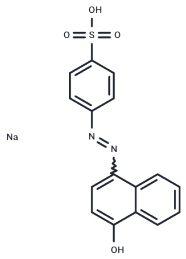
Data Sheet (Cat.No.T30663)

TargetMol

Orange I

Chemical Properties



CAS No. : 523-44-4

Formula: C16H11N2NaO4S

Molecular Weight: 350.32

Storage: Keep away from direct sunlight
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	Orange I (α-Naphthol Orange) is an aromatic sulfonated p-azo dye that hinders microbial degradation.
Targets(IC50)	Others
Cell Research	Instructions 1. Solvent selection: Orange I is a water-soluble dye that is usually dissolved in deionized or distilled water. It has a high solubility and is usually used in a concentration of 0.01% to 0.1% (w/v). 2. Electrophoresis tracer: Orange I is commonly used as a tracer dye in gel electrophoresis and can be used to monitor the migration process of samples, especially the separation of proteins and nucleic acids. Instructions for use: Mix an appropriate amount of Orange I solution with the sample and add it to the gel. It can also be added to the electrophoresis buffer before electrophoresis. 3. pH indicator: As an acid-base indicator, Orange I can change color in the pH range of 2 to 4. It is orange at low pH and yellow at high pH. Instructions for use: It is suitable for solution pH detection, especially in acidic environments with a small pH range. 4. Staining uses: In biological experiments, Orange I is used to stain cells, tissue sections or biomolecules. For example, it is used for acid staining of cells or tissue sections. Usage: Add Orange I to the staining solution, and after staining for a certain period of time, observe the results under a microscope. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 35.03 mg/mL (99.99 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8545 mL	14.2727 mL	28.5453 mL
5 mM	0.5709 mL	2.8545 mL	5.7091 mL
10 mM	0.2855 mL	1.4273 mL	2.8545 mL
50 mM	0.0571 mL	0.2855 mL	0.5709 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

Gavrilenko, A., et al. "Application of Orange I in the Detection of Contaminants in Water Samples," Environmental Chemistry Letters, 2013.
Malar, C.G.,et al. A critical analysis of the nanotechnology-based approach in textile wastewater treatment. Nanotechnol. Environ. Eng. 8, 535-548 (2023).
Tamburini, D., Breitung, E., Mori, C. et al. Exploring the transition from natural to synthetic dyes in the production of 19th-century Central Asian ikat textiles. Herit Sci 8, 114 (2020).
Husain Q. Immobilized peroxidase catalyzed decolorization and degradation of industrially important dyes from polluted water[J]. Biocatalysis: Enzymatic Basics and Applications, 2019: 139-166.