

# 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:** C<sub>40</sub>H<sub>77</sub>NO<sub>11</sub>S

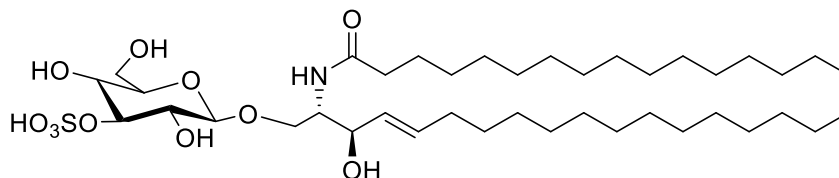
**Molecular Weight:** 780

**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. Apolipoprotein E plays an important regulating role in the metabolism of sulfatides.<sup>1</sup> 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.<sup>2</sup> 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.<sup>3</sup> 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 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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