

Product data sheet



MedKoo Cat#: 319515 Name: Acumapimod (BCT-197) CAS#: 836683-15-9 Chemical Formula: C ₂₂ H ₁₉ N ₅ O ₂ Exact Mass: 385.15387 Molecular Weight: 385.427		
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:

Acumapimod, also known as BCT-197, is a potent P38 mitogen-activated protein kinase inhibitor. The p38 protein kinases, in particular p38 α and p38 β , regulate the production of multiple inflammatory mediators.

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	50.0	129.73

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.59 mL	12.97 mL	25.95 mL
5 mM	0.52 mL	2.59 mL	5.19 mL
10 mM	0.26 mL	1.30 mL	2.59 mL
50 mM	0.05 mL	0.26 mL	0.52 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

N/A

In vivo study

1. Growcott EJ, Bamba D, Galarneau JR, Leonard VHJ, Schul W, Stein D, Osborne CS. The effect of P38 MAP kinase inhibition in a mouse model of influenza. *J Med Microbiol.* 2018 Mar;67(3):452-462. doi: 10.1099/jmm.0.000684. Epub 2018 Jan 24. PMID: 29458547.

2. Parkin JM, Hardaker EL. Effects of Acumapimod (PCT197), an Oral p38 Inhibitor, on Tobacco Smoke and Lipopolysaccharide-Induced Lung Inflammation in a Corticosteroid-Resistant Rat Model. *Am J Respir Crit Care Med.* 2017 May;195:A6305.

7. Bioactivity

Biological target:

Acumapimod (BCT197) is a p38 MAP kinase inhibitor, with an IC₅₀ of less than 1 μ M for p38 α .

In vitro activity

N/A

In vivo activity

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All vehicle-treated animals were removed from study and euthanized by day 9 due to $\geq 25\%$ body weight loss (Fig. 2). Compared to vehicle, a protective effect was observed with 31% (5/16) of the 6 mg kg⁻¹ BCT197, 67% (10/15) dexamethasone and 94% (15/16) oseltamivir-treated animals surviving to the end of study. However, only 12.5% (2/16) survival was observed in the 18 mg kg⁻¹ BCT197 group (Fig. 2b). All of the curves were statistically significantly different from vehicle ($P < 0.0125$, using Bonferroni correction for multiple comparisons as part of the Kaplan–Meier analysis).

Reference: J Med Microbiol. 2018 Mar;67(3):452-462. <https://pubmed.ncbi.nlm.nih.gov/29458547/>

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.