

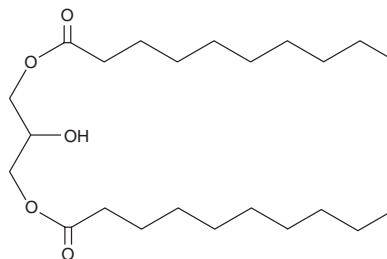
PRODUCT INFORMATION



1,3-Didecanoyl Glycerol

Item No. 26845

CAS Registry No.: 17598-93-5
Formal Name: decanoic acid, 1,1'-(2-hydroxy-1,3-propanediyl) ester
Synonyms: 1,3-Dicaprin, 1,3-Didecanoin
MF: C₂₃H₄₄O₅
FW: 400.6
Purity: ≥98%
Supplied as: An oil
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

1,3-Didecanoyl glycerol is supplied as an oil. A stock solution may be made by dissolving the 1,3-didecanoyl glycerol in the solvent of choice, which should be purged with an inert gas. 1,3-Didecanoyl glycerol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1,3-didecanoyl glycerol in these solvents is approximately 30, 7, 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 1,3-didecanoyl glycerol can be prepared by directly dissolving the oil in aqueous buffers. The solubility of 1,3-didecanoyl glycerol in PBS, pH 7.2, is approximately 250 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1,3-Didecanoyl glycerol is a saturated diacylglycerol with decanoic acid (Item No. 20838) at the *sn*-1 and *sn*-3 positions. It has been used in the formation of lipid monolayers in the study of lipases.¹⁻³

References

1. Momsen, W.E. and Brockman, H.L. The adsorption to and hydrolysis of 1,3-didecanoyl glycerol monolayers by pancreatic lipase. Effects of substrate packing density. *J. Biol. Chem.* **256(13)**, 6913-6916 (1981).
2. Gargouri, Y., Pieroni, G., Rivière, C., *et al.* Inhibition of lipases by proteins. A kinetic study with dicaprin monolayers. *J. Biol. Chem.* **260(4)**, 2268-2273 (1985).
3. Sayari, A., Verger, R., and Gargouri, Y. Comparative kinetic studies of two staphylococcal lipases using the monomolecular film technique. *J. Biochem. Mol. Biol.* **34(5)**, 457-462 (2001).

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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