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## ☆ Acne (Navarini, 2014)

Alexander A. Navarini, et al.  
Nature Communications

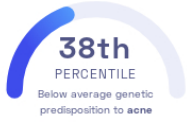
Skin Infection



### STUDY SUMMARY

Dysregulation of the TGFβ signaling pathway may increase susceptibility to acne.

#### YOUR RESULT



#### STUDY DESCRIPTION

Acne is an inflammatory disease of the skin in which hair follicles become clogged with oil and dead skin cells. Acne is about 80% heritable. This genome-wide association study included 1,893 patients with severe acne and 5,132 healthy individuals from the United Kingdom. The study identified 3 genetic variants that are linked to the OVOL1, FST, and TGFβ2 genes, all of which are associated with the TGFβ cell signaling pathway. The TGFβ (transforming growth factor beta) signaling pathway is involved in numerous processes in both adults and embryos. Some of these processes include cell growth, maintaining normal cell conditions, and apoptosis (programmed cell death).

#### DID YOU KNOW?

In addition to medication or skincare products, you can help prevent acne by washing your face twice a day, keeping your hair clean, not popping or picking at pimples, and wearing sunscreen when going outside.

#### YOUR DETAILED RESULTS

To calculate your genetic predisposition to acne we summed up the effects of genetic variants that were linked to acne 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 acne. The variants highlighted in blue have **negative effects sizes** and decrease your genetic predisposition to acne. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to acne. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for acne to be 0.34**. 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 acne is in the **38th percentile**. This means that it is higher than the polygenic scores 38% of people. We consider this to be a **below average genetic predisposition to acne**. 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>
rs478304_T	G / T	0.18 (↑)	60%	3.23 x 10 <sup>-11</sup>
rs38055_A	G / G	0.16 (-)	36%	4.58 x 10 <sup>-9</sup>
rs1159268_A	G / A	0.16 (↑)	39%	4.08 x 10 <sup>-8</sup>