Acumapimod

Cat. No.: HY-16715

CAS No.: 836683-15-9

Molecular Formula: $C_{22}H_{19}N_5O_2$

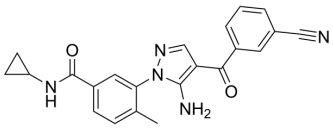
Molecular Weight: 385

Target: p38 MAPK; Autophagy

Pathway: MAPK/ERK Pathway; Autophagy

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 50 mg/mL (129.87 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5974 mL	12.9870 mL	25.9740 mL
5 mM	0.5195 mL	2.5974 mL	5.1948 mL
10 mM	0.2597 mL	1.2987 mL	2.5974 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.49 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.49 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.49 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Acumapimod (BCT197) is an orally active p38 MAP kinase inhibitor, with an IC_{50} of less than 1 μM for p38α.

IC_{50} & Target

IC50: less than 1 μM (p38α)[1]

In Vitro

Acumapimod is an inhibitor of p38α with an IC_{50} value of less than 1 μM.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	Acumapimod is an oral low-molecular-weight p38 inhibitor currently in development for the treatment of several inflammatory conditions, including chronic obstructive pulmonary disease (COPD). Intermittent short-term dosing of Acumapimod (75 mg on days 1 and 6) shows a marked improvement in lung function in COPD patients[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Norman P, et al. Investigational p38 inhibitors for the treatment of chronic obstructive pulmonary disease. Expert Opin Investig Drugs. 2015 Mar;24(3):383-92.

[2]. De Buck S, et al. Population PK-PD Model for Tolerance Evaluation to the p38 MAP Kinase Inhibitor BCT197. CPT Pharmacometrics Syst Pharmacol. 2015 Dec;4(12):691-700.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA