

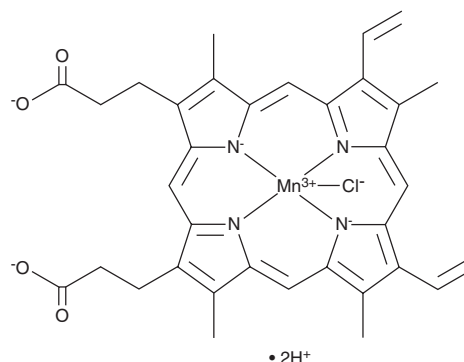
PRODUCT INFORMATION



Mn(III) Protoporphyrin IX Chloride

Item No. 30808

CAS Registry No.: 120389-54-0
Formal Name: (SP-5-13)-chloro[7,12-diethenyl-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(4-)-κN²¹,κN²²,κN²³,κN²⁴]-manganate(2-), dihydrogen
Synonym: Manganese(III) Protoporphyrin IX Chloride
MF: C₃₄H₃₀ClMnN₄O₄ • 2H
FW: 651.0
Purity: ≥95%
UV/Vis.: λ_{max}: 230, 371, 463, 551 nm
Supplied as: A 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

Mn(III) protoporphyrin IX chloride is supplied as a solid. A stock solution may be made by dissolving the Mn(III) protoporphyrin IX chloride in the solvent of choice. Mn(III) protoporphyrin IX chloride is soluble in 0.1 M Na₂CO₃ and 2 M NaOH. The solubility of Mn(III) protoporphyrin IX chloride in these solvents is approximately 5 and 10 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

Mn(III) protoporphyrin IX chloride is a metalloporphyrin.¹ It induces mRNA expression of the genes encoding δ-aminolevulinatase synthase and heme oxygenase (HO), enzymes that catalyze the rate-limiting steps of heme biosynthesis and degradation, respectively, in chick embryo liver cells when used at a concentration of 10 μM. Mn(III) protoporphyrin IX chloride-containing nanobialys have been used in magnetic resonance imaging (MRI) of fibrin clots *in vitro*.² It has also been used in the synthesis of Mn(III) protoporphyrin IX-6(7)-glycyl-glycyl-L-histidine methyl ester (MnGGH), a metalloporphyrin conjugate with microperoxidase activity.³

References

1. Cable, E.E., Pepe, J.A., Karamitsios, N.C., *et al.* Differential effects of metalloporphyrins on messenger RNA levels of δ-aminolevulinatase synthase and heme oxygenase. Studies in cultured chick embryo liver cells. *J. Clin. Invest.* **94**(2), 649-654 (1994).
2. Pan, D., Caruthers, S.D., Hu, G., *et al.* Ligand-directed nanobialys as theranostic agent for drug delivery and manganese-based magnetic resonance imaging of vascular targets. *J. Am. Chem. Soc.* **130**(29), 9186-9187 (2008).
3. Ryabova, E.S. and Nordlander, E. Synthesis and reactivity studies of a manganese 'microperoxidase' containing *b*-type heme. *Dalton Trans.* **7**, 1228-1233 (2005).

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.

WARRANTY AND LIMITATION OF REMEDY

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