

Organic Acid

Organic Acids

Organic acids (OAs) are normally found as intermediates in a variety of intracellular metabolic pathways. These include the tricarboxylic acid (TCA) cycle, the metabolism of amino acids, purines, pyrimidines, cholesterol, fatty acids metabolism, cholesterol biosynthesis and neurotransmission, glycolysis, and microbial metabolism e.g. in the human gut.

Several studies have correlated concentration levels of OAs in urine with a wide range of metabolic disorders and diseases.

Application

- Metabolic Disorders
- Inborn errors of metabolism
- Clinical and Nutritional Studies

Sample type and required amounts

Sample Type	Sample Requirement
Urine	50 μ L
Others on request	

Analysis Method and Instrumentation

[EVOQ TQ GC-MS/MS \(Bruker\)](#)

Contact us to get started

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Organic Acid Panel	LOQ (μ M) Urine
Pyruvic acid	0.61
Lactic acid	2.74
Glycolic acid	5.04
2-Hydroxybutyric acid	0.25
3-Hydroxybutyric acid	1.00
2-Hydroxyisovaleric acid	1.02
Malonic acid	0.35
Methylmalonic acid	1.56
2-Hydroxyisocaproic acid	0.26
Benzoic acid	0.34
Succinic acid	0.2
Methylsuccinic acid	0.16
Glyceric acid	0.39
Fumaric acid	0.3
Glutaric acid	0.21
3-Methylglutaric acid	0.1
3-Methylglutaconic acid	0.46
4-Aminobutyric acid	0.35
Citramalic acid	0.23
Mandelic acid	0.11
Malic acid	0.26
Adipic acid	0.34
Pyroglutamic acid	1.87
3-Aminoisobutyric acid	0.74
3-Methyladipic acid	0.87
2-Hydroxyphenylacetic acid	0.15
2-Ketoglutaric acid	2.33
3-Phenyllactic acid	0.05
3-Hydroxyglutaric	0.55
Pimelic acid	0.26
3-Hydroxy-3-methylglutaric acid	0.08
4-Hydroxybenzoic acid	0.15
4-Hydroxyphenylacetic acid	0.28
Tartaric acid	0.11
Suberic acid	0.33
Quinolinic acid	0.53
Aconitic acid	4.06
Homovallinic acid	1.88
Azelaic acid	0.11
Hippuric acid	1.15
3,4-Dihydroxyphenylacetic acid	0.08
Citric acid	5.68
3-(3hydroxyphenyl)-3-hydroxypropionic acid	0.79
Vanillylmandelic acid	0.13
4-Hydroxyphenyllactic acid	0.28
Dihydrocaffeic acid	0.05
3-Indoleacetic acid	0.51
5-Hydroxyindole-3-acetic acid	0.08