

# PRODUCT INFORMATION

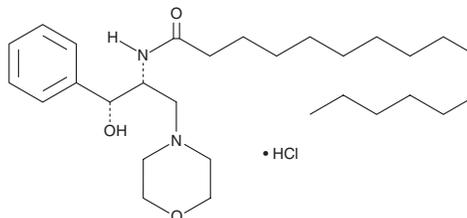


## DL-threo-PPMP (hydrochloride)

Item No. 17236

**CAS Registry No.:** 139974-41-7  
**Formal Name:** *rel*-N-[(1R,2R)-2-hydroxy-1-(4-morpholinylmethyl)-2-phenylethyl]-hexadecanamide, monohydrochloride  
**Synonym:** DL-threo-1-Phenyl-2-palmitoylamino-3-morpholino-1-propanol

**MF:** C<sub>29</sub>H<sub>50</sub>N<sub>2</sub>O<sub>3</sub> • HCl  
**FW:** 511.2  
**Purity:** ≥98%  
**Supplied as:** A crystalline 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-threo-PPMP (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the DL-threo-PPMP (hydrochloride) in the solvent of choice, which should be purged with an inert gas. DL-threo-PPMP (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of DL-threo-PPMP (hydrochloride) in these solvents is approximately 10, 20, and 5 mg/ml, respectively.

### Description

DL-threo-PPMP is a ceramide analog and an inhibitor of glucosylceramide synthase.<sup>1</sup> It inhibits glucosylceramide synthase by 70, 41, and 62% in MDCK cell homogenates, mouse liver microsomes, and mouse brain homogenates, respectively, when used at a concentration of 20 μM. DL-threo-PPMP also inhibits sphingomyelin synthase activity in erythrocytes infected with *P. falciparum* and inhibits late ring-stage *P. falciparum* growth (IC<sub>50</sub> = 0.85 μM).<sup>2</sup> It reduces Akt and ribosomal protein S6 phosphorylation in HEK293 cells and increases autophagy flux in primary mouse neurons.<sup>3</sup>

### References

1. Abe, A., Inokuchi, J., Jimbo, M., *et al.* Improved inhibitors of glucosylceramide synthase. *J. Biochem.* **111**(2), 191-196 (1992).
2. Lauer, S.A., Ghorri, N., and Haldar, K. Sphingolipid synthesis as a target for chemotherapy against malaria parasites. *Proc. Natl. Acad. Sci. USA* **92**(20), 9181-9185 (1995).
3. Shen, W., Henry, A.G., Paumier, K.L., *et al.* Inhibition of glucosylceramide synthase stimulates autophagy flux in neurons. *J. Neurochem.* **129**(5), 884-894 (2014).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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