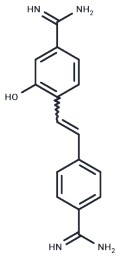
Data Sheet (Cat.No.T9879)

TargetMol

Hydroxystilbamidine

Chemical Properties



CAS No. : 495-99-8

Formula: C16H16N4O

Molecular Weight: 280.32

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	Hydroxystilbamidine ((E)-hydroxystilbamidine), a dye capable of binding to both DNA and RNA, has been found to be a powerful inhibitor of cellular ribonucleases.
Targets(IC50)	Others
In vitro	Instructions I. Retrograde neural tracing 1. Material preparation: Hydroxystilbamidine (usually prepared as a 2% solution). Solvent: physiological saline, distilled water, or buffer (such as PBS) according to experimental requirements. Auxiliary materials: syringe or microinjection device. 2. Steps: (1) Preparation of working solution: prepare a 2% Hydroxystilbamidine solution, which can be sterile filtered. Note: It is recommended to operate in the dark to prevent fluorescence signal attenuation. (2) Injection of dye: Inject the dye into the target nerve or tissue area. Note: Use a microinjector to reduce damage to surrounding tissues. (3) Retrograde transport: After the injection is completed, wait 24-72 hours to allow the dye to be retrogradely transported to the cell body through the nerve endings. (4) Tissue sampling: After the animal is killed, remove the tissue of interest and fix it (usually with 4% PFA). After sectioning, observe under a fluorescence microscope. II. Histochemical staining 1. Material preparation: (1) Hydroxystilbamidine solution (recommended 1-10 μM). (2) Cell or tissue sample. (3) DAPI or other fluorescent contrast dye (optional). 2. Steps: (1) Fixation and permeabilization: (2) Fix cells or tissue with 4% PFA. (3) Permeabilize cell membrane with 0.1-0.5% Triton X-100. 3. Staining: (1) Immerse the sample in Hydroxystilbamidine solution and incubate for 10-30 minutes

In vitro	in the dark. (2) Wash 2-3 times to remove unbound dye. (3) Microscope observation: Use a suitable fluorescence microscope, usually observe fluorescence at 365 nm (UV excitation). Notes: (1) Storage in dark place: Hydroxystilbamidine is susceptible to light degradation. The solution should be stored in dark place. It is recommended to store it at 4℃ for short term and at -20℃ for long term. (2) Operation safety: Avoid direct contact with skin or inhalation. Protective equipment should be worn. (3) Experimental optimization: Adjust the concentration and incubation time according to the sample type and experimental objectives. The above information is based on published literature. Experimental procedures should be appropriately modified to meet specific research demands.
In vivo	Hydroxystilbamidine is an effective suppressor of the plaque-forming cell (PFC) response when given before sheep erythrocytes (SRBC) stimulation. Hydroxystilbamidine depresses the plaque response of the treated mice. Fewer PFC are observed in Hydroxystilbamidine-treated mice throughout the experiment, but the level of suppression decreases with time. By day 14, the number of PFC observed in both the Hydroxystilbamidine treated mice and the control group is essentially at the background level[2].

Solubility Information

Solubility	DMSO: Insoluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5674 mL	17.8368 mL	35.6735 mL
5 mM	0.7135 mL	3.5674 mL	7.1347 mL
10 mM	0.3567 mL	1.7837 mL	3.5674 mL
50 mM	0.0713 mL	0.3567 mL	0.7135 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

Bortoloci JGT, Motta SC. Failure of AAV retrograde tracer transduction in hypothalamic projections to the periaqueductal gray matter. Heliyon. 2022 Aug 18;8(8):e10243.
Nadal-Nicolás FM, et al. Transient Downregulation of Melanopsin Expression After Retrograde Tracing or Optic Nerve Injury in Adult Rats. Invest Ophthalmol Vis Sci. 2015 Jul;56(8):4309-23.
Fiedorowicz M, et al. Age-dependent neuroprotection of retinal ganglion cells by tempol-C8 acyl ester in a rat NMDA toxicity model. Folia Neuropathol. 2014;52(3):291-7.

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