

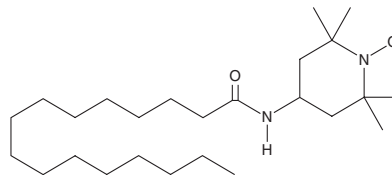
PRODUCT INFORMATION



4-palmitamido TEMPO

Item No. 25995

CAS Registry No.: 22977-65-7
Formal Name: 2,2,6,6-tetramethyl-4-[(1-oxohexadecyl)amino]-1-piperidinyloxy
Synonyms: C16-amido TEMPO
MF: C₂₅H₄₉N₂O₂
FW: 409.7
Purity: ≥95%
UV/Vis.: λ_{max}: 210 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

4-palmitamido TEMPO is supplied as a solid. A stock solution may be made by dissolving the 4-palmitamido TEMPO in the solvent of choice. 4-palmitamido TEMPO is soluble in organic solvents such as ethanol and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 4-palmitamido TEMPO in these solvents is approximately 12 and 14 mg/ml, respectively. 4-palmitamido TEMPO is slightly soluble in DMSO.

4-palmitamido TEMPO is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-palmitamido TEMPO should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 4-palmitamido TEMPO has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

4-Palmitamido TEMPO is a lipid-soluble spin label.^{1,2} It incorporates into vesicles and cell membranes and has been used to study the entrapment of molecules within phosphatidylcholine vesicles.³

References

1. Lepock, J.R., Morse, P.D., II, Melhorn, R.J., *et al.* Spin labels for cell surfaces. *FEBS Lett.* **60(1)**, 185-189 (1975).
2. Kang, Y.S., Jeong, M.H., Shin, S.J., *et al.* Synthesis of amphiphilic TEMPO derivative and characterization of langmuir monolayers of amphiphilic alkyl-TEMPOs at the air/water interface. *Int. J. Nanoscience* **5(6)**, 787-493 (2006).
3. Defrise-Quertain, F., Chatelain, P., Ruysschaert, J.M., *et al.* Spin label partitioning in lipid vesicles. A model study for drug encapsulation. *Biochim. Biophys. Acta* **628(1)**, 57-68 (1980).

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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