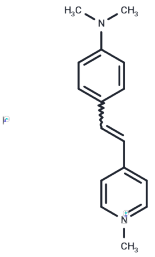
Data Sheet (Cat.No.T78450)

TargetMol

4-Di-1-ASP

Chemical Properties



CAS No. : 959-81-9

Formula: C16H19IN2

Molecular Weight: 366.24

Storage: Keep away from moisture,Keep away from direct sunlight
Store at -20°C
Actual storage temperature shall be subject to the COA.

Biological Description

Description	4-Di-1-ASP is a positively charged fluorescent dye used to label glioma cells in live brain tissue and can also be used to observe mitochondria in live cells, with λex/λem = 475/606 nm.
Targets(IC50)	Mitochondrial Metabolism
In vitro	Instructions (The following is a recommended protocol; actual procedures may be adjusted according to specific experimental needs)[1]: Dissolve the 4-Di-1-ASP in distilled water to prepare a 2mM stock solution. Place the cell sections in a 35°C incubator, add the working dye solution to achieve a final concentration of 1μM, and incubate for 10 minutes. After staining, mount the sections on a microscope slide, cover with a coverslip, and observe using a confocal fluorescence microscope. The optimal excitation and emission wavelengths are 475nm and 606nm, respectively. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 40 mg/mL (109.22 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7304 mL	13.6522 mL	27.3045 mL
5 mM	0.5461 mL	2.7304 mL	5.4609 mL
10 mM	0.273 mL	1.3652 mL	2.7304 mL
50 mM	0.0546 mL	0.273 mL	0.5461 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

Lilia Y Kucheryavykh, et al. Visualization of implanted GL261 glioma cells in living mouse brain slices using fluorescent 4-(4-(dimethylamino)-styryl)-N-methylpyridinium iodide (ASP+). Biotechniques. 2012 Nov;53(5):305-9.
Rytting E,et,al. Low-affinity uptake of the fluorescent organic cation 4-(4-(dimethylamino)styryl)-N-methylpyridinium iodide (4-Di-1-ASP) in BeWo cells. Biochem Pharmacol. 2007 Mar 15;73(6):891-900.
Pietruck F, Ullrich KJ. Transport interactions of different organic cations during their excretion by the intact rat kidney. Kidney Int. 1995 Jun;47(6):1647-57.