

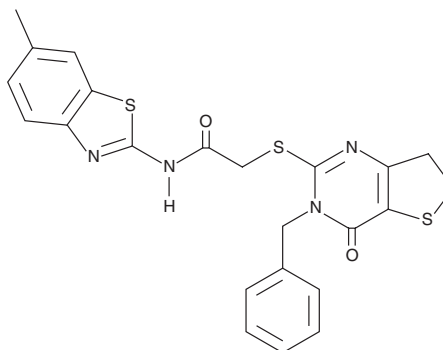
# PRODUCT INFORMATION



## IWP-2-V2

Item No. 13952

**CAS Registry No.:** 877618-79-6  
**Formal Name:** N-(6-methyl-2-benzothiazolyl)-2-[[3,4,6,7-tetrahydro-4-oxo-3-(phenylmethyl)thieno[3,2-d]pyrimidin-2-yl]thio]-acetamide  
**Synonym:** Inhibitor of Wnt Production-2-V2  
**MF:** C<sub>23</sub>H<sub>20</sub>N<sub>4</sub>O<sub>2</sub>S<sub>3</sub>  
**FW:** 480.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 280, 302, 343 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

IWP-2-V2 is supplied as a crystalline solid. A stock solution may be made by dissolving the IWP-2-V2 in the solvent of choice. IWP-2-V2 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of IWP-2-V2 in these solvents is approximately 2 and 5 mg/ml, respectively.

IWP-2-V2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IWP-2-V2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. IWP-2-V2 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Wnt signaling proteins are small secreted proteins that are active in embryonic development, tissue homeostasis, and tumorigenesis.<sup>1-3</sup> Wnt proteins bind to receptors on the cell surface, initiating a signaling cascade that leads to b-catenin activation of gene transcription. IWP-2 (Item No. 13951) is an inhibitor of Wnt production (IC<sub>50</sub> = 27 nM) that inactivates Porcupine, a membrane-bound O-acyltransferase whose palmitoylation activity is essential for the signaling ability and secretion of Wnt proteins.<sup>4</sup> IWP-2-V2 is a less potent IWP-2 derivative whose chemical structure retains the benzothiazole group of its parent compound.<sup>4</sup> It has been used to determine which structural features of IWP-2 are essential for impairing Wnt/b-catenin pathway activity.<sup>4</sup>

### References

1. Clevers, H. Wnt/b-catenin signaling in development and disease. *Cell* **127**, 469-480 (2006).
2. Polakis, P. Wnt signaling and cancer. *Genes Dev.* **14**, 1837-1851 (2000).
3. Reya, T. and Clevers, H. Wnt signalling in stem cells and cancer. *Nature* **434**, 834-850 (2005).
4. Chen, B., Dodge, M.E., Tang, W., *et al.* Small molecule-mediated disruption of Wnt-dependent signaling in tissue regeneration and cancer. *Nat. Chem. Biol.* **5(2)**, 100-107 (2009).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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