



**Xcess Biosciences Inc.**

7144 N Harlem Ave #169  
Chicago, IL 60631 USA

<http://www.xcessbio.com>

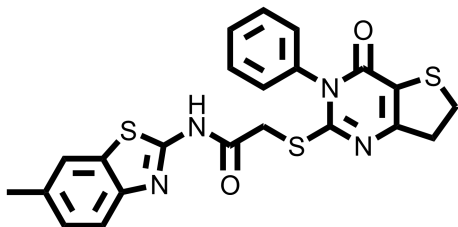
Toll free: 1-866-706-2330

Fax: 1-619- 810-0718

Email: [info@xcessbio.com](mailto:info@xcessbio.com)

## Porcupine (Wnt) Inhibitor IWP-2

**Chemical Name:** N-(6-methylbenzo[d]thiazol-2-yl)-2-((4-oxo-3-phenyl-3,4,6,7-tetrahydrothieno[3,2-d]pyrimidin-2-yl)thio)acetamide



Molecular Weight:	466.60
Formula:	C <sub>22</sub> H <sub>18</sub> N <sub>4</sub> O <sub>2</sub> S <sub>3</sub>
Purity:	≥98%
CAS#:	686770-61-6
Solubility:	DMSO up to 10 mM
Storage	Powder: 4 °C 1 year DMSO: 4 °C 3 month -20 °C 1 year

### Biological Activity:

IWP-2 is a potent and highly selective Wnt signaling antagonist with an IC<sub>50</sub> ~ 27 nM in the L-Wnt-STF cellular assay. It prevents palmitoylation of Wnt proteins by Porcupine (a membrane-bound O-acyltransferase), thereby blocking Wnt protein secretion and activity. It blocks Wnt-dependent phosphorylation of Lrp6 receptor and Dvl2, and β-catenin accumulation. IWP-2 is a useful chemical probe in both regenerative medicine and anticancer efforts.

### How to Use:

**In vitro:** IWP-2 was used at 1-2 μM in vitro and in cellular assays.

**In vivo:** n/a

### Reference:

1. Chen B, et al. Small molecule-mediated disruption of Wnt-dependent signaling in tissue regeneration and cancer. (2009) *Nat Chem Biol.* 5(2):100-7.
2. ten Berge D, et al. Embryonic stem cells require Wnt proteins to prevent differentiation to epiblast stem cells. (2011) *Nat Cell Biol.* 13(9):1070-5.
3. Lian X, et al. Robust cardiomyocyte differentiation from human pluripotent stem cells via temporal modulation of canonical Wnt signaling. (2012) *Proc Natl Acad Sci USA.* 109(27):E1848-57.

Products are for research use only. Not for human use.