WIN 54954

Cat. No.: HY-106296

CAS No.: 107355-45-3

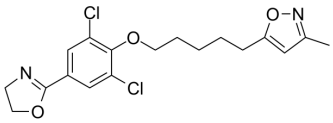
Molecular Formula: $C_{18}H_{20}Cl_2N_2O_3$

Molecular Weight: 383.27

Target: Enterovirus

Pathway: Anti-infection

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (260.91 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6091 mL	13.0456 mL	26.0913 mL
	5 mM	0.5218 mL	2.6091 mL	5.2183 mL
	10 mM	0.2609 mL	1.3046 mL	2.6091 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: ≥ 2.5 mg/mL (6.52 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

WIN 54954 is an orally active and broad-spectrum antipicornavirus agent. WIN 54954 is effectiveness against human rhinovirus, echovirus 9 and enterovirus infections[1][2].

In Vitro

WIN 54954 reduces plaque formation of 50 of 52 rhinovirus serotypes (MICs ranges from 0.007 to 2.2 μg/mL)[1].WIN 54954 inhibits 15 commonly isolated enteroviruses, with an EC_{80} of 0.06 μg/mL[1].

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

In Vivo

WIN 54954 (2-100 mg/kg; p.o.) protects 50% of the mice from developing paralysis following infection with coxsackievirus A-9 and echovirus-9 at the dose of 2 and 100 mg/kg, respectively[1].

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

REFERENCES

[1]. Woods MG, et, al. In vitro and in vivo activities of WIN 54954, a new broad-spectrum antipicornavirus drug. Antimicrob Agents Chemother. 1989 Dec;33(12):2069-74.

[2]. Fechner H, et, al. Pharmacological and biological antiviral therapeutics for cardiac coxsackievirus infections. Molecules. 2011 Oct 11;16(10):8475-503.

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