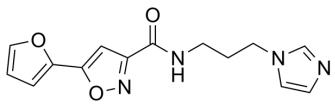
SKL2001

Cat. No.:	HY-101085
CAS No.:	909089-13-0
Molecular Formula:	$C_{14}H_{14}N_4O_3$
Molecular Weight:	286
Target:	Wnt; β-catenin
Pathway:	Stem Cell/Wnt
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 : ≥ 96.66 mg/mL (337.97 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	3.4965 mL	17.4825 mL	34.9650 mL
5 mM	0.6993 mL	3.4965 mL	6.9930 mL
10 mM	0.3497 mL	1.7483 mL	3.4965 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 (8.74 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.74 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.74 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SKL2001 is an agonist of the Wnt/β-catenin pathway, with anti-cancer activity. SKL2001 stabilizes intracellular β-catenin via disruption of the Axin/β-catenin interaction[1].

IC_{50} & Target

Wnt/β-catenin[1]

In Vitro

SKL2001 is an agonist of the Wnt/β-catenin pathway, and also upregulates the expression of Axin2, a downstream target of

the Wnt/β-catenin pathway, but shows no effect on NF-κB, p53 reporter activity and GSK-3β activity. SKL2001 causes osteoblast differentiation (20 and 40 μM) and suppresses preadipocyte differentiation (5, 10, and 30 μM) via the activation of the Wnt/β-catenin pathway. SKL2001 (5, 10, and 30 μM) stabilizes intracellular β-catenin in 3T3-L1 cells[1]. SKL2001 (40 μM) significantly inhibits the proliferation of HCT116 spheroids independently of cytotoxicity and the inhibition is reversible; SKL2001 cuases cell cycle arrest in HCT116 spheroids. SKL2001 (40 μM) enhances round-shape spheroid formation and E-cadherin expression[2].

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

PROTOCOL

Cell Assay [1]

ST2 cells are cultured on glass chamber slides and then treated with DMSO or SKL2001 for 15 h. After treatment, the cells are washed with PBS, fixed with 4% formaldehyde, permeabilized in 0.3% Triton X-100, and blocked in 4% bovine serum albumin for 1 h. The cells are stained with anti-β-catenin antibody and then analyzed by confocal microscopy using a microscope[1].

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

CUSTOMER VALIDATION

- Exp Mol Med. 2022 Sep 1.
- Clin Exp Hypertens. 2023 Dec 31;45(1):2178659.
- J Adv Res. 26 November 2021.
- Cell Death Dis. 2020 Aug 18;11(8):644.
- Environ Pollut. 2023 May 31;121931.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Gwak J, et al. Small molecule-based disruption of the Axin/β-catenin protein complex regulates mesenchymal stem cell differentiation. ell Res. 2012 Jan;22(1):237-47.

[2]. Ohashi W, et al. SKL2001 suppresses colon cancer spheroid growth through regulation of the E-cadherin/β-Catenin complex. Biochem Biophys Res Commun. 2017 Nov 25;493(3):1342-1348.

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