

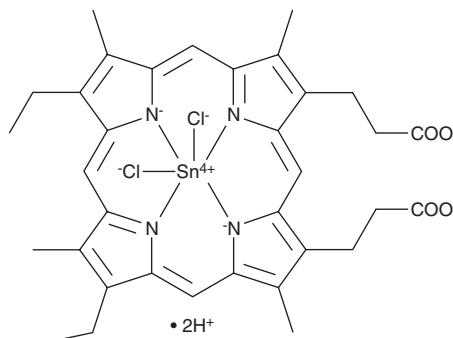
PRODUCT INFORMATION



Tin Mesoporphyrin IX (chloride)

Item No. 19071

CAS Registry No.: 106344-20-1
Formal Name: (OC-6-13)-dichloro[7,12-diethyl-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(4-)-κN²¹,κN²²,κN²³,κN²⁴]-stannate(2-), dihydrogen
Synonyms: NSC 267099, SnMP
MF: C₃₄H₃₄Cl₂N₄O₄Sn • 2H
FW: 754.3
Purity: ≥95%
UV/Vis.: λ_{max}: 399 nm
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

Tin mesoporphyrin IX (chloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the tin mesoporphyrin IX (chloride) in the solvent of choice, which should be purged with an inert gas. Tin mesoporphyrin IX (chloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of tin mesoporphyrin IX (chloride) in these solvents is approximately 0.5 and 1 mg/ml, respectively.

Tin mesoporphyrin IX (chloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tin mesoporphyrin IX (chloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Tin mesoporphyrin IX (chloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Heme oxygenases (HOs) convert protoheme to biliverdin, which in turn is enzymatically metabolized to bilirubin (Item No. 17161). Tin mesoporphyrin IX is a potent, competitive inhibitor of HO activity *in vitro* ($K_i = 14$ nM).¹ It inhibits hepatic, renal, and splenic HO activity *in vivo* for extended periods of time.¹ Tin mesoporphyrin IX blocks bilirubin production *in vivo*, decreasing HO activity in animal models of hyperbilirubinemia.¹⁻³ Tin mesoporphyrin IX can be used to study the physiological roles of induced HO-1 expression in animal models.⁴⁻⁶

References

1. Drummond, G.S., Galbraith, R.A., Sardana, M.K., *et al.* *Arch. Biochem. Biophys.* **255(1)**, 64-74 (1987).
2. Drummond, G.S. and Kappas, A. *Proc. Natl. Acad. Sci. USA* **78(10)**, 6466-6470 (1981).
3. Hamori, C.J., Vreman, H.J., and Stevenson, D.K. *Res. Commun. Chem. Pathol. Pharmacol.* **62(1)**, 41-48 (1988).
4. Chen, T., Li, J., Fan, L., *et al.* *Int. J. Mol. Sci.* **14(2)**, 2684-2706 (2013).
5. Koeppen, A.H., Dickson, A.C., and Smith, J. J. *Neuropathol. Exp. Neurol.* **63(6)**, 587-597 (2004).
6. Zhang, L., Gan, Z.-K., Han, L.-N., *et al.* *J. Geriatr. Cardiol.* **12(4)**, 353-365 (2015).

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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