

Pheophorbide a

Chemical Properties

CAS No. : 15664-29-6

Formula: C₃₅H₃₆N₄O₅

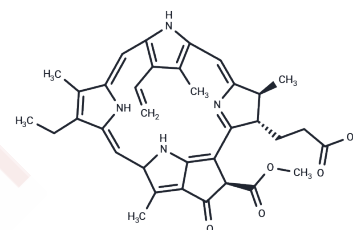
Molecular Weight: 592.68

Storage:

Keep away from direct sunlight, Keep away from moisture, Store under nitrogen, Store at low temperature

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	Pheophorbide A is a photosensitizer used in in vivo photodynamic therapy (PDT). Pheophorbide A is a lymphatic vasoreactivator with antioxidant, anti-inflammatory, antitumor, and hypoglycemic activities. Pheophorbide A is used in research on diabetes and cancer.
Targets(IC50)	Apoptosis, Antioxidant, Photosensitizer
In vitro	Pheophorbide A significantly inhibited the growth of Hep3B cells with an IC50 value of 1.5 μM. The intracellular ROS level was increased in the cells treated with Pa-PDT, and the cytotoxic effect could be reversed when ascorbic acid was applied[2].
In vivo	In male immunocompetent C3H mice (six-week-old, inoculated subcutaneously with AT-84 cells), Pheophorbide A (10 mg / kg intravenous (i.v.) or a 30 mg / kg intraperitoneal (i.p.) injection ; after 24 h) significantly inhibited tumor growth up to 70 % [1].

Solubility Information

Solubility	<p>DMSO: 1 mg/mL (1.69 mM), Sonication is recommended.</p> <p>DMF: 1 mg/mL (1.69 mM), Sonication is recommended.</p> <p>DMSO:PBS(pH 7.2) (1:3): 0.25 mg/mL (0.42 mM), Sonication is recommended.</p> <p>Methanol: < 1 mg/mL (Insoluble)</p> <p>(< 1 mg/ml refers to the product slightly soluble or insoluble)</p>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6873 mL	8.4363 mL	16.8725 mL
5 mM	0.3375 mL	1.6873 mL	3.3745 mL
10 mM	0.1687 mL	0.8436 mL	1.6873 mL
50 mM	0.0337 mL	0.1687 mL	0.3375 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.

Reference

Jihye Kim, et al. Pheophorbide a identified in an Eupatorium perfoliatum extract is a novel lymphatic vascular activator. *Biomed Pharmacother.* 2022 Mar;147:112664.

Tang PM, et al. Pheophorbide a, an active compound isolated from *Scutellaria barbata*, possesses photodynamic activities by inducing apoptosis in human hepatocellular carcinoma. *Cancer Biol Ther.* 2006 Sep;5(9):1111-6.

Ahn MY, et al. Pheophorbide a-mediated photodynamic therapy induces apoptotic cell death in murine oral squamous cell carcinoma in vitro and in vivo. *Oncol Rep.* 2012 Jun;27(6):1772-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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