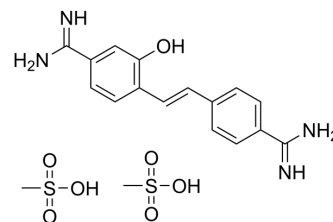


Hydroxystilbamidine bis(fluoroGlod)

Cat. No.:	HY-108166A
CAS No.:	223769-64-0
Molecular Formula:	C ₁₈ H ₂₄ N ₄ O ₇ S ₂
Molecular Weight:	472.54
Target:	Fluorescent Dye
Pathway:	Others
Storage:	-20°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (105.81 mM; ultrasonic and warming and heat to 60°C)
DMSO : 50 mg/mL (105.81 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.1162 mL	10.5811 mL	21.1622 mL
	5 mM	0.4232 mL	2.1162 mL	4.2324 mL
	10 mM	0.2116 mL	1.0581 mL	2.1162 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Hydroxystilbamidine bis(methanesulfonate), a dye capable of binding to both DNA and RNA, has been found to be a powerful inhibitor of cellular ribonucleases.

In Vitro

It is found that the trypanocidal dye Hydroxystilbamidine bis(methanesulfonate) permits the recovery of mRNA after polysome released with Nonidet P-40 (NP-40). Sucrose gradient analysis of detergent-lysed postnuclear supernates is used to analyze the size distribution of NP-40-released polysomes. The heparin gradient shows some polyribosomes, whereas the Hydroxystilbamidine bis(methanesulfonate) gradient shows a remarkably large peak of very heavy polyribosomes. This peak is obtained reproducibly if Hydroxystilbamidine bis(methanesulfonate) is present before the addition of NP-40^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Hydroxystilbamidine bis(methanesulfonate) is an effective suppressor of the plaque-forming cell (PFC) response when given before sheep erythrocytes (SRBC) stimulation. Hydroxystilbamidine bis(methanesulfonate) depresses the plaque response of the treated mice. Fewer PFC are observed in Hydroxystilbamidine bis(methanesulfonate)-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 bis(methanesulfonate) treated mice and the control group is essentially at the background level^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Kinase Assay ^[1]

Silkworm larvae are used in this study. Larvae on the fourth or fifth day of the fifth instar (~4.2 g body weight) are injected with 35 μ L of a solution of 10 mg/mL cyclobeximide in H₂O. After 5 min, the animals are immobilized in ice, and posterior silk glands are dissected and washed in ice-cold 0.15 M NaCl, 0.015 M Na citrate, 100 μ g/mL cycloheximide. Washed glands from two larvae are placed in a homogenizer containing 4.7 mL of 40 mM triethanolamine-HCl, pH 7.5, 0.15 M sucrose, 0.1 M KCl, 3 mM MgCl₂, 2 mM reduced glutathione, 10 μ g/mL cycloheximide, 750 μ g/mL Escherichia coli tRNA, and an appropriate concentration of RNase inhibitor (sodium heparin, 1.5 μ g/mL or Hydroxystilbamidine bis(methanesulfonate), 1.5 mM)^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Administration ^[2]

Mice (six per group) are given various doses of Hydroxystilbamidine bis(methanesulfonate) (HSB) 3, 2, and 1 day before antigen. Other groups are given Hydroxystilbamidine bis(methanesulfonate) 1 or 2 days after the injection of antigen. Another group of mice receive antigen and Hydroxystilbamidine bis(methanesulfonate) simultaneously. A control group receives only antigen. The antigen dose consists of 2×10^8 sheep erythrocytes (SRBC). Four days after the injection of SRBC, the mice are sacrificed and spleens are removed and assayed for plaque-forming cell (PFC) by the plaque assay^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Lizardi PM. Isolation of giant silk fibroin polysomes and fibroin mRNP particles using a novel ribonuclease inhibitor, hydroxystilbamidine. *J Cell Biol.* 1980 Oct;87(1):292-6.
- [2]. Folds JD, et al. Immunosuppression by hydroxystilbamidine isethionate, a lysosome-stabilizing, anti-proteolytic, antifungal drug. *Infect Immun.* 1975 Mar;11(3):441-4.
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Caution: Product has not been fully validated for medical applications. For research use only.

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