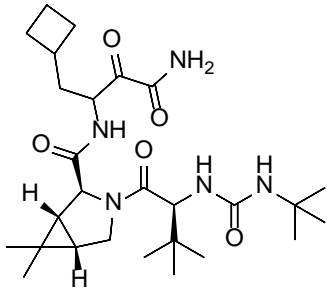


Product data sheet



MedKoo Cat#: 300235 Name: Boceprevir CAS#: 394730-60-0 Chemical Formula: C ₂₇ H ₄₅ N ₅ O ₅ Exact Mass: 519.3421 Molecular Weight: 519.68		
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions	Ambient temperature	
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.	
	In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

Boceprevir (INN, trade name Victrelis) is a protease inhibitor used as a treatment for hepatitis C genotype 1. It binds to HCV nonstructural 3 NS3 (HCV) active site. It was being developed by Schering-Plough, but is now being developed by Merck since Schering was acquired in 2009. It was approved by the FDA on May 13, 2011.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	44.22	85.09
DMF	25.0	48.11
Ethanol	25.0	48.11
Ethanol:PBS (pH 7.2) (1:6)	0.14	0.27

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.92 mL	9.62 mL	19.24 mL
5 mM	0.38 mL	1.92 mL	3.85 mL
10 mM	0.19 mL	0.96 mL	1.92 mL
50 mM	0.04 mL	0.19 mL	0.38 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Lanave G, Cavalli A, Martella V, Fontana T, Losappio R, Tempesta M, Decaro N, Buonavoglia D, Camero M. Ribavirin and boceprevir are able to reduce Canine distemper virus growth in vitro. *J Virol Methods*. 2017 Oct;248:207-211. doi: 10.1016/j.jviromet.2017.07.012. Epub 2017 Jul 29. PMID: 28760649.

2. Fu L, Ye F, Feng Y, Yu F, Wang Q, Wu Y, Zhao C, Sun H, Huang B, Niu P, Song H, Shi Y, Li X, Tan W, Qi J, Gao GF. Both Boceprevir and GC376 efficaciously inhibit SARS-CoV-2 by targeting its main protease. *Nat Commun*. 2020 Sep 4;11(1):4417. doi: 10.1038/s41467-020-18233-x. PMID: 32887884; PMCID: PMC7474075.

In vivo study

TBD

7. Bioactivity

Biological target: Boceprevir is a HCV NS3 protease inhibitor with a K_i of 14 nM in both enzyme assay and an EC_{90} of 350 nM in cell-based replicon assay.

Product data sheet



In vitro activity

The antiviral efficacy in vitro against CDV (canine distemper virus) of boceprevir was evaluated. CDV growth in VERO cells was inhibited by boceprevir at non-cytotoxic concentrations, as evaluated by end-point viral titration in cell monolayers and by quantification of viral RNA using quantitative RT-PCR. By quantitative RT-PCR, a significant reduction of viral growth was observed in cells treated with boceprevir. Boceprevir was able to decrease CDV growth by up to 3.4458 logs with respect to untreated infected cells at the highest virus dilutions.

Reference: J Virol Methods. 2017 Oct;248:207-211.

<https://www.sciencedirect.com/science/article/abs/pii/S0166093417303713?via%3Dihub>

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.