

FABP2 (Blood Sugar/ Cardiovascular)

Gene Report

REPORT CATEGORIES —



HEART & BLOOD
VESSELS



WEIGHT & BODY FAT



BLOOD SUGAR
CONTROL

Sample Client

Report date: 15 January 2026

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Personal information

NAME

Sample Client

SEX AT BIRTH

Male

HEIGHT

5ft 5" 165cm

WEIGHT

137lb 62kg

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.



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.

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

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



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, a few 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 [FABP2](#) gene encodes a protein called fatty acid binding protein 2 that is found throughout the whole intestine and may help with the body’s energy balance. FABP2 absorbs and transports long-chain fatty acids, and helps produce triglyceride-rich lipoproteins. It also senses and adjusts how many fat molecules are available for energy production [\[R\]](#), [\[R\]](#).

FABP2 levels may rise in response to intestinal injury. Elevated levels may signal conditions such as celiac disease and necrotizing enterocolitis [\[R\]](#), [\[R\]](#), [\[R\]](#).

FABP2 Genetics and Metabolic Syndrome Components

The most widely researched polymorphism is [rs1799883](#), also called Ala54Thr. Its minor ‘T’ allele encodes a protein with an amino acid substitution that increases its affinity for long-chain fatty acids. As a result, the mutated version of this protein increases intestinal fatty acid absorption while reducing insulin sensitivity [\[R\]](#).

In line with its link to reduced insulin sensitivity, this variant has been associated with an increased risk of type 2 diabetes, especially in Asians [\[R, R, R, R\]](#).

This variant has also been associated with:

- High blood pressure [\[R\]](#)
- High triglycerides [\[R\]](#)
- High BMI, body weight, and hip circumference [\[R, R\]](#)
- Metabolic syndrome [\[R\]](#)
- Coronary artery disease [\[R\]](#)
- Ischemic stroke [\[R, R\]](#)

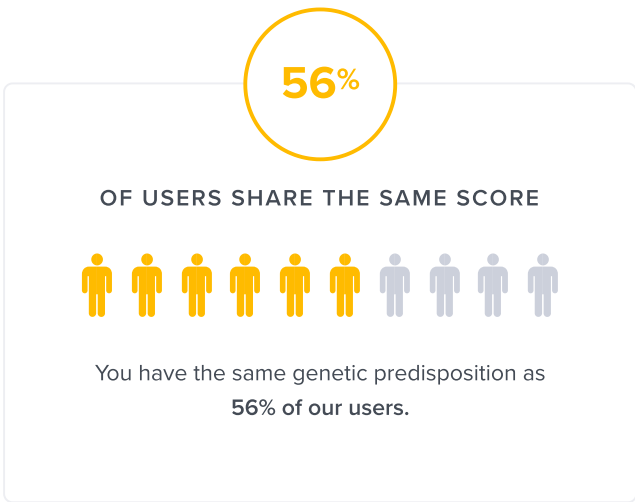
Moreover, women with the ‘C’ variant lowered their total cholesterol, triglycerides, fasting glucose, and HbA1c more after following a low-glycemic-index diet for 4-5 weeks in a study on 165 patients with type 2 diabetes. However, this variant didn’t modify the effectiveness of the intervention in men [\[R\]](#).

Alternatively, carriers of the ‘T’ allele increased their insulin resistance and decreased their HDL to total cholesterol ratio more when consuming a diet high in saturated fat in a trial of 2148 participants [\[R\]](#).



LOWER ACTIVITY

Likely lower FABP2 activity based on the genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
FABP2	rs1799883	CC

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

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You'll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

- 1

Limit Saturated Fat
- 2

Avoid Sugary Foods & Drinks

1



Limit Saturated Fat

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

Reduce your intake of saturated fats by choosing lean cuts of meat, opting for low-fat or fat-free dairy products, and using cooking oils high in unsaturated fats (like olive or canola oil) instead of butter or lard. Aim to keep saturated fat to less than 10% of your total daily calories. For someone consuming 2000 calories a day, this means 20 grams or less of saturated fat per day.

Description

Limiting saturated fat intake is crucial for managing cholesterol levels and reducing the risk of heart disease. Choosing lean protein sources and incorporating unsaturated fats into the diet supports cardiovascular health and overall well-being.

How it helps

Many experts recommend eating less saturated fat to help lower cholesterol. This may lower your risk of heart disease [\[R, R, R, R\]](#).

However, keep in mind that simply reducing saturated fats may not reduce your cholesterol. **This is especially true if you replace saturated fats with processed and sugary foods** [\[R\]](#).

To make a meaningful change, replace saturated fats with healthier alternatives, such as unsaturated fats. Good sources of these healthy fats include [\[R, R, R, R, R\]](#):

- Fish
- Nuts
- Seeds
- Avocado
- Safflower, olive, and canola oil

Fish, walnuts, and seeds are rich in polyunsaturated fats (PUFAs). These fats may be the best replacement for saturated fat [\[R\]](#).

Making these healthy replacements may lower cholesterol by up to 17% [\[R, R, R, R\]](#).

2



Avoid Sugary Foods & Drinks

IMPACT

4 / 5

EVIDENCE

4 / 5

How to implement

To avoid sugary foods, eliminate or significantly reduce consumption of foods and beverages high in added sugars such as sodas, candies, baked goods, and sugary cereals from your diet. Instead, opt for natural sugar sources like fruits. Aim to do this daily for ongoing health benefits.

Description

High-sugar foods like baked goods, sweets, and sugary drinks, can spike your blood sugar levels. Consuming a lot of these types of foods can contribute to health issues like diabetes, obesity, insomnia, and heart disease.

High-sugar foods and refined carbs have a high glycemic index (GI). This means they tend to spike your blood sugar levels. They include [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Sugary drinks
- Baked goods
- Sweets
- White bread
- White rice
- Pasta

Eating a lot of sugary foods can contribute to:

- Diabetes [\[R\]](#), [\[R\]](#), [\[R\]](#)
- Weight gain and obesity [\[R\]](#), [\[R\]](#)
- Insomnia [\[R\]](#)
- Heart disease [\[R\]](#)

You may also want to avoid processed sugars and sugary drinks. They may have a role in increasing IL-1B [\[R\]](#), [\[R\]](#).

How it helps

Sugary foods can spike your blood sugar and insulin. **Over time, this can lead to [insulin resistance](#) and increase the risk of type 2 diabetes** [\[R\]](#), [\[R\]](#), [\[R\]](#).

All health experts recommend avoiding sugary foods to people at risk of diabetes [\[R\]](#), [\[R\]](#), [\[R\]](#).

Diets that limit sugary foods and help lower blood sugar include:

- The [Mediterranean diet](#) [\[R\]](#), [\[R\]](#), [\[R\]](#)
- The [keto diet](#) [\[R\]](#), [\[R\]](#)
- The paleo diet [\[R\]](#), [\[R\]](#)

 PERSONALIZED TO YOUR GENES

Diabetic women with your [FABP2](#) gene variant may lower their cholesterol, triglycerides, fasting glucose, and HbA1c more if they eat a low-glycemic-index diet [\[R\]](#).

YOUR GENETIC VARIANTS			
GENE	SNP	GENOTYPE	EVIDENCE
FABP2	rs1799883	CC	

Next Steps

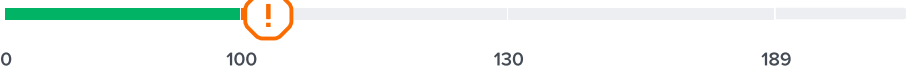
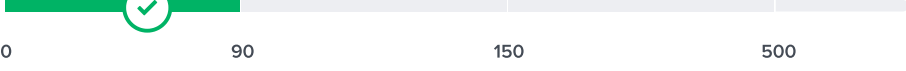
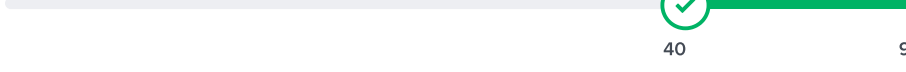
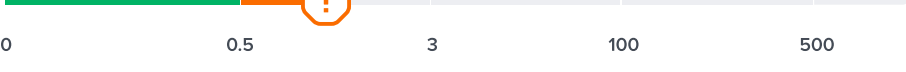
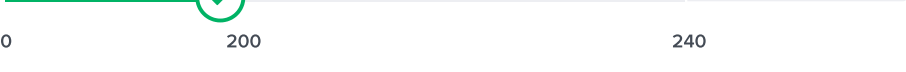
Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.

	HbA1c	30 mmol/mol		29 Dec 2025
	LDL Cholesterol	103 mg/dL		9 Nov 2025
	Glucose, Fasting	97 mg/dL		9 Nov 2025
	Triglycerides	54 mg/dL		9 Nov 2025
	HDL Cholesterol	42 mg/dL		9 Nov 2025
	hs-CRP	1.6 mg/L		9 Nov 2025
	Cholesterol, Total	182 mg/dL		9 Nov 2025
	HbA1c (%)	4 %		29 Dec 2025
	ApoB	108 mg/dL		9 Nov 2025