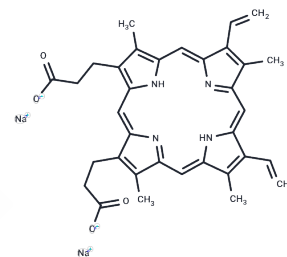


Protoporphyrin IX disodium

Chemical Properties

CAS No. :	50865-01-5
Formula:	C ₃₄ H ₃₂ N ₄ Na ₂ O ₄
Molecular Weight:	606.62
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Protoporphyrin IX disodium, as a radiation sensitizer, enhances the production of ROS and induces DNA damage even under hypoxic conditions. It also acts as a photosensitizer, undergoing direct degradation through photobleaching upon light exposure. This compound accumulates in rat tumor cells following administration of 5-aminolevulinic acid (5-ALA). When activated with a peak wavelength of 405 nm, Protoporphyrin IX disodium selectively improves basal cell carcinoma. It shows promise in pharmacological research of sonodynamic and photodynamic therapy for cancers such as bladder cancer and nodular basal cell carcinoma.
Targets(IC50)	Endogenous Metabolite
In vitro	Protoporphyrin IX disodium, when administered at a dosage of 3.6 nmol/g to tissue, causes necrosis of the normal rat colonic mucosa upon exposure to light. At a concentration of 6.6 nmol/g in rat tumors, it delays tumor growth following irradiation. Additionally, a rapid increase in nuclear G4 levels in Hela cells is observed with Protoporphyrin IX disodium at concentrations ranging from 0 to 25 μM, when applied for 2 hours.
In vivo	Following a single intravenous injection of aminolevulinic acid at a dosage of 300 mg/kg, the highest concentrations of Protoporphyrin IX disodium were observed in the liver and intestines of rats, approximately 3 hours post-administration, reaching about 6.3 nmol/g of tissue. This was followed by the aorta, which showed a concentration of 4.3 nmol/g of tissue, and the esophagus, which had around 2.1 nmol/g of tissue.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6485 mL	8.2424 mL	16.4848 mL
5 mM	0.3297 mL	1.6485 mL	3.297 mL
10 mM	0.1648 mL	0.8242 mL	1.6485 mL
50 mM	0.033 mL	0.1648 mL	0.3297 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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