

Hoechst 33342 trihydrochloride

Chemical Properties

CAS No. : 875756-97-1

Formula: C₂₇H₃₁Cl₃N₆O

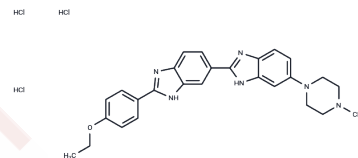
Molecular Weight: 561.93

Keep away from direct sunlight, Keep away from moisture, Store under nitrogen, Store at low temperature

Storage:

Powder: -20°C for 3 years

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Hoechst 33342 trihydrochloride (bisBenzimide H 33342 trihydrochloride; HOE 33342 trihydrochloride) is a membrane permeant DNA stain with blue fluorescence.
Targets(IC50)	Autophagy
Cell Research	<p>Instructions</p> <p>I. Solution preparation</p> <ol style="list-style-type: none"> 1. Stock solution: Dissolve Hoechst 33342 trihydrochloride in deionized water or an appropriate solvent (such as PBS), usually prepared as a 1 mg/mL stock solution. 2. Working solution: Dilute the stock solution to a working concentration, usually 10 µg/mL, as required by the experiment. The specific concentration can be optimized according to the experimental needs. <p>II. Operation steps</p> <ol style="list-style-type: none"> 1. Cell culture: Inoculate cells into appropriate culture dishes until the appropriate density is reached. 2. Staining: Add Hoechst 33342 working solution to the culture medium and incubate for 10-30 minutes, usually at 37°C. For live cell staining, the time can be adjusted according to experimental needs. 3. Washing: Wash the cells with PBS to remove unbound dye. 4. Imaging: Observe the cells using a fluorescence microscope. Hoechst 33342 emits blue fluorescence (455 nm) when excited by ultraviolet light (360-365 nm). 5. Application areas: <ol style="list-style-type: none"> 1) Cell cycle analysis: Hoechst 33342 can be used to label DNA in the cell nucleus, bind to DNA, and can be used for flow cytometry (FACS) analysis of the cell cycle. 2) Chromosome research: It is often used as a chromosome stain to help observe chromosomes in cell division. 3) Live cell imaging: Due to its membrane permeability, it can be used for imaging of live cells, providing clear visualization of the cell nucleus. <p>Precautions:</p> <ol style="list-style-type: none"> 1. Photosensitivity: Hoechst 33342 is sensitive to light and should be protected from direct exposure to strong light and stored in dark places. 2. Toxicity: Although the dye is suitable for staining live cells, high concentrations or

A DRUG SCREENING EXPERT

Cell Research	long-term exposure may have toxic effects on cells, so the dye concentration and staining time should be controlled when used. 3. Solubility: Ensure that the stock solution and working solution are completely dissolved before use to avoid the formation of precipitation. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.
---------------	--

Solubility Information

Solubility	H2O: 5.67 mg/mL (10.09 mM),Sonication is recommended. DMSO: 46 mg/mL (81.86 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7796 mL	8.8979 mL	17.7958 mL
5 mM	0.3559 mL	1.7796 mL	3.5592 mL
10 mM	0.178 mL	0.8898 mL	1.7796 mL
50 mM	0.0356 mL	0.178 mL	0.3559 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

Chazotte B. Labeling nuclear DNA with hoechst 33342. Cold Spring Harb Protoc. 2011 Jan 1;2011(1):pdb.prot5557.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481