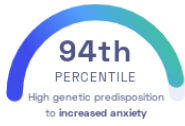


STUDY SUMMARY

Identification of genetic variants near the PDE4B gene that are associated with anxiety and stress disorders.

YOUR RESULT



STUDY DESCRIPTION

Anxiety disorders, where a person experiences excessive and inappropriate fear and anxiety, affect more than 20% of people at some point in their lives. Although stress-related disorders are a separate diagnosis, people often have both stress and anxiety disorders and the symptoms overlap. This study examined genetic data of over 12,000 Danish individuals diagnosed with various anxiety or stress-related disorders and over 19,000 controls. The genetic variants with the strongest association were found near the PDE4B gene, which is active in the brain and plays a role in helping nerve cells understand signals from *hormones* and *neurotransmitters*. The authors also report 9 additional genetic variants in other locations that are significantly associated with anxiety and stress disorders.

DID YOU KNOW?

Some medications can increase symptoms of stress and anxiety disorders. This includes thyroid medications, asthma inhalers, and diet pills.

YOUR DETAILED RESULTS

To calculate your genetic predisposition to increased anxiety we summed up the effects of genetic variants that were linked to increased anxiety 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 increased anxiety. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to increased anxiety. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to increased anxiety. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for increased anxiety to be -0.30**. 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 increased anxiety is in the **94th percentile**. This means that it is higher than the polygenic scores 94% of people. We consider this to be a **high genetic predisposition to increased anxiety**. 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 [ⓘ]	COMMENTS	EFFECT SIZE [ⓘ]	VARIANT FREQUENCY [ⓘ]	SIGNIFICANCE [ⓘ]
rs7528604_A ^{NEW}	G / G	In the PDE4B gene	-0.12 (-)	39%	5.39×10^{-11}
rs1458103_A ^{NEW}	A / A	-	-0.11 (↓)	74%	6.19×10^{-8}
rs113209956_T ^{NEW}	C / C	-	-0.19 (-)	9%	6.36×10^{-8}
rs6462203_A ^{NEW}	C / C	-	-0.10 (-)	27%	1.09×10^{-7}
rs6030245_T ^{NEW}	T / T	-	0.11 (↑)	80%	5.06×10^{-7}
rs11855660_T ^{NEW}	T / C	-	0.09 (↑)	47%	6.96×10^{-7}
rs2451828_T ^{NEW}	NA	-	0.29 (-)	2%	7.37×10^{-7}
rs16916239_A ^{NEW}	A / G	-	-0.10 (↓)	78%	8.96×10^{-7}
rs79928194_T ^{NEW}	T / T	-	-0.15 (↓)	91%	1.26×10^{-6}
rs342422_A ^{NEW}	G / G	-	-0.08 (-)	53%	1.28×10^{-6}

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.