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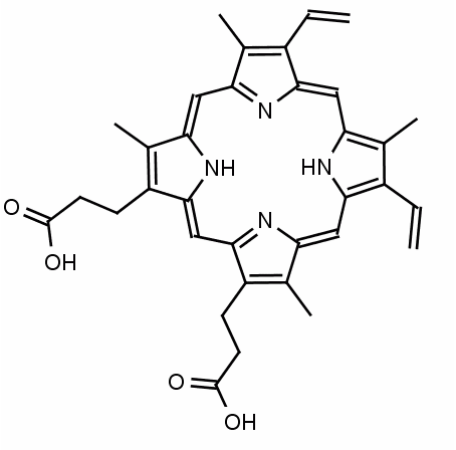
Technical Data Sheet

For research use only

Product Name: Protoporphyrin IX



Catalog Number	CAS Registry No.	MW (g/mol)	Chemical Formula	Solubility
F-H050	533-12-8	562.66	$C_{34}H_{34}N_4O_4$	Chloroform, glacial acetic acid or conc. HCl

Storage: Protoporphyrin IX is stable for at least one year when stored as a solid, protected from moisture, at -20 °C. Protect from light.

Field of Use: Protoporphyrin IX is an intermediate in the Heme synthesis pathway and is formed from Protoporphyrinogen III in a reaction catalyzed by the enzyme Protoporphyrin III oxidase. Iron in the ferrous state is added to Protoporphyrin IX to form heme in a reaction catalyzed by the enzyme ferrochelatase. Protoporphyrin IX has been found to activate guanylate cyclase[1] and has been found to induce apoptosis in HeLa cells[2].

References:

1. Ignarro, L. J.; Wood, K. S.; Wolin, M. S. Activation of purified soluble guanylate cyclase by protoporphyrin IX. *Proc Natl Acad Sci U S A* 1982, 79, 2870-3.
2. Bednarz, N.; Zawacka-Pankau, J.; Kowalska, A. Protoporphyrin IX induces apoptosis in HeLa cells prior to photodynamic treatment. *Pharmacol Rep* 2007, 59, 474-9.