



Accession Number: **A1112080002**
 Reference Number:
 Patient: **Sample Report**
 Age: **49** Sex: **Female**
 Date of Birth: **02/05/1962**
 Date Collected: **12/7/11**
 Date Received: **12/8/11**
 Report Date: **12/8/11**
 Telephone: **(770) 446-4583**
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 Reprinted: **1/26/12**
 Comment:

Ordering Physician:

Metamatrix

3425 Corporate Way
 Duluth, GA 30096

0091 Organix™ Comprehensive Profile

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

Summary of abnormal results:

	<u>Findings</u>	<u>Intervention Options</u>	<u>Common Metabolic Association</u>
<u>Fatty Acid Metabolism</u>			
Adipate	High	Carnitine, B2	Fatty acid oxidation
Suberate	Very High	Carnitine, B2	Fatty acid oxidation
<u>Carbohydrate Metabolism</u>			
No Abnormality Found			
<u>Energy Production Markers</u>			
Cis-Aconitate	High	Arginine, Lipoic Acid	Renal ammonia loading
Succinate	High	CoQ10	ATP production
Fumarate	High	CoQ10	ATP production
Hydroxymethylglutarate	Very High	CoQ10	HMG-CoA reductase inhibition
<u>B-Complex Vitamin Markers</u>			
Xanthurenate	Very High	B6	Impaired Tryptophan metabolism
<u>Methylation Cofactor Markers</u>			
No Abnormality Found			
<u>Neurotransmitter Metabolism Markers</u>			
Vanilmandelate	Very High	Evaluate stress issues	Epi- & Norepinephrine turnover stimulation
Homovanillate	Very High	Evaluate stress issues	Dopamine turnover stimulation
5-Hydroxyindoleacetate	Low	5-HTP	Serotonin turnover inhibition
Kynurenate	Very High	B6	Receptor antagonist
<u>Oxidative Damage and Antioxidant Markers</u>			
No Abnormality Found			
<u>Detoxification Indicators</u>			
2-Methylhippurate	High	Glycine	Xylene exposure
<u>Bacterial - General</u>			
Hippurate	Very High	Glycine	Hepatic Phase II conjugation
p-Hydroxyphenylacetate	Very High	Probiotics	Intestinal Bacterial Overgrowth
<u>L. acidophilus / general bacteria</u>			
No Abnormality Found			

Clostridial Species

No Abnormality Found

Yeast/Fungal

No Abnormality Found

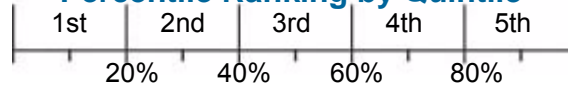
A1112080002
Sample Report

0091 Organix™ Comprehensive Profile

Methodology: LC/Tandem Mass Spectroscopy, Colorimetric

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

Percentile Ranking by Quintile



**95%
Reference
Interval**

Ranges are for ages 13 and over

NUTRIENT MARKERS

**Fatty Acid Metabolism
(Carnitine & B2)**

Results
 ug/mg creatinine

Item	Result	Flag	Percentile	Reference Interval
1 Adipate	6.7	H	6.2	<= 11.1
2 Suberate	11.1	H	2.1	<= 4.6
3 Ethylmalonate	1.7		3.6	<= 6.3

**Carbohydrate Metabolism
(B1, B3, Cr, Lipoic Acid, CoQ10)**

Item	Result	Flag	Percentile	Reference Interval
4 Pyruvate	<DL*		3.9	<= 6.4
5 L-Lactate	5.4		12.6	1.6 - 57.1
6 β-Hydroxybutyrate	<DL*		2.1	<= 9.9

**Energy Production (Citric Acid Cycle)
(B comp., CoQ10, Amino acids, Mg)**

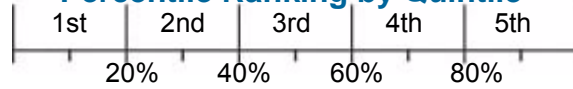
Item	Result	Flag	Percentile	Reference Interval
7 Citrate	320		601	56 - 987
8 Cis-Aconitate	57	H	51	18 - 78
9 Isocitrate	58		98	39 - 143
10 α-Ketoglutarate	<DL*		19.0	<= 35.0
11 Succinate	18.7	H	11.6	<= 20.9
12 Fumarate	0.74	H	0.59	<= 1.35
13 Malate	0.4		1.4	<= 3.1
14 Hydroxymethylglutarate	5.2	H	3.6	<= 5.1

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B-Complex Vitamin Markers
(B1, B2, B3, B5, B6, Biotin)

Results
ug/mg creatinine

Marker	Result	Percentile	95% Reference Interval
15 a-Ketoisovalerate	<DL*	0.25	<= 0.49
16 a-Ketoisocaproate	0.06	0.34	<= 0.52
17 a-Keto-β-Methylvalerate	<DL*	0.38	<= 1.10
18 Xanthurenate	1.05 H	0.34	<= 0.46
19 β-Hydroxyisovalerate	2.8	7.6	<= 11.5

Methylation Cofactor Markers
(B12, Folate)

20 Methylmalonate	0.6	1.7	<= 2.3
21 Formiminoglutamate	0.1	1.2	<= 2.2

CELL REGULATION MARKERS

Neurotransmitter Metabolism Markers
(Tyrosine, Tryptophan, B6, antioxidants)

22 Vanilmandelate	6.9 H	1.6 - 3.9	1.2 - 5.3
23 Homovanillate	9.1 H	1.9 - 5.7	1.4 - 7.6
24 5-Hydroxyindoleacetate	1.9 L	2.1 - 5.6	1.6 - 9.8
25 Kynurenate	2.1 H	1.0 - 4.0	<= 1.5
26 Quinolinate	1.6	8.0	<= 5.8
27 Picolinate	3.2	8.0	2.8 - 13.5

Oxidative Damage and Antioxidant Markers
(Vitamin C and other antioxidants)

28 p-Hydroxyphenyllactate	<DL*	0.39	<= 0.66
29 8-Hydroxy-2-deoxyguanosine **	3.1	5.3	<= 7.6

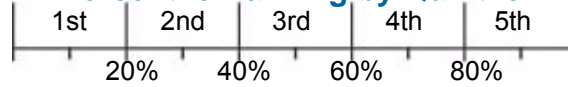
** Units for 8-Hydroxy-2-deoxyguanosine are ng/mg creatinine

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TOXICANTS AND DETOXIFICATION

Detoxification Indicators (Arg, NAC, Met, Mg, antioxidants)	Results ug/mg creatinine	Percentile Ranking	95% Reference Interval
30 2-Methylhippurate	0.099 H	0.084	<= 0.192
31 Orotate	0.10	0.69	<= 1.01
32 Glucarate	3.3	6.3	<= 10.7
33 a-Hydroxybutyrate	0.3	0.3	<= 0.9
34 Pyroglutamate	47	59	28 - 88
35 Sulfate	2,197	958 - 2,347	690 - 2,988

COMPOUNDS OF BACTERIAL OR YEAST/FUNGAL ORIGIN

Bacterial - general	Results	Percentile Ranking	95% Reference Interval
36 Benzoate	<DL*	0.6	<= 9.3
37 Hippurate	1,252 H	548	<= 1,070
38 Phenylacetate	<DL*	0.11	<= 0.18
39 Phenylpropionate	<DL*		<= 0.06
40 p-Hydroxybenzoate	0.1	1.1	<= 1.8
41 p-Hydroxyphenylacetate	>200 H	19	<= 34
42 Indican	26	64	<= 90
43 Tricarballic acid	0.55	0.73	<= 1.41
L. acidophilus / general bacterial			
44 D-Lactate	0.6	1.9	<= 4.3
Clostridial species			
45 3,4-Dihydroxyphenylpropionate	<DL*		<= 0.05
Yeast / Fungal			
46 D-Arabinitol	35	36	<= 73

Creatinine = 175 mg/dL

* <DL = less than detection limit

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 for insurance of health even when no abnormalities are found.

Customized preparations of the multi-vitamin/mineral formula shown below may be produced by compounding pharmacies.

Nutrient	Daily Amounts	
	Base	Units Added
Vitamin A*	2500 IU	
B-Carotene*	5500 IU	
Vitamin C	250 mg	2000 mg
Vitamin D*	400 IU	
Vitamin E	100 IU	400 IU
Vitamin K*	100 mcg	
Thiamin (B1)	5 mg	
Riboflavin (B2)	5 mg	10 mg
Niacin (B3)	25 mg	
Pyridoxine (B6)	15 mg	100 mg
Folic Acid (or 5-Methyl-THF)	400 mcg	
Vitamin B12	50 mcg	
Biotin	100 mcg	
Pantothenic Acid (B5)	25 mg	
Calcium citrate	500 mg	
Iodine*	75 mcg	
Magnesium	250 mg	
Zinc*	15 mg	
Selenium	100 mcg	100 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.

MM02

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.

Potential to Benefit from Probiotics	200 mg
5-Hydroxytryptophan	200 mg
Arginine	500 mg
Carnitine	800 mg
Coenzyme Q10	120 mg
Glycine	1000 mg
Need for other antioxidants	Moderate

· These guidelines are intended as a starting point for the clinician who requested the test and are based only on the laboratory results included in this report. Final recommendations should be implemented by the clinician with consideration of medical history and current clinical observations.
 · These tests are not intended for the diagnosis of specific disorders.