

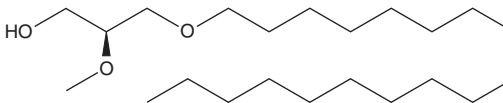
PRODUCT INFORMATION



1-O-Octadecyl-2-O-methyl-sn-glycerol

Item No. 15108

CAS Registry No.: 83167-59-3
Formal Name: 2S-methoxy-3-(octadecyloxy)-1-propanol
Synonyms: 2-Methyl-1-octadecyl-sn-glycerol, PIA 7
MF: C₂₂H₄₆O₃
FW: 358.6
Purity: ≥95%
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

1-O-Octadecyl-2-O-methyl-sn-glycerol is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-O-octadecyl-2-O-methyl-sn-glycerol in the solvent of choice, which should be purged with an inert gas. 1-O-Octadecyl-2-O-methyl-sn-glycerol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1-O-octadecyl-2-O-methyl-sn-glycerol in these solvents is approximately 5, 0.16, and 16 mg/ml, respectively.

1-O-Octadecyl-2-O-methyl-sn-glycerol is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

1-O-Octadecyl-2-O-methyl-sn-glycerol is a metabolite of a phosphatidylinositol ether lipid analog (PIA). PIAs are known to target the pleckstrin homology domain of the serine/threonine kinase Akt and to induce apoptosis in cancer cell lines with high levels of endogenous Akt activity.¹⁻²

References

1. Castillo, S.S., Brognard, J., Petukhov, P.A., *et al.* Preferential inhibition of Akt and killing of Akt-dependent cancer cells by rationally designed phosphatidylinositol ether lipid analogues. *Cancer Res.* **64(8)**, 2782-2792 (2004).
2. Memmott, R.M., Gills, J.J., Hollingshead, M., *et al.* Phosphatidylinositol ether lipid analogues induce AMP-activated protein kinase-dependent death in LKB1-mutant non-small cell lung cancer cells. *Cancer Res.* **68(2)**, 580-588 (2008).

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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