MICROBIOME BIOLOGY

Metabolon

GCP Short Chain Fatty Acid Panel

Short-Chain Fatty Acids

Short-chain fatty acids (SCFAs) are produced in the colon by the gut microbiota. They are the end products of anaerobic fermentation of dietary fibers and protein/peptides in the small intestine. Their formation is the result of a complex interaction between diet, gut microbiota and host. SCFAs influence the physiology of the colon serving as energy sources by host cells and the intestinal microbiota as well as participating in different host-signaling mechanisms.

Applications

- Biopharmaceutical modulation of the host microbiome
- Bacterial product development
- Nutraceuticals and probiotics
- Dietary intervention
- Gut health and wellness
- Basic microbiome research

GCP SCFA Panel	LLOQ*
	Feces in OMNImet™·GUT tube (µg/g dry feces)
Acetic Acid (C2)	1000 µg/g
Propionic Acid (C3)	50 µg/g
Butyric Acid (C4)	60 µg/g
Isobutyric Acid (C4)	6.0 µg/g
Valeric Acid (C5)	6.0 µg/g
Isovaleric Acid (C5)	6.0 µg/g
2-Methyl butyric Acid (C5)	5.0 µg/g
Caproic Acid (C6)	2.0 µg/g
Lactic Acid	6.0 µg/g

*Lower Limit of Quantitation (LLOQ) stated is based on normalization using an average dry weight of feces. The actual measurement of the assay is the concentration of analyte in the OMNImet™·GUT tube containing human feces.

Analyte concentrations in the OMNImet™·GUT tubes will be normalized by measured dry weight of feces unless otherwise requested.

Analysis Method and Instrumentation

LC-MS/MS (Agilent 1290 UHPLC/Sciex QTrap 5500)

Sample Type and Required Amounts

Sample Type	Sample Requirement
Feces in OMNImet™·GUT tube	Approx. 500 mg in OMNImet™·GUT tube, filled according to manufacturer specifications

Contact us to get started
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