lipotype
Lipidomics for a better life

TECH SHEET

Total Short Chain Fatty Acids

Deliverables

This pre-validated panel includes 11 short chain fatty acids (C2 to C7) and allows delivery of **fully quantitative results** (expressed in pmol). The package provides information on free and bound form (total amount) of short chain fatty acids. In addition, the amount of each sample used is provided (weight or volume).

Method

Short chain fatty acids are analysed by **LC/ESI-MS/MS** with an Agilent 1290 HPLC system combined with an Agilent 6495 Triplequad mass spectrometer (Agilent Technologies, Santa Clara, USA). Samples are extracted with organic solvents. For lipid quantification, deuterated internal standards are added prior to sample extraction. Crude extracts are further purified by solid phase extraction (SPE). Clean extracts are loaded on the LC system for LC/ESI-MS/MS analysis. Mass spectrometry analysis is performed with multiple reaction monitoring (MRM) in negative ion mode with at least two mass transitions for each compound. Data analysis is done using Mass Hunter software (Agilent Technologies).

Sample submission guidelines

SAMPLE TYPE	SAMPLE AMOUNT	SHIPMENT CONDITIONS
Whole blood, plasma, serum	100 µl	*Frozen, on dry ice*
Tissue	20 mg	*Frozen pieces of tissues, on dry ice*
Feces	20 mg	*Frozen, on dry ice*
Cells	1×10^6 cells *or* 150 µg of total protein	*Frozen cell pellet, on dry ice*
Liquids (e.g., cell supernatant, media)	0.5–20 ml	*Frozen, on dry ice*

Minimal sample number: 10

Standard turnaround time: 6 weeks

(for projects with up to 100 samples)

Expedited delivery is possible for an additional fee.

Applications

- Microbiome, gut microbiota
- Nutrition
- Immune homeostasis
- Neurotransmitters, neurotrophic factors and cell signaling
- Metabolic disorders

Covered analytes

ANALYTE	FATTY ACID
Acetic Acid	C2:0
Propionic Acid	C3:0
Butyric Acid	C4:0
i-Butyric Acid	iso-C4:0
2-Me-Butyric Acid	C5:0
Valeric Acid	C5:0
i-Valeric Acid	iso-C5:0
3-Me-Valeric Acid	C6:0
Caproic Acid	C6:0
i-Caproic Acid	iso-C6:0
Heptanoic Acid	C7:0

For enquiries, please contact:
Lipotype GmbH | Tatzberg 47 | 01307 Dresden | Germany
Lipotype Inc. | 1 Broadway, 14th floor | Cambridge, MA 02142 | United States
sales@lipotype.com

www.lipotype.com