Isatin-β-thiosemicarbazone

Cat. No.: HY-W291131

CAS No.: 27830-79-1

Molecular Formula: $C_9H_8N_4OS$

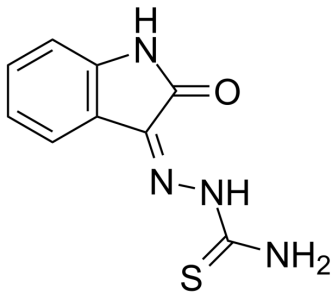
Molecular Weight: 220.25

Target: HSV; Orthopoxvirus

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (567.54 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.5403 mL	22.7015 mL	45.4030 mL
5 mM	0.9081 mL	4.5403 mL	9.0806 mL
10 mM	0.4540 mL	2.2701 mL	4.5403 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (9.44 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Isatin-β-thiosemicarbazone is a potent anti-poxvirus agent (including monkeypox virus, orthopoxvirus, vaccinia virus, etc). Isatin-β-thiosemicarbazone also is a potent herpes simplex virus (HSV) inhibitor. Isatin-β-thiosemicarbazone exhibits

REFERENCES

[1]. Meis RJ, et al. Genetic and molecular biological characterization of a vaccinia virus gene which renders the virus dependent on isatin-beta-thiosemicarbazone (IBT). Virology. 1991 Jun;182(2):442-54.

[2]. Katz E, et al. Synthesis of vaccinia virus polypeptides in the presence of isatin-beta-thiosemicarbazone. Antimicrob Agents Chemother. 1973 Jul;4(1):44-8.

[3]. Iou-Jiun Kang, et al. Isatin-β-thiosemicarbazones as potent herpes simplex virus inhibitors. Bioorg Med Chem Lett. 2011 Apr 1;21(7):1948-52.

[4]. William D Arndt, et al. Monkeypox virus induces the synthesis of less dsRNA than vaccinia virus, and is more resistant to the anti-poxvirus drug, IBT, than vaccinia virus. Virology. 2016 Oct;497:125-135.

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