

Patient: **SAMPLE**
PATIENT

DOB:

Sex:

MRN:

3304 Organix ® Basic Profile - Urine

Methodology: LC/Tandem Mass Spectrometry, Colorimetric

Summary of Abnormal Findings

Biomarkers	Findings	Metabolic Pathway
Fatty Acid Metabolism	No Abnormality Found	
Carbohydrate Metabolism		
Pyruvate	H	Glycolysis
L-Lactate	H	Glycolysis
b-Hydroxybutyrate	Borderline High	Ketone production
Energy Production Markers	No Abnormality Found	
B-Complex Vitamin Markers		
a-Keto-b-Methylvalerate	Borderline High	Amino acid metabolism
b-Hydroxyisovalerate	Borderline High	Amino acid metabolism
Methylation Cofactor Markers		
Methylmalonate	Borderline High	Amino acid metabolism
Formiminoglutamate	Borderline High	Amino acid metabolism
Neurotransmitter Metabolism Markers		
Vanilmandelate	Borderline High	Epinephrine & norepinephrine metabolism
Homovanillate	Borderline High	Dopamine metabolism
5-Hydroxyindoleacetate	Borderline High	Serotonin metabolism
Kynurenate	Borderline High	Tryptophan pathway
Detoxification Indicators		
Orotate	Borderline High	Urea cycle



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This report is not intended for the diagnosis of neonatal inborn errors of metabolism.

Ranges: Ages 13 and over

Results mcg/mg creatinine	QUINTILE DISTRIBUTION					95% Reference Range
	1st	2nd	3rd	4th	5th	

Nutrient Markers

Fatty Acid Metabolism

(Carnitine & B2)

1. Adipate	4.2				6.2	<= 11.1
2. Suberate	1.5				2.1	<= 4.6
3. Ethylmalonate	3.2				3.6	<= 6.3

Carbohydrate Metabolism

(B1, B3, Cr, Lipoic Acid, CoQ10)

4. Pyruvate	7.2	H			3.9	<= 6.4
5. L-Lactate	16.6	H			8.5	0.6 - 16.4
6. β-Hydroxybutyrate	3.7				2.1	<= 9.9

Energy Production (Citric Acid Cycle)

(B Comp., CoQ10, Amino Acids, Mg)

7. Citrate	263				601	56 - 987
8. Cis-Aconitate	36				51	18 - 78
9. Isocitrate	82				98	39 - 143
10. α-Ketoglutarate	4.0				19.0	<= 35.0
11. Succinate	4.3				11.6	<= 20.9
12. Fumarate	0.47				0.59	<= 1.35
13. Malate	0.9				1.4	<= 3.1
14. Hydroxymethylglutarate	3.4				3.6	<= 5.1

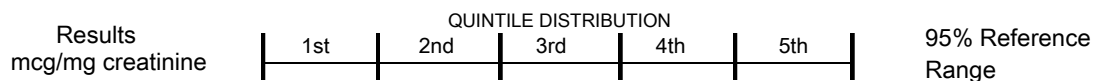


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Nutrient Markers

B-Complex Vitamin Markers

(B1, B2, B3, B5, B6, Biotin)

Item	Results	Quintile Distribution	95% Reference Range
15. α-Ketoisovalerate	<DL	0.25	<= 0.49
16. α-Ketoisocaproate	0.17	0.34	<= 0.52
17. α-Keto-β-Methylvalerate	0.63	0.38	<= 1.10
18. Xanthurenate	0.06	0.34	<= 0.46
19. β-Hydroxyisovalerate	7.7	7.6	<= 11.5

Methylation Cofactor Markers

(B12, Folate)

20. Methylmalonate	1.8	1.7	<= 2.3
21. Formiminoglutamate	1.4	1.2	<= 2.2

Cell Regulation Markers

Neurotransmitter Metabolism Markers

(Tyrosine, Tryptophan, B6, Antioxidants)

22. Vanilmandelate	4.1	1.6 - 3.9	1.2 - 5.3
23. Homovanillate	5.7	1.9 - 5.7	1.4 - 7.6
24. 5-Hydroxyindoleacetate	6.0	2.1 - 5.6	1.6 - 9.8
25. Kynurenate	1.0	1.0	<= 1.5
26. Quinolinate	1.7	4.0	<= 5.8
27. Picolinate	3.8	8.0	2.8 - 13.5

Toxicants and Detoxification

Detoxification Indicators

(Arg, NAC, Met, Mg, Antioxidants)

28. 2-Methylhippurate	0.028	0.084	<= 0.192
29. Orotate	0.98	0.69	<= 1.01
30. Glucarate	3.1	6.3	<= 10.7
31. α-Hydroxybutyrate	<DL	0.3	<= 0.9
32. Pyroglutamate	44	59	28 - 88

Creatinine = 123 mg/dL

<DL = less than detection limit

>UL = greater than upper linearity limit

NR = Not Reportable

This test has been developed and its performance characteristics determined by Genova Diagnostics, Inc. It has not been cleared by the U.S. Food and Drug Administration.



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Additional Considerations

Nutrient supplementation is at the *discretion of the treating clinician*. The supplement dose ranges provided below are meant for educational purposes only. These dosage ranges relate to findings commonly found on Genova's nutritional panels and do not apply to specific disease conditions where different dosages may be warranted. Final recommendations should be based on consideration of the patient's medical history and current clinical condition.

Nutrient	Nutrient Need	Clinician Recommendations
Vitamin B-1 (Thiamin)	Low: 10-25 mg	
Vitamin B-2 (Riboflavin)	Low: 10-25 mg	
Vitamin B-3 (Niacin)	Low: 10-50 mg	
Vitamin B-5 (Pantothenic Acid)	Low: 10-25 mg	
Vitamin B-6 (Pyridoxine)	Optional: 0-10 mg	
Vitamin B-12 (Cobalamin)	Optional: 0-500 mcg	
Folic Acid	Optional: 0-1000 mcg	
Biotin	Optional: 0-400 mcg	
Magnesium	Optional: 0-100 mg	
Coenzyme Q10	Low: 20-60 mg	
Lipoic Acid	High: 200-600 mg	
L-Arginine	Optional: 0-250 mg	

Various conditionally essential nutrients and other potentially beneficial interventions appear in this section only if relevant abnormalities are present.

Amino acids listed on this page result from functional markers of individual amino acid insufficiency and do not reflect amino acids measured in plasma.