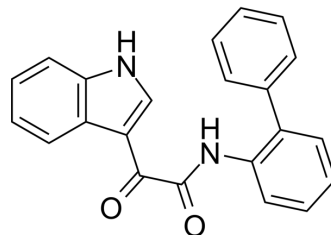


PTK7/ β -catenin-IN-1

Cat. No.:	HY-160488
CAS No.:	906147-24-8
Molecular Formula:	C ₂₂ H ₁₆ N ₂ O ₂
Molecular Weight:	340.37
Target:	β -catenin
Pathway:	Stem Cell/Wnt
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 60 mg/mL (176.28 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.9380 mL	14.6899 mL	29.3798 mL
	5 mM	0.5876 mL	2.9380 mL	5.8760 mL
	10 mM	0.2938 mL	1.4690 mL	2.9380 mL

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

BIOLOGICAL ACTIVITY

Description

PTK7/ β -catenin-IN-1 (compound 01065) is a potent PTK7/ β -catenin inhibitor with an IC₅₀ of 8.9 μ M and 56.5 μ M for PTK7/ β -catenin and p53/MDM2, respectively. PTK7/ β -catenin-IN-1 has the potential for cancer research^[1].

In Vitro

PTK7/ β -catenin-IN-1 (compound 01065; 72 h) has antiproliferative properties in HCT116, SW480 and MEFs with IC₅₀s of 19.6 μ M, 21.3 μ M, 41 μ M, respectively^[1].
 PTK7/ β -catenin-IN-1 (25 μ M; 24 h) increased the percentage of HCT116 and SW480 cells in S phase with subsequent decrease in G0/G1 phases suggesting S phase arrest that inhibits cell cycle progression^[1].
 PTK7/ β -catenin-IN-1 (25 μ M; 24 h) causes a significant increase in p21 and p27 protein levels^[1].
 PTK7/ β -catenin-IN-1 (25 μ M; 24 h) causes significant reduction in AXIN2 mRNA level in HCT116 and SW480^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.
 Cell Cycle Analysis^[1]

Cell Line:	HCT116 and SW480 cells
Concentration:	25 μ M
Incubation Time:	24 h

Result:	Induced an obvious cell cycle arrest through distinct mechanisms. Increased the percentage of HCT116 and SW480 cells in S phase with subsequent decrease in G0/G1 phases suggesting S phase arrest that inhibits cell cycle progression.
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Western Blot Analysis^[1]

Cell Line:	HCT116 and SW480 cells
Concentration:	25 μ M
Incubation Time:	24 h
Result:	Caused a significant increase in p21 and p27 protein levels.

RT-PCR^[1]

Cell Line:	HCT116 and SW480 cells
Concentration:	25 μ M
Incubation Time:	24 h
Result:	Caused a significant reduction in AXIN2 mRNA level.

REFERENCES

[1]. Laetitia Ganier, et al. Discovery of Small-Molecule Inhibitors of the PTK7/ β -Catenin Interaction Targeting the Wnt Signaling Pathway in Colorectal Cancer. ACS Chem Biol. 2022 May 20;17(5):1061-1072.

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

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