

PRODUCT DATA SHEET

Sphingolipid Mixture (quantitative)

Catalog number: 1128

Components: Cerebrosides (bovine) (33.3%),
Sulfatides (bovine) (33.3%),
Sphingomyelin (bovine) (33.3%)

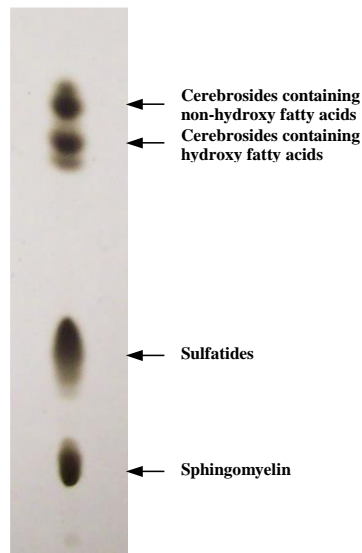
Concentration: 25mg/ml

Volume: 1 ml

Solvent: chloroform/methanol, (2:1)

TLC System: chloroform/methanol/DI water
(75:25:3 by vol.)

Storage: -20°



Application Notes:

This sphingolipid mixture contains three lipids that are critical to neuronal membrane function and comprise most of the myelin sheath of neurons. Sulfatide is a type of sulfolipid that is found primarily in the central nervous system and is a myelin-specific sphingolipid. A deficiency of sulfatide in white and gray matter has been associated with Alzheimer's disease and other types of dementia.¹ Galactocerebrosides are found primarily in neuronal tissues and are the major glycosphingolipids in the central nervous system. They are the largest single component of the myelin sheath of nerves and seem to act, along with other molecules, to form part of the structural support of the myelin sheath.² Sphingomyelin is found in mammalian cell membranes, especially in the membranes of the myelin sheath and is involved in signal transduction and apoptosis.³ This standard is for the qualitative identification and quantitation of unknowns by TLC. All materials are analyzed to verify their identity and to determine their purity. All analytes are 98% pure. This standard is accurately prepared by gravimetric technique (+/- 0.5%) and all glassware is class A rated. Ampules are purged with nitrogen/argon before and after filling and chilled before being flame sealed. Store ampules sealed as received and process without delay immediately after opening the ampule.

Selected References:

1. Ramesh C. Halder, A. Jahng, I. Maricic and Vipin Kumar "Mini Review: Immune Response to Myelin-Derived Sulfatide and CNS-Demyelination" *Neurochemical Research*, February, Vol. 32(2): 257, 2007
2. M. Sheldon, D. Lyudmila, "Cycloserine-induced decrease of cerebroside in myelin" *Lipids*, Vol. 33:4 pp. 441-443, 1998
3. R. N. Kolesnick, A. Haimovitz-Friedman, Z. Fuks "The sphingomyelin signal transduction pathway mediates apoptosis for tumor necrosis factor, Fas, and ionizing radiation" *Biochem Cell Biol.*, Vol. 72(11-12) pp. 471-474, 1994

This product is to be used for research only. It is not intended for drug or diagnostic use, human consumption or to be used in food or food additives. Matreya assumes no liability for any use of this product by the end user. We believe the information, offered in good faith, is accurate.