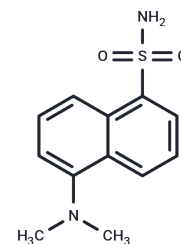


Dansylamide

Chemical Properties

CAS No. :	1431-39-6
Formula:	C ₁₂ H ₁₄ N ₂ O ₂ S
Molecular Weight:	250.32
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Dansyl amide is a fluorescent dye used in biochemistry and chemistry to label substances with the fluorescent dansyl group.
Targets(IC50)	Others
Cell Research	<p>Instructions</p> <p>I. Reagent preparation</p> <ol style="list-style-type: none"> Preparation of stock solution: Dissolve it in an appropriate solvent, such as dimethyl sulfoxide (DMSO) or ethanol. Preparation of working solution: The typical working concentration range of Dansylamide is 10 μM to 1 mM, and the specific concentration can be adjusted according to the experimental requirements. <p>II. Operation steps</p> <ol style="list-style-type: none"> Labeling process: <ol style="list-style-type: none"> Sample preparation: Prepare the sample to be labeled, such as protein, peptide or other biomolecule. For protein labeling, it is usually necessary to use a sufficient amount of purified protein. Reaction: Mix the sample with Dansylamide solution and add an appropriate buffer. The pH value of the buffer should usually be controlled at around 8.0 to optimize the labeling process. Incubation: Incubate the sample at room temperature, the reaction time is usually 30 minutes to 2 hours, and the specific time can be adjusted according to the target molecule and the desired degree of labeling. Termination reaction: After incubation, the reaction can be stopped by adding an appropriate terminator or diluting the sample. Purification: After the labeling reaction is completed, dialysis, gel filtration and other methods can be used to remove unreacted Dansylamide to purify the labeled biomolecules. Fluorescence detection: <ol style="list-style-type: none"> Detection: Detection can be performed using a fluorescence spectrophotometer or fluorescence microscope. The excitation wavelength is set to 335 nm and the emission wavelength is set to 510 nm. The fluorescence intensity is proportional to the molecular weight of the labeled biomolecule. Data analysis: According to the change in fluorescence intensity, a standard curve

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Cell Research	<p>can be drawn, and the degree of labeling can be evaluated by comparing the sample and the control group.</p> <p>Notes:</p> <ol style="list-style-type: none">1. Photostability: Dansylamide is sensitive to light, and long-term strong light exposure should be avoided during the experiment to prevent fluorescence attenuation.2. Concentration control: Too high a labeling concentration may cause autofluorescence quenching, so the dye concentration should be optimized to avoid this.3. Compatibility: When using with other fluorescent dyes or labeling reagents, ensure that the emission spectra of different dyes do not overlap to avoid signal interference. <p>The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.</p>
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Solubility Information

Solubility	DMSO: 140 mg/mL (559.28 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9949 mL	19.9744 mL	39.9489 mL
5 mM	0.799 mL	3.9949 mL	7.9898 mL
10 mM	0.3995 mL	1.9974 mL	3.9949 mL
50 mM	0.0799 mL	0.3995 mL	0.799 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

Zhao Z, et al. A dual-labeling fluorescent probe to track lysosomal polarity and endoplasmic reticulum dynamics during ferroptosis. *Chem Commun (Camb)*. 2024 Jul 23;60(60):7773-7776.

Mukai R, et al. The binding selectivity of quercetin and its structure-related polyphenols to human serum albumin using a fluorescent dye cocktail for multiplex drug-site mapping. *Bioorg Chem*. 2024 Apr;145:107184.

Mustaffa NIH, Striebel M, Wurl O. Extracellular carbonic anhydrase: Method development and its application to natural seawater. *Limnol Oceanogr Methods*. 2017 May;15(5):503-517.

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