

# IWP-2

## Wnt/ $\beta$ -catenin pathway inhibitor

IWP-2 is a potent, cell-permeable, and selective inhibitor of Wnt processing and secretion. It works by blocking the activity of Porcupine (Porcn), a membrane-bound O-acyltransferase essential for the palmitoylation and secretion of Wnt proteins. This inhibition disrupts the Wnt/ $\beta$ -catenin signaling pathway, which is crucial for various cellular processes, including cell proliferation, differentiation, and migration.

Key features and applications include:

- **Stem Cell Research:** IWP-2 is used to study the differentiation of human pluripotent stem cells (hPSCs) into various cell types, including cardiomyocytes and lung epithelial cells.
- **Cancer Research:** It is employed to investigate the role of Wnt signaling in cancer progression and tumorigenesis.
- **Developmental Biology:** Researchers use IWP-2 to study Wnt signaling pathways during embryonic development and organogenesis.
- **Regenerative Medicine:** IWP-2 is used in protocols to reprogram human somatic cells into induced pluripotent stem cells (iPSCs), aiding in the development of regenerative therapies.

Relevant disease states include:

- **Cancer:** By inhibiting Wnt signaling, IWP-2 is relevant in research focused on cancers where Wnt signaling is dysregulated.
- **Bone Disorders:** It is relevant in research on bone diseases, as Wnt signaling is crucial for bone formation and homeostasis.

## Ordering Information

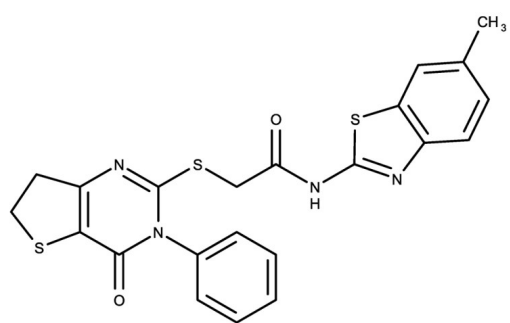
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ENZ-CHM334-0025	25mg
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## Manuals, SDS & CofA

[View Online »](#)

- GMP format available



## Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Solutions in DMSO may be stored at -20°C for up to 2 months.
Handling	Keep container tightly closed in a dry and well-ventilated place. Store with desiccant.
Short Term Storage	-20°C
Long Term Storage	-20°C
Shipping	Ambient Temperature

## Regulatory Status

RUO - Research Use Only

## Product Details

Alternative Name	N-(6-Methyl-2-benzothiazolyl)-2-[(3,4,6,7-tetrahydro-4-oxo-3-phenylthieno[3,2-d]pyrimidin-2-yl)thio]-acetamide
Appearance	Off-white solid.
CAS	686770-61-6
Couple Target	Palmitoyltransferase
Couple Type	Inhibitor
Formula	$C_{22}H_{18}N_4O_2S_3$
Identity	Determined by NMR.
MW	466.6
Purity	≥98% (HPLC)
Solubility	Soluble in DMSO (up to 5 mg/mL with warming).

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