

ERDRP-0519

Chemical Properties

CAS No. : 1374006-96-8

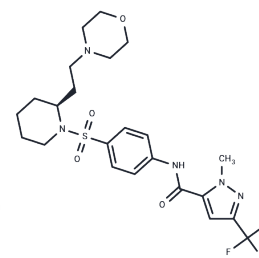
Formula: C₂₃H₃₀F₃N₅O₄S

Molecular Weight: 529.58

Store at low temperature

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	ERDRP-0519 is an orally bioavailable small-molecule inhibitor of the Measles virus (MeV) polymerase. It effectively prevents measles disease in squirrel monkeys (<i>Saimiri sciureus</i>) and exhibits potent inhibition of morbilliviruses in the nanomolar range.
Targets(IC50)	Others,Antiviral
In vitro	ERDRP-0519 demonstrates potency against various Measles virus (MeV) isolates, with EC ₅₀ values ranging from 0.07 to 0.3 μM[1], and is also effective against MeV and related Morbillivirus pathogens, such as canine distemper virus (CDV)[3].
In vivo	A single-dose pharmacokinetic study was conducted in squirrel monkeys through oral administration of ERDRP-0519 at a dose of 50 mg/kg, with blood samples collected at seven predetermined time points following the dose. The peak serum concentrations of ERDRP-0519 were observed approximately 2 hours post-administration, reaching a maximum (C _{max}) of 3.27 μM.

Solubility Information

Solubility	DMSO: 90 mg/mL (169.95 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 (6.23 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	1.8883 mL	9.4414 mL	18.8829 mL
5 mM	0.3777 mL	1.8883 mL	3.7766 mL
10 mM	0.1888 mL	0.9441 mL	1.8883 mL
50 mM	0.0378 mL	0.1888 mL	0.3777 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

Stefanie A Krumm, et al. An orally available, small-molecule polymerase inhibitor shows efficacy against a lethal morbillivirus infection in a large animal model. *Sci Transl Med.* 2014 Apr 16;6(232):232ra52.

Richard K Plemper. Measles Resurgence and Drug Development. *Curr Opin Virol.* 2020 Apr;41:8-17.

Kevin Wittwer, et al. Small-molecule polymerase inhibitor protects non-human primates from measles and reduces shedding. *Nat Commun.* 2021 Sep 2;12(1):5233.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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