

# NutriPro Panel



## Why NutriPro (Genetic Predispositions + Actual Nutrient Values)

The **Vibrant NutriPro Panel** is a test to measure various genetic mutations present in an individual's body to gauge the scope of genetic predispositions an individual might have towards achieving optimum nutrition. Alongside this, the actual nutrient values are measured in serum, RBC and WBC, as appropriate.

### What NutriPro includes:

- Scope of predispositions affecting nutrient absorption
- Scope of predispositions affecting nutrient transport
- Scope of predispositions affecting conversion of nutrients to forms absorbable by the body
- Scope of predispositions affecting cellular uptake of nutrients
- Actual nutrient levels measured across serum (extracellular - most recent nutritional status) and RBC, WBC (intracellular - nutritional status over a longer window)

NutriPro provides a complete picture of the genetic predispositions which could lead to various nutrient deficiencies, alongside current levels of these nutrients. This can aid in targeted precision therapies to achieve optimum nutrition.



## Which Patients Need the NutriPro Panel?

### Conditions and Symptoms Associated with Nutritional Genetic Abnormalities Include:

Nutrient excesses	Nutrient malabsorption	Bone-related disorders	Inflammatory disorders
Mood disorders	Nutrient deficiencies	Neurological and mood disorders	Athletic performance
Cardiometabolic disorders	Anemia	Age-related disorders	



## What are Genetic Predispositions?

- Genes are a blueprint of instructions on how an organism works and functions, and are transferred from parent to offspring
- Each human has basically the same set of genes, with slight differences making each of them unique
- The slight differences in genes lead to differences downstream which could affect nutrient absorption, transport, and assimilation
- The slight differences in genes are typically single point mutations and are represented as SNPs (Single nucleotide polymorphisms) and are identified using rs IDs
- NutriPro tests for these SNPs alongside measures of the actual nutrients they are associated with, to give you a complete picture of your nutritional status and genetic factors which might affect it





## Clinical Connections

- Testing for the presence of nutritional SNPs can aid practitioners in designing the most effective interventions, as treatments for dietary deficiency, genetic disorders, and malabsorptive conditions
- If nutrient absorption is affected, a more bioavailable nutrient form may be recommended, such as methylated vs non-methylated
- If nutrient transport is affected, an alternate method of nutrient delivery may be appropriate
- If cellular uptake is affected, an alternate form of a nutrient may be used to compare improvement of nutrient status upon retesting
- Along with NutriPro panel consider other testing such as Intestinal Permeability or the Wheat Zoomer, Neurotransmitters, Organic Acids, and diagnostic panels such as anemia, lipids, thyroid and CBCs to check for other metabolic factors that could also affect optimal nutrition



## What Does the NutriPro Panel Include?

### Vitamins

Nutrient	rs ID	Mutated gene
Vitamin A (All trans Retinol)	rs11645428	BCMO1
	rs7501331	BCO1
	rs12934922	BCO1
	rs6564851	BCMO1
	rs1667255	TTR
Vitamin A (Beta carotene)	rs11645428	BCMO1
Vitamin B1 (Thiamine diphosphate)	rs17514104	SLC35F3
Vitamin B2 (Riboflavin 5-phosphate)	rs1799983	NOS3
	rs778479139	SLC52A3
Vitamin B3 (Nicotinic Acid)		
Vitamin B5 (Pantothenic Acid)		
Vitamin B6 (Pyridoxal 5-phosphate)		
Vitamin B7 (Biotin)	rs13078881	BTD
Vitamin B9 (Folate)	rs1801133	MTHFR
	rs1801131	MTHFR
Vitamin B12 (Cyanocobalamin)	rs602662	FUT2
	rs492602	FUT2
	rs526934	TCN1
Vitamin C (L-Ascorbic acid)	rs33972313	SLC23A1
	rs4257763	SLC23A1
	rs6596473	SLC23A1
	rs6139591	SLC23A2
Vitamin D,25-OH	rs12785878	NADSYN1
	rs10741657	CYP2R1
	rs2282679	GC
1,25-dihydroxyvitamin D	rs4588	VDR
Vitamin D2 (Ergocalciferol)	rs10766197	CYP2R1
Vitamin D3 (Cholecalciferol)	rs10877012	CYP27B1
Vitamin E (α-tocopherol)	rs12272004	APOA5
Vitamin K1 (Phylloquinone)/Vit	rs2108622	CYP4F2
Vitamin K2 (Menaquinone-MK-7)		

### Fatty Acids

Nutrient
DHA (Docosahexaenoic acid)
EPA (Eicosapentaenoic acid)
DPA (Docosapentaenoic acid)
AA (Arachidonic acid)
LA (Linoleic acid)
Omega-3 Total
Omega-6 Total
Omega-3 index

### Minerals

Nutrient	rs ID	Mutated gene
Sodium	rs2304478	SLC12A3
	rs7204044	SLC12A3
Potassium	rs4343	ACE
Calcium, Ca 44	rs4516035	VDR
Zinc, Zn 67	rs11126936	SLC30A3
Selenium, Se 76	rs1050450	GPX1
	rs3877899	SEPP1
Molybdenum	rs594445	MOCOS
Tetrahydrobiopterin	rs5030853	PAH
	rs8007267	GCH1
Iodine	rs225014	DIO2
Fluoride	rs4284505	ESR1
Phosphorus	rs4074995	RGS14
Iron, Fe 56	rs855791	TMPRSS6
	rs4820268	TMPRSS6
	rs3811647	TF
	rs1800562	HFE
	rs1799945	HFE
Manganese, Mn 55	rs13107325	SLC39A8
Magnesium, Mg 24	rs4680	COMT
Copper, Cu 63	rs76151636	ATP7B
Chromium, Cr 53		
Myo-Inositol		

### Amino Acids

Nutrient	rs ID	Mutated gene
Coenzyme Q (Ubiquinone+Ubiquinol)	rs775607037	COQ4
	rs786204770	COQ4
Glutathione Oxidized	rs121909307	GSS
	rs1695	GSTP1
Methylmalonic acid (MMA)	rs291466	HICBH
	rs121918252	MUT
Choline	rs3733890	BHMT
	rs7946	PEMT
Phenylalanine	rs5030853	PAH
L- Cysteine		
L-Asparagine		
L-Glutamine		
L-Serine		
L-Arginine		
L-Citrulline		
L-Isoleucine		
L-Valine		
L-Leucine		
Free Carnitine		

## Regulatory Statement

The general wellness test intended uses relate to sustaining or offering general improvement to functions associated with a general state of health while making reference to diseases or conditions. This test has been laboratory developed and its performance characteristics determined by Vibrant Genomics LLC, a CLIA-certified laboratory performing the test. The test has not been cleared or approved by the U.S. Food and Drug Administration (FDA). Although FDA does not currently clear or approve laboratory-developed tests in the U.S., certification of the laboratory is required under CLIA to ensure the quality and validity of the tests.