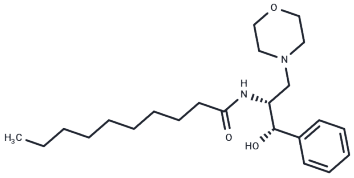
Data Sheet (Cat.No.T38489)

TargetMol
YOUR TARGET MOLECULES

D,L-erythro-PDMP

Chemical Properties



CAS No. : 109760-77-2

Formula: C23H38N2O3

Molecular Weight: 390.568

Appearance: no data available

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

Biological Description

Description	D,L-erythro-PDMP, an erythro isomer of PDMP, exhibits growth inhibition on cultured rabbit skin fibroblasts. Additionally, this compound serves as an effective inhibitor of UDP-glucose: ceramide glucosyltransferase.
In vitro	D,L-erythro-PDMP at concentrations of 0, 12, 25, 50 μM over periods of 0, 4, 7, and 10 days demonstrates a dose-dependent inhibition of rabbit skin fibroblast proliferation, as evidenced by reduced cell growth[1]. A concentration of 50 μM of D,L-erythro-PDMP, when applied for 3 days, results in cytotoxic effects, altering the cell morphology of rabbit skin fibroblasts[1]. Furthermore, treatment with D,L-erythro-PDMP at a concentration of 40 μM for 24 hours in MDCK cells leads to a significant increase in glucosyltransferase activity, quantified at 14.6 nmol/h per mg of protein[2]. Additionally, a 40 μM concentration of D,L-erythro-PDMP administered for 6 hours offers protective effects against synthase loss in cells challenged with cycloheximide[2]. These findings are supported by cell proliferation and cytotoxicity assays on rabbit skin fibroblast cell lines, illustrating D,L-erythro-PDMP's capacity to modulate cell growth and viability in a concentration and time-dependent manner[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5604 mL	12.8018 mL	25.6036 mL
5 mM	0.5121 mL	2.5604 mL	5.1207 mL
10 mM	0.256 mL	1.2802 mL	2.5604 mL
50 mM	0.0512 mL	0.256 mL	0.5121 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.

Reference

Uemura K, et al. Effect of an inhibitor of glucosylceramide synthesis on cultured rabbit skin fibroblasts. J Biochem. 1990 Oct;108(4):525-30.

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