

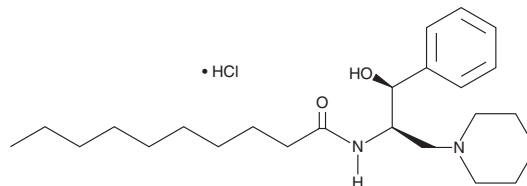
PRODUCT INFORMATION



DL-erythro-PDMP (hydrochloride)

Item No. 22676

CAS Registry No.: 80943-40-4
Formal Name: *rel*-N-[(1R,2S)-2-hydroxy-1-(4-morpholinylmethyl)-2-phenylethyl]-decanamide, monohydrochloride
MF: C₂₃H₃₈N₂O₃ • HCl
FW: 427.0
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

DL-erythro-PDMP (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the DL-erythro-PDMP (hydrochloride) in the solvent of choice, which should be purged with an inert gas. DL-erythro-PDMP (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of DL-erythro-PDMP (hydrochloride) in these solvents is approximately 50, 30, and 25 mg/ml, respectively.

DL-erythro-PDMP (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DL-erythro-PDMP (hydrochloride) should be first dissolved in ethanol and then diluted with the aqueous buffer of choice. DL-erythro-PDMP (hydrochloride) has a solubility of approximately 0.05 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

DL-erythro-PDMP is a mixture of ceramide analogs that contains two of the four possible stereoisomers of PDMP (Item No. 62595): D-erythro-(1S,2R)-PDMP and L-erythro-(1R,2S)-PDMP.^{1,2} It protects glucosylceramide (GlcCer) synthase from degradation and increases the level of ceramide in MDCK cells when used at a concentration of 40 μM.² Unlike DL-threo-PDMP, DL-erythro-PDMP does not inhibit GlcCer synthase, but it does inhibit UDP galactose:ceramide galactosyltransferase by 27% in mouse brain microsomes when used at a concentration of 100 μM.³ It inhibits the growth of isolated rabbit skin fibroblasts when used at a concentration of 50 μM but is cytotoxic at concentrations higher than 50 μM.⁴

References

1. Vunnam, R.R. and Radin, N.S. Analogs of ceramide that inhibit glucocerebrosidase in mouse brain. *Chem. Phys. Lipids* **26(3)**, 265-278 (1980).
2. Abe, A., Radin, N.S., and Shayman, J.A. Induction of glucosylceramide synthase by synthase inhibitors and ceramide. *Biochim. Biophys. Acta*. **1299(3)**, 333-341 (1996).
3. Inokuchi, J.i. and Radin, N.S. Preparation of the active isomer of 1-phenyl-2-decanoylamino-3-morpholino-1-propanol, inhibitor of murine glucocerebrosidase synthetase. *J. Lipid Res.* **28(5)**, 565-571 (1987).
4. Uemura, K., Sugiyama, E., Tamai, C., *et al.* Effect of an inhibitor of glucosylceramide synthesis on cultured rabbit skin fibroblasts. *J. Biochem.* **108(4)**, 525-530 (1990).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM