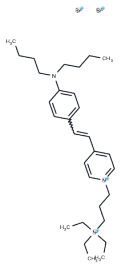
Data Sheet (Cat.No.T85336)

TargetMol

FM1-43

Chemical Properties



CAS No. : 149838-22-2

Formula: C30H49Br2N3

Molecular Weight: 611.54

Storage: Store at low temperature
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	FM1-43 is a highly lipophilic, water-soluble styrene dye that acts as an osmotic blocker of hair cell mechanical transducer channels and can be used to study neuropeptide granule dynamics and cytotoxicity. dFdCTP trisodium is a Gemcitabine triphosphate trisodium derivative that inhibits DNA synthesis.
Targets(IC50)	Others
Cell Research	Cell staining experiment a. Solution preparation: 1. Mother solution preparation: Prepare 5 mM mother solution with DMSO, store at -20°C or -80°C in the dark after aliquoting. 2. Working solution preparation: Use preheated HBSS solution to prepare 5-20 μM FM 1-43 working solution (select the appropriate working solution concentration according to experimental requirements, and prepare it for immediate use). b. Cell staining 1. Suspended cell staining 1.1 Collect cells by centrifugation and wash twice with PBS for 5 minutes each time. Add 1 mL FM1-43 working solution and incubate at room temperature for 5-30 minutes. 1.2 Centrifuge at 400 g for 3-4 minutes and discard the supernatant. 1.3 Add PBS to wash cells twice for 5 minutes each time. 1.4 Resuspend cells with 1 mL serum-free medium or PBS and observe using a fluorescence microscope or flow cytometer. 2. Adherent cell staining 2.1 Culture iron-adherent cells on sterile slides, discard the culture medium, and remove excess residual liquid. 2.2 Add 100 μL of dye working solution, gently shake to completely cover the cells, and incubate for 5-30 minutes. 2.3 Aspirate the dye working solution, wash with culture medium 2-3 times, 5 minutes each time, and observe using a fluorescence microscope or flow cytometer. 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 (65.41 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6352 mL	8.1761 mL	16.3522 mL
5 mM	0.327 mL	1.6352 mL	3.2704 mL
10 mM	0.1635 mL	0.8176 mL	1.6352 mL
50 mM	0.0327 mL	0.1635 mL	0.327 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

Gale JE, et al. FM1-43 dye behaves as a permeant blocker of the hair-cell mechanotransducer channel. J Neurosci. 2001 Sep 15;21(18):7013-25.