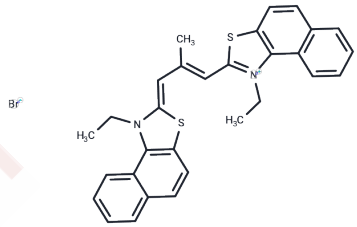
Data Sheet (Cat.No.T16939)

TargetMol

Stains-All

Chemical Properties



CAS No. : 7423-31-6

Formula: C30H27BrN2S2

Molecular Weight: 559.58

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	Stains-All is a cationic dye of carbocyanine.
Targets(IC50)	CaMK,Others
In vitro	Instructions 1. Preparation of stock solution and working solution: Stains-All can be dissolved in deionized water or organic solvents (such as ethanol); it is usually prepared at a working concentration of 0.5-5 μM, depending on the experimental conditions. 2. Staining steps: 1) Dissolve the target protein (such as calmodulin) in an appropriate buffer (such as PBS, pH 7.4). 2) Add an appropriate amount of Stains-All to the protein solution and mix gently. 3) Incubate at room temperature for 10-30 minutes to allow the dye to bind to the calcium binding site. 3. Fluorescence detection: Use a fluorescence spectrophotometer to excite at 630 nm and usually measure the emission spectrum at around 650 nm. 4. Data analysis: Compare the changes in fluorescence signals under different calcium concentrations to analyze the binding kinetics of calcium and calmodulin; in the titration experiment, the fluorescence response curve is drawn by gradually increasing the concentration of calcium ions, and then the binding constant is calculated. " The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 9.5 mg/mL (16.98 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7871 mL	8.9353 mL	17.8705 mL
5 mM	0.3574 mL	1.7871 mL	3.5741 mL
10 mM	0.1787 mL	0.8935 mL	1.7871 mL
50 mM	0.0357 mL	0.1787 mL	0.3574 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

Wiezel GA, Sousa de Oliveira I, Arantes EC. Simplifying Traditional Approaches for Accessible Analysis of Snake Venom Enzymes. Toxicon. 2025 Jan 18:108255.
Pacioni S, et al. 5-Aminolevulinic Acid (5-ALA)-Induced Protoporphyrin IX Fluorescence by Glioma Cells-A Fluorescence Microscopy Clinical Study. Cancers (Basel). 2022 Jun 8;14(12):2844.
Autry JM, et al. Purification of sarcoplasmic reticulum vesicles from horse gluteal muscle. Anal Biochem. 2020 Dec 1;610:113965.