.000465 | non-causal |
| *MYH9* | 22 | 36684430 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684722 | 0.000233 | non-causal |
| *MYH9* | 22 | 36684816 | 0.001744 | non-causal |
| *MYH9* | 22 | 36684873 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684890 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684926 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684961 | 0.000116 | non-causal |
| *MYH9* | 22 | 36684980 | 0.012674 | non-causal |
| *MYH9* | 22 | 36684996 | 0.000116 | non-causal |
| *MYH9* | 22 | 36685080 | 0.001628 | non-causal |
| *MYH9* | 22 | 36685084 | 0.000116 | non-causal |
| *MYH9* | 22 | 36685087 | 0.001047 | non-causal |
| *MYH9* | 22 | 36685091 | 0.000116 | non-causal |
| *MYH9* | 22 | 36685110 | 0.000233 | non-causal |
| *MYH9* | 22 | 36685176 | 0.000116 | non-causal |
| *MYH9* | 22 | 36685209 | 0.000116 | non-causal |
| *MYH9* | 22 | 36685241 | 0.000233 | non-causal |
| *MYH9* | 22 | 36685292 | 0.004651 | non-causal |
| *MYH9* | 22 | 36685329 | 0.000581 | non-causal |
| *MYH9* | 22 | 36685335 | 0.000116 | non-causal |
| *MYH9* | 22 | 36685354 | 0.000233 | non-causal |
| *MYH9* | 22 | 36688022 | 0.001047 | non-causal |
| *MYH9* | 22 | 36688041 | 0.000121 | non-causal |
| *MYH9* | 22 | 36688068 | 0.000233 | non-causal |
| *MYH9* | 22 | 36688128 | 0.000116 | non-causal |
| *MYH9* | 22 | 36688151 | 0.000698 | non-causal |
| *MYH9* | 22 | 36688158 | 0.000116 | non-causal |
| *MYH9* | 22 | 36688175 | 0.000116 | non-causal |
| *MYH9* | 22 | 36688178 | 0.002209 | HI-causal |
| *MYH9* | 22 | 36688271 | 0.000116 | non-causal |
| *MYH9* | 22 | 36688332 | 0.000218 | non-causal |
| *MYH9* | 22 | 36689333 | 0.000116 | non-causal |
| *MYH9* | 22 | 36689355 | 0.000581 | non-causal |
| *MYH9* | 22 | 36689390 | 0.000116 | non-causal |
| *MYH9* | 22 | 36689420 | 0.000116 | non-causal |
| *MYH9* | 22 | 36689553 | 0.000116 | non-causal |
| *MYH9* | 22 | 36689778 | 0.000233 | non-causal |
| *MYH9* | 22 | 36689833 | 0.000116 | non-causal |
| *MYH9* | 22 | 36689836 | 0.000116 | non-causal |
| *MYH9* | 22 | 36689895 | 0.000116 | non-causal |
| *MYH9* | 22 | 36689909 | 0.000116 | non-causal |
| *MYH9* | 22 | 36689917 | 0.000233 | non-causal |
| *MYH9* | 22 | 36689921 | 0.001396 | non-causal |
| *MYH9* | 22 | 36690094 | 0.000233 | non-causal |
| *MYH9* | 22 | 36690101 | 0.000349 | non-causal |
| *MYH9* | 22 | 36690110 | 0.000116 | non-causal |
| *MYH9* | 22 | 36690113 | 0.318911 | non-causal |
| *MYH9* | 22 | 36690120 | 0.011863 | non-causal |
| *MYH9* | 22 | 36690158 | 0.000233 | non-causal |
| *MYH9* | 22 | 36690269 | 0.000116 | non-causal |
| *MYH9* | 22 | 36690298 | 0.000116 | non-causal |
| *MYH9* | 22 | 36690360 | 0.000116 | non-causal |
| *MYH9* | 22 | 36690389 | 0.000116 | non-causal |
| *MYH9* | 22 | 36690933 | 0.000116 | non-causal |
| *MYH9* | 22 | 36690952 | 0.000116 | non-causal |
| *MYH9* | 22 | 36690956 | 0.000116 | non-causal |
| *MYH9* | 22 | 36690979 | 0.000116 | non-causal |
| *MYH9* | 22 | 36691153 | 0.004767 | non-causal |
| *MYH9* | 22 | 36691154 | 0.000116 | non-causal |
| *MYH9* | 22 | 36691169 | 0.000116 | non-causal |
| *MYH9* | 22 | 36691502 | 0.00093 | non-causal |
| *MYH9* | 22 | 36691607 | 0.029767 | non-causal |
| *MYH9* | 22 | 36691639 | 0.000116 | non-causal |
| *MYH9* | 22 | 36691658 | 0.000116 | non-causal |
| *MYH9* | 22 | 36691691 | 0.012326 | non-causal |
| *MYH9* | 22 | 36691696 | 0.000116 | HI-causal |
| *MYH9* | 22 | 36691716 | 0.000116 | non-causal |
| *MYH9* | 22 | 36691789 | 0.000116 | non-causal |
| *MYH9* | 22 | 36692869 | 0.000233 | non-causal |
| *MYH9* | 22 | 36692945 | 0.000581 | non-causal |
| *MYH9* | 22 | 36692954 | 0.000116 | non-causal |
| *MYH9* | 22 | 36692969 | 0.001047 | non-causal |
| *MYH9* | 22 | 36692971 | 0.000116 | non-causal |
| *MYH9* | 22 | 36692977 | 0.000116 | non-causal |
| *MYH9* | 22 | 36692980 | 0.000233 | non-causal |
| *MYH9* | 22 | 36692984 | 0.000116 | non-causal |
| *MYH9* | 22 | 36693072 | 0.000116 | non-causal |
| *MYH9* | 22 | 36694924 | 0.001512 | non-causal |
| *MYH9* | 22 | 36694954 | 0.028256 | non-causal |
| *MYH9* | 22 | 36695014 | 0.000116 | non-causal |
| *MYH9* | 22 | 36695053 | 0.000116 | non-causal |
| *MYH9* | 22 | 36695123 | 0.028256 | non-causal |
| *MYH9* | 22 | 36696131 | 0.000116 | non-causal |
| *MYH9* | 22 | 36696133 | 0.000233 | non-causal |
| *MYH9* | 22 | 36696147 | 0.000233 | non-causal |
| *MYH9* | 22 | 36696148 | 0.000116 | non-causal |
| *MYH9* | 22 | 36696150 | 0.000116 | non-causal |
| *MYH9* | 22 | 36696155 | 0.000349 | non-causal |
| *MYH9* | 22 | 36696156 | 0.000116 | non-causal |
| *MYH9* | 22 | 36696163 | 0.000233 | non-causal |
| *MYH9* | 22 | 36696184 | 0.000116 | non-causal |
| *MYH9* | 22 | 36696236 | 0.000116 | non-causal |
| *MYH9* | 22 | 36696277 | 0.001395 | non-causal |
| *MYH9* | 22 | 36696862 | 0.00035 | non-causal |
| *MYH9* | 22 | 36696869 | 0.000116 | non-causal |
| *MYH9* | 22 | 36696920 | 0.000116 | non-causal |
| *MYH9* | 22 | 36696927 | 0.000116 | non-causal |
| *MYH9* | 22 | 36697022 | 0.000116 | non-causal |
| *MYH9* | 22 | 36697100 | 0.000116 | non-causal |
| *MYH9* | 22 | 36697109 | 0.000121 | non-causal |
| *MYH9* | 22 | 36697549 | 0.001163 | non-causal |
| *MYH9* | 22 | 36697620 | 0.000116 | non-causal |
| *MYH9* | 22 | 36697628 | 0.000233 | non-causal |
| *MYH9* | 22 | 36697646 | 0.000116 | non-causal |
| *MYH9* | 22 | 36697683 | 0.000116 | non-causal |
| *MYH9* | 22 | 36697694 | 0.000581 | non-causal |
| *MYH9* | 22 | 36697725 | 0.000121 | non-causal |
| *MYH9* | 22 | 36697725 | 0.000698 | non-causal |
| *MYH9* | 22 | 36697726 | 0.000116 | non-causal |
| *MYH9* | 22 | 36697729 | 0.000116 | non-causal |
| *MYH9* | 22 | 36697737 | 0.000116 | non-causal |
| *MYH9* | 22 | 36698575 | 0.000116 | non-causal |
| *MYH9* | 22 | 36698665 | 0.001279 | non-causal |
| *MYH9* | 22 | 36698719 | 0.000116 | non-causal |
| *MYH9* | 22 | 36698737 | 0.000116 | non-causal |
| *MYH9* | 22 | 36698770 | 0.000116 | non-causal |
| *MYH9* | 22 | 36698771 | 0.000116 | non-causal |
| *MYH9* | 22 | 36700087 | 0.000116 | non-causal |
| *MYH9* | 22 | 36700136 | 0.000116 | non-causal |
| *MYH9* | 22 | 36700175 | 0.049884 | non-causal |
| *MYH9* | 22 | 36700212 | 0.000116 | non-causal |
| *MYH9* | 22 | 36700253 | 0.0013 | non-causal |
| *MYH9* | 22 | 36701040 | 0.000116 | non-causal |
| *MYH9* | 22 | 36701087 | 0.000233 | non-causal |
| *MYH9* | 22 | 36701092 | 0.000116 | non-causal |
| *MYH9* | 22 | 36701125 | 0.000116 | non-causal |
| *MYH9* | 22 | 36701181 | 0.000116 | non-causal |
| *MYH9* | 22 | 36701931 | 0.000116 | non-causal |
| *MYH9* | 22 | 36701937 | 0.047952 | non-causal |
| *MYH9* | 22 | 36702050 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702074 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702094 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702100 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702102 | 0.001395 | non-causal |
| *MYH9* | 22 | 36702121 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702122 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702149 | 0.013432 | non-causal |
| *MYH9* | 22 | 36702447 | 0.000121 | non-causal |
| *MYH9* | 22 | 36702456 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702613 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702623 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702676 | 0.000116 | non-causal |
| *MYH9* | 22 | 36702690 | 0.000349 | non-causal |
| *MYH9* | 22 | 36705285 | 0.000116 | non-causal |
| *MYH9* | 22 | 36705286 | 0.000116 | non-causal |
| *MYH9* | 22 | 36705300 | 0.000233 | non-causal |
| *MYH9* | 22 | 36705447 | 0.001163 | non-causal |
| *MYH9* | 22 | 36708063 | 0.000116 | non-causal |
| *MYH9* | 22 | 36708079 | 0.000116 | non-causal |
| *MYH9* | 22 | 36708084 | 0.087791 | non-causal |
| *MYH9* | 22 | 36708100 | 0.000116 | non-causal |
| *MYH9* | 22 | 36708186 | 0.000116 | non-causal |
| *MYH9* | 22 | 36708196 | 0.000233 | non-causal |
| *MYH9* | 22 | 36708256 | 0.000116 | non-causal |
| *MYH9* | 22 | 36708288 | 0.000116 | non-causal |
| *MYH9* | 22 | 36708311 | 0.000116 | non-causal |
| *MYH9* | 22 | 36710183 | 0.329419 | non-causal |
| *MYH9* | 22 | 36710207 | 0.000116 | non-causal |
| *MYH9* | 22 | 36710225 | 0.000116 | non-causal |
| *MYH9* | 22 | 36710240 | 0.000116 | non-causal |
| *MYH9* | 22 | 36710371 | 0.000116 | non-causal |
| *MYH9* | 22 | 36712531 | 0.000116 | non-causal |
| *MYH9* | 22 | 36712598 | 0.000116 | non-causal |
| *MYH9* | 22 | 36712682 | 0.000116 | non-causal |
| *MYH9* | 22 | 36712700 | 0.001047 | non-causal |
| *MYH9* | 22 | 36712718 | 0.000116 | non-causal |
| *MYH9* | 22 | 36712732 | 0.000116 | non-causal |
| *MYH9* | 22 | 36714248 | 0.000116 | non-causal |
| *MYH9* | 22 | 36714267 | 0.000116 | non-causal |
| *MYH9* | 22 | 36714321 | 0.001163 | non-causal |
| *MYH9* | 22 | 36714330 | 0.000116 | non-causal |
| *MYH9* | 22 | 36715547 | 0.002209 | non-causal |
| *MYH9* | 22 | 36715566 | 0.000233 | non-causal |
| *MYH9* | 22 | 36715576 | 0.006744 | non-causal |
| *MYH9* | 22 | 36715610 | 0.006279 | non-causal |
| *MYH9* | 22 | 36715636 | 0.000116 | non-causal |
| *MYH9* | 22 | 36716240 | 0.000116 | non-causal |
| *MYH9* | 22 | 36716286 | 0.000116 | non-causal |
| *MYH9* | 22 | 36716343 | 0.000116 | non-causal |
| *MYH9* | 22 | 36716344 | 0.000116 | non-causal |
| *MYH9* | 22 | 36716371 | 0.000116 | non-causal |
| *MYH9* | 22 | 36716386 | 0.000233 | non-causal |
| *MYH9* | 22 | 36716420 | 0.000349 | non-causal |
| *MYH9* | 22 | 36716432 | 0.000233 | non-causal |
| *MYH9* | 22 | 36716815 | 0.000233 | non-causal |
| *MYH9* | 22 | 36717773 | 0.000814 | non-causal |
| *MYH9* | 22 | 36717788 | 0.000465 | non-causal |
| *MYH9* | 22 | 36717828 | 0.000116 | non-causal |
| *MYH9* | 22 | 36717885 | 0.000116 | non-causal |
| *MYH9* | 22 | 36717916 | 0.000116 | non-causal |
| *MYH9* | 22 | 36718426 | 0.000233 | non-causal |
| *MYH9* | 22 | 36718433 | 0.000116 | non-causal |
| *MYH9* | 22 | 36718451 | 0.000233 | non-causal |
| *MYH9* | 22 | 36718452 | 0.000116 | non-causal |
| *MYH9* | 22 | 36718457 | 0.000349 | non-causal |
| *MYH9* | 22 | 36718460 | 0.002209 | non-causal |
| *MYH9* | 22 | 36718463 | 0.002558 | non-causal |
| *MYH9* | 22 | 36718464 | 0.000233 | non-causal |
| *MYH9* | 22 | 36718589 | 0.000116 | non-causal |
| *MYH9* | 22 | 36718617 | 0.000116 | non-causal |
| *MYH9* | 22 | 36722582 | 0.000116 | non-causal |
| *MYH9* | 22 | 36722605 | 0.000116 | non-causal |
| *MYH9* | 22 | 36722649 | 0.000116 | non-causal |
| *MYH9* | 22 | 36722682 | 0.000233 | non-causal |
| *MYH9* | 22 | 36722710 | 0.000116 | non-causal |
| *MYH9* | 22 | 36722730 | 0.000116 | non-causal |
| *MYH9* | 22 | 36722731 | 0.000116 | non-causal |
| *MYH9* | 22 | 36723438 | 0.000629 | non-causal |
| *MYH9* | 22 | 36723483 | 0.000116 | non-causal |
| *MYH9* | 22 | 36723485 | 0.00521 | non-causal |
| *MYH9* | 22 | 36723492 | 0.000116 | non-causal |
| *MYH9* | 22 | 36723540 | 0.000116 | non-causal |
| *MYH9* | 22 | 36723565 | 0.000233 | non-causal |
| *MYH9* | 22 | 36723592 | 0.000314 | non-causal |
| *MYH9* | 22 | 36737455 | 0.000116 | non-causal |
| *MYH9* | 22 | 36737485 | 0.000116 | non-causal |
| *MYH9* | 22 | 36737530 | 0.000116 | non-causal |
| *MYH9* | 22 | 36737591 | 0.000116 | non-causal |
| *MYH9* | 22 | 36745045 | 0.000116 | non-causal |
| *MYH9* | 22 | 36745049 | 0.000116 | non-causal |
| *MYH9* | 22 | 36745089 | 0.000116 | non-causal |
| *MYH9* | 22 | 36745146 | 0.002907 | non-causal |
| *MYH9* | 22 | 36745150 | 0.000233 | non-causal |
| *MYH9* | 22 | 36745178 | 0.000116 | non-causal |
| *MYH9* | 22 | 36745250 | 0.000233 | non-causal |
| *MYH9* | 22 | 36745262 | 0.000116 | non-causal |
| *MYH9* | 22 | 36745275 | 0.003023 | non-causal |
| *MYH9* | 22 | 36745307 | 0.002442 | non-causal |
| *MYH9* | 22 | 36745326 | 0.000116 | non-causal |
| *MYH9* | 22 | 36745333 | 0.000217 | non-causal |

**Web Resources**

Exome Variant Server (EVS), http://evs.gs.washington.edu/EVS

Deafness Variation Database (DVD), http://deafnessvariationdatabase.com

NCBI ClinVar, https://www.ncbi.nlm.nih.gov/clinvar