PRODUCT DATA SHEET



N-Hexadecanoyl-sulfatide

Catalog number: 1875

Common Name: N-Palmitoyl-sulfatide; N-

C16:0-Sulfatide; N-

Palmitoyl-sphingosyl-beta-D-

galactoside-3-sulfate

Source: semisynthetic, bovine

Solubility: chloroform/methanol, 2:1

CAS number: 89771-78-8

Molecular Formula: C₄₀H₇₇NO₁₁S

Molecular Weight: 780

Storage: -20°C

Purity: TLC > 98%; identity confirmed by MS **TLC System:** chloroform/methanol/DI water

(60:30:4 by Vol.)

Appearance: solid

Application Notes:

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. 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. 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. 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
- R. 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) 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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