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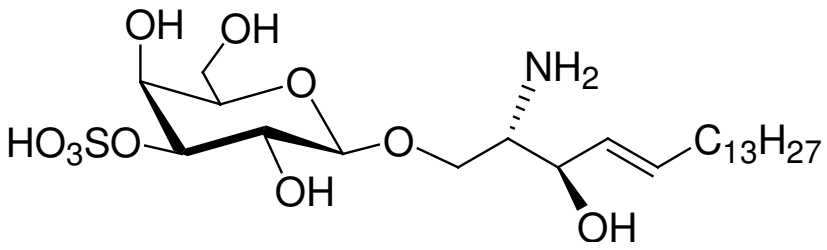
PRODUCT DATA SHEET

lyso-Sulfatide (NH_4^+ salt)

Catalog number: 1904
Synonyms: Sphingosine-1-galactoside-3-sulfate
Source: Semisynthetic, bovine
Solubility: Chloroform/Methanol (2:1)
CAS number: 38621-58-8

Molecular Formula: $C_{24}H_{47}NO_{10}S \cdot NH_3$
Molecular Weight: 542
Storage: -20°C
Purity: TLC > 98%
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. Apoliprotein 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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