



Ceramide Profile

Service Code: Ceramides

Summary: Profile 8 ceramide species by LLE of tissue samples, separated on a 2.1mm x50mm Biphenyl column in a 20 min cycle. All analytes and Internal Standards are measured by ESI⁺ ionization on a LC-QQQ mass spectrometer using MRM methods and reported as ng/ul and normalized to wet tissue weight. CV's are generally 15%.

Container: Eppendorf tube

Normal Volume: Plasma, 100 uL; Tissue, 20-50mg

Minimal Volume: Plasma, 50 uL; Tissue, 5mg

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.

Reference: [Takhar Kasumov](#), [Hazel Huang](#), [Yoon-Mi Chung](#), [Renliang Zhang](#), [Arthur J. McCullough](#), and [John P. Kirwan](#) (2010) "QUANTIFICATION OF CERAMIDE SPECIES IN BIOLOGICAL SAMPLES BY LIQUID CHROMATOGRAPHY-ELECTROSPRAY TANDEM MASS SPECTROMETRY", *Anal Biochem* 401(1): 154–161.

Table I: Analytes reported. Others such as glucosylceramides on special request:

Analyte	Abbr.	MRM	LOQ (ng/ul)
C-14 ceramide	C14	492.4→264.2	0.1
C-16 ceramide	C16	520.4→264.2	0.1
C-18:0 ceramide	C18	548.4→264.2	0.1
C-18:1 ceramide	C18:1	546.4→264.2	0.1
C-20 ceramide	C20	576.4→264.2	0.1
C-22 ceramide	C22	604.4→264.2	0.1
C-24 ceramide	C24	632.5→264.2	0.1
C-24:1 ceramide	C24:1	630.5→264.2	0.1