



GENOVA
DIAGNOSTICS[®]
www.gdx.net • 800.522.4762

Accession #: **A1406050263**
Order #: H4050988
Reference #:
Patient:
Date of Birth:
Age: 43
Sex: Female
Reprinted:
Comment:

Date Collected: 06/04/2014
Date Received: 06/05/2014
Date of Report: 06/13/2014

Telephone:
Fax:



0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Organix Interpretation

Interpretive Guides are downloadable at: www.gdx.net/tests/interpretive-guides



Accession #: **A1406050263**
 Order #: H4050988
 Reference #:
 Patient:
 Date of Birth:
 Age: 43
 Sex: Female
 Reprinted:
 Comment:

Date Collected: 06/04/2014
 Date Received: 06/05/2014
 Date of Report: 06/13/2014

Telephone:
 Fax:



0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Summary of Abnormal Findings

	<u>Findings</u>	<u>Intervention Options</u>	<u>Common Metabolic Association</u>
Fatty Acid Metabolism			
Adipate	High	Carnitine, B2	Fatty acid oxidation
Carbohydrate Metabolism			
Pyruvate	High	Lipoic Acid, B1, B2, B3, B5	Glucose oxidation
L-Lactate	High	CoQ10, Lipoic Acid, B1, B2, B3, B5	Glucose oxidation
Energy Production Markers			
Cis-Aconitate	Very High	Arginine	Renal ammonia loading
Isocitrate	Very High	Arginine	Renal ammonia loading
a-Ketoglutarate	Very High	CoQ10, Lipoic Acid, B1, B2, B3, B5	Citric acid cycle
Malate	Very High	CoQ10	ATP production
Hydroxymethylglutarate	Very High	CoQ10	HMG-CoA reductase inhibition
B-Complex Vitamin Markers			
Xanthurenate	Very High	B6	Impaired Tryptophan metabolism
β-Hydroxyisovalerate	Very High	Biotin, B2	Impaired Isoleucine metabolism
Methylation Cofactor Markers			
Formiminoglutamate	High	Folic acid	Tetrahydrofolate insufficiency
Neurotransmitter Metabolism Markers			
Vanilmandelate	Very Low	Tyrosine, Phenylalanine	Epi- & Norepinephrine turnover inhibition
5-Hydroxyindoleacetate	Very High	---	Serotonin turnover stimulation
Kynurenate	High	B6	Receptor antagonist

Oxidative Damage and Antioxidant Markers



Accession #: **A1406050263**
Order #: H4050988
Reference #:
Patient:
Date of Birth:
Age: 43
Sex: Female
Reprinted:
Comment:

Date Collected: 06/04/2014
Date Received: 06/05/2014
Date of Report: 06/13/2014

Telephone:
Fax:



0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

p-Hydroxyphenyllactate	Very High	Vitamin C, Vitamin E	Increased cell turn over
8-Hydroxy-2-deoxyguanosine	High	Vitamin C, Vitamin E	DNA oxidation product

Detoxification Indicators

Glucarate	High	N-acetylcysteine, Hepatic support	Hepatic Phase I and II detox
a-Hydroxybutyrate	Very High	N-acetylcysteine, other sulfur containing amino acids	Glutathione demand
Pyroglutamate	High	N-acetylcysteine, other sulfur containing amino acids	Glutathione wasting
Sulfate	Very High	Antioxidants and removal of toxicant or oxidant stress source	Acute detox or oxidant stress

Bacterial - General

Hippurate	High	Glycine	Hepatic Phase II conjugation
p-Hydroxyphenylacetate	High	Probiotics	Intestinal Bacterial Overgrowth
Indican	High	Probiotics	Intestinal Bacterial Overgrowth

L. acidophilus / general bacteria

D-Lactate	Very High	Non D-lactate-forming Probiotics	Intestinal bacterial overgrowth (L. acidophilus)
-----------	-----------	----------------------------------	--

Clostridial Species

No Abnormality Found

Yeast/Fungal

D-Arabinitol	High	Antifungals	Yeast Overgrowth
--------------	------	-------------	------------------



Accession #: **A1406050263**
Order #: H4050988
Reference #:
Patient:
Date of Birth:
Age: 43
Sex: Female
Reprinted:
Comment:

Date Collected: 06/04/2014
Date Received: 06/05/2014
Date of Report: 06/13/2014

Telephone:
Fax:



0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

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

Ranges are for ages 13 and over

Results
mcg/mg creatinine



95% Reference Range

Nutrient Markers

Fatty Acid Metabolism

(Carnitine & B2)

Item	Result	Quintile	95% Reference Range
1. Adipate	7.3 H	5th	<= 11.1
2. Suberate	1.5	4th	<= 4.6
3. Ethylmalonate	1.6	2nd	<= 6.3

Carbohydrate Metabolism

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

Item	Result	Quintile	95% Reference Range
4. Pyruvate	4.4 H	5th	<= 6.4
5. L-Lactate	19.0 H	5th	1.6-57.1
6. β-Hydroxybutyrate	<DL*	2nd	<= 9.9

Energy Production (Citric Acid Cycle)

(B comp., CoQ10, Amino acids, Mg)

Item	Result	Quintile	95% Reference Range
7. Citrate	122	2nd	56-987
8. Cis-Aconitate	91 H	5th	18-78
9. Isocitrate	172 H	5th	39-143
10. α-Ketoglutarate	38.2 H	5th	<= 35.0
11. Succinate	2.6	2nd	<= 20.9
12. Fumarate	<DL*	2nd	<= 1.35
13. Malate	7.3 H	5th	<= 3.1
14. Hydroxymethylglutarate	7.6 H	5th	<= 5.1



0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

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

Ranges are for ages 13 and over

Results **Quintile Ranking** **95% Reference Range**
mcg/mg creatinine 1st 2nd 3rd 4th 5th

B-Complex Vitamin Markers

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

15. a-Ketoisovalerate	<DL*				0.25		<= 0.49
16. a-Ketoisocaproate	<DL*	◆			0.34		<= 0.52
17. a-Keto-β-methylvalerate	<DL*				0.38		<= 1.10
18. Xanthurenate	0.56	H			0.34	◆	<= 0.46
19. β-Hydroxyisovalerate	11.9	H			7.6	◆	<= 11.5

Methylation Cofactor Markers

(B12, Folate)

20. Methylmalonate	0.5		◆		1.7		<= 2.3
21. Formiminoglutamate	1.8	H			1.2	◆	<= 2.2

Cell Regulation Markers

Neurotransmitter Metabolism Markers

(Tyrosine, Tryptophan, B6, antioxidants)

22. Vanilmandelate	0.9	L	◆		1.6		3.9	1.2-5.3
23. Homovanillate	4.3			◆	1.9		5.7	1.4-7.6
24. 5-Hydroxyindoleacetate	67.6	H			2.1		5.6	1.6-9.8
25. Kynurenate	1.1	H					1.0	<= 1.5
26. Quinolate	2.5			◆			4.0	<= 5.8
27. Picolinate	3.3		◆				8.0	2.8-13.5

Oxidative Damage and Antioxidant Markers

(Vitamin C and other antioxidants)

28. p-Hydroxyphenyllactate	2.57	H					0.39	<= 0.66
29. 8-Hydroxy-2-deoxyguanosine	6.3	H					5.3	<= 7.6

(Units for 8-hydroxy-2-deoxyguanosine are ng/mg creatinine)



0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

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

Ranges are for ages 13 and over

Results (mcg/mg creatinine) | **Quintile Ranking** (1st, 2nd, 3rd, 4th, 5th) | **95% Reference Range**

Toxicants and Detoxification

Detoxification Indicators

(Arg, NAC, Met, Mg, antioxidants)

Item	Result	Quintile Ranking	95% Reference Range
30. 2-Methylhippurate	0.019	Between 1st and 2nd	<= 0.192
31. Orotate	<DL*	Between 1st and 2nd	<= 1.01
32. Glucarate	7.6 H	Between 4th and 5th	<= 10.7
33. a-Hydroxybutyrate	3.2 H	Between 4th and 5th	<= 0.9
34. Pyroglutamate	63 H	Between 4th and 5th	28-88
35. Sulfate	4709 H	Between 4th and 5th	690-2988

Compounds of Bacterial or Yeast/Fungal Origin

Bacterial - general

Item	Result	Quintile Ranking	95% Reference Range
36. Benzoate	<DL*	Between 1st and 2nd	<= 9.3
37. Hippurate	560 H	Between 4th and 5th	<= 1070
38. Phenylacetate	<DL*	Between 1st and 2nd	<= 0.18
39. Phenylpropionate	<DL*	Between 1st and 2nd	<= 0.06
40. p-Hydroxybenzoate	1.1	Between 4th and 5th	<= 1.8
41. p-Hydroxyphenylacetate	34 H	Between 4th and 5th	<= 34
42. Indican	65 H	Between 4th and 5th	<= 90
43. Tricarballic acid	<DL*	Between 1st and 2nd	<= 1.41

L. acidophilus / general bacterial

44. D-Lactate	4.9 H	Between 4th and 5th	<= 4.3
---------------	--------------	---------------------	--------

Clostridial species

45. 3,4-Dihydroxyphenylpropionate	<DL*	Between 1st and 2nd	<= 0.05
-----------------------------------	------	---------------------	---------

Yeast / Fungal

46. D-Arabinitol	71 H	Between 4th and 5th	<= 73
------------------	-------------	---------------------	-------

Creatinine = 32 mg/dL

* <DL = less than detection limit

** >LIN = greater than linearity limit



0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Supplement Recommendation Summary

With knowledge of a patient's full medical history and concerns, the Organix Comprehensive Profile laboratory results may be used to help healthcare professionals create an individually optimized nutritional support program. Based strictly on the results from this test, the summary table below shows estimates of nutrient doses that may help to normalize nutrient-dependent metabolic functions.

Customized Vitamin and Mineral Formulation

Nutrients listed in this section are normally contained in a multi-vitamin preparation. "Base" amounts may be used to ensure health even when no abnormalities are found.

Nutrient	Daily Amounts	
	Base	Units Added
Vitamin A*	2500 IU	
B-Carotene*	5500 IU	
Vitamin C	250 mg	3000 mg
Vitamin D*	400 IU	
Vitamin E	100 IU	800 IU
Vitamin K*	100 mcg	
Thiamin (B1)	5 mg	20 mg
Riboflavin (B2)	5 mg	10 mg
Niacin (B3)	25 mg	20 mg
Pyridoxine (B6)	15 mg	100 mg
Folic Acid (or 5-Methyl-THF)	400 mcg	800 mcg
Vitamin B12	50 mcg	500 mcg
Biotin	100 mcg	1000 mcg
Pantothenic Acid (B5)	25 mg	50 mg
Calcium citrate	500 mg	
Iodine*	75 mcg	
Magnesium	250 mg	
Zinc*	15 mg	
Selenium	100 mcg	50 mcg
Copper	1 mg	
Manganese*	5 mg	
Chromium	200 mcg	
Molybdenum*	25 mcg	
Boron*	1 mg	

* Nutrients with an asterisk are not modified based on the Organix test results.

MM03



0091 Organix® Comprehensive Profile - Urine

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Other Items Indicated for individual supplementation

Various conditionally essential nutrients and other potentially beneficial interventions appear in this section only if relevant abnormalities are present. These ingredients are not included in the customized vitamin formula on the previous page.

Nutrient	Amount
L. acidophilus strains contraindicated	
Antifungals	As needed
Arginine	500 mg
Carnitine	400 mg
Coenzyme Q10	60 mg
Glycine	4000 mg
Lipoic Acid	600 mg
N-Acetylcysteine	750 mg
Need for other antioxidants	Strong
Tyrosine	500 mg