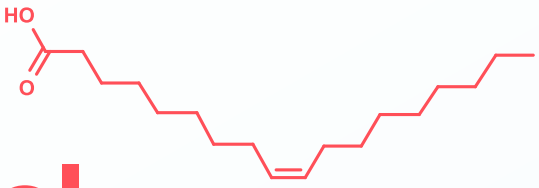
TOTAL FATTY ACID ANALYSIS (FAME)

Metabolon




# Fatty Acid Metabolism Panel

## Fatty Acids

Fatty acids play many physiologically important roles in an organism. They are not only key metabolites of energy storage and production but also the basic building blocks of complex lipids that form cellular membranes. A variety of bioactive forms of fatty acid metabolites, known as lipid mediators, act as local hormones and are involved in many physiological systems and pathological processes (e. g. eicosanoids, lysophospholipids, resolvines, protectins, maresines). Dysregulation of fatty acid metabolism has been associated with many diseases.

## Applications

- Nutritional research, drug development and clinical diagnostic research, covering a variety of diseases
- Obesity
- Cardiovascular disease
- Diabetes
- Preeclampsia, gestational diabetes
- Cancer growth
- Central nervous system disorders

| Fatty Acid Metabolism Panel | | LLOQ |
|---|---|---|
| | | Plasma/Serum |
| Saturated | Myristic Acid (14:0) | 1.00 µg/mL |
| | Pentadecanoic Acid (15:0) | 0.600 µg/mL |
| | Palmitic Acid (16:0) | 8.00 µg/mL |
| | Stearic Acid (18:0) | 4.0 µg/mL |
| | Arachidic Acid (20:0) | 1.00 µg/mL |
| | Behenic Acid (22:0) | 1.00 µg/mL |
| | Lignoceric Acid (24:0) | 0.600 µg/mL |
| Monounsaturated | Myristoleic Acid (14:1n5) | 0.600 µg/mL |
| | Palmitoleic Acid (16:1n7) | 1.00 µg/mL |
| | Vaccenic Acid (18:1n7) | 1.00 µg/mL |
| | Oleic Acid (18:1n9) | 8.00 µg/mL |
| | Cis-11-Eicosaenoic Acid (20:1n9) | 0.600 µg/mL |
| | Erucic Acid (22:1n9) | 0.600 µg/mL |
| | Nervonic Acid (24:1n9) | 1.00 µg/mL |
| Polyunsaturated | Mead Acid (20:3n9) | 1.00 µg/mL |
| | Linoleic Acid (18:2n6) | 8.00 µg/mL |
| | Gamma-Linolenic Acid (18:3n6) | 0.600 µg/mL |
| | Dihomo-Gamma-Linolenic Acid (20:3n6) | 1.00 µg/mL |
| | Arachidonic Acid (20:4n6) | 6.00 µg/mL |
| | Adrenic Acid (22:4n6) | 0.600 µg/mL |
| | Osbond Acid (22:5n6) | 0.600 µg/mL |
| | Cis-11,14-Eicosadienoic Acid (20:2n6) | 1.00 µg/mL |
| | Alpha-Linolenic Acid (18:3n3) | 0.600 µg/mL |
| | Stearidonic Acid (18:4n3) | 0.600 µg/mL |
| | Eicosatetraenoic Acid (ETA) (20:4n3) | 0.600 µg/mL |
| | Eicosapentaenoic Acid (EPA) (20:5n3) | 1.00 µg/mL |
| | Docosapentaenoic Acid (22:5n3) | 1.00 µg/mL |
| | Docosahexaenoic Acid (DHA) (22:6n3) | 2.00 µg/mL |

The panel is for non-GxP testing and is not for diagnostic use

### Analysis Method and Instrumentation

Fatty acids are determined by GC-MS (Agilent 7890A/5975C) as their respective methyl esters after conversion of all free and conjugated fatty acids into methyl esters (FAME Analysis). The Fatty Acid Metabolism Panel measures the total fatty acid content of 28 fatty acids in a variety of matrices.

### Sample Type and Required Amounts

| Sample Type | Sample Requirement |
|---|---|
| Plasma/Serum | 150 - 250 µL |
| Others on request | |

## Contact us to get started

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