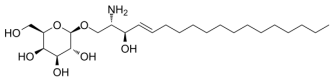
Psychosine

Cat. No.:	HY-136490
CAS No.:	2238-90-6
Molecular Formula:	$C_{24}H_{47}NO_7$
Molecular Weight:	461.63
Target:	PKC
Pathway:	Epigenetics; TGF-beta/Smad
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Psychosine (Galactosylsphingosine), a substrate of the galactocerebrosidase (GALC) enzyme, is a potential biomarker for Krabbe disease[1]. Psychosine is a highly cytotoxic lipid, capable of inducing cell death in a wide variety of cell types including, most relevantly to globoid cell leukodystrophy (GLD), oligodendrocytes. Psychosine causes cell death at least in part via apoptosis. Psychosine also is an inhibitor of PKC[1].
IC_{50} & Target	PKC
In Vitro	Psychosine, is a substrate of the GALC enzyme that shows promise to aid in the diagnosis and follow-up of at-risk infants identified through newborn screening (NBS)[1]. Psychosine induces pleiotropic effects, including dysfunctions in several cellular pathways[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay[2]

Cell Line:	Oligodendrocyte cells, M03.13
Concentration:	10, 20, and 40 μM
Incubation Time:	24 hours
Result:	Caused cell death at least in part via apoptosis.

REFERENCES

[1]. M L Escolar, et al. Psychosine, a marker of Krabbe phenotype and treatment effect. Mol Genet Metab. 2017 Jul;121(3):271-278.

[2]. Jacqueline A Hawkins-Salsbury,et al.Psychosine, the cytotoxic sphingolipid that accumulates in globoid cell leukodystrophy, alters membrane architecture. J Lipid Res.2013 Dec;54(12):3303-11.

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

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