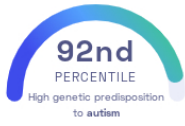




STUDY SUMMARY

Identification of novel genetic variants linked to autism spectrum disorder.

YOUR RESULT



STUDY DESCRIPTION

Autism spectrum disorder affects cognitive development in childhood, often leading to impaired social skills, compulsive behavior, and obsessive interests. While autism spectrum disorder is thought to be highly heritable, only a few genetic variants have been linked to it. This genome-wide association study on 46,350 individuals of European ancestry identified 12 novel variants associated with autism spectrum disorder. The genetic variants help explain about 12% of the heritability of autism spectrum disorder. Several of these genetic variants have been previously linked to other psychiatric disorders including schizophrenia and depression and are located in and around genes involved in brain development and function.

DID YOU KNOW?

While autism spectrum disorder cannot be prevented, an early clinical diagnosis can help reduce symptoms. Therapies typically aim to aid the development of social skills.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to autism we summed up the effects of genetic variants that were linked to autism 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 autism. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to autism. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to autism. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for autism to be -0.18**. 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 autism is in the **92nd percentile**. This means that it is higher than the polygenic scores 92% of people. We consider this to be a **high genetic predisposition to autism**. 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 [Ⓞ]	YOUR GENOTYPE [Ⓞ]	EFFECT SIZE [Ⓞ]	VARIANT FREQUENCY [Ⓞ]	SIGNIFICANCE [Ⓞ]
rs2388334_A NEW	A / G	-0.07 (↓)	52%	3.34×10^{-12}
rs325606_C NEW	G / G	0.06 (-)	42%	3.26×10^{-11}
rs11787216_T NEW	C / T	-0.06 (↓)	36%	1.99×10^{-9}
rs910805_A NEW	G / G	-0.10 (-)	76%	2.04×10^{-9}
rs1452075_T NEW	C / T	0.06 (↑)	72%	3.17×10^{-9}
rs1620977_A NEW	A / G	0.06 (↑)	26%	6.66×10^{-9}
rs10149470_A NEW	A / A	-0.05 (↓)	49%	8.52×10^{-9}
rs10099100_C NEW	G / G	0.08 (-)	33%	1.07×10^{-8}
rs16854048_A NEW	A / A	0.07 (↑)	86%	1.29×10^{-8}
rs111931861_A NEW	A / G	-0.22 (↓)	97%	3.53×10^{-8}