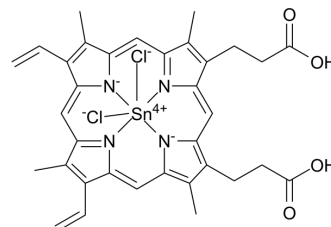


## Tin-protoporphyrin IX

Cat. No.:	HY-101194
CAS No.:	14325-05-4
Molecular Formula:	C <sub>34</sub> H <sub>32</sub> Cl <sub>2</sub> N <sub>4</sub> O <sub>4</sub> Sn
Molecular Weight:	750.26
Target:	Reactive Oxygen Species
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

0.1 M NaOH : 14.29 mg/mL (19.05 mM; ultrasonic and adjust pH to 12 with NaOH)  
 DMF : 1 mg/mL (1.33 mM; Need ultrasonic and warming)  
 DMSO : 0.5 mg/mL (0.67 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM	0.2666 mL	1.3329 mL	2.6657 mL
	5 mM	0.1333 mL	0.6664 mL	1.3329 mL	2.6657 mL
	10 mM	0.1333 mL	0.6664 mL	1.3329 mL	1.3329 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Tin-protoporphyrin IX (SnPPIX) is a potent Heme oxygenase-1 (HO-1) inhibitor. Tin-protoporphyrin IX (SnPPIX) sensitizes pancreatic ductal adenocarcinoma (PDAC) tumors to chemotherapy in mice model<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: Heme oxygenase-1 (HO-1)<sup>[1]</sup>

#### In Vitro

Tin-protoporphyrin IX (SnPPIX) (20 μM, 50 μM; 24 hours) significantly suppressed the proliferation of Capan-1 and CD18/HPAF cells. In contrast, SnPPIX has no significant effect on PDAC cells proliferation at all exposures except at 50 μM<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay<sup>[1]</sup>

Cell Line:	Capan-1, CD18/HPAF, PDAC cells
Concentration:	20 μM, 50 μM
Incubation Time:	24 or 72 hours

Result:	Inhibited Capan-1 and CD18/HPAF cells proliferation and inhibits PDAC cells growth at 50µ M.
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#### In Vivo

Tin-protoporphyrin IX (SnPPIX)(intraperitoneal injection; 5 mg/kg; at 0, 7, 15, and 20 days) alone or combines with Gemcitabine significantly reduced the weight of pancreatic tumors ( $P < 0.05$ ), decreases metastasis and improved the efficacy of Gemcitabine treatment<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male and female athymic nude mice with PDAC cell-derived xenograft tumors <sup>[1]</sup>
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Dosage:	5 mg/kg
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Administration:	Intraperitoneal injection; at days 1, 4, 6, 8, 11, 13, 15, 18, and 20
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Result:	Inhibited tumor growth and sensitized tumors to chemotherapy (Gemcitabine).
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## CUSTOMER VALIDATION

- Front Pharmacol. 21 January 2021.
- CNS Neurosci Ther. 2020 Dec 6.
- Mar Drugs. 2021, 19(6), 346.

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## REFERENCES

[1]. Abdalla MY, et al. Enhancing responsiveness of pancreatic cancer cells to gemcitabine treatment under hypoxia by heme oxygenase-1 inhibition. Transl Res. 2019 May;207:56-69.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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