Product Data Sheet

D,L-erythro-PDMP hydrochloride

Cat. No.: HY-116392H CAS No.: 80943-40-4 Molecular Formula: $C_{23}H_{39}CIN_{2}O_{3}$ 427.02 Molecular Weight: Target: Others Pathway: Others

Storage: -20°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

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SOLVENT & SOLUBILITY

In Vitro

DMSO: 125 mg/mL (292.73 mM; Need ultrasonic)

Solver Concentration Preparing 1 mM Stock Solutions 5 mM	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.3418 mL	11.7091 mL	23.4181 mL
	5 mM	0.4684 mL	2.3418 mL	4.6836 mL
	10 mM	0.2342 mL	1.1709 mL	2.3418 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.87 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.87 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.87 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

D,L-erythro-PDMP hydrochloride is an erythro isomer of PDMP. D,L-erythro-PDMP hydrochloride causes growth inhibition of cultured rabbit skin fibroblasts. PDMP is an effective inhibitor of UDP-glucose: ceramide glucosyltransferase $^{[1][2]}$.

In Vitro

D,L-erythro-PDMP hydrochloride (0, 12, 25, 50 µM; 0, 4, 7, 10 days) shows an inhibitory effect on cell growth of rabbit skin fibroblasts^[1].

D,L-erythro PDMP hydrochloride (50 μM; 3 days) has cytotoxic of rabbit skin fibroblasts on cell morphology^[1].

D,L-erythro-PDMP hydrochloride (40 μM; 24 h; MDCK cells) induces a marked increase in glucosyltransferase specific activity: 14.6 nmol/h per mg protein^[2].

D,L-erythro-PDMP hydrochloride (40 µM; 6 h) protects the cells against loss of synthase in cells exposed to cycloheximide^[2].



REFERENCES

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

[2]. Abe A, et al. Induction of glucosylceramide synthase by synthase inhibitors and ceramide. Biochim Biophys Acta. 1996 Feb 16;1299(3):333-41.

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

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Page 2 of 2 www.MedChemExpress.com