



3425 Corporate Way  
 Duluth, GA 30096  
 770.446.5483 Fax:770.441.2237

Ordering Physician:

Metamatrix Staff & Family

3425 Corporate Way  
 Duluth, GA 30096

Accession Number: **A0808210026**  
 Reference Number:  
 Patient: Sample Report  
 Age: 40 Sex: Male  
 Date of Birth: 02/05/1968  
 Date Collected: 8/21/08  
 Date Received: 8/21/08  
 Report Date: 8/21/08  
 Telephone: (770) 446-5483  
 Fax: (678) 638-2821  
 Reprinted:  
 Comment:

**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>
<b><u>Fatty Acid Metabolism</u></b>			
No Abnormality Found			
<b><u>Carbohydrate Metabolism</u></b>			
No Abnormality Found			
<b><u>Energy Production Markers</u></b>			
Cis-Aconitate	Very Low	Free-form amino acids	Amino Acid insufficiency
<b><u>B-Complex Vitamin Markers</u></b>			
No Abnormality Found			
<b><u>Methylation Cofactor Markers</u></b>			
No Abnormality Found			
<b><u>Neurotransmitter Metabolism Markers</u></b>			
Picolinate	Very Low	Limit omega-3 PUFA, add protein	Suppressed inflammatory responses
<b><u>Oxidative Damage and Antioxidant Markers</u></b>			
No Abnormality Found			
<b><u>Detoxification Indicators</u></b>			
a-Hydroxybutyrate	High	N-acetylcysteine, Glutathione, other sulfur containing a. a.	Glutathione demand
Sulfate	Very Low	N-acetylcysteine, Glutathione, Lipoic acid	Chronic low total body glutathione status, detox and antioxidant status
<b><u>Bacterial - General</u></b>			
Benzoate	High	Glycine	Hepatic Phase II conjugation
<b><u>L. acidophilus / general bacteria</u></b>			
No Abnormality Found			
<b><u>Clostridial Species</u></b>			
No Abnormality Found			
<b><u>Yeast/Fungal</u></b>			
No Abnormality Found			

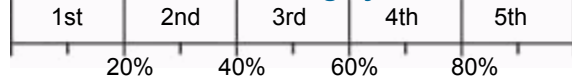


**0091 Organix™ Comprehensive Profile**

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

1	Adipate	4.6		6.0	<= 10.6
2	Suberate	1.2		1.9	<= 3.4
3	Ethylmalonate	<DL*		2.0	<= 4.4

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

4	Pyruvate	<DL*		3.3	<= 4.9
5	L-Lactate	7		14	3 - 47
6	β-Hydroxybutyrate	<DL*		2.4	<= 5.6

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

7	Citrate	28		431	9 - 670
8	Cis-Aconitate	<DL* L		46	1 - 74
9	Isocitrate	4		73	1 - 110
10	α-Ketoglutarate	0.5		21.0	<= 33.3
11	Succinate	<DL*		14.3	<= 27.4
12	Fumarate	<DL*		0.89	<= 1.59
13	Malate	<DL*		1.5	<= 2.5
14	Hydroxymethylglutarate	<DL*		4.1	<= 5.2

**0091 Organix™ Comprehensive Profile**

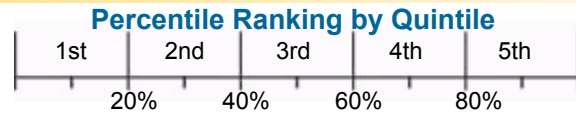
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**B-Complex Vitamin Markers**  
 (B1, B2, B3, B5, B6, Biotin)

Results  
 ug/mg creatinine



**95%  
 Reference  
 Interval**

15	a-Ketoisovalerate	<DL*	0.32	<= 0.56
16	a-Ketoisocaproate	0.13	0.38	<= 0.63
17	a-Keto-β-Methylvalerate	0.29	0.69	<= 1.60
18	Xanthurenate	0.44	0.62	<= 0.93
19	β-Hydroxyisovalerate	0.6	4.7	<= 7.9

**Methylation Cofactor Markers**  
 (B12, Folate)

20	Methylmalonate	0.3	1.3	<= 2.0
21	Formiminoglutamate	1.18	1.67	<= 2.94

**CELL REGULATION MARKERS**

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

22	Vanilmandelate	3.3	1.6, 4.2	1.0 - 5.7
23	Homovanillate	3.3	1.6, 6.8	0.8 - 13.0
24	5-Hydroxyindoleacetate	3.3	1.6, 8.1	0.9 - 50.8
25	Kynurenate	1.3	1.9	<= 2.7
26	Quinolinate	1.0	3.5	<= 5.8
27	Picolinate	1.5 L	6.4	1.8 - 11.2

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

28	p-Hydroxyphenyllactate	0.34	0.90	<= 1.80
29	8-Hydroxy-2-deoxyguanosine	** 1.4	5.3	<= 7.6

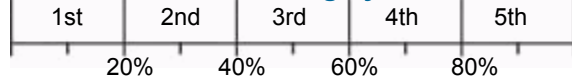
\*\* Units for 8-Hydroxy-2-deoxyguanosine are ng/mg creatinine

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**Percentile Ranking by Quintile**



**95%  
Reference  
Interval**

Ranges are for ages 13 and over

**TOXICANTS AND DETOXIFICATION**

**Detoxification Indicators**  
 (Arg, NAC, Met, Mg, antioxidants)

Results  
 ug/mg creatinine

Code	Substance	Result	Percentile	Reference Interval
30	2-Methylhippurate	<DL*	0.039	<= 0.073
31	Orotate	<DL*	0.44	<= 0.79
32	Glucarate	0.2	7.4	<= 14.9
33	a-Hydroxybutyrate	0.7 <b>H</b>	0.4	<= 1.8
34	Pyroglutamate	17	51	<= 85
35	Sulfate	98 <b>L</b>	986 - 2,353	762 - 2,778

**COMPOUNDS OF BACTERIAL OR YEAST/FUNGAL ORIGIN**

**Bacterial - general**

36	Benzoate	2.2 <b>H</b>	0.9	<= 4.4
37	Hippurate	193	631	<= 1,162
38	Phenylacetate	<DL*	0.01	<= 0.01
39	Phenylpropionate	<DL*	0.4	<= 0.4
40	p-Hydroxybenzoate	0.5	1.0	<= 2.0
41	p-Hydroxyphenylacetate	6	22	<= 40
42	Indican	34	68	<= 109
43	Tricarballoylate	<DL*	0.81	<= 1.89

**L. acidophilus / general bacterial**

44	D-Lactate	0.4	2.1	<= 6.5
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**Clostridial species**

45	3,4-Dihydroxyphenylpropionate	<DL*	0.12	<= 0.12
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**Yeast / Fungal**

46	D-Arabinitol	15	32	<= 59
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Creatinine = 142 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. All amounts are adult doses that should be adjusted for children according to body weight and indication of need.

### 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. If such a product is made according to these specifications each dose should be thoroughly stirred into a few ounces of water or diluted fruit juice to allow bubbles to form and avoid stomach bloating effects.

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

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

MM01

***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.

Glycine	3000 mg
N-Acetylcysteine	400 mg

· 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.