Cat No. 35-H18

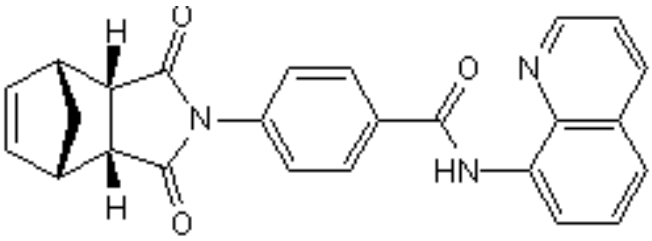
IWR-1 endo

5 mg

For research purposes only

Wnt signaling proteins are small secreted proteins active in embryonic development, tumorigenesis and tissue homeostasis. IWR-1 endo is a potent inhibitor of the Wnt response, blocking a cell-based Wnt/β-catenin pathway reporter response with an IC50 of 180nM. IWR-1 endo inhibits Wnt-induced accumulation of β-catenin, leading to proteasomal degradation of this protein through a destruction complex which consists of Apc, Axin2, Ck1, and Gsk3β. IWR-1-endo stabilizes the destruction complex, increasing the level of Axin2 protein without changing the levels of Apc or Gsk3β. In *in vivo* tests , IWR-1 endo has been shown to inhibit zebrafish tail fin regeneration at a minimum inhibitory concentration of 0.5 µM.

TECHNICAL INFORMATION



Other Names: 4-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4, 7-methano-2H-isoindol-2-yl]-N-8-quinolinyl-benzamide

Chemical Formula: $C_{25}H_{19}N_3O_3$

CAS Number: 1127442-82-3

Molecular Weight: 409.4

Purity: >98%

Appearance: a crystalline solid

Solubility: DMSO

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

Soluble in DMSO to 100mM. If precipitate is observed, vortex for 5 minutes.

REFERENCES

1. Chen et al. (2009) Small molecule-mediated disruption of Wnt-dependent signaling in tissue regeneration and cancer. Nature Chem Biol. 5: 100-107.
2. Lu et al. (2009) Structure-activity relationship studies of small-molecule inhibitors of Wnt response. Bioorg Med Chem Lett. 19(14):3825-7.
3. Yin et al. (2011) Wnt signaling is required for early development of zebrafish swimbladder. PLoS One. 6 (3):e18431.
4. Clevers H. (2006) Wnt/beta-catenin signaling in development and disease. Cell. 127(3)469-80.
5. Reya et al. (2005) Wnt signaling in stem cells and cancer. Nature. 434(7035): 843-50.