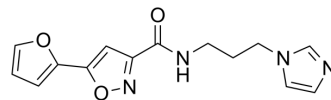


SKL2001

Cat. No.:	HY-101085		
CAS No.:	909089-13-0		
Molecular Formula:	C ₁₄ H ₁₄ N ₄ O ₃		
Molecular Weight:	286.29		
Target:	Wnt; β -catenin		
Pathway:	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 : \geq 96.66 mg/mL (337.63 mM)
 * " \geq " means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.4930 mL	17.4648 mL	34.9296 mL
	5 mM	0.6986 mL	3.4930 mL	6.9859 mL
	10 mM	0.3493 mL	1.7465 mL	3.4930 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: \geq 2.5 mg/mL (8.73 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE- β -CD in saline)
Solubility: \geq 2.5 mg/mL (8.73 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: \geq 2.5 mg/mL (8.73 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].

IC₅₀ & 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- κ B, p53 reporter activity and GSK-3 β activity. SKL2001 causes osteoblast differentiation (20 and 40 μ M) and suppresses preadipocyte differentiation (5, 10, and 30 μ M) via the activation of the Wnt/ β -catenin pathway. SKL2001 (5, 10, and 30 μ M) stabilizes intracellular β -catenin in 3T3-L1 cells^[1]. SKL2001 (40 μ M) significantly inhibits the proliferation of HCT116 spheroids independently of cytotoxicity and the inhibition is reversible; SKL2001 causes cell cycle arrest in HCT116 spheroids. SKL2001 (40 μ M) 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

- Mol Ther Nucleic Acids. 2020 Jun 27;21:577-591.
- Cell Death Dis. 2020 Aug 18;11(8):644.
- Biomed Pharmacother. 2020 Sep;129:110414.
- Biomed Pharmacother. 2019 May 16;116:108974.
- J Cell Mol Med. 2021 Mar 23.

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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