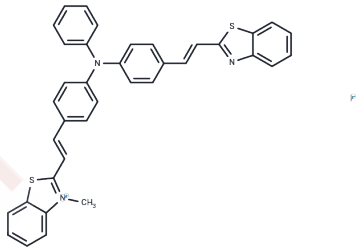
Data Sheet (Cat.No.T82894)

TargetMol

BETA-1

Chemical Properties



CAS No. :	2924598-24-1
Formula:	C37H28IN3S2
Molecular Weight:	705.67
Storage:	Keep away from direct sunlight,Keep away from moisture 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	BETA-1 is the first integrated molecule combining intramolecular charge transfer and aggregation-induced emission. It can generate cyan and red fluorescent signals in lipid droplets and mitochondria, respectively, and is suitable for dual-color simultaneous imaging of lipid droplets and mitochondria in both in vivo and in vitro systems.
Targets(IC50)	Others
In vitro	BETA-1 can be employed for the imaging of lipid droplets and mitochondria in living cells[1]. Its fluorescence emission parameters are as follows: for the cyan fluorescence channel, the excitation wavelength is 405 nm and the emission wavelength ranges from 430 to 500 nm; for the red fluorescence channel, the excitation wavelength is 561 nm and the emission wavelength ranges from 600 to 700 nm. HeLa cells were routinely cultured in DMEM medium supplemented with 10% fetal bovine serum (FBS) at 37 °C in a humidified atmosphere of 5% CO_2 and 95% air. HeLa cells were seeded into glass-bottom 96-well plates at a density of 5.0×10^3 cells per well and incubated for 24 h. For cell imaging experiments, live HeLa cells were stained with 5 μM BETA-1 solution at 37 °C for 30 min. Fluorescence emission signals of the corresponding channels were collected using 405 nm and 561 nm lasers as excitation sources, respectively.

Solubility Information

Solubility	DMSO: 20 mg/mL (28.34 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4171 mL	7.0855 mL	14.1709 mL
5 mM	0.2834 mL	1.4171 mL	2.8342 mL
10 mM	0.1417 mL	0.7085 mL	1.4171 mL
50 mM	0.0283 mL	0.1417 mL	0.2834 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

Zeng ST, et al. Construction of a TICT-AIE-Integrated Unimolecular Platform for Imaging Lipid Droplet-Mitochondrion Interactions in Live Cells and In Vivo. ACS Sens. 2022 Dec 19.