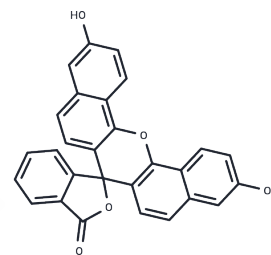


## Naphthofluorescein

## Chemical Properties

CAS No. :	61419-02-1
Formula:	C <sub>28</sub> H <sub>16</sub> O <sub>5</sub>
Molecular Weight:	432.42
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	Naphthofluorescein (Naphthafluorescein) is a Mint3 inhibitor with potential antitumor and anti-inflammatory activities, inhibits the interaction between HIF-1 and Mint3, inhibits Mint3-dependent HIF-1 activity, and inhibits glycolytic activity in cancer cells and macrophages without showing significant in vitro cytotoxicity or in vivo side effects. Naphthofluorescein is also a fluorescent pH-sensitive probe for functional Cherenkov imaging.
Targets(IC50)	HIF/HIF Prolyl-Hydroxylase,HIF
In vitro	Naphthofluorescein (compound 19) (0-10 μM; 24 h; HT1080 cells) significantly suppresses HIF-1 reporter activity in a concentration-dependent manner.[1]
In vivo	Naphthofluorescein (compound 19) (100 mg/kg; i.p.; once daily; 5 days followed by 2 days off for 2 weeks; Male C57BL/6J mice) significantly suppresses tumour growth in subcutaneous E0771 cells and attenuates tumour growth in MDA-MB-231 and AsPC-1 cells in immunodeficient mice. It inhibits tumour growth in human cancer cells in an FIH-1-dependent manner and does not affect FIH-1-depleted MDA-MB-231 cells. No weight loss, histological abnormalities in the lung, liver, and kidney, or severe adverse effects were observed in the mice for at least 2 weeks.[1]
Cell Research	Naphthofluorescein as a pH-sensitive fluorescent probe Procedure 1. 1 mL of HeLa cell suspension (5 × 10 <sup>4</sup> cells) was seeded in a 35 mm glass-bottom microwell dish (MatTek) and cultured overnight; 2. The cells were gently washed twice with DPBS and treated with Naphthofluorescein-labeled phenol red-free peptide (5 pm) in HEPES-supplemented DMEM containing 1% FBS at 37°C in the presence of 5% CO <sub>2</sub> for 2 h; 3. After removing the culture medium, the cells were gently rinsed twice with DPBS and imaged on a live cell imaging confocal microscope equipped with a 60x oil objective.  The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

## Solubility Information

## A DRUG SCREENING EXPERT

Solubility	Ethanol: 2 mg/mL (4.63 mM), Sonication is recommended. DMSO: 100 mg/mL (231.26 mM), Sonication is recommended. DMF: 10 mg/mL (23.13 mM), Sonication is recommended. DMF:PBS (pH 7) (1:10): 0.09 mg/mL (0.21 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3126 mL	11.5628 mL	23.1257 mL
5 mM	0.4625 mL	2.3126 mL	4.6251 mL
10 mM	0.2313 mL	1.1563 mL	2.3126 mL
50 mM	0.0463 mL	0.2313 mL	0.4625 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

Arroyo AD, et al. Development of fluorinated naphthofluoresceins for Cerenkov imaging. J Fluor Chem. 2019 Sep; 225:27-34.

Qian Z, et al. Monitoring the cytosolic entry of cell-penetrating peptides using a pH-sensitive fluorophore. Chem Commun (Camb). 2015 Feb 7;51(11):2162-5.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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