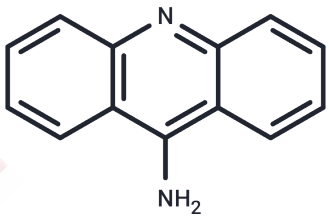
Data Sheet (Cat.No.T0289)

TargetMol

9-Aminoacridine

Chemical Properties



CAS No. : 90-45-9

Formula: C13H10N2

Molecular Weight: 194.23

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	9-Aminoacridine is a highly fluorescent anti-infective dye used clinically as a topical antiseptic and experimentally as a mutagen, due to its interaction with DNA. It is also used as an intracellular pH indicator.
Targets(IC50)	HIV Protease,Antibacterial
Cell Research	I. Solution preparation 1. Preparation of stock solution: Dissolve it in DMSO (dimethylsulfonamide) or water to prepare the stock solution, usually at a concentration of 1-10mM. It can be adjusted according to actual conditions. 2. Preparation of working solution: Dilute it to an appropriate concentration with PBS/DMEM/H2O before use. The common working concentration is 1-10 μM, but the specific concentration should be optimized according to experimental requirements. II. Cell labeling 1) Cell culture: Inoculate cells into appropriate culture dishes and culture to an appropriate density (e.g. 24 hours, the number of cells is 70%-80% density). 2) Labeling cells: Add a working concentration of 9-Aminoacridine solution to the cell culture medium. The general incubation time is 30 minutes to 1 hour, which can be adjusted according to experimental requirements. 3) Washing cells: After labeling, wash the cells thoroughly with PBS (phosphate buffered saline) to remove unbound 9-Aminoacridine. 4) Fluorescence detection: Excitation and emission wavelengths: 9-Aminoacridine is excited at ex = 365 nm and emits fluorescence at em = 460 nm, producing bright blue fluorescence. Fluorescence microscopy or flow cytometry: Use a suitable fluorescence microscope or flow cytometer for fluorescence detection to observe the fluorescence intensity in the cells. Precautions: 1. Protect from light: 9-Aminoacridine is sensitive to light, especially when exposed to strong light, the fluorescence intensity will change. Avoid exposure to strong light when using it. 2. Solubility: It has different solubility in different solvents, and the solubility needs to be confirmed before use. 3. Cytotoxicity: Higher concentrations of 9-Aminoacridine may be toxic to cells, so the concentration should be optimized to avoid excessive cell toxicity.

Cell Research	The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.

Solubility Information

Solubility	DMSO: 50 mg/mL (257.43 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.5 mg/mL (12.87 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.1485 mL	25.7427 mL	51.4854 mL
5 mM	1.0297 mL	5.1485 mL	10.2971 mL
10 mM	0.5149 mL	2.5743 mL	5.1485 mL
50 mM	0.103 mL	0.5149 mL	1.0297 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

Yamamoto H, Shikanai T. Does the Arabidopsis proton gradient regulation5 Mutant Leak Protons from the Thylakoid Membrane? Plant Physiol. 2020 Sep;184(1):421-427.