CPI-1189

Cat. No.: HY-100376

CAS No.: 183619-38-7

Molecular Formula: $C_{13}H_{18}N_2O_2$

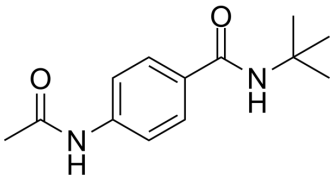
Molecular Weight: 234.29

Target: TNF Receptor; Apoptosis

Pathway: Apoptosis

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (426.82 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	4.2682 mL	21.3411 mL	42.6821 mL
	5 mM	0.8536 mL	4.2682 mL	8.5364 mL
	10 mM	0.4268 mL	2.1341 mL	4.2682 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 (10.67 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.67 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CPI-1189 is an orally active TNF-α release inhibitor. CPI-1189 inhibits phosphorylation of p38. CPI-1189 can inhibit apoptosis. CPI-1189 can be used in the study of HIV and neurological diseases[1][2][3][4][5].

In Vitro

CPI-1189 (100 nM, 1 h) can effectively inhibit Oxygen glucose deprivation (OGD)/re-oxygenation (OGDR) induced oxidative damage and neuronal cell death in SH-SY5Y cells[3].

CPI-1189 (10 nM, 2 h) inhibits interleukin1β-induced phosphorylation of P38-mitogen-activated protein kinase[4].

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

Cell Viability Assay[3]

Cell Line:	SH-SY5Y
Concentration:	10, 30, 100, 300 nM
Incubation Time:	1 h
Result:	Alleviated OGDR-induced cytotoxicity in a concentration-dependent manner.

Apoptosis Analysis[3]

Cell Line:	SH-SY5Y
Concentration:	100 nM
Incubation Time:	1 h
Result:	Inhibited OGDR-induced caspase-3/-9 activation and ssDNA accumulation. Attenuated OGDR-induced apoptosis activation.

In Vivo

CPI-1189 (20 mg/kg, p.o., twice a day) reversed memory deficits in a TNF-α-induced AIDS-dementia rat model[5].

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

REFERENCES

[1]. Li YJ, et al. CPI-1189 protects neuronal cells from oxygen glucose deprivation/re-oxygenation-induced oxidative injury and cell death. Aging (Albany NY). 2021 Feb 17;13(5):6712-6723.

[2]. Hensley K, et al. CPI-1189 inhibits interleukin 1beta-induced p38-mitogen-activated protein kinase phosphorylation: an explanation for its neuroprotective properties? Neurosci Lett. 2000 Mar 10;281(2-3):179-82.

[3]. Bjugstad KB, et al. Preventive actions of a synthetic antioxidant in a novel animal model of AIDS dementia. Brain Res. 1998 Jun 8;795(1-2):349-57.

[4]. Müller T. CPI-1189. Centaur. Curr Opin Investig Drugs. 2002 Dec;3(12):1763-7.

[5]. Clifford DB, et al. A randomized clinical trial of CPI-1189 for HIV-associated cognitive-motor impairment. Neurology. 2002 Nov 26;59(10):1568-73.

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