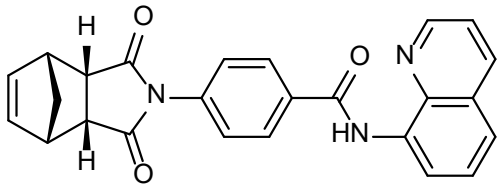
Catalog # 10-5081

IWR-1 endo

CAS# 1127442-82-3

4-(1,3,3a,4,7,7a-Hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl)-N-8-quinolinyl-benzamide

Lot # X109413



A potent inhibitor of Wnt signaling (IC_{50}=180 nM).[1] Inhibits zebrafish tailfin regeneration (0.5 mM).[2] Acts via inhibition of tankyrase and attenuates Wnt/ß-catenin signaling in cancer stem-like cells.[3] Promotes self-renewal and maintains pluripotency of human embryonic stem cells.[4] Promotes differentiation of pluripotent stem cells into cardiomyocytes.[5]

1) Chen *et al*. (2009), *Small molecule-mediated disruption of Wnt-dependent signaling in tissue regeneration and cancer*; Nature Chem. Biol.., **5** 100
2) Lu *et al*. (2009), *Structure-activity Relationship Studies of Small-Molecule Inhibitors of Wnt Response*; Biorg. Med. Chem. Lett., **19** 3825
3) Martins-Neves *et al*. (2018), *IWR-1, a tankyrase inhibitor, attenuates Wnt/ß-catenin signaling in cancer stem-like cells and inhibits in vivo the growth of subcutaneous human osteoxsarcoma xenograft*; Cancer Lett., **414** 1
4) Kim *et al*. (2013), *Modulations of ß-catenin function matains mouse epiblast stem cell and human embryonic stem cell self-renewal*; Nature Commun., **4** 4403
5) Ren *et al*. (2011), *Small Molecule Wnt Inhibitors Enhance the Efficiency of BMP-4-directed Cardiac Differentiation of Human Pluripotent Stem Cells*; J. Mol. Cell. Cardiol., **51** 280

PHYSICAL DATA

Molecular Weight:	409.44
Molecular Formula:	$C_{25}H_{19}N_3O_2$
Purity:	98% by TLC/HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 10 mg/ml)
Physical Description:	Off white or yellow solid
Storage and Stability:	vv

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