CP21R7

Cat. No.: HY-100207

CAS No.: 125314-13-8

Molecular Formula: $C_{19}H_{15}N_3O_2$

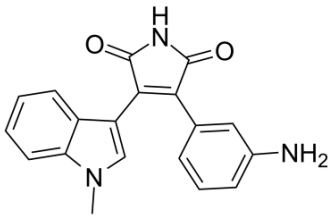
Molecular Weight: 317.34

Target: GSK-3

Pathway: PI3K/Akt/mTOR; Stem Cell/Wnt

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 : ≥ 32 mg/mL (100.84 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.1512 mL	15.7560 mL	31.5119 mL
5 mM	0.6302 mL	3.1512 mL	6.3024 mL
10 mM	0.3151 mL	1.5756 mL	3.1512 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 (7.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CP21R7 is potent GSK-3β inhibitor, with an IC_{50} of 1.8 nM; CP21R7 also shows inhibitory activitiy against PKCα, with an IC_{50} of 1900 nM.

IC_{50} & Target

GSK-3β	PKCα
1.8 nM (IC_{50})	1900 nM (IC_{50})

In Vitro

CP21R7 (Compound 9) is a selective inhibitor of GSK-3β, with an IC_{50} of 1.8 nM; the IC_{50} of CP21R7 against PKCα is 1900 nM[1]. CP21R7 (CP21, 3 μM) potently activates canonical Wnt signaling with highest activity. CP21 significantly increases total levels of intracellular β-catenin. CP21 combined with BMP4 induces commitment of hPSCs towards mesoderm[2].

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

REFERENCES

[1]. Gong L, et al. Discovery of potent and bioavailable GSK-3beta inhibitors. Bioorg Med Chem Lett. 2010 Mar 1;20(5):1693-6.

[2]. Patsch C, et al. Generation of vascular endothelial and smooth muscle cells from human pluripotent stem cells. Nat Cell Biol. 2015 Aug;17(8):994-1003.

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