

Sphingomyelin

Cat. No.:	HY-113498		
CAS No.:	85187-10-6		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month

Sphingomyelin

SOLVENT & SOLUBILITY

In Vitro	Ethanol : 25 mg/mL (Need ultrasonic)
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline) Solubility: 1.67 mg/mL (Infinity mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% EtOH >> 90% corn oil Solubility: ≥ 1.67 mg/mL (Infinity mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Sphingomyelin is a eukaryotic sphingolipid and one of the major constituents of cell membranes and particularly abundant in the myelin sheath that surrounds neuronal axons. Sphingomyelin plays an important role in cell processes, the regulation of inflammatory responses, and signal transduction. Sphingomyelin metabolism is associated with various central nervous system diseases and Niemann–Pick disease ^{[1][2][3][4]} .	
IC₅₀ & Target	Human Endogenous Metabolite	Microbial Metabolite
In Vitro	Sphingomyelin metabolism resulting in the production of various interconvertible bioactive sphingolipids or derivatives such as ceramide, diacylglyceride, and sphingosine-1-phosphate. These bioactive lipids act on their specific targets within the cell and regulate various signal transduction pathways, thereby affecting cellular functions ^[1] . Sphingomyelin enriched lipid raft mediated cell signaling ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

REFERENCES

- [1]. Chakraborty M, et al. Sphingomyelin and its role in cellular signaling. *Adv Exp Med Biol.* 2013;991:1-14.
- [2]. Schneider N, et al. Sphingomyelin in Brain and Cognitive Development: Preliminary Data. *eNeuro.* 2019 Aug 6;6(4). pii: ENEURO.0421-18.2019.
- [3]. Bienias K, et al. Regulation of sphingomyelin metabolism. *Pharmacol Rep.* 2016 Jun;68(3):570-81.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA