Molnupiravir (EIDD-2801)

Catalog No.C13828 Batch:C1382803

Product Datasheet

Technical Data

Formula	$C_{13}H_{19}N_3O_7$					
Molecular Weight	329.31	**CAS No.**	2349386-89-4			
Solubility (25°C)*	In vitro	DMSO	66 mg/mL (200.41 mM)			
		Water	66 mg/mL (200.41 mM)			
		Ethanol	66 mg/mL (200.41 mM)			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.
		Injection		5%DMSO [1]→ 40%PEG300 [2]→ 5%Tween80 [3]→ 50%ddH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	3.300mg/ml (10.02mM)	
				5% DMSO [1]→ 95% Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.330mg/ml (1.00mM)	

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Volume / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.0367 mL	15.1833 mL	30.3665 mL
5 mM	0.6073 mL	3.0367 mL	6.0733 mL
10 mM	0.3037 mL	1.5183 mL	3.0367 mL
50 mM	0.0607 mL	0.3037 mL	0.6073 mL

Biological Activity

Description	Molnupiravir (EIDD-2801, MK-4482) is an orally bioavailable prodrug of the ribonucleoside analog β-d-N^4-hydroxycytidine (NHC; EIDD-1931) with broad-spectrum **antiviral activity** against **SARS-CoV-2**, **MERS-CoV**, **SARS-CoV**, and the causative agent of **COVID-19**.
Targets	SARS-CoV-2 [1] / MERS-CoV [1] / SARS-CoV [1]
In vitro	Molnupiravir (EIDD-2801) is an orally bioavailable NHC-prodrug. This compound is potently antiviral against SARS-CoV-2, MERS-CoV and SARS-CoV in primary human epithelial cell cultures without cytotoxicity. It is effective against remdesivir (RDV)-resistant virus and multiple distinct zoonotic CoV. Its antiviral activity is associated with increased viral mutation rates.[1]
In vivo	Molnupiravir (EIDD-2801) is efficiently hydrolyzed in vivo after absorption, resulting in detection of only free NHC in plasma.[2] This compound is potently antiviral against SARS-CoV in vivo but the degree of clinical benefit is dependent on the time of initiation post-infection. It robustly reduces MERS-CoV infectious titers, viral RNA, and pathogenesis under both prophylactic and early therapeutic conditions.[1]

Protocol (from reference)

Animal Study:[1]

- **Animal Models**
  20-29 week old SPF C57BL/6J mice, 10-14 week old C57BL/6J hDPP4 mice
- **Dosages**
  50 mg/kg, 150 mg/kg, 500 mg/kg
- **Administration**
  Oral gavage

References

https://pubmed.ncbi.nlm.nih.gov/32253226/ https://pubmed.ncbi.nlm.nih.gov/31645453/ https://pubmed.ncbi.nlm.nih.gov/35598779/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

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