

PRODUCT DATA SHEET

N-omega-CD₃-Octadecanoyl-sulfatide

Catalog number: 1536

Common Name: N-C18:0-CD₃-Sulfatide; N-Stearoyl-CD₃-sulfatide

Source: semisynthetic, bovine

Solubility: chloroform/methanol/DI water,
(2:1:0.1)

CAS number: N/A

Molecular Formula: C₄₂H₇₈D₃NO₁₁S

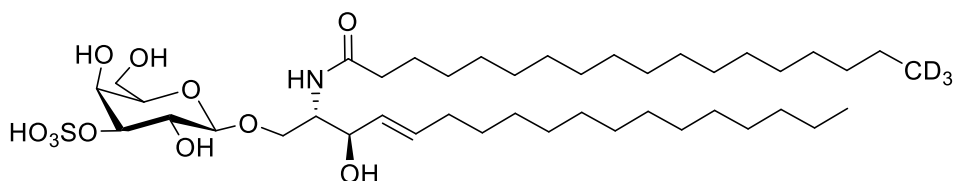
Molecular Weight: 811

Storage: -20°C

Purity: TLC > 98%; identity confirmed by MS

TLC System: chloroform/methanol/DI water,
(65:25:4 by vol.)

Appearance: solid



Application Notes:

This high purity deuterated product is ideal for the identification of sulfatides in samples and biological systems.¹ 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.² 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.³ 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.⁴ An immunomodulatory role for sulfatides has been suggested in the pathogenesis of tuberculosis. Sulfatides decrease the in vitro production of proinflammatory cytokines.

Selected References:

1. M. Tan et al. "Biochemical profiling to predict disease severity in metachromatic leukodystrophy" *Molecular Genetics and Metabolism*, Vol. 99(2) pp. 142-148, 2010
2. H. Cheng, Y. Zhou, D. M. Holtzman, X. Han "Apolipoprotein E mediates sulfatide depletion in animal models of Alzheimer's disease." *Neurobiology of Aging* August 2008
3. 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
4. Phillip D. Whitfield, Peter C. Sharp, David W. Johnson, Paul Nelson and Peter J. Meikle "Characterization of Urinary Sulfatides in Metachromatic Leukodystrophy Using Electrospray Ionization-Tandem Mass Spectrometry" *Molecular Genetics and Metabolism*, May Vol. 73(1): 30, 2001

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.