ULTAGENOMICS

DECODE YOUR DNA. GUIDE YOUR HEALTH.

Genetic Gut & Digestive Health

GENETICS REPORT

1	4	101
Report	Report Panels	Gene Variants

Example Client
Prepared for

September 19, 2026
Report Date

Our genetic test provides insights into how your unique genetic profile influences health areas. By understanding these genetic tendencies, you and your healthcare provider can make more informed lifestyle and wellness choices to support long-term health goals.

THESE GENE RESULTS MIGHT TELL YOU

- ✓ How your body may respond to certain nutrients
- ✓ Dietary patterns and environmental factors
- ✓ Potential predispositions in detoxification, metabolism, and physical performance
- ✓ Why some wellness strategies may work differently for you

THESE GENE RESULTS WILL NOT TELL YOU

- ✕ Any medical diagnoses
- ✕ Cancer diagnoses or clinical cancer risk assessments
- ✕ Predictions about future health conditions
- ✕ How lifestyle factors outside of genetics impact health outcomes

This report is intended for informational purposes only and does not constitute medical advice. Results reflect genetic predispositions, not guarantees of health outcomes. Always consult a qualified healthcare practitioner before making changes to your health regimen.

A typical or decreased result does not mean there is no risk, and an increased result does not mean a condition will develop. Environment, lifestyle and family history also play a role. Any result that mentions cancer reflects a genetic tendency only. It is not a clinical cancer risk assessment and does not replace recommended cancer screening.

Talk with a healthcare provider before starting any supplement, especially if pregnant or breastfeeding, taking prescription medications, or managing a medical condition. Do not start, stop or change any medication based on these results without first talking with the prescribing provider.

Statements about supplements in this report have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

Research on how genes relate to health is still developing. Some recommendations are based on limited evidence and may be updated as new research becomes available.

Testing is performed by a CLIA-certified, CAP-accredited laboratory. Genotyping is highly accurate, but no laboratory test is completely error-free. Results that will change clinical decisions may warrant confirmatory testing.

OVERVIEW

Results at a Glance

This report covers 4 panels and 6 individual results. The summary below shows where the genetic profile indicates areas worth focusing on, areas to monitor, and areas where results are favorable. The Moderate results are where targeted support may have the most impact.

1

NEEDS ATTENTION

- Ulcerative Colitis Propensity

2

MODERATE

- General Histamine Sensitivity
- Food-based Histamine Sensitivity

3

OPTIMAL

- Crohn's Propensity
- Gluten Risk
- Lactose Intolerance Risk

1 Ulcerative Colitis

9 variants analyzed

In plain terms: Ulcerative colitis (UC) is a chronic inflammatory bowel disease (IBD) characterized by inflammation and ulceration of the innermost lining of the colon and rectum. This condition can lead to symptoms such as abdominal pain, diarrhea, rectal bleeding, and weight loss. The exact cause of UC is unknown, but it is believed to result from a combination of genetic, environmental, and immune factors. Understanding the genetic components can help identify individuals at higher risk and guide personalized treatment and management strategies.

Genetic factors play a significant role in susceptibility to ulcerative colitis. Numerous genetic markers have been associated with UC, many of which are involved in immune system regulation and inflammatory response. Variants in genes such as IL23R, which affects the body's immune response, and HLA, which influences how the immune system recognizes and responds to pathogens, have been linked to an increased risk of UC. These genetic variations can lead to an overactive immune response in the gut, resulting in chronic inflammation and tissue damage. By understanding these genetic predispositions, it is possible to gain insights into the mechanisms driving UC and develop targeted treatment strategies.

Genetic insights into ulcerative colitis can inform personalized health strategies. For individuals with a higher genetic risk, early diagnosis and proactive management are crucial. Recommendations may include dietary modifications to reduce inflammation, such as a balanced diet rich in fiber and low in inflammatory foods, and the use of probiotics to support gut health. Medical treatments may involve the use of anti-inflammatory drugs, immunosuppressants, and biologics that target specific pathways involved in the inflammatory response. Regular monitoring and personalized treatment plans can help manage symptoms and prevent flare-ups. Genetic counseling can provide valuable support and information for individuals at risk. By leveraging genetic information, healthcare providers can develop individualized strategies to manage UC, improve patient outcomes, and enhance quality of life.

YOUR RESULTS

Ulcerative Colitis Propensity



INCREASED

UNDERSTANDING WHAT THIS MAY MEAN

Individuals with increased ulcerative colitis propensity genetic results carry variants linked to a higher than average likelihood of developing ulcerative colitis, an inflammatory condition of the large intestine. Genetics is only one factor, and most people with this result do not develop the condition; diet, gut microbiome, stress and other environmental factors also play a role. Individuals with this result may benefit from paying attention to persistent digestive changes, such as ongoing diarrhea, blood in the stool or abdominal pain, and discussing them promptly with a healthcare provider.

RECOMMENDATIONS

SUPPLEMENT

Probiotics

10 to 112 billion CFU daily

Rebalances gut microbiota, strengthens mucosal integrity, and reduces inflammation through SCFA production.

SUPPLEMENT

Curcumin

1,000 to 2,000 mg daily

Inhibits NF-kB, COX-2, and LOX inflammatory pathways; protects gut lining from oxidative stress.

DIET

Anti-Inflammatory Diet

UC is driven by gut inflammation; an anti-inflammatory dietary pattern reduces flare frequency and severity.

DIET

Omega-3 Rich Foods

Fatty fish and flaxseeds reduce the inflammatory eicosanoids that trigger UC flares.

LIFESTYLE

Reduce Stress

Stress is a major UC flare trigger through the gut-brain axis; consistent management reduces relapse risk.

LIFESTYLE

Adequate Sleep

7 to 8 hours/night

Sleep deprivation worsens intestinal inflammation and immune dysregulation in UC.

FURTHER TESTING

Calprotectin (stool)

Non-invasive marker of intestinal inflammation; tracks treatment response without colonoscopy.

FURTHER TESTING

Vitamin D Level

Deficiency is highly prevalent in UC and associated with greater disease severity.

GENETIC SUMMARY

GENE	RS ID	YOUR GENOTYPE	GENE	RS ID	YOUR GENOTYPE
NOD2 C802T	rs2066842	**CC**	**MROH3P (T>C)**	rs11584383	**TT**
NKX2-3 g.G75A	rs10883365	**AG**	**STAT3 A-23-13644G**	rs744166	**AA**
IL-23R C*309A	rs10889677	**AC**	**IL-10 (G>A)**	rs3024505	**AG**
BSN G11736A	rs9858542	**AG**	**HLA-DRB1 g.G12658T**	rs2395185	**TG**
RNF186 (G>A)	rs6426833	**AG**			

2 Crohn's

60 variants analyzed

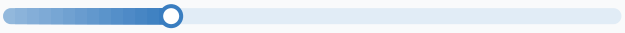
In plain terms: Crohn's disease is a chronic inflammatory bowel disease (IBD) that can affect any part of the gastrointestinal tract, from the mouth to the anus. It is characterized by inflammation that penetrates deep into the layers of the intestinal wall, leading to symptoms such as abdominal pain, diarrhea, fatigue, weight loss, and malnutrition. The exact cause of Crohn's disease is not fully understood, but it is believed to result from a combination of genetic, environmental, and immune factors. Understanding the genetic components can help identify individuals at higher risk and guide personalized treatment and management strategies.

Genetic factors play a significant role in susceptibility to Crohn's disease. Several genes have been identified that influence the immune response and the integrity of the intestinal barrier. For instance, variations in the NOD2 gene, which plays a role in the immune system's ability to recognize and respond to bacterial pathogens, have been strongly associated with an increased risk of Crohn's disease. Other genes involved in autophagy (the process by which cells remove damaged components) and cytokine signaling also contribute to the development and progression of the disease. By examining these genetic variations, it is possible to better understand an individual's risk for Crohn's disease and tailor preventive and therapeutic strategies.

Genetic insights into Crohn's disease can guide personalized health strategies. For individuals with a higher genetic risk, early intervention and regular monitoring are essential. Recommendations may include dietary modifications, such as adopting a low-residue diet during flare-ups and a nutrient-rich diet to support overall health. The use of anti-inflammatory medications, immunosuppressants, and biologic therapies targeting specific immune pathways may be tailored based on genetic predispositions. Additionally, lifestyle changes such as stress management and smoking cessation can be beneficial, as these factors can exacerbate symptoms. Genetic counseling can provide valuable support and information for individuals and families at risk. By leveraging genetic information, healthcare providers can develop individualized strategies to manage Crohn's disease, improve patient outcomes, and enhance quality of life.

YOUR RESULTS

Crohn's Propensity



DECREASED

UNDERSTANDING WHAT THIS MAY MEAN

Individuals with decreased Crohn's propensity genetic results show a lower than average likelihood of developing Crohn's disease. A nutritious diet, regular physical activity and not smoking can help support digestive health.

GENETIC SUMMARY

GENE	RS ID	YOUR GENOTYPE	GENE	RS ID	YOUR GENOTYPE
ATG16L1 g.C3623T	rs10210302	**TC**	**NOD2 A2798+265G**	rs2076756	**AA**
IL-23R C798+2778T	rs11805303	**CC**	**MROH3P (T>C)**	rs11584383	**TT**
NOD2 C541-2184G	rs17221417	**CC**	**ATG16L1 A708-1202G**	rs3828309	**AG**
TTC33 (T>G)	rs17234657	**TT**	**ATG16L1 A898G**	rs2241880	**AG**
SLC39A8 C1171T	rs13107325	**TC**	**ORMDL3 (G>A)**	rs2872507	**GG**
NOD2 C1377T	rs2066843	**CC**	**CDKAL1 (G>C)**	rs7746082	**CG**
NOD2 3017_3019dup	rs2066847	**DD**	**PTGER4 (T>C)**	rs4613763	**TT**
TLR4 A896G	rs4986790	**AA**	**PTGER4 (G>T)**	rs7720838	**GG**
IBD5 (G>C)	rs6596075	**CC**	**IL-23R T1045+41G**	rs11465804	**TG**
SLC22A5 C-207G	rs2631367	**GG**	**PTPN22 A1858G**	rs2476601	**GG**
ZNF365 (G>C)	rs10995271	**GG**	**LRRK2 n.C451T**	rs11175593	**CC**
STAT3 A-23-13644G	rs744166	**AA**	**NOD2 C2104T**	rs2066844	**CC**
CDKAL1 T372-11019C	rs6908425	**CC**	**IL-10 (G>A)**	rs3024505	**AG**

GENETIC SUMMARY

GENE	RS ID	YOUR GENOTYPE	GENE	RS ID	YOUR GENOTYPE
Intergenic-23 (G>A)	rs1456893	**GG**	**ATG16L1 G954+993A**	rs3792109	**AG**
IL-23R G1142A	rs11209026	**AG**	**CARD9 C35A**	rs4077515	**CC**
IL-23R T799-3588G	rs7517847	**TG**	**TTC3 (T>C)**	rs11742570	**TC**
IL-23R C*309A	rs10889677	**AC**	**ZMIZ1 C1809-172A**	rs1250550	**AC**
IL-23R G1149-2391A	rs1343151	**AG**	**RPL3 (C>T)**	rs2413583	**CC**
Il-23R (C>T)	rs1495965	**TC**	**MUC19 G85+587A**	rs11564258	**GG**
Il-23R (G>A)	rs11209032	**AG**	**IRF-AS1 (G>T)**	rs12521868	**GG**
SLC22A4 C1507T	rs1050152	**CC**	**CEP43 C807-282T**	rs2301436	**TT**
IL-12B (A>C)	rs10045431	**AC**	**BSN (A>G)**	rs10761659	**AG**
TCF7L2 g.C3502T	rs3814570	**CC**	**IRGM A532-280G**	rs11747270	**AG**
HERC2 T1598+247C	rs916977	**TC**	**JAK2 g.C1358A**	rs10758669	**AA**
Intergenic-24 (T>C)	rs1736135	**TC**	**TNFSF18 (A>G)**	rs9286879	**AA**
BTNL2 g.A5186C	rs3763313	**AA**	**NKX2-3 g.T3904C**	rs11190140	**TC**
TRIB1AL (G>A)	rs1551398	**AG**	**LACC1 A760G**	rs3764147	**AA**
MST1 G2107A	rs3197999	**AG**	**TNFSF15 A210+1643G**	rs4263839	**GG**
CUL2 (T>G)	rs17582416	**GG**	**EMSY (C>T)**	rs7927894	**TC**
C21orf33 G522-6327A	rs762421	**AG**	**IRG g.T2303C**	rs13361189	**TC**

3 Histamine

11 variants analyzed

In plain terms: Histamine, a biogenic amine involved in local immune responses, also plays a crucial role in regulating physiological functions, including digestion, sleep, and neural communication. However, variations in histamine metabolism and sensitivity can lead to a range of health issues, such as allergies, histamine intolerance, and conditions affecting the gut and central nervous system. This section examines the genetic underpinnings that influence histamine levels and sensitivity, shedding light on personalized approaches to managing related health conditions.

The body's ability to metabolize histamine is primarily governed by enzymes such as diamine oxidase (DAO) and histamine N-methyltransferase (HNMT). Genetic variations in the genes encoding these enzymes, such as polymorphisms in the AOC1 gene (which codes for DAO) and the HNMT gene, can significantly affect histamine breakdown. Individuals with reduced activity of these enzymes may experience an accumulation of histamine, leading to symptoms associated with histamine intolerance, including headaches, skin rashes, digestive issues, and in severe cases, anaphylaxis.

Understanding genetic predispositions related to histamine metabolism and receptor sensitivity can guide personalized dietary and other lifestyle interventions. For individuals with histamine intolerance, dietary modifications to limit histamine-rich foods and the use of supplements to support histamine breakdown can be beneficial. Furthermore, knowledge of receptor sensitivity can inform the selection of antihistamine medications, optimizing therapeutic outcomes for allergic and other histamine-related conditions.

Besides genetic factors, lifestyle and environmental factors also play a role in managing histamine-related issues. Stress reduction, gut health optimization, and avoiding histamine triggers can complement genetic insights, offering a holistic approach to managing histamine intolerance and enhancing overall well-being.

YOUR RESULTS

General Histamine Sensitivity



INCREASED

UNDERSTANDING WHAT THIS MAY MEAN

Individuals with increased histamine sensitivity genetic results carry genetic markers that heighten their reaction to histamine, affecting their response not just to foods but also to environmental factors. This increased sensitivity can exacerbate symptoms related to asthma, sinusitis, and allergies, such as more frequent or severe nasal congestion, skin reactions, and respiratory distress. For those with an increased sensitivity, managing environmental exposures, consulting with healthcare professionals for appropriate treatments, and possibly following a low-histamine diet can be key strategies in reducing symptoms and improving quality of life.

RECOMMENDATIONS

SUPPLEMENT

Quercetin

500 to 1,000 mg daily, before meals

A plant flavonoid that may help stabilize mast cells and reduce the release of histamine.

SUPPLEMENT

Vitamin C

1,000 to 2,000 mg daily in divided doses

Vitamin C supports DAO activity and helps the body break down histamine.

DIET

Low-Histamine Diet Trial

4 to 6 weeks: limit aged cheese, cured meats, wine, fermented foods

Reducing dietary histamine for a few weeks can show whether food is adding to symptoms.

DIET

Fresh-Cooked Protein

Cook and eat within 2 hours; freeze leftovers promptly

Histamine builds up in protein foods during storage, so fresher food means a lower histamine load.

LIFESTYLE

Air Quality Control

HEPA air purifier in the bedroom; fragrance-free household products

Airborne allergens, mold spores and synthetic fragrances can trigger histamine release, so cleaner indoor air may lower the overall histamine load.

LIFESTYLE

Identify Non-Food Triggers

Symptom diary: heat, stress, fragrance, infection, chemical exposure

Histamine release can be triggered by more than food; tracking other triggers helps reduce the overall load.

FURTHER TESTING

Serum Tryptase and Plasma Histamine

Collect at peak symptoms if possible

Shows whether mast cells are actively releasing histamine, beyond a genetic tendency.

FURTHER TESTING

Serum DAO Activity

Shows whether the enzyme that breaks down food histamine is low.

YOUR RESULTS

Food-based Histamine Sensitivity



INCREASED

UNDERSTANDING WHAT THIS MAY MEAN

Individuals with increased sensitivity to histamine genetic results have genetic markers that may predispose them to more pronounced reactions to histamine, making them more susceptible to symptoms like hives, digestive issues, and nasal congestion upon consuming histamine-rich foods. Managing an increased histamine sensitivity involves being mindful of one's diet, possibly reducing intake of known histamine triggers. Some supplementation such as vitamin C and B6 can be beneficial to support DAO activity.

RECOMMENDATIONS

SUPPLEMENT

DAO (Diamine Oxidase) Enzyme

1-2 caps with high-histamine meals

DAO is the primary enzyme that breaks down dietary histamine in the gut.

SUPPLEMENT

Vitamin B6

25 mg daily

Vitamin B6 is a cofactor for the DAO enzyme that breaks down histamine.

DIET

Vitamin C-Rich Foods

Citrus, peppers, kiwi, berries daily

Vitamin C supports the breakdown of histamine.

DIET

Limit Alcohol, Especially Wine and Beer

Alcohol is high in histamine and blocks the DAO enzyme.

LIFESTYLE

Keep a Symptom and Food Diary

2 to 4 weeks

Tracking symptoms alongside foods and other exposures helps identify personal histamine triggers.

LIFESTYLE

Review Medications That Block DAO

With a pharmacist

Some medications reduce DAO activity and raise histamine levels.

FURTHER TESTING

IgE Food Allergy Panel

Identifies immediate food allergies that can add to the body's histamine load.

FURTHER TESTING

Celiac and Gut Health Screen

With a provider

Gut lining problems lower DAO, so a gut workup can help.

GENETIC SUMMARY

GENE	RS ID	YOUR GENOTYPE	GENE	RS ID	YOUR GENOTYPE
MTHFR G677A	rs1801133	**GA**	**AOC1 C995T**	rs1049742	**TT**
MTHFR T1298G	rs1801131	**TT**	**AOC1 G-92-231T**	rs2052129	**TT**
HNMT C314T	rs11558538	**CC**	**AOC1 C47T**	rs10156191	**TT**
HDC T1932G	rs2073440	**TT**	**HNMT A*60G**	rs1050891	**AG**
AOC1 C1990G	rs1049793	**CC**	**MAO-A T891G**	rs6323	**TG**
AOC1 G1329A	rs2071514	**GG**			

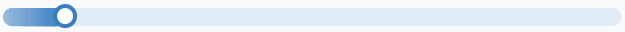
4 Gluten and Lactose

21 variants analyzed

In plain terms: Gluten and lactose are two of the most common sources of digestive discomfort. Lactose intolerance is the reduced ability to digest lactose, the sugar in milk and dairy products, and can lead to bloating, gas and diarrhea. Celiac disease and gluten sensitivity involve an adverse immune response to gluten, a protein found in wheat, barley and rye. Genetic factors play a significant role in both. Understanding these predispositions can help guide whether lactose-free or gluten-free choices may be worth considering, alongside symptoms, medical history and professional guidance.

YOUR RESULTS

Gluten Risk



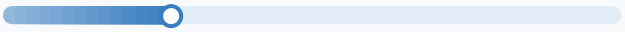
SIGNIFICANTLY DECREASED

UNDERSTANDING WHAT THIS MAY MEAN

Individuals with significantly decreased gluten sensitivity genetic results have a lower genetic likelihood of experiencing adverse reactions to gluten. Gluten sensitivity can vary among individuals and may be influenced by factors beyond genetics. If gastrointestinal symptoms persist despite a low genetic likelihood, investigate other causes.

YOUR RESULTS

Lactose Intolerance Risk



DECREASED

UNDERSTANDING WHAT THIS MAY MEAN

Individuals with decreased lactose intolerance risk genetic results are likely to have a lower risk of developing an intolerance to lactose.

GENETIC SUMMARY

GENE	RS ID	YOUR GENOTYPE	GENE	RS ID	YOUR GENOTYPE
HLA (T>C)	rs7454108	**TC**	**GAD1 G-151A**	rs3749034	**AG**
HLA g.G2032A	rs4639334	**GG**	**GAD1 C-64+894A**	rs12185692	**AC**
HLA (A>G)	rs4713586	**AA**	**GAD1 G-64+2259T**	rs3791878	**GG**
HLA C82+567T	rs2187668	**CC**	**GAD1 C146-3245T**	rs3828275	**TC**
HLA-DRA (G>T)	rs2395182	**TG**	**CCR3 g.T1184C**	rs6441961	**CC**
HLA-DQB1 (T>C)	rs7775228	**TT**	**RGS1 (C>A)**	rs2816316	**AA**
MCM6 (C>T)	rs145946881	**CC**	**ATXN2 C732-14033T**	rs653178	**TC**
MCM6 G1917+326A	rs4988235	**AA**	**IL-21 (A>G)**	rs13119723	**AA**
APOA2 A-265G	rs5082	**AA**	**IL-18RAP (T>C)**	rs917997	**CC**
IL-21 (G>T)	rs6822844	**TG**	**TAGAP T-492C**	rs1738074	**TC**
IL-12A-AS1 (A>G)	rs17810546	**AG**			

APPENDIX A

Supplement Recommendations

Based on your results

Supplements listed below are recommended for panels where at least one result was outside the typical range.

SUPPLEMENT	RATIONALE	PANEL
Probiotics 10 to 112 billion CFU daily	Rebalances gut microbiota, strengthens mucosal integrity, and reduces inflammation through SCFA production.	Ulcerative Colitis
Curcumin 1,000 to 2,000 mg daily	Inhibits NF-kB, COX-2, and LOX inflammatory pathways; protects gut lining from oxidative stress.	Ulcerative Colitis
Quercetin 500 to 1,000 mg daily, before meals	A plant flavonoid that may help stabilize mast cells and reduce the release of histamine.	Histamine
Vitamin C 1,000 to 2,000 mg daily in divided doses	Vitamin C supports DAO activity and helps the body break down histamine.	Histamine
DAO (Diamine Oxidase) Enzyme 1-2 caps with high-histamine meals	DAO is the primary enzyme that breaks down dietary histamine in the gut.	Histamine
Vitamin B6 25 mg daily	Vitamin B6 is a cofactor for the DAO enzyme that breaks down histamine.	Histamine

APPENDIX B

Further Testing Recommendations

Based on your results

Lab tests and assessments recommended for panels where at least one result was outside the typical range.

TEST / ASSESSMENT	CLINICAL RATIONALE	PANEL
Calprotectin (stool)	Non-invasive marker of intestinal inflammation; tracks treatment response without colonoscopy.	Ulcerative Colitis
Vitamin D Level	Deficiency is highly prevalent in UC and associated with greater disease severity.	Ulcerative Colitis
Serum Tryptase and Plasma Histamine Collect at peak symptoms if possible	Shows whether mast cells are actively releasing histamine, beyond a genetic tendency.	Histamine
Serum DAO Activity	Shows whether the enzyme that breaks down food histamine is low.	Histamine
IgE Food Allergy Panel	Identifies immediate food allergies that can add to the body's histamine load.	Histamine
Celiac and Gut Health Screen With a provider	Gut lining problems lower DAO, so a gut workup can help.	Histamine