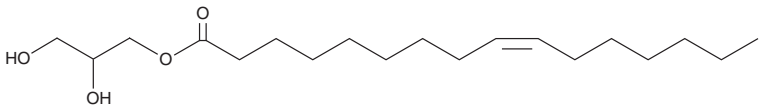
PRODUCT INFORMATION

1-Palmitoleoyl glycerol

Item No. 25697

CAS Registry No.: 37515-61-0
Formal Name: 9Z-hexadecenoic acid, 2,3-dihydroxypropyl ester
Synonym: 1-Monopalmitoleoyl-*rac*-glycerol
MF: $C_{19}H_{36}O_4$
FW: 328.5
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Low melting



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

Laboratory Procedures

1-Palmitoleoyl glycerol is supplied as a low melting solid. A stock solution may be made by dissolving the 1-palmitoleoyl glycerol in the solvent of choice. 1-Palmitoleoyl glycerol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 1-palmitoleoyl glycerol in these solvents is approximately 30, 5, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 1-palmitoleoyl glycerol can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 1-palmitoleoyl glycerol in PBS, pH 7.2, is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1-Palmitoleoyl glycerol is a bioactive monoacylglycerol.[1,2] It increases daunomycin accumulation, indicating inhibition of P-glycoprotein, in Caco-2 cells. 1-Palmitoleoyl glycerol induces apoptosis in thymocytes.[2]

References

1. Konishi, T., Satsu, H., Hatsugai, Y., *et al.* Inhibitory effect of a bitter melon extract on the P-glycoprotein activity in intestinal Caco-2 cells. *Br. J. Pharmacol.* **143(3)**, 379-387 (2004).
2. Philippoussis, F., Przybytkowski, E., Fortin, M., *et al.* Derivatives of monoglycerides as apoptotic agents in T-cells. *Cell Death Differ.* **8(11)**, 1103-1112 (2001).

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