SelfDecode™

GSDMB (Mold Sensitivity)

Gene Report

REPORT CATEGORIES

INFLAMMATION & AUTOIMMUNITY

RESPIRATORY HEALTH

Sample Client

Report date: 15 January 2026

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Table of Contents

DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Personal information

NAME

Sample Client

SEX AT BIRTH

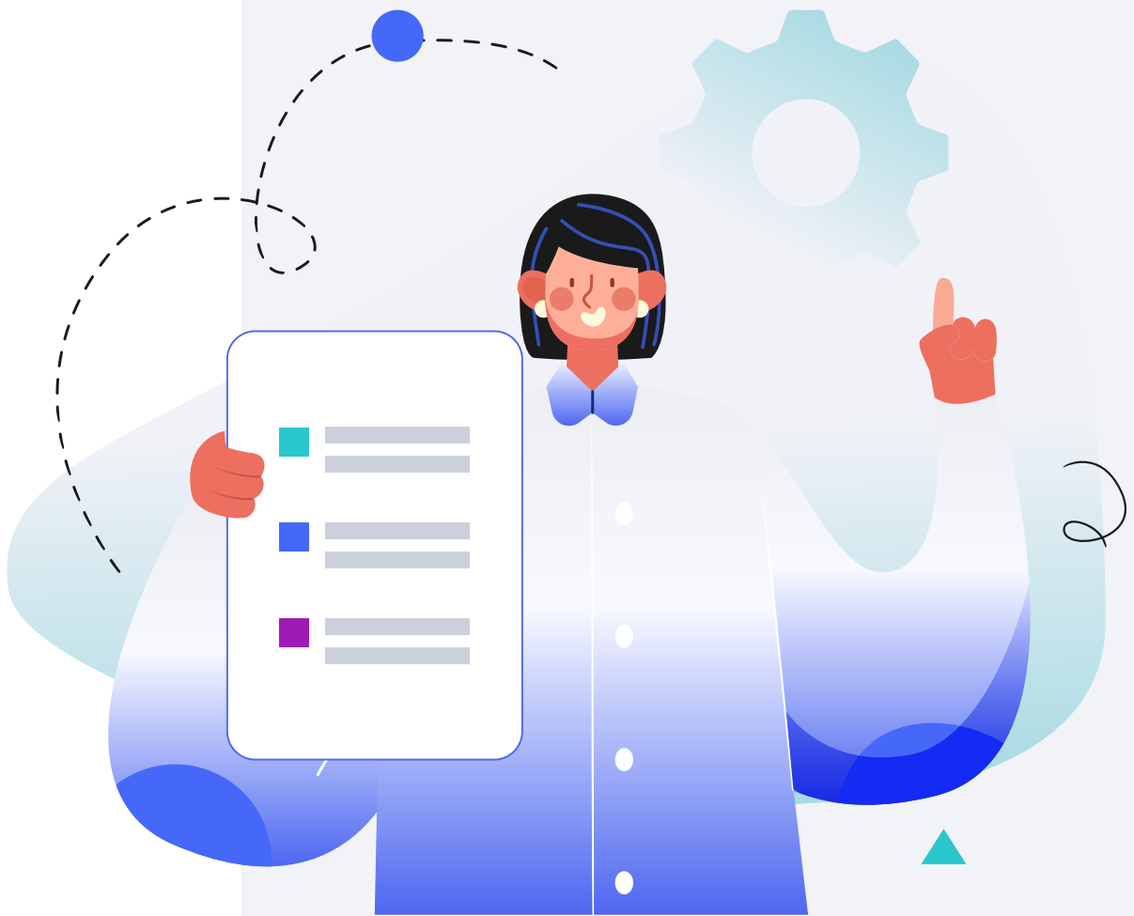
Male

HEIGHT

5ft 5" 165cm

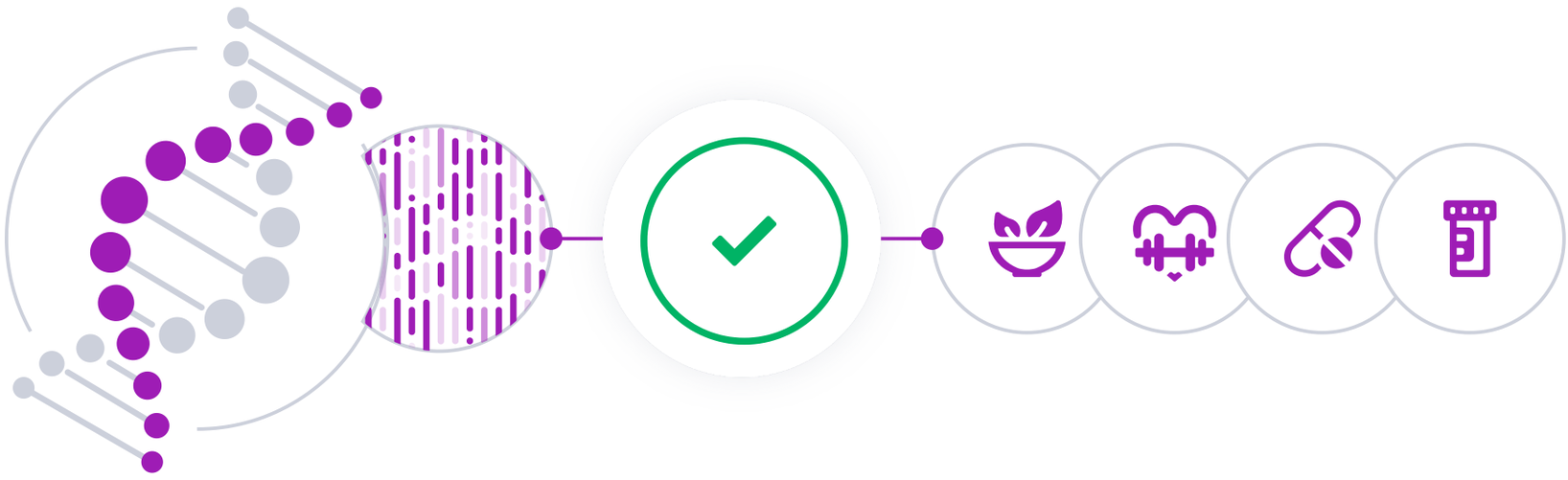
WEIGHT

137lb 62kg



How this works

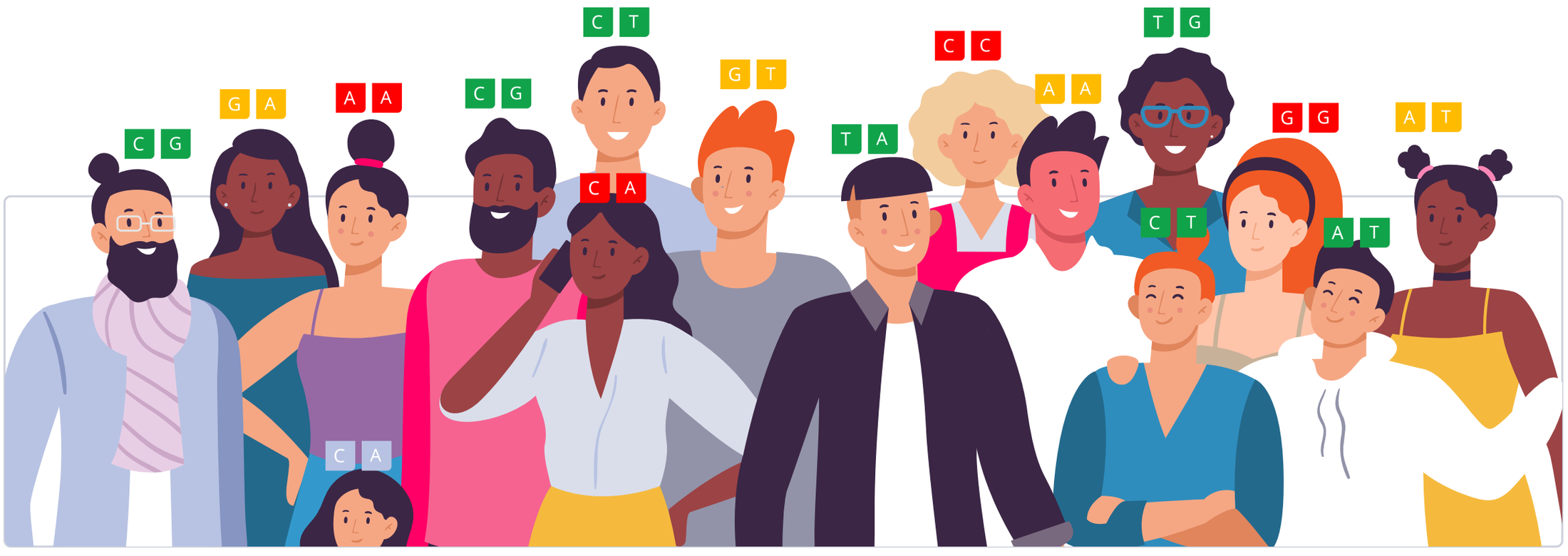
Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.



Similarly, our Trait Reports look at how your DNA influences your traits.

Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

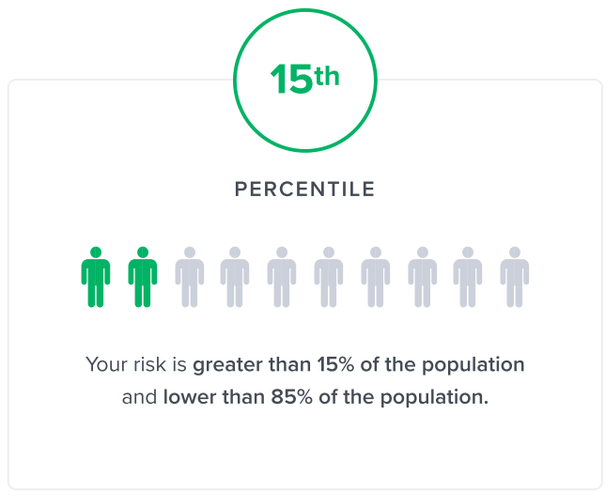
Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information. We then summarize your results as a risk score or display it on a gauge.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:

In total, we analyze up to 83 million genetic variants.



Genotype color info: AA You don't have any risk alleles | AA You have 1 risk allele | AA You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:

Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):

Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

5 / 5

Recommendations that are considered effective and generally recommended by experts and medical bodies.

4 / 5

Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.

3 / 5

Recommendations that are considered possibly effective and have many studies supporting them

2 / 5

Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.

1 / 5

Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.

0 / 5

No evidence in humans.

Genotype-specific Evidence

High-quality

Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, afew large clinical trials, or a meta-analysis).

Medium-quality

Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).

Low-quality

Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).

Indirect

A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).

In theory

A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

The *GSDMB* gene encodes a member of the gasdermin domain-containing protein family called gasdermin B. Members of this family are involved in a variety of biological processes, including inflammation, cell death, and immune defense [R].

GSDMB is especially abundant in lung epithelia and certain variants have been associated with an increased risk of asthma, as well as with a worse prognosis of lung cancer [R].

The *ORMDL3* gene, adjacent to *GSDMB*, codes for ORMDL sphingolipid biosynthesis regulator 3, a protein found in the epithelia of the airways that blocks the actions of an enzyme required for sphingolipid production [R, R].

ORMDL3 can also mediate the activation of a protein, as well as the activation of immune system components, that have been linked to structural and functional airway changes. These changes include: increasing the amount of airway muscle, inducing thickening and scarring below airway muscle, and augmenting the production of mucus that lines the airway. Collectively, structural and functional airway changes may elevate airway reactivity to allergens [R, R].

Gene variants increasing ORMDL3 production may make the airway more susceptible to allergens by inducing changes to the cells, muscles, and mucus that line the airway [R].

GSDMB Genetics

A study of 645 asthmatic and 910 non-asthmatic children associated the 'T' allele of rs7216389 with increased risk of asthma, especially in those exposed to airborne molds. This polymorphism is believed to increase *ORMDL3* expression, leading to increased production of inflammatory cytokines. Other studies have confirmed the link of this polymorphism with asthma and allergic rhinitis [R, R, R, R, R].

In line with this, engineered mice lacking *ORMDL* were protected against asthma and showed a decrease in lung and airway changes induced by molds (*Alternaria*) [R].

TYPICAL ACTIVITY

Likely typical GSDMB activity based on the genetic variants we looked at

51%

OF USERS SHARE THE SAME SCORE

You have the same genetic predisposition as **51% of our users.**

Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
GSDMB	rs7216389	CT

The number of "risk" variants in this table doesn't necessarily reflect your overall result.