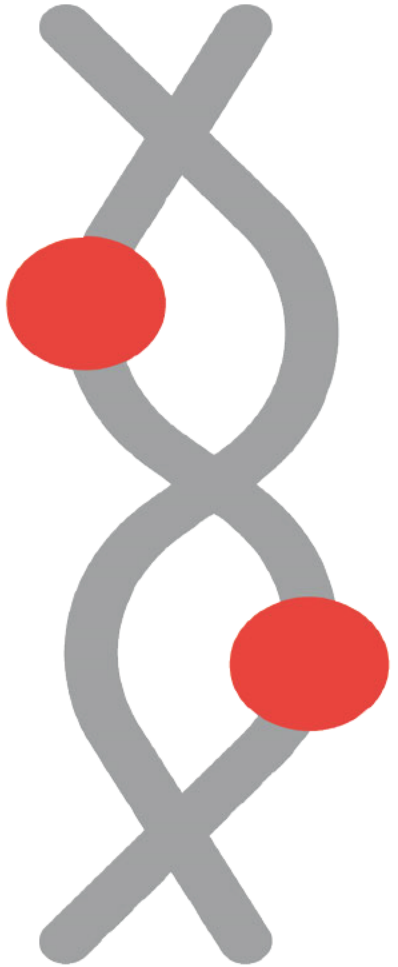
Fagron genomics



Gene Comprehensive Nutrigenomic Report

Accession Number: ##########
Specimen Collected: ##/##/####
Specimen Received: ##/##/####
Report Generated: February 27, 2025
Specimen Type: Buccal Swab
Provider: ######## ########
Patient Name: ###### ######
Patient DOB: ##/##/####
Patient Gender: Female

Do not make any decisions about your health solely based on the information contained in this report.
Always consult with a licensed and experienced health practitioner when you receive this report.

Fagron Genomics US | 844-258-5564 | FagronGenomicsUS.com
Lab | 807 Las Cimas Pkwy, Suite 145 | Austin, TX 78746
Laboratory Director: James W. Jacobson, Ph.D

– 27 – Female

(-/-) Normal Risk | (-/+) Medium Risk | (+/+) High Risk

rsID	Gene	Genetic Result	Therapeutics Associated With Positive Result	Highly Recommended Therapeutics - Designs for Health Formulas	Provider Discretion: As Needed Formula Recommendations	Lifestyle Recommendations	Laboratory Recommendations
VITAMINS							
Fat Soluble Vitamins							
	BCO1	C/C (-/-)	Vitamin A				
	BCO1	A/T (+/-)					
	TTPA	T/T (+/+)	Vitamin E	**Annatto-E® 300**		Consume Foods High in Vitamin E	Serum Vitamin E OR Comprehensive Micronutrient Testing
	CYP4F2	C/C (+/+)					
	GC	G/T (+/-)	Vitamin D, Vitamin K, Calcium	**D-Evail™ 10K OR D-Evail™ Supreme**	Osteoben® OR Cal/Mag 2:1		Consider Checking Vitamin D Levels OR Comprehensive Micronutrient Testing
	VDR	A/G (+/-)	Vitamin D, Vitamin K				
	VKORC1	C/C (-/-)	Vitamin K			Consider Consuming Foods High in Vitamin K, Unless Contraindicated by Clot Risk or Medication	
	CYP4F2	C/C (+/+)					
CoQ10							
	NQO1	G/G (-/-)	Coenzyme Q10, Pyrroloquinoline Quinone (PQQ), Riboflavin				
	NPC1L1	G/G (-/-)	CoQ-10, PQQ				

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Water Soluble Vitamins							
	SLC5A6	A/A (-/-)	Biotin (B7) and Pantothenate (B5)				
	TCN2	G/G (+/+)	Methylcobalamin, Adenosylcobalamin	**Tricobalamin™ OR Vitamin B12**		Consume Foods High in Vitamin B12	Serum Vitamin B12
	SLC23A1	C/C (-/-)	High Dose Vitamin C				

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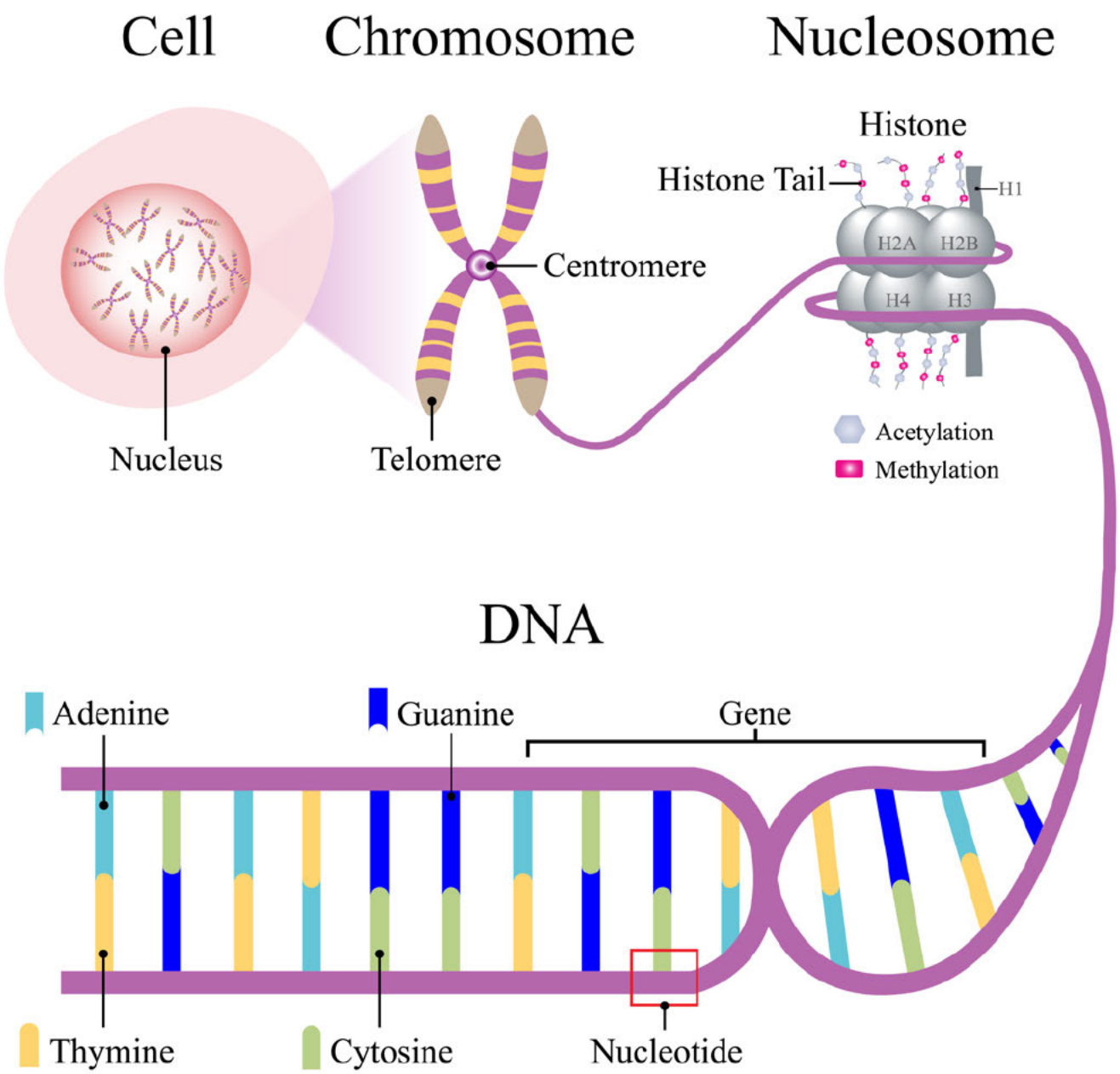
rsID	Gene	Genetic Result	Therapeutics Associated With Positive Result	Highly Recommended Therapeutics - Designs for Health Formulas	Provider Discretion: As Needed Formula Recommendations	Lifestyle Recommendations	Laboratory Recommendations
MINERALS							
	TRPM6	T/T (-/-)	Magnesium				
	SLC30A3	G/G (+/+)	Zinc	**Zinc Supreme™**		Food High in Zinc	Consider Checking Zinc Levels OR Comprehensive Micronutrient/Mineral Analysis Serum Alkaline Phosphatase Activity
	PDE8B	A/G (+/-)	Iodine, Selenium, Increased Risk of Hypothyroidism		Iodine Synergy™	Consider Consuming Foods with High Iodine Content	Urinary Iodine OR Comprehensive Micronutrient/Mineral Analysis Serum Thyroglobulin Thyroid Panel
	DIO1	A/C (+/-)	Selenium		Thyrommune™ if Free Triiodothyronine (T3) Is Low	Consider Consuming Foods with High Selenium Content	Whole Blood Selenium OR Comprehensive Micronutrient/Mineral Analysis Thyroid Panel

Summary for Essential Vitamins

Highly Recommended Therapeutics - Designs for Health Formulas	Provider Discretion: As Needed Formula Recommendations	Lifestyle Recommendations	Laboratory Recommendations
VITAMINS			
• Annatto-E® 300		• Consume Foods High in Vitamin E	• Serum Vitamin E OR Comprehensive Micronutrient Testing
• D-EvailTM 10K OR D-EvailTM Supreme	• Osteoben® OR Cal/Mag 2:1		• Consider Checking Vitamin D Levels OR Comprehensive Micronutrient Testing
		• Consider Consuming Foods High in Vitamin K, Unless Contraindicated by Clot Risk or Medication	
• TricobalaminTM OR Vitamin B12		• Consume Foods High in Vitamin B12	• Serum Vitamin B12
MINERALS			
• Zinc SupremeTM		• Food High in Zinc	• Consider Checking Zinc Levels OR Comprehensive Micronutrient/Mineral Analysis • Serum Alkaline Phosphatase Activity
	• Iodine SynergyTM	• Consider Consuming Foods with High Iodine Content	• Urinary Iodine OR Comprehensive Micronutrient/Mineral Analysis • Serum Thyroglobulin • Thyroid Panel
	• ThyrommuneTM if Free Triiodothyronine (T3) Is Low	• Consider Consuming Foods with High Selenium Content	• Whole Blood Selenium OR Comprehensive Micronutrient/Mineral Analysis


Cell
Chromosome
Nucleosome
Histone
Histone Tail
H1
H2A
H2B
H4
H3
Centromere
Nucleus
Telomere
Acetylation
Methylation
DNA
Adenine
Guanine
Gene
Thymine
Cytosine
Nucleotide

VITAMIN D

FOOD SOURCES

Tuna

Mushrooms

Eggs

Mackerel

Milk Products (including fortified alternatives such as almond, coconut, oat, etc.)

BENEFITS AS YOU AGE

Lower Risk of Fractures

Improves Heart Function

Supports Immune System

Speeds Wound Healing

DEFICIENCY CAUSES

- Bone Pain
- Arthritis
- Obesity
- Backache
- Depression
- Diabetes
- Hypertension
- Osteoporosis
- Heart Disease
- Skin Conditions

VITAMIN E

VARIANTS IN THE TTPA GENE HAVE BEEN ASSOCIATED WITH VITAMIN E DEFICIENCY

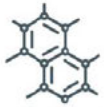
BENEFITS

Promotes a strong immune system

Protects the body from damage against harmful substances called free radicals

Forms red blood cells

Helps prevent: heart diseases, cancers, eye disorders & cognitive decline



Prevents blood clots

DEFICIENCY VS HIGH INTAKE

Deficiency

Hemolytic anemia in premature babies

High intake

Risk of bleeding in the brain

Increased risk of birth defects

FOODS HIGH IN VITAMIN E

Vegetable oils
(wheat germ, sunflower, safflower, corn and soybean oils)

Fruit (kiwi, mango)

Vegetables
(spinach, broccoli, tomato)

Nuts
(almonds, peanuts, hazelnuts)

Sunflower seeds

Fortified foods (breakfast cereals, fruit juices, margarine, spreads)

IODINE

WAYS TO INCREASE LEVELS

Seafood – fish (tuna, cod), shrimp

Vegetables/Legumes – green peas, lima beans, corn

Seaweed

Iodized salt

Dairy products

Eggs

Whole grains (unless gluten free)

Supplements

Fruits – prunes, bananas

FUNCTIONS

Synthesizes thyroid hormones (T3 & T4) for metabolic pathways

Role in growth & development

Role in immune response

DEFICIENCY VS HIGH INTAKE

Deficiency

- Developmental issues
- Improper thyroid hormone production
- Fertility issues

High intake

- Thyroid disorders
- Acute poisoning
  - Burning in mouth & throat
  - Fever
  - Abdominal pain
  - Nausea
  - Vomiting
  - Diarrhea

SELENIUM

WAYS TO INCREASE LEVELS

Brazil nuts

Low-fat milk products

Meats & seafood – fish (tuna, halibut, sardines), ham, shrimp, beef, liver, chicken, turkey

Boiled eggs

Wheat germ, Brewer's yeast

Whole grains (unless gluten free)

Supplements

FUNCTIONS

Role in proper thyroid function & thyroid hormone metabolism

Role in DNA synthesis

Role in reproduction

Protection from infection & oxidative damage

DEFICIENCY VS HIGH INTAKE

Deficiency

- Cardiovascular disorders
- Developmental issues
- Thyroid disorders
- Joint & bone issues
- Infertility issues
- Cancers

High intake

- Metallic taste in mouth
- Garlic odor of breath
- Hair and nail loss or brittleness
- Nervous system abnormalities
- Nausea
- Diarrhea
- Skin rashes
- Fatigue
- Irritability

Gene Information Key

rsID	Gene	"-" variant	"+" variant
	BCO1	A	T
	BCO1	C	T
	CYP4F2	T	C
	DIO1	C	A
	GC	T	G
	NPC1L1	G	C
	NQO1	G	A
	PDE8B	G	A
	SLC23A1	C	T
	SLC30A3	T	G
	SLC5A6	A	G
	TCN2	C	G
	TRPM6	T	C
	TTPA	A	T
	VDR	G	A
	VKORC1	C	T

Definitions

[illegible]	[illegible]
[illegible]	[illegible]
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Disclaimers

TESTING:

Testing Performed By: AC

METHODOLOGY AND LIMITATIONS DISCLAIMER:

Testing for genetic variation/mutation on listed genes was performed using ProFlex PCR and Real-Time PCR with TaqMan® allele-specific probes on the QuantStudio 12K Flex. All genetic testing is performed by GX Sciences, LLC d/b/a Fagron Genomics US (“Fagron Genomics US”) (807 Las Cimas Pkwy, Suite 145, Austin, TX. 78746). This test will not detect all the known alleles that result in altered or inactive tested genes. This test does not account for all individual variations in the individual tested. Test results do not rule out the possibility that this individual could be a carrier of other mutations/variations not detected by this gene mutation/variation panel. Rare mutations surrounding these alleles may also affect our detection of genetic variations. Thus, the interpretation is given as a probability. Therefore, this genetic information shall be interpreted in conjunction with other clinical findings and familial history for the administration of specific nutrients. Patients should receive appropriate genetic counseling to explain the implications of these test results. Details of assay performance and algorithms leading to clinical recommendations are available upon request. The analytical and performance characteristics of this laboratory developed test (LDT) were determined by Fagron Genomics US’s laboratory (Laboratory Director: James Jacobson, PhD) pursuant to Clinical Laboratory Improvement Amendments (CLIA) requirements (CLIA #: 45D2144988).

MEDICAL DISCLAIMER:

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UND RESULT DISCLAIMER:

If you have received the result variant Undetermined (UND) this indicates that we were not able to determine your carrier status based on your raw data. You may request your sample to be run again by emailing info@fagrongenomicsus.com

Fagron Genomics US SNP References

BCO1

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BCO1

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VKORC1

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