Data Sheet (Cat.No.T77553)



MHI-148

Chemical Properties

CAS No.: 172971-76-5

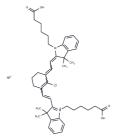
Formula: C42H52BrClN2O4

Molecular Weight: 764.23

Appearance: no data available

Storage: keep away from direct sunlight

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	MHI-148 is a tumor-targeting near-infrared heptamethylenecarbocyanine dye for the detection, diagnosis, and study of cancer.MHI-148 is taken up and accumulates in the lysosomes and mitochondria of tumor cells but is not taken up in the lysosomes and mitochondria of normal cells.MHI-148 is a tumor-targeting near-infrared heptamethylenecarbocyanine dye for the detection and diagnosis of cancer.
In vitro	Compound MHI-148 (10 µM; 1 h) demonstrates notably higher absorption in HT-29 colon carcinoma cells compared to normal NIH3T3 fibroblasts.[1] alongside its capacity for tumor imaging and targeted properties.[1] Compound MHI-148 (0-1.5 µM; 3 days) exhibits only negligible toxicity in both HT-29 and NIH3T3 cells.[1]

Solubility Information

Solubility	DMSO: 18.7 mg/mL (24.5 mM), Sonication is recommended.	
	(< 1 mg/ml refers to the product slightly soluble or insoluble)	

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3085 mL	6.5425 mL	13.0851 mL
5 mM	0.2617 mL	1.3085 mL	2.617 mL
10 mM	0.1309 mL	0.6543 mL	1.3085 mL
50 mM	0.0262 mL	0.1309 mL	0.2617 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.

Reference

Raveendran A, et al. Heptamethine Cyanine Dye MHI-148-Mediated Drug Delivery System to Enhance the Anticancer Efficiency of Paclitaxel. Int J Nanomedicine. 2021;16:7169-7180.

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