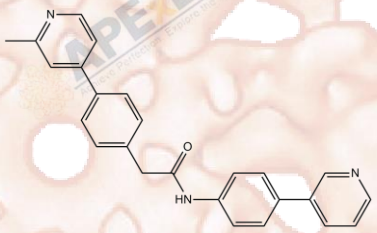
Product Data Sheet

Wnt-C59



Cat. No.:	A8685
CAS No.:	1243243-89-1
Formula:	C25H21N3O
M.Wt:	379.45
Synonyms:	
Target:	Stem Cell
Pathway:	Wnt/β-catenin
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾18,.95 mg/mL in DMSO; ⩾9.47 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.6354 mL	13.1770 mL	26.3539 mL
5 mM	0.5271 mL	2.6354 mL	5.2708 mL
10 mM	0.2635 mL	1.3177 mL	2.6354 mL

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

Biological Activity

Shortsummary	PORCN inhibitor,highly potent and selective
IC_{50} & Target	74 pM (PORCN)

In Vitro

Cell Viability Assay

Cell Line:	Human CC cell lines, CC-LP-1, SNU-1079, WITT-1, SNU-1196, and CC-SW-1
Preparation method：	The solubility of this compound in DMSO is > 19 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	100 nM, 10 d

	Applications:	Inhibition of PORCN with Wnt-C59 leaded to a reduction in cell count in a dose-dependent manner in all 5 cell lines. Treating CC cells with Wnt-C59 resulted in reduction of BrdU uptake and increase of caspase-3/7 activity, indicating reduced proliferation and increased apoptosis of CC cells.
In Vivo	**Animal experiment**	
	Animal models:	Female MMTV-WNT1 mice with mammary tumors
	Dosage form:	Oral administration, 5 mg/kg
	Applications:	Wnt-C59 inhibited the progression of mammary tumors in MMTV-WNT1 transgenic mice and reduced Wnt/β-catenin expression. Furthermore, Wnt-C59 exhibited good bioavailability and no apparent toxicity to mice.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Zhang J, Cai H, et al. "LGR5, a novel functional glioma stem cell marker, promotes EMT by activating the Wnt/β-catenin pathway and predicts poor survival of glioma patients." J Exp Clin Cancer Res.2018 Sep 12;37(1):225.PMID:30208924
2. Cantwell MT, Farrar JS, et al. "STAT3 suppresses Wnt/β-catenin signaling during the induction phase of primary Myf5+ rown dipogenesis." Cytokine. 2018 Jun 19. pii: S1043-4666(18)30222-9.PMID:29934048

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References

[1]. Boulter L, Guest R V, Kendall T J, et al. WNT signaling drives cholangiocarcinoma growth and can be pharmacologically inhibited[J]. The Journal of clinical investigation, 2015, 125(3): 1269-1285.
[2]. Proffitt K D, Madan B, Ke Z, et al. Pharmacological inhibition of the Wnt acyltransferase PORCN prevents growth of WNT-driven mammary cancer[J]. Cancer research, 2013, 73(2): 502-507.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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