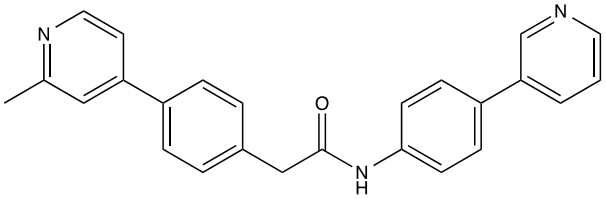
Catalog #10-4605

Wnt-C59

CAS# 1243243-89-1

4-(2-Methyl-4-pyridinyl)-N-[4-(3-pyridinyl)phenyl]benzeneacetamide

Lot # FBS3048



Wnt-C59 is a potent (IC_{50} = 74 pmol/L) inhibitor of Porcupine (PORCN), a Wnt-acyltransferase.[1] Blockage of Wnt-acyltransferase prevents secretion of all Wnt isoforms. It was able to block progression of mammary tumors in MMTV-WNT1 transgenic mice.[1] Wnt-C59 strongly inhibited the growth of intestinal neoplasia in RZ-mutant mice.[2] Wnt-C59 was able to efficiently differentiate pluripotent stem cells into cortical neurons (CTIP2+/COUP-TF1).[3] Wnt-C59 was also able to dramatically attenuate kidney fibrosis via inhibition of collagen mRNA expression and expression of inflammatory cytokines.[4]

1) Proffitt *et al.* (2013), *Pharmacological Inhibition of the Wnt Acyltransferase PORCN Prevents Growth of Wnt-Driven Mammary Cancer*; Cancer Res. **73** 502
2) Koo *et al.* (2015), *Porcupine inhibitor suppresses paracrine Wnt-driven growth of Rnf43;Znrf3-mutatn neoplasia*; Proc.Natl.Acad.Sci USA. **112** 7548
3) Motono *et al.* (2016), *Wnt-C59, a Small-Molecule Wnt Inhibitor, Efficiently Induces Anterior Cortex That Includes Cortical Motor Neurons From Human Pluripotent Stem Cells*; Stem Cells Transl.Med. **5** 552
4) Madan *et al.* (2016), *Experimental inhibition of porcupine-mediated Wnt O-acylation attenuates kidney fibrosis*; Kidney Int. **89** 1062

PHYSICAL DATA

Molecular Weight:	379.46
Molecular Formula:	$C_{25}H_{21}N_3O$
Purity:	>98% (HPLC)
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/mL) and Ethanol (6 mg/mL)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 2 yeara from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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