

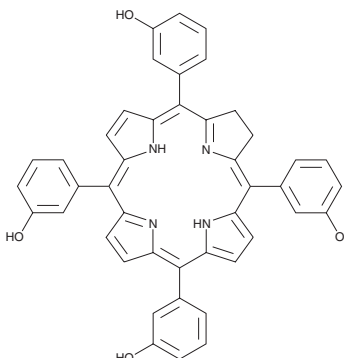
PRODUCT INFORMATION



Temoporfin

Item No. 17333

CAS Registry No.: 122341-38-2
Formal Name: 3,3',3'',3'''-(7,8-dihydro-21H,23H-porphine-5,10,15,20-tetrayl)tetrakis-phenol
Synonyms: Foscan, KW 2345, m-THPC
MF: C₄₄H₃₂N₄O₄
FW: 680.8
Purity: ≥95%
UV/Vis.: λ_{max}: 284, 416, 516, 542, 596, 650 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

Temoporfin is supplied as a crystalline solid. A stock solution may be made by dissolving the temoporfin in the solvent of choice. Temoporfin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of temoporfin in ethanol and DMSO is approximately 10 mg/ml and approximately 20 mg/ml in DMF.

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

Description

Temoporfin is a synthetic chlorin with light-activated actions. When administered systemically, temoporfin accumulates in tumor cells.^{1,2} When stimulated with light (650-652 nm) in the presence of oxygen, reactive oxygen species are generated, leading to necrosis within the tumor.^{1,2} Different approaches to using photodynamic therapy with temoporfin in palliative care are currently of interest.^{3,4}

References

1. Alian, W., Andersson-Engels, S., Svanberg, K., *et al.* Laser-induced fluorescence studies of meso-tetra(hydroxyphenyl)chlorin in malignant and normal tissues in rats. *Br. J. Cancer* **70(5)**, 880-885 (1994).
2. Ris, H.-B., Altermatt, H.J., Inderbitzi, R., *et al.* Photodynamic therapy with chlorins for diffuse malignant mesothelioma: Initial clinical results. *Br. J. Cancer* **64(6)**, 1116-1120 (1991).
3. Reshetov, V., Lassalle, H.-P., François, A., *et al.* Photodynamic therapy with conventional and PEGylated liposomal formulations of mTHPC (temoporfin): Comparison of treatment efficacy and distribution characteristics *in vivo*. *Int. J. Nanomedicine* **8**, 3817-3831 (2013).
4. Succo, G., Rosso, S., Fadda, G.L., *et al.* Salvage photodynamic therapy for recurrent nasopharyngeal carcinoma. *Photodiagnosis Photodyn. Ther.* **11(2)**, 63-70 (2014).

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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