Boceprevir

Catalog No.C09566 Batch:C0956603

Product Datasheet

Technical Data

Formula	$C_{27}H_{45}N_5O_5$					
Molecular Weight	519.68	**CAS No.**	394730-60-0			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (192.42 mM)			
		Ethanol	100 mg/mL (192.42 mM)			
		Water	Insoluble			
	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.

* <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

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.9243 mL	9.6213 mL	19.2426 mL
5 mM	0.3849 mL	1.9243 mL	3.8485 mL
10 mM	0.1924 mL	0.9621 mL	1.9243 mL
50 mM	0.0385 mL	0.1924 mL	0.3849 mL

Biological Activity

Description	Boceprevir (EBP 520, SCH 503034) is an oral, direct acting **hepatitis C virus (HCV) protease** inhibitor with Ki value of 14 nM for NS3. It is used in combination with other antiviral agents in the treatment of chronic hepatitis C, genotype 1.
Targets	NS3/4A protease [1] 14 nM(Ki)
In vitro	Treatment with NLRP3 Inflammasome Inhibitor I significantly limits IL-1β release after LPS and ATP challenge. NLRP3 Inflammasome Inhibitor I is not a caspase-1 inhibitor[1].
In vivo	The small molecule NLRP3 Inflammasome Inhibitor I, an intermediate substrate in the glyburide synthesis free of the cyclohexylurea moiety, inhibits the formation of the NLRP3 inflammasome in cardiomyocytes and limits the infarct size following myocardial ischemia/reperfusion in the mouse, without affecting glucose metabolism[1].

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  J774A.1 cells
- **Concentrations**
  400 μM
- **Incubation Time**
  30 mins
- **Method**
  J774A.1 cells, a murine macrophage cell line, are plated at 5×10^4 cells/well in a 96 multiwell plate for 24 hours in RPMI medium supplemented with 10% of fetal bovine serum (FBS). The cells are primed with Escherichia coli 0111:B4 LPS(1 μg/ml) for 4 hours and then ATP (5 mM) for 30 minutes to induce the NLRP3 inflammasome formation. The supernatants are collected and levels of IL-1β are measured with a mouse IL-1β ELISA kit. To test the inhibitory effects of 16673-34-0 on NLRP3 inflammasome activation, cells are co-treated with 16673-34-0 (400μM) or Glyburide (400μM) at the time of ATP for 30 minutes, and IL-1β levels are used as read-out.

Animal Study:[1]

- **Animal Models**
  CD1 mice
- **Dosages**
  100 mg/kg
- **Administration**
  i.p.

References

https://pubmed.ncbi.nlm.nih.gov/24336017/

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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