STAT: Organic Acid Profile, Quantitative and Qualitative, Urine

**Test Code:** BOAST  
**Turnaround time:** 1 day (from date and time of receipt at EGL)  
**CPT Codes:** 81479 x1, 82570 x1, 83918 x1

### Condition Description

Symptoms of lethargy, coma, hypotonia, seizures, ataxia, vomiting, failure to thrive, metabolic acidosis, etc., may suggest abnormalities of organic acid metabolism. Qualitative and quantitative determination of organic acids is performed by gas chromatography/mass spectrometry. Organic acidemias that are screened for by this assay include: propionic acidemia, methylmalonic acidemia, malonic aciduria, isovaleric acidemia, glutaric acidemia type I, 3-methylcrotonyl-CoA carboxylase deficiency, beta-ketothiolase deficiency, 3-methylglutaconic aciduria, and fatty acid oxidation disorders, etc.

### Indications

The test is indicated in the case of:

- Patients experiencing a metabolic crisis.
- Evaluation of patients with signs of a possible metabolic condition, such as lethargy, coma, hypotonia, seizures, ataxia, vomiting, failure to thrive, and metabolic acidosis.
- Monitoring known metabolic patients who have been hospitalized and for which a rapid analysis is essential.
- Infants with a positive newborn screening result indicative of a metabolic disorder.

### Methodology

Qualitative and quantitative determination performed by gas chromatography/mass spectrometry.

### Detection

Test results can be influenced by the age and nutritional status of the patient. A second test (amino acids analysis/acylcarnitine profile) is typically required to confirm a diagnosis.

### Specimen Requirements

**Type:** Urine

Specimen Requirements:

- In a clean container without preservatives: 2-5ml.  
- Freeze.  
- Fasting or first void sample is preferable.

Specimen Collection and Shipping: Ship frozen sample on dry ice with overnight delivery.

### Special Instructions

Please indicate any medications or dietary changes on the test requisition form.

STAT TESTING MUST BE COORDINATED WITH AND PREAPPROVED BY ONE OF THE DIRECTORS IN THE BIOCHEMICAL GENETICS LABORATORY. Please call 855-831-7447

### Related Tests

- STAT Amino Acids Analysis, Plasma (BAAST)  
- STAT Acylcarnitine Profile (BARST)