

WIN 54954

Chemical Properties

CAS No. : 107355-45-3

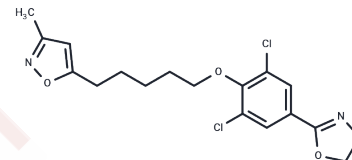
Formula: C₁₈H₂₀Cl₂N₂O₃

Molecular Weight: 383.27

Keep away from direct sunlight

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	WIN 54954 is an orally available antiviral agent that inhibits Coxsackievirus and inhibits viral translation or transcription. WIN 54954 may be useful in the study of small ribonucleic acid virus infections.
Targets(IC50)	Antiviral, Virus Protease
In vitro	WIN 54954 reduced plaque formation by 50 of 52 serotypes of rhinovirus (MIC range: 0.007 to 2.2 µg/ml). A concentration of 0.28 µg/ml effectively inhibited 80% of the 52 serotypes (EC80). WIN 54954 also effectively inhibited 15 commonly isolated enteroviruses, with an EC80 of 0.06 µg/ml[1].
In vivo	A single gastric dose of WIN 54954 at daily doses of 2 and 100 mg/kg protected 50% of mice from paralysis after infection with Coxsackie virus A-9 and ECHO virus-9, respectively (PD50)[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (208.73 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (8.61 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0522 mL	0.2609 mL	0.5218 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

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

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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