Sphingomyelin

Cat. No.:	HY-113498
CAS No.:	85187-10-6
Molecular Formula:	$C_{41}H_{84}N_2O_6P$
Molecular Weight:	732.08
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month

Sphingomyelin

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].
IC_{50} & Target	Human Endogenous 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].

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.

[4]. Schuchman EH, et al. Types A and B Niemann-Pick disease. Mol Genet Metab. 2017 Jan - Feb;120(1-2):27-33.

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

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