

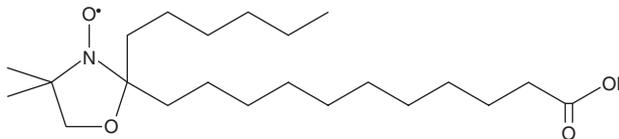
PRODUCT INFORMATION



12-doxy Stearic Acid

Item No. 19259

CAS Registry No.: 29545-47-9
Formal Name: 2-(10-carboxydecyl)-2-hexyl-4,4-dimethyl-3-oxazolidinyloxy
Synonym: 12-DSA
MF: C₂₂H₄₂NO₄
FW: 384.6
Purity: ≥95%
UV/Vis.: λ_{max}: 226 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

12-Doxy stearic acid (12-DSA) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 12-DSA in these solvents is approximately 20, 10, and 30 mg/ml, respectively.

Description

12-DSA is a form of stearic acid (Item No. 10011298) that contains a 4,4-dimethyl-3-oxazolinyl group (DOXYL) group, creating a hydrophobic spin label. It is commonly used to study molecular aspects of membranes and hydrophobic proteins.¹⁻³

References

1. Fournier, T. and Rahim, M.H. Self-aggregation, a new property of cardiac fatty acid-binding protein. Predictable influence on energy production in the heart. *J. Biol. Chem.* **258(5)**, 2929-2933 (1983).
2. Musser, S.M., Larsen, R.W., and Chan, S.I. Fluorescence quenching of reconstituted NCD-4-labeled cytochrome c oxidase complex by DOXYL-stearic acids. *Biophys. J.* **65(6)**, 2348-2359 (1993).
3. Nilsson, U.A., Olsson, L.-I., Carlin, G., *et al.* Inhibition of lipid peroxidation by spin labels. Relationships between structure and function. *J. Biol. Chem.* **264(19)**, 11131-11135 (1989).

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