

DNA Wellness Report

Skin Insights

For: **Test User**

KIT ID: X-MIPT00

Report type: Wellness

Genetic variations: 11 SNPs

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Dear **Test User**

Thank you for choosing our genetic analysis service.

We are pleased to provide you with personalized information based on your genetic data. This report is designed to offer educational insights into selected genetic variants and their associations described in scientific literature.

Our goal is to present your results in a clear and informative format to support a better understanding of certain genetic characteristics related to general wellness. This information is intended for educational purposes only and is not intended to diagnose, treat, cure, or prevent any disease.

We hope your experience with our service has been clear, informative, and valuable. If you have any questions or need additional assistance, our team is available to help.

Thank you again for placing your trust in us.

Sincerely,
MAGISNAT OMICS LLC Team

GENETIC is important

DNA Wellness Report: Skin Insights

Skin-related pathways include biological processes influenced by both environmental factors and genetic variation. This DNA report analyzes **11 selected genetic variants (SNPs)** that have been studied in relation to biological pathways associated with skin elasticity, skin appearance, pigmentation, UV response, and selected nutrient-related pathways. Scientific literature suggests that genetic variation may be associated with differences in certain skin-related processes among individuals. The information in this report is provided for educational and general wellness purposes and is intended to offer context about genetic variation and skin-related biological pathways. **This report is not intended to diagnose, treat, cure, or prevent any disease.**

Traits



Skin Elasticity



Skin Appearance



Skin Pigmentation



UV Response

Understanding the report

How to read your genetic results

This report presents information about selected genetic variants identified through the analysis of specific genes and their variations, known as single nucleotide polymorphisms (SNPs).


Each result is displayed in a dedicated section that includes the gene name, a description of its biological role, the specific SNP analyzed, and the genotype identified (alleles).

The information provided in this report is based on findings from published scientific research describing associations between certain genetic variants and biological processes.

For clarity, each genetic variant is presented using a color-coded system that summarizes how the identified genotype relates to scientific observations reported in literature. This system is intended to help readers easily interpret the information presented in the report.

The content of this report is provided for educational and informational purposes only and is not intended to diagnose, treat, cure, or prevent any disease.

 Typically reported variation

 No clear reported association

 Moderate reported variation

 Greater reported variation



Report summary



Skin Elasticity

SNP: ● rs3734398 T/T SNP: ● rs1800795 C/C SNP: ● rs61816761 G/G



Skin Appearance

SNP: ● rs1527479 T/C SNP: ● rs1800012 C/C SNP: ● rs699947 A/A SNP: ● rs1800629 G/A



Skin Pigmentation

SNP: ● rs12934922 A/T SNP: ● rs1801133 G/A



UV Response

SNP: ● rs4588 G/T SNP: ● rs10741657 G/G



Genetic Data Results

Skin Elasticity

Skin elasticity-related pathways include biological processes involving structural proteins such as collagen and elastin. This section presents information about selected genetic variants that have been studied in relation to biological pathways associated with skin elasticity-related traits. Scientific literature suggests that genetic variation may be associated with differences in certain skin-related processes among individuals. The information in this section is provided for educational and general wellness purposes and is intended to offer context about genetic variation and skin-related biological pathways.

Reference:

Chen, Dandan, et al. "Research on the Correlation Between Skin Elasticity Evaluation Parameters and Age." *Cosmetics*, vol. 11, no. 6, 2024, article 205, <https://doi.org/10.3390/cosmetics11060205>.

Your results

Gene: ELOVL2 Fatty acid elongase 2.

Protein involved in the synthesis of very long polyunsaturated fatty acids (VLC-PUFAs), which have several critical roles in our body.

SNP: rs3734398 **Alleles:** T/T ● Normal function. [19-20][21-22]

Gene: IL6 Interleukin 6.

Signaling protein involved in immune response, inflammation, and various physiological process.

SNP: rs1800795 **Alleles:** C/C ● Normal Function. [25]

Gene: FLG Filaggrin.

Essential structural protein found in the outermost layer of the skin, called the stratum corneum. It plays a crucial role in maintaining the skin's barrier function and hydration.

SNP: rs61816761 **Alleles:** G/G ● Normal function. [26-28]



Your notes



Skin Appearance

Skin appearance—related pathways include biological processes influenced by both internal factors and external exposures, such as UV radiation and pollution. This section presents information about selected genetic variants that have been studied in relation to biological pathways associated with skin appearance—related processes. Scientific literature suggests that genetic variation may be associated with differences in certain skin-related processes among individuals. The information in this section is provided for educational and general wellness purposes and is intended to offer context about genetic variation and skin-related biological pathways.

Reference:

Shin, Sun Hye et al. "Skin aging from mechanisms to interventions: focusing on dermal aging." *Frontiers in Physiology* vol. 14, 1195272, 2023. doi:10.3389/fphys.2023.1195272

Your results

Gene: CD36 Platelet glycoprotein 4.

Membrane transporter of fatty acid.

SNP: rs1527479 **Alleles:** T/C ● Possible lower skin carotenoid-related measures. [1-2][13][16]

The CD36 gene encodes the Platelet glycoprotein 4, a membrane protein with a crucial role in fatty acid uptake. The rs1527479 polymorphism in one copy (heterozygosity) has been associated with lower carotenoid skin levels. [1-2] [13] Some studies have explored whether skin carotenoid levels are associated with antioxidant-related measures in the skin, and whether vitamin E may play a supporting role in normal protection from oxidative stress.[16] A qualified healthcare professional can help assess whether your diet, including vitamin E and vitamin A intake, is appropriate for your individual needs.

Gene: COL1A1 Collagen Type I Alpha 1 Chain.

Main component of type I collagen, the fibrillar collagen found in most connective tissues, including bones, tendons, cartilage, and skin.

SNP: rs1800012 **Alleles:** C/C ● Normal function. [17][18]

Gene: VEGFA Vascular Endothelial Growth Factor A.

Signaling protein with a crucial role in angiogenesis, the process of formation of new blood vessels.

SNP: rs699947 **Alleles:** A/A ● Normal function. [23]



Gene: TNF Tumor Necrosis Factor-alpha.

Signaling protein (cytokine) involved in immune response, inflammation, and cell death (apoptosis).

SNP: rs1800629

Alleles: G/A

● Possible moderate association with certain skin-related measures over time. [24]

The TNF gene encodes for tumor necrosis factor (TNF), a multifunctional cytokine involved in the regulation of various biological processes, particularly in the immune system. TNF plays a central role in inflammation and immune responses. It is produced by various immune cells, including macrophages and T lymphocytes, in response to infection, injury, or other stimuli like UV rays. Some studies have explored whether the polymorphism rs1800629, when present in one copy (heterozygosity), is associated with differences in certain skin-related measures linked to skin appearance over time. [24] A qualified healthcare professional can help assess whether your overall diet and lifestyle are appropriate for your individual needs.



Your notes



Skin Pigmentation

Skin pigmentation includes biological processes involved in melanin production in the skin. This section presents information about selected genetic variants that have been studied in relation to biological pathways associated with skin pigmentation. Scientific literature suggests that genetic variation may be associated with differences in certain pigmentation-related processes among individuals. The information in this section is provided for educational and general wellness purposes and is intended to offer context about genetic variation and skin-related biological pathways.

Reference:

Thawabteh, Amin Mahmood et al. "Skin Pigmentation Types, Causes and Treatment-A Review." *Molecules* vol. 28,12 4839. 2023. doi:10.3390/molecules28124839

Your results

Gene: **BCO1** Beta-Carotene Oxygenase 1.

Key enzyme in beta-carotene metabolism to vitamin A. It catalyzes the cleavage of beta-carotene into two retinal molecules, an active form of vitamin A.

SNP: rs12934922 **Alleles:** A/T ● Possible reduced carotenoid conversion. [1][2-7][8]

The BCO1 gene encodes the enzyme Beta-Carotene Oxygenase 1, which is responsible for converting beta-carotene into retinal, a biologically active form of vitamin A.[1] Some studies suggest that the rs12934922 polymorphism, when present in one copy (heterozygosity), may be associated with a lower skin carotenoid score. As a result, individuals with this genetic variant may show differences in vitamin A-related measures.[2-7] Vitamin A plays a role in normal skin maintenance, and some studies have explored links between vitamin A status and skin-related measures.[8] A qualified healthcare professional can help assess whether your diet, including vitamin A intake, is appropriate for your individual needs.

Gene: **MTHFR** Methylenetetrahydrofolate reductase.

Enzyme involved in the conversion of vitamin B9 into its biologically active form.

SNP: rs1801133 **Alleles:** G/A ● Possible slightly reduced folate-related measures after UV exposure [1][9-11] and lower pigmentation-related measures.

The MTHFR gene encodes the enzyme Methylenetetrahydrofolate reductase, which is responsible for converting folate in its biologically active form. This active form is essential for various biochemical reactions, including the metabolism of homocysteine.[1] Some studies suggest that the rs1801133 polymorphism, when present in two copies (homozygosity), may be associated with somewhat lower folate-related measures in the blood after UV exposure, as well as differences in skin pigmentation.[9-11] A qualified healthcare professional can help assess whether your diet, including folate and vitamin D intake, is appropriate for your individual needs.



Your notes



UV Response

UV response includes biological processes in the skin associated with exposure to ultraviolet radiation. This section presents information about selected genetic variants that have been studied in relation to biological pathways associated with UV response. Scientific literature suggests that genetic variation may be associated with differences in certain UV-related and skin-related processes among individuals. The information in this section is provided for educational and general wellness purposes and is intended to offer context about genetic variation and skin-related biological pathways.

Reference:

Brar, Gurjasaan et al. "A Comprehensive Review of the Role of UV Radiation in Photoaging Processes Between Different Types of Skin." *Cureus* vol.17,3 e81109. 2025. doi:10.7759/cureus.81109

Your results

Gene: GC

Vitamin D-binding protein.

Protein binding vitamin D and its plasma metabolites to transport them to target tissues.

SNP: rs4588

Alleles: G/T



Possible intermediate vitamin D-25(OH) concentrations after UV exposure.

[1] [12-13][14][15]

The gene GC encodes the vitamin D-binding protein, which is responsible for binding and transporting vitamin D and its metabolites in the bloodstream.[1][12-13] Some studies suggest that the rs2282679 polymorphism, when present in one copy (heterozygosity), may be associated with somewhat lower vitamin D-25(OH) concentrations after UV exposure.[14] Vitamin D plays a role in normal skin function, and some studies have explored whether lower vitamin D levels are associated with differences in skin-related measures.[15] A qualified healthcare professional can help assess whether your diet, including vitamin D intake, is appropriate for your individual needs.

Gene: CYP2R1

Cytochrome P450 2R1.

Enzyme converting vitamin D into the active ligand for the vitamin D receptor.

SNP: rs10741657

Alleles: G/G



Possible lower Vitamin D-25(OH) concentrations after UV exposure.

[1] [12-13][14][15]

The gene CYP2R1 encodes the Cytochrome P450 2R1, which is involved in the conversion of vitamin D into its active form, calcitriol, in the liver. CYP2R1 performs the first modification, producing 25- hydroxyvitamin D. [1] [12-13] Some studies suggest that the rs10741657 polymorphism, when present in two copies (homozygosity), may be associated with lower vitamin D-25(OH) concentrations after UV exposure.[14] Vitamin D plays a role in normal skin function, and some studies have explored whether lower vitamin D levels are associated with differences in skin-related measures.[15] A qualified healthcare professional can help assess whether your diet, including vitamin D intake, is appropriate for your individual needs.



Your notes

Scientific Glossary

When discussing genetics, it's often necessary to use many technical terms, and there's no way to avoid it if we want to maintain accuracy in explanations. That's why we have compiled a scientific glossary - to enable everyone to understand without getting overwhelmed.

Anyway, it is important to emphasize that our scientific glossary does not aim to be exhaustive and is not intended to replace the advice provided by your healthcare provider. Professional medical support is essential for a proper interpretation of genetic data and for developing a personalized health and wellness plan.

Allele

An allele is one of the different forms of a specific gene. The differences among alleles arise from small changes in the DNA sequence and can lead to changes in the characteristic controlled by the gene itself.

Chromosome

An allele is one of the different forms of a specific gene. The differences among alleles arise from small changes in the DNA sequence and can lead to changes in the characteristic controlled by the gene itself.

Dietary supplement

A dietary supplement is a product that contains one or more dietary ingredients, such as vitamins, minerals, herbs, amino acids, enzymes, or other substances, intended to supplement the diet. These supplements are available in various forms, including pills, capsules, tablets, powders, or liquids.

DNA

DNA stands for Deoxyribonucleic Acid. It is the macromolecule containing the information to build the organism. It is made up of 4 different nucleotides (Adenine, Cytosine, Guanine and Thymine). The human DNA have 3 billion nucleotide basepairs.

Gene

A gene is a segment of a chromosome that occupies a given locus on it and codes for a protein, each one with a specific function: some build the structure of our cells, some respond to signaling molecules, some catalyze reactions (these are called enzymes), and so on.

Genetic Variant

A genetic variant is a change or alteration in the DNA sequence of a gene. The main genetic variant types include base substitutions, deletions, or insertions.

Genomics

Genomics is a field of biology that focuses on the study of an organism's entire genome, which is the complete set of its genetic material. It involves the comprehensive analysis of genes, their functions, interactions, and variations within and between populations.

Genotype

The genotype is the genetic makeup of an organism, then the combination of alleles presents in an individual's DNA at a particular locus on a chromosome. The genotype represents the specific genetic information that an organism inherits from its parents.

Heterozygosity

Heterozygosity refers to having two different alleles at a specific genetic locus. If an individual has one copy of the "A" allele and one copy of the "B" allele for a certain gene (AB genotype), they are said to be heterozygous for that gene.

Homozygosity

Homozygosity refers to having two identical alleles at a specific genetic locus. If an individual has two copies of the "A" allele for a certain gene (AA genotype), they are said to be homozygous for that gene.

Macronutrient

Macronutrients are essential nutrients that are required by the body in large quantities to maintain proper functioning, growth, and overall health. These nutrients provide the necessary energy and building blocks needed for various physiological processes. The three primary macronutrients are: carbohydrates, lipids (fat), and proteins.



Micronutrient

Micronutrients are essential nutrients required by the body in smaller quantities but are equally important for maintaining overall health and supporting various physiological functions. Micronutrients include two main groups: vitamins and minerals.

Nutritional deficiency

Nutritional deficiency, also known as malnutrition, refers to a condition in which the body does not receive enough macronutrients or micronutrients, which are needed to support proper growth, development, and overall wellness.

Phenotype

The phenotype is any observable trait arising from a complex interplay between a given genotype and environmental factors. Examples of phenotypes are height, eye color and blood type.

rsID number

rsID numbers are identifiers used by researchers to name different SNPs.

SNPs (Single Nucleotide Polymorphism)

A SNP, or single nucleotide polymorphism, is a genetic variant in one of the nucleotide bases composing DNA and found in more than 1% of the population.

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Disclaimers

This DNA Wellness Report has **not been evaluated by the U.S. Food and Drug Administration** and is **not intended to diagnose, treat, cure, or prevent any disease.**

The information in this report is provided for **educational and informational purposes only**. It is based on the analysis of selected genetic variants and on scientific literature available at the time of report preparation. This report is not a substitute for professional medical advice, diagnosis, or treatment.

Before making significant decisions related to diet, supplementation, lifestyle, or medical care, consult a qualified healthcare professional.

While we make reasonable efforts to present accurate and up-to-date information, we do not guarantee that all content is free from error or omission. Scientific understanding of genetics continues to evolve, and interpretations may change over time as new research becomes available.

Genetic information may be interpreted differently in other contexts. This report is limited to **general wellness and educational use only** and does not provide interpretation regarding disease diagnosis, disease risk, medical conditions, family relationships, or ancestry.

Any testimonials or user experiences related to the DNA Wellness Test are individual experiences and are not intended to represent typical or guaranteed outcomes.

If laboratory analysis is performed by a **CLIA-certified and/or CAP-accredited laboratory**, such certification or accreditation relates to laboratory quality standards and does not mean that this report has been reviewed or approved by the FDA.

Your sample and data are handled in accordance with our privacy and data protection procedures. If consent has been provided, de-identified and aggregated data may be used for research, quality improvement, or scientific publication as permitted by applicable policies and approvals.

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