Triazavirin

Cat. No.: HY-19743

CAS No.: 928659-17-0

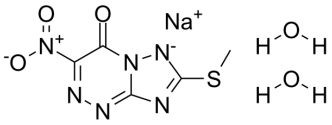
Molecular Formula: $C_5H_7N_6NaO_5S$

Molecular Weight: 286.2

Target: Nucleoside Antimetabolite/Analog; Influenza Virus; DNA/RNA Synthesis

Pathway: Cell Cycle/DNA Damage; Anti-infection

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (436.76 mM; Need ultrasonic)
H_2O : 50 mg/mL (174.70 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration / Solvent / Mass	1 mg	5 mg	10 mg
1 mM	3.4941 mL	17.4703 mL	34.9406 mL
5 mM	0.6988 mL	3.4941 mL	6.9881 mL
10 mM	0.3494 mL	1.7470 mL	3.4941 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 (7.27 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (7.27 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Triazavirin is a nucleoside analogue of nucleic acid and an antiviral agent. Triazavirin works by inhibiting the synthesis of viral RNA and DNA and replication of genomic fragments. Triazavirin is also an effective protective agent on the transmission stage of influenza[1].

IC_{50} & Target

Nucleoside analogue; Influenza virus[1]

In Vitro

The efficacy of Triazavirin against the tick-borne encephalitis virus is estimated in the sensitive cell culture. In a concentration of 128 mcg/mL Triazavirin is shown active in inhibition of the tick-borne encephalitis virus reproduction (strain Sofiin) by accumulation in the SKEV cell culture[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	The therapeutic efficacy Triazavirin against experimental Forest-Spring encephalitis on albino mice is studied. The results shows that in high doses (200-400 mg/kg) Triazavirin moderately protects the infected animals. A significant increase of the animal lifespan in the test groups (from 4.1 to 4.8 days) and a statistically valid decrease of the virus accumulation in the target organ are observed[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kozhikhova KV, et al. Preparation of chitosan-coated liposomes as a novel carrier system for the antiviral drug Triazavirin. Pharm Dev Technol. 2018 Apr;23(4):334-342.

[2]. Loginova SIa, et al. Investigation of Triazavirin antiviral activity against tick-borne encephalitis pathogen in cell culture. Antibiot Khimioter. 2014;59(1-2):3-5.

[3]. Loginova SY, et al. Investigation of Therapeutic Efficacy of Triazavirin Against Experimental Forest-Spring Encephalitis on Albino Mice. Antibiot Khimioter. 2015;60(7-8):11-3.

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