Data Sheet (Cat.No.T86160)

TargetMol

DAPI dilactate

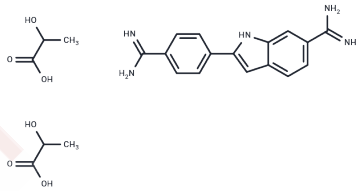
Chemical Properties

CAS No. : 28718-91-4

Formula: C22H27N5O6

Molecular Weight: 457.48

Storage: 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	DAPI (dilactate), a blue fluorescent dye, primarily targets and binds to AT clusters within the minor groove of dsDNA, significantly enhancing fluorescence by about 20-fold upon binding. It is particularly effective in staining the nucleus, allowing for clear identification of the cell cycle phases, while it does not stain the cytoplasm. The dilactate form of DAPI exhibits greater water solubility compared to its dihydrochloride counterpart. [1] [2]
Targets(IC50)	Others
In vitro	DAPI dilactate: Preparation and Staining Protocol 1. Preparation of DAPI dilactate solutions 1.1 Stock Solution: Dissolve 5 mg of DAPI dilactate in 1 mL of ddH2O to create a 5 mg/mL stock solution [DAPI, dilactate 10.9 mM]. Note: Store the stock solution at -20°C or -80°C in the dark, avoiding repeated freeze-thaw cycles. 1.2 Working Solution: Dilute the stock solution in PBS at 1:5000 to achieve a concentration of 1 μg/mL. Store the working solution at 4°C. Note: Adjust the concentration of the working solution as needed. 2. Cell Staining Procedure 2.1 Suspension Cells (96-well plate) a. Centrifuge at 1000 g for 3-5 minutes at 4°C, then discard the supernatant. Wash twice with PBS, 5 minutes each. Cell density should be 1×10^6/mL. b. Add 1 mL of working solution and incubate at room temperature for 3-10 minutes. c. Centrifuge at 400 g for 3-4 minutes at 4°C, discard supernatant. d. Wash twice with PBS, each wash lasting 5 minutes. e. Resuspend cells in serum-free culture medium or PBS. Examine using fluorescence microscopy or flow cytometry. 2.2 Adherent Cells a. Culture adherent cells on sterile coverslips. b. Remove coverslips from culture medium and aspirate excess medium. c. Add 100 μL of working solution, gently shake to ensure coverage, and incubate at

In vitro	room temperature for 3-10 minutes. d. Wash twice with culture medium, each wash lasting 5 minutes. Observe cells using fluorescence microscopy or flow cytometry. Notes: For long-term storage, aliquot and store the stock solution at ≤-20°C. For short-term storage, keep the solution at 2-6°C, protected from light. Properly handled, the DAPI solution remains stable for at least 6 months. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1859 mL	10.9294 mL	21.8589 mL
5 mM	0.4372 mL	2.1859 mL	4.3718 mL
10 mM	0.2186 mL	1.0929 mL	2.1859 mL
50 mM	0.0437 mL	0.2186 mL	0.4372 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.