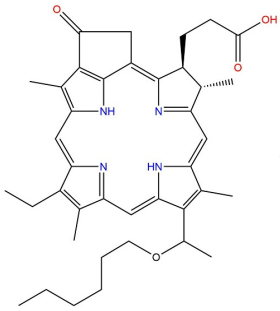
Datasheet

Inhibitors / Agonists / Screening Libraries

TargetMol
A DRUG SCREENING EXPERT

Product Name	:	HPPH
Catalog Number	:	T15501
CAS Number	:	149402-51-7
Molecular Formula	:	C39H48N4O4
Molecular Weight	:	636.82
Appearance	:	
Melting Point	:	



Description: HPPH (Photochlor) is a second-generation photosensitizer. It is used as photodynamic therapy (PDT) agent.

Storage: 2 years -80°C in solvent; 3 years -20°C powder;

Solubility	DMSO	50 mg/mL (78.52 mM), Need ultrasonic
	H2O	< 0.1 mg/mL (insoluble)
	(< 1 mg/ml refers to the product slightly soluble or insoluble)	

Receptor (IC50)	Others	

In vitro Activity

Cells treated with GO-PEG-HHPH displays a stronger fluorescence signal than those treated with free HPPH. In fact, the fluorescence of HPPH is rather weak. After 24 h, Fluorescence image of 4T1 cells incubated with 0.49 μg/mL GO-PEG, 1 μM HPPH (free HPPH), or equivalent amount of GO-PEG-HPPH (1 μM HPPH and 0.49 μg/mL GO-PEG). The cellular uptake of GO-PEG-HPPH and HPPH is investigated with 4T1 murine mammary cancer cells. The cells are incubated with GO-PEG-HPPH and free HPPH at equivalent HPPH concentration (1 μM) for 24 h and then observed with a confocal microscope [1].

In vivo Activity

A combination treatment regimen is devised in which Colo26-HA tumor-bearing BALB/c mice are treated with an HPPH-PDT regimen known to lead to enhanced anti-tumor immunity (0.4 μmoles/kg HPPH followed 18 h later by illumination with 665 nm light for a total dose of 48 J/cm2). Tumors are treated with an immune-enhancing PDT regimen followed by a tumor-controlling PDT regimen that can leads to enhancement of anti-tumor immunity while retaining effective control of primary tumor growth. Following illumination, mice are rested for 9 days; on a ninth day, mice are injected with HPPH. On day 10 following the first treatment, tumors are treated with a tumor control treatment regimen (illumination with 665 nm light for a total dose of 132 J/cm2 given) [2].

Reference

1. Rong P, et al. Photosensitizer loaded nano-graphene for multimodality imaging guided tumor photodynamic therapy. Theranostics. 2014 Jan 15;4(3):229-39.
2. Shams M, et al. Development of photodynamic therapy regimens that control primary tumor growth and inhibit secondary disease. Cancer Immunol Immunother. 2015 Mar;64(3):287-97.

Information for product storage and handling is indicated on the product datasheet. TargetMol products are stable for long term under the recommended storage conditions. Our products may be shipped under different conditions as many of them are stable in the short-term at higher or even room temperatures. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, please follow the storage recommendations on the product data sheet.