

Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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PRODUCT INFORMATION



Sulfatides (bovine) (sodium salt)

Item No. 24323

Formal Name:	1-O-(3-O-sulfo-β-D-
	galactopyranosyl)-ceramide, monosodium salt
Synonyms:	Galactosylceramide I ³ -sulfate,
Synonyms.	Ganglioside SM_4 , I^3SO_3 -GalCer,
	SM ₄ Sulfated Galactocerebroside, Ho
	3-O-Sulfogalactosylceramide
MF:	$C_{42}H_{80}NO_{11}S \bullet Na$ (for stearoyl)
FW:	830.1 ° s=0 •Na ⁺
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis	

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Laboratory Procedures

Sulfatides (bovine) (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the sulfatides (bovine) (sodium salt) in the solvent of choice. Sulfatides (bovine) (sodium salt) is soluble in the organic solvent DMSO, which should be purged with an inert gas.

Description

Sulfatides are endogenous sulfoglycolipids with various biological activities in the central and peripheral nervous systems, pancreas, and immune system.¹ They are produced from the combination of ceramide and UDP-galactose in the endoplasmic reticulum followed by sulfation in the Golgi apparatus. The ceramide portion contains variable fatty acid chain lengths, which are tissue- and pathology-dependent. Sulfatides are primarily found in the myelin sheath of oligodendrocytes and Schwann cells, with smaller chain lengths predominant during development and longer chain lengths predominant in mature cells.² They accumulate in the lysosome of patients with metachromatic leukodystrophy, a disorder characterized by arylsulfatase A deficiency.^{1,3} Sulfatides are also located in pancreatic β -cells and inhibit insulin release from isolated rat pancreatic islet cells, suggesting a potential role in diabetes.⁴ Sulfatides can induce inflammation in glia in vitro and certain sulfatides, such as C24:1 3'-sulfo-galactosylceramide, can induce an immune response in vitro in mouse splenocytes.^{5,6} Sulfatides (bovine) (sodium salt) is a mixture of isolated bovine sulfatides.

References

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- 2. Svennerholm, L. and Ställberg-Stenhagen, S. J. Lipid Res. 9(2), 215-225 (1968).
- 3. Saville, J.T., Smith, N.J.C., Fletcher, J.M., et al. Anal. Chim. Acta 955, 79-85 (2017).
- 4. Buschard, K., Høy, M., Bokvist, K., et al. Diabetes 51(8), 2514-2521 (2002).
- 5. Jeon, S.-B., Yoon, H.J., Park, S.-H., et al. J. Immunol. 181(11), 8077-8087 (2008).
- 6. Zajonc, D.M., Maricic, I., Wu, D., et al. J. Exp. Med. 202(11), 1517-1526 (2005).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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