

## 🌟 Inflammatory protein level (Hillary, 2020)

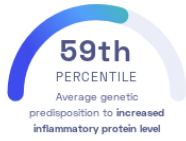
Robert F. Hillary, et al.  
Genome Medicine

Inflammation

### STUDY SUMMARY

Identification of 16 genetic variants associated with the presence of inflammatory proteins in the blood.

#### YOUR RESULT



#### STUDY DESCRIPTION

Inflammation is a response of the immune system to an infection or injury. It is caused by a release of inflammatory proteins that attract immune cells to fight the infection and increase blood flow to promote healing. However, sometimes these inflammation-promoting signals can occur and persist even when they aren't needed and cause damage to the body. This study looked at the levels of inflammatory proteins in the blood and found 16 associated genetic variants. These variants explained up-to 45% of the variance in inflammatory protein levels. The study also linked some of the inflammatory proteins to specific diseases including Crohn's disease, high blood pressure, and Alzheimer's disease.

#### DID YOU KNOW?

Chronic inflammation can be reduced by an anti-inflammatory diet. This includes eating foods high in omega-3 fats, antioxidants, probiotics, and fiber and avoiding foods that are high in trans fats, saturated fats, and omega-6 fats.

#### YOUR DETAILED RESULTS

To calculate your genetic predisposition to increased inflammatory protein level we summed up the effects of genetic variants that were linked to increased inflammatory protein level 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 inflammatory protein level. The variants highlighted in blue have **negative effect sizes** and decrease your genetic predisposition to increased inflammatory protein level. Variants that are not highlighted are not found in your genome and do not affect your genetic predisposition to increased inflammatory protein level. By adding up the effect sizes of the highlighted variants **we calculated your polygenic score for increased inflammatory protein level 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 increased inflammatory protein level is in the **59th percentile**. This means that it is higher than the polygenic scores 59% of people. We consider this to be an **average genetic predisposition to increased inflammatory protein level**. 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>
rs3138036_G	A / A	-1.20 (-)	15%	$5.03 \times 10^{-78}$
rs12076_G	G / G	-0.62 (↓)	42%	$7.02 \times 10^{-42}$
rs2032887_G	A / G	0.67 (↑)	26%	$1.04 \times 10^{-37}$
rs2272128_G	A / A	0.68 (-)	20%	$2.16 \times 10^{-33}$
rs11700291_T	C / C	1.07 (-)	6%	$5.43 \times 10^{-31}$
rs2229092_C	A / C	-1.15 (↓)	5%	$5.45 \times 10^{-31}$
rs6138139_G	A / G	0.68 (↑)	18%	$6.19 \times 10^{-31}$
rs1458038_T	T / T	0.49 (↑)	30%	$3.07 \times 10^{-21}$
rs6603134_G	A / G	-0.41 (↓)	59%	$2.77 \times 10^{-19}$
rs10045431_A	C / C	-0.45 (-)	29%	$9.01 \times 10^{-19}$
rs11230563_T	C / T	-0.41 (↓)	32%	$9.53 \times 10^{-17}$
rs485186_G	G / G	-0.38 (↓)	57%	$2.16 \times 10^{-16}$
rs10055565_G	A / G	0.36 (↑)	44%	$5.32 \times 10^{-16}$
rs2247526_C	T / C	0.36 (↑)	44%	$6.80 \times 10^{-16}$
rs425535_T	T / C	0.57 (↑)	12%	$1.02 \times 10^{-13}$
rs3136618_T	C / C	-0.36 (-)	62%	$6.88 \times 10^{-13}$