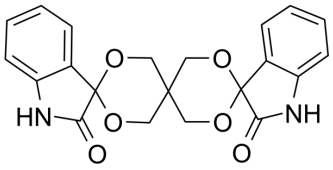
JW67

Cat. No.:	HY-108442
CAS No.:	442644-28-2
Molecular Formula:	$C_{21}H_{18}N_2O_6$
Molecular Weight:	394
Target:	Wnt
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 : 50 mg/mL (126.90 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5381 mL	12.6904 mL	25.3807 mL
	5 mM	0.5076 mL	2.5381 mL	5.0761 mL
	10 mM	0.2538 mL	1.2690 mL	2.5381 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 (6.35 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.35 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

JW67 inhibits the canonical Wnt signaling with an IC_{50} of 1.17μM[1]. JW67 affects the multiprotein complex consisting of β-catenin/GSK-3β/AXIN/APC/CK1 that rapidly reduces active β-catenin with a subsequent downregulation of Wnt target genes. JW67 also inhibits colorectal cancer cell growth[1].

IC_{50} & Target

IC50: 1.17μM (Wnt signaling)[1]

In Vitro

JW67 (1 μM; 24 hours) increases concentration of AXIN2 and decreases the active form of β-catenin[1].
JW67 affects the expression of Wnt target genes and reduces cell growth of colon cancer cell lines[1].
JW67 shows a concentrationdependent reduction in proliferation with a GI50 value of 7.8 μM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	SW480 cells
Concentration:	1 μM
Incubation Time:	24 hours
Result:	Increased the AXIN2 expression.

RT-PCR[1]

Cell Line:	SW480 cells
Concentration:	10 or 25μM
Incubation Time:	72 hours
Result:	Reduced growth of SW480 CRC cells in vitro by inhibiting cell-cycle progression at the G1/S.

REFERENCES

[1]. Waaler J, et al. Novel synthetic antagonists of canonical Wnt signaling inhibit colorectal cancer cell growth. Cancer Res. 2011;71(1):197-205.

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