

Resource Summary Report

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Case - Lipid Analysis Assay by GC-mass spectrometry

DOI:10.17504/protocols.io.yehftb6

Type: Protocol

Proper Citation

Henri Brunengraber 2019. Case - Lipid Analysis Assay by GC-mass spectrometry. protocols.io dx.doi.org/10.17504/protocols.io.yehftb6

Protocol Information

URL: <https://dx.doi.org/10.17504/protocols.io.yehftb6>

Authors: Henri Brunengraber

Group: Mouse Metabolic Phenotyping Centers

Summary: SummaryA known quantity of tissue / plasma is hydrolyzed and extracted after adding known amounts of internal standards: eg. heptadecanoic acid and cholesterol-d7. Fatty acids / cholesterol are analyzed as their trimethylsilyl derivatives using gas chromatography-electron impact ionization mass spectrometry (GCMS) (note: this protocol outlines the processing for palmitate and cholesterol; other fatty acids and sterols can be assayed using this preparation, see refs 1,2).References: 1. Triglyceride synthesis in epididymal adipose tissue: contribution of glucose and non-glucose carbon sources. Bederman IR, Foy S, Chandramouli V, Alexander JC, Previs SF. J Biol Chem. 2009, 284(10):6101-8. 2. Influence of diet on the modeling of adipose tissue triglycerides during growth. Brunengraber DZ, McCabe BJ, Kasumov T, Alexander JC, Chandramouli V, Previs SF. Am J Physiol Endocrinol Metab. 2003, 285(4):E917-25.

Affiliations: Case Western Reserve University

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