Data Sheet (Cat.No.T211610)

TargetMol

Antitumor photosensitizer-9

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

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	Antitumor photosensitizer-9 is a near-infrared photosensitizer (PS) with a high singlet oxygen production rate (relative rate = 1.79). It demonstrates significant phototoxicity against various cancer cells by inducing ROS generation under light exposure. In vivo, it inhibits tumor growth effectively and exhibits excellent anticancer photodynamic therapy (PDT) effects at low drug and light doses. Antitumor photosensitizer-9 is suitable for photodynamic therapy research.
Targets(IC50)	ROS
In vitro	Antitumor photosensitizer-9 (Compound A1) exhibits dose-dependent phototoxicity on HeLa cells, with an IC50 of less than 5.0 nM when exposed for 2 hours. In cell lines such as HeLa, HepG2, B16-F10, and HUVEC, it demonstrates phototoxicity (IC50 values of 3.7, 3.6, 4.5, and 3.7 nM, respectively) and dark cytotoxicity (IC50 of 11.5, 13.5, 12.7, and 10.7 μM, respectively). At a concentration of 5 μM and after 2 hours, it reaches peak intracellular accumulation in HeLa cells, predominantly within the endoplasmic reticulum. Additionally, when used at concentrations ranging from 0 to 500 nM for 2 hours, it induces ROS production under light exposure in HeLa cells.
In vivo	Antitumor photosensitizer-9 (Compound A1), administered intravenously at a dose of 2 mg/kg once, effectively inhibits tumor growth in HeLa cell-bearing nude mice without exhibiting physiological toxicity.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481