

PRODUCT DATA SHEET

lyso-Sulfatide (NH₄⁺ salt)

Catalog No: 1904

Common Name: Sphingosine-1-galactoside-3-sulfate

Source: Semisynthetic, bovine

Solubility: chloroform/methanol, 2:1

CAS No: 38621-58-8

Molecular Formula: C₂₄H₄₇NO₁₀S • NH₃

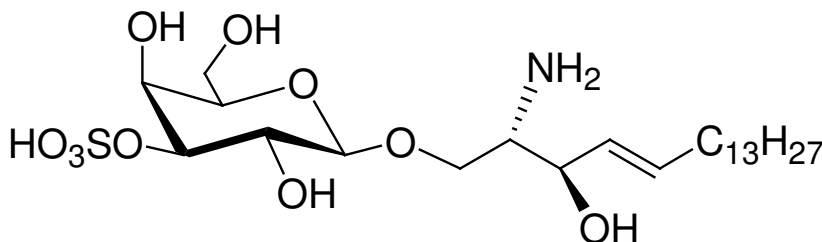
Molecular Weight: 542

Storage: -20°C

Purity: TLC > 98%; identity confirmed by MS

TLC System: chloroform/methanol/DI water
/ammonium hydroxide
(60:30:5:1 by Vol.)

Appearance: solid



Application Notes:

Lyso-Sulfatide is ideal for the preparation of well-defined and labeled sulfatides and is excellent for enzyme and metabolism research. 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. Apolipoprotein E plays an important regulating role in the metabolism of sulfatides.¹ A production of anti-sulfatide antibodies in the cerebrospinal fluid, leading to a deficiency in sulfatides, may be a cause of degeneration of the myelin sheath, leading to multiple sclerosis.² Metachromatic leukodystrophy is an inherited disorder characterized by a deficiency of the lysosomal enzyme arylsulfatase A and the subsequent accumulation of sulfatide in neural and visceral tissues.³ An immunomodulatory role for sulfatides has been suggested in the pathogenesis of tuberculosis.

Selected References:

1. H. Cheng, Y. Zhou, D. Holtzman, X. Han "Apolipoprotein E mediates sulfatide depletion in animal models of Alzheimer's disease." *Neurobiology of Aging*, 2008
2. R. Halder, A. Jahng, I. Maricic and V. Kumar "Mini Review: Immune Response to Myelin-Derived Sulfatide and CNS-Demyelination" *Neurochemical Research*, Vol. 32(2) pp. 257, 2007
3. P. Whitfield et al. "Characterization of Urinary Sulfatides in Metachromatic Leukodystrophy Using Electrospray Ionization-Tandem Mass Spectrometry" *Molecular Genetics and Metabolism*, Vol. 73(1) pp. 30, 2001

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