



Assay Description: Fatty Acids from Lipids by GC-MS

Service Code: FAMES

Summary: Extraction of lipids from matrix followed by transesterification of lipids and free fatty acids to methyl esters, measured by EI- GCMS. Relative quantitation of FAs between samples and for stable isotope labeling studies.

Container: Eppendorf Tube or equivalent

Normal Volume: Plasma (100 ul); Tissue (50 mgs); Cells (2E7)

Minimal Volume: Plasma (50 uL; 20 uL rodent); Tissue (30 mg); Cells (~5E6)

Special Handling: If human or primate, note any known presence of infectious agents.

Sample Collection: Please see our detailed sample collection protocol on the Michigan Regional Comprehensive Metabolomics Resource Core (MRC²) website before preparing samples for analysis or contact the core director at the number below for details.

Table I: Analytes reported. Others on special request:

Analyte	Abbr.	Molecular Formula	PubCHEM	LOQ(uM)
Palmitic acid	FA 16:0	C ₂ H ₄ O ₂	176	n/a
Palmitoleic acid	FA 16:1	C ₃ H ₆ O ₂	1032	n/a
Stearic acid	FA 18:0	C ₄ H ₈ O ₂	264	n/a
Oleic acid	FA 18:1	C ₄ H ₈ O ₂	6590	n/a
Arachidonic acid	FA 20:4	C ₅ H ₁₀ O ₂	7991	n/a