



ORGANIC METABOLOMICS

## Research-Based Insight to Optimize Patient Health

The **OMX™** – Organic Metabolomics test evaluates urine and plasma metabolites,\* including organic and amino acids, to help practitioners unravel how patients function and reveal their unique *'Metabolic Signature.'*

Using a systems-biology approach, the **OMX™** – Organic Metabolomics test assesses biomarkers that go beyond the traditional lists of metabolites, offering in-depth clinical insight that enable practitioners to decipher perturbations within key metabolic pathways.



\* Two testing options available:  
• Urine Organic Acids & Plasma Amino Acids  
• Urine Organic Acids & Urine Amino Acids

As a critical tool in personalized medicine, the **OMX™** – Organic Metabolomics test helps practitioners provide targeted nutraceutical, dietary, environmental, and lifestyle treatments to realign metabolic pathways for better health and improved symptoms.

### Assessment of Key Pathways and Microbial Activities

- Metabolic Processing
- Amino Acid & Protein Metabolism
- Nutrition
- Stress & Mood
- Toxic Impacts
- Microbial Metabolites

The OMX report lists analytes by pathways within each functional category, identifies them by specimen type (urine or plasma), and lists key enzymes and their cofactors.

Learn more at [www.diagnosticsolutionslab.com](http://www.diagnosticsolutionslab.com)

 **Diagnostic Solutions**  
Laboratory

RESEARCH. TECHNOLOGY. RESULTS.

# List of Analytes Reported\*

## Reveal Your Metabolic Signature



### KEY:

- » Identifies a test analyte.
- P Identifies amino acids reported in plasma when the OMX – Urine/Plasma test is ordered.

### 1-Metabolic Processing

- **Glycolysis**
  - » Glucose
  - » Pyruvic acid
  - » Lactic acid
  - » Alanine P
- **Krebs Cycle**
  - » Citric acid
  - » cis-Aconitic acid
  - » Isocitric acid
  - » alpha-Ketoglutaric acid
  - » Succinic acid
  - » Fumaric acid
  - » Malic acid
- **Fatty Acid Oxidation**
  - » Adipic acid
  - » Suberic acid
  - » Pimelic acid
  - » Sebamic acid
  - » Phenylpropionylglycine
  - » Hexanoylglycine
  - » Suberylglycine
  - » Ethylmalonic acid
  - » Methylsuccinic acid
- **Ketones**
  - » 3-Hydroxybutyric acid

### 2-Amino Acid & Protein Metabolism

- **Phenylalanine Metabolism**
  - » Phenylalanine P
  - » Phenylacetic acid
  - » Tyrosine P
  - » Homovanillic acid
  - » Vanillylmandelic acid
  - » 4-Hydroxyphenylpyruvic acid
  - » Homogentisic acid
- **Branched-Chain Amino Acids**
  - » Valine P
  - » alpha-Ketoisovaleric acid
  - » Isoleucine P
  - » alpha-Keto-beta-methylvaleric acid
  - » Leucine P
  - » alpha-Ketoisocaproic acid
- **Tryptophan Metabolism**
  - » Tryptophan P
  - » 5-Hydroxyindoleacetic acid
  - » Kynurenine P
  - » Kynurenine/Tryptophan Ratio P
  - » Hydroxykynurenine
  - » Kynurenic acid
  - » Anthranilic acid
  - » Xanthurenic acid
  - » Quinolinic acid
  - » Picolinic acid
- **Methionine Metabolism**
  - » Methionine P
  - » Homocystine P
  - » Cystathionine P
  - » Cystine P
  - » Sulfocysteine P
  - » Taurine P
  - » alpha-Hydroxybutyric acid
  - » alpha-Ketobutyric acid
  - » Pyroglutamic acid
- **Histidine Metabolism**
  - » Histidine P
  - » 3-Methylhistidine P
  - » beta-Alanine P
- **Threonine/Glycine/Serine Metabolism**
  - » Threonine P
  - » Glycine P
  - » Serine P
  - » Glutamate / (Serine + Glycine) index P
  - » Sarcosine P
  - » Ethanolamine P
  - » Phosphoethanolamine P
- **Lysine**
  - » Lysine P
  - » alpha-Amino adipic acid P
  - » Glutaric acid
- **Glutamine & Aspartic Acid**
  - » Glutamine P
  - » Glutamic acid P
  - » Asparagine P
  - » Aspartic acid P
- **Collagen Catabolism**
  - » Proline P
  - » Hydroxyproline P
  - » Glycylproline P



### 3-Nutrition

- **B-Complex**
  - » Total Branched-Chain Keto Acids
  - » alpha-Ketoglutaric acid
  - » Pyruvic acid
- **Vitamin B6**
  - » Pyridoxic acid
  - » Xanthurenic acid
- **Folate**
  - » Formiminoglutamic acid
- **Vitamin B12**
  - » Methylmalonic acid
- **Biotin**
  - » 3-Hydroxyisovaleric acid
- **Plant Components**
  - » Quercetin
  - » Tartaric acid
- **Meat Intake**
  - » Carnosine P
  - » Anserine P
  - » 1-Methylhistidine P
- **Sugar Intake**
  - » Fructose

### 4-Stress & Mood

- **Catecholamine Catabolism**
  - » Homovanillic acid
  - » Vanillylmandelic acid
- **Serotonin Catabolism**
  - » 5-Hydroxyindoleacetic acid
- **Glutamic Acid Metabolism**
  - » gamma-Aminobutyric acid (GABA) P
- **Steroid Hormone Metabolism**
  - » Cortisol

### 5-Toxic Impact

- **Oxidative Damage**
  - » 8-Hydroxy-2-deoxyguanosine
- **Toxins**
  - » Glucaric acid
  - » 2-Methylhippuric acid
  - » Mandelic acid
  - » Phenylglyoxylic acid
- **Urea Cycle**
  - » Arginine P
  - » Ornithine P
  - » Citrulline P
  - » Homocitrulline P
  - » Arginosuccinic acid P
- **Kidney Impacts**
  - » Oxalic acid
  - » Microalbumin
  - » Phosphate
  - » Creatinine
  - » Orotic acid

### 6-Microbial Metabolites

- **Amino Acids Microbial Metabolites**
  - » p-Hydroxyphenylacetic acid
  - » Indoleacetic acid
- **Polyphenols Microbial Metabolites**
  - » 3,4-Dihydroxyhydrocinnamic acid
  - » 3,5-Dihydroxybenzoic acid
  - » 4-Hydroxybenzoic acid
  - » Benzoic acid
  - » Hippuric acid
- **Isoflavones Microbial Metabolites**
  - » Equol
- **Fungal Assessment**
  - » Arabinitol

\* Exact number of analytes reported may differ from those shown on this page.

Account setup forms are available on our website, via email at [cs@diagnosticsolutionslab.com](mailto:cs@diagnosticsolutionslab.com), or by phone at 877-485-5336.

## TEST ORDERING OPTIONS & SPECIMEN REQUIREMENTS

Two testing options available:

- OMX™ – Organic Metabolomics | Urine & Plasma (P)
- OMX™ – Organic Metabolomics | Urine Only

- Organic Acids Profile – OAp | Urine (optional stand-alone profile)
- Amino Acids Profile – AAP | Plasma (optional stand-alone profile)

## GETTING STARTED

- Set up an account
- Order online on our website, via email, or by phone

## LEARN MORE



Visit the OMX web page to download this document.