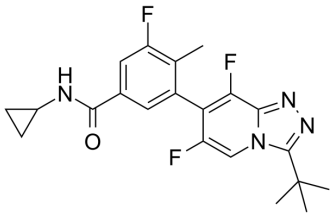
AL 8697

Cat. No.:	HY-108645
CAS No.:	1057394-06-5
Molecular Formula:	$C_{21}H_{21}F_3N_4O$
Molecular Weight:	402.41
Target:	p38 MAPK; Autophagy
Pathway:	MAPK/ERK Pathway; Autophagy
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (248.50 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4850 mL	12.4251 mL	24.8503 mL
	5 mM	0.4970 mL	2.4850 mL	4.9701 mL
	10 mM	0.2485 mL	1.2425 mL	2.4850 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 (6.21 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.21 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AL 8697 is a specific and orally active p38α MAPK inhibitor with an IC_{50} of 6 nM. AL 8697 displays 14-fold greater inhibition of p38α compared to p38β (IC_{50}=82 nM), and 300-fold selectivity for p38α over a panel of 91 kinases. Anti-inflammatory activity [1].

IC_{50} & Target

p38α	p38β
6 nM (IC_{50})	82 nM (IC_{50})

In Vivo

AL 8697 (1-30 mg/kg; p.o.; once daily for 10 days) dose-dependently decreases the oedema in right and left paws[1].

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

Animal Model:	Male Wistar rats[1]
Dosage:	1, 3, 10, 30 mg/kg
Administration:	Oral gavage; once daily for 10 days
Result:	Dose-dependently decreased the oedema in right and left paws, causing a larger improvement in the contralateral un-injected paw.

REFERENCES

[1]. Balagué C, et al. Profiling of dihydroorotate dehydrogenase, p38 and JAK inhibitors in the rat adjuvant-induced arthritis model: a translational study. Br J Pharmacol. 2012 Jun;166(4):1320-32.

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