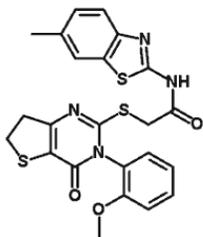


# PRODUCT SPECIFICATIONS SHEET:

## Stemolecule™ Wnt Inhibitor IWP-4

<b>Product Name</b>	Stemolecule™ Wnt Inhibitor IWP-4
<b>Description</b>	Wnt Inhibitor IWP-4 was identified in a high throughput screen for antagonists of the Wnt/ $\beta$ -catenin pathway. Wnt Inhibitor IWP-4 prevents palmitoylation of Wnt proteins by Porcupine (Porcn), a membrane-bound O-acyltransferase, thereby blocking Wnt secretion and activity. It also blocks phosphorylation of the Lrp6 receptor and accumulation of both Dvl2 and $\beta$ -catenin <sup>1</sup> .
<b>Catalog Number</b>	AMS.04-0036
<b>Size</b>	2 mg
<b>Alternate Names</b>	2-(3,4,6,7-tetrahydro-3-(2-methoxyphenyl)-4-oxotheno[3,2- <i>d</i> ]pyrimidin-2-ylthio)- <i>N</i> -(6-methylbenzo[ <i>d</i> ]thiazol-2-yl)acetamide
<b>Chemical Formula</b>	C <sub>23</sub> H <sub>20</sub> N <sub>4</sub> O <sub>3</sub> S <sub>3</sub>
<b>Structure</b>	
<b>Molecular Weight</b>	496.62
<b>CAS Number</b>	686772-17-8
<b>Purity</b>	>96% pure by HPLC
<b>Formulation</b>	White solid
<b>Solubility</b>	For a 2.5 mM concentrated stock solution of Wnt Inhibitor IWP-4, reconstitute the compound by adding 1.61 mL of DMSO to the entire contents of the vial. If

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precipitate is observed, warm the solution to 37 °C for 2 to 5 minutes. For use in cell culture, warm the medium just prior to adding the reconstituted compound. Once the compound is added, mix and filter-sterilize the medium using a 0.2 µm low-protein binding filter.

### Storage and Stability

Store powder at 4 °C or -20 °C, protected from light.

Information about the stability of Stemolecules in solution is largely not available. As a general guideline, we recommend that stock solution be freshly made and stored in aliquots at -20 °C. The effect of storage of stock solutions should be verified for each application.

### Quality Control

The purity of Wnt Inhibitor IWP-4 was determined by HPLC analysis. The accurate mass was determined by mass spectrometry. The structure was verified by NMR spectroscopy. Cellular toxicity was tested on pluripotent stem cells.

### Regulatory Disclaimer

For research use only. Not for use in therapeutic or diagnostic procedures.

### References

1. Chen B; Dodge ME; Tang W; Lu J; Ma Z; Fan CW; Wei S; Hao W; Kilgore J; Williams NS; Roth MG; Amatruda JF; Chen C; Lum L.(2009) Small molecule-mediated disruption of Wnt-dependent signaling in tissue regeneration and cancer. *Nat Chem Biol* 5: 100-107.

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