Data Sheet (Cat.No.T36015)



PDMP (hydrochloride)

Chemical Properties

CAS No.: 73257-80-4

Formula: C23H39ClN2O3

Molecular Weight: 427.03

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description

PDMP is a ceramide analog first prepared in a search for inhibitors of glucosylceramide synthase. PDMP has two adjacent chiral centers (C1 and C2) allowing for the formation of four possible isomers. PDMP contains all four of these stereoisomers. PDMP inhibits glucosylceramide synthase by 90% when used at a concentration of 0.8 μ M in MDCK cell homogenates, however, the ability to inhibit glucosylceramide synthase has been found to reside in the D-threo (1R,2R) enantiomer. The D-threo PDMP enantiomer is also responsible for inhibition of β -1,4-galactosyltransferase 6 and prevention of lactosylceramide synthesis, which is a promotor of neuroinflammation in mice during chronic experimental autoimmune encephalomyelitis (EAE), a model of multiple sclerosis. PDMP enhances curcumin-induced inhibition of proliferation, JNK activation, and Akt inhibition, as well as induction of apoptosis in WM-115 melanoma cells in vitro.

Solubility Information

Solubility DMF: 25 mg/mL

Ethanol:PBS(pH 7.2)(1:5): 0.05 mg/mL

DMSO: 30 mg/mL Ethanol: 50 mg/mL

(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3418 mL	11.7088 mL	23.4176 mL
5 mM	0.4684 mL	2.3418 mL	4.6835 mL
10 mM	0.2342 mL	1.1709 mL	2.3418 mL
50 mM	0.0468 mL	0.2342 mL	0.4684 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

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