# PRODUCT INFORMATION

## FzM1

*Item No. 19074*

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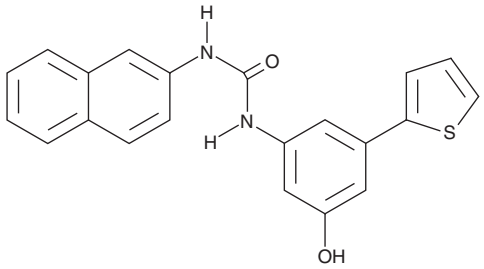
|---|---|
| **CAS Registry No.:** | 1680196-54-6 |
| **Formal Name:** | N-[3-hydroxy-5-(2-thienyl) phenyl]-N'-2-naphthalenyl-urea |
| **Synonym:** | Frizzled M1 |
| **MF:** | $C_{21}H_{16}N_2O_2S$ |
| **FW:** | 360.4 |
| **Purity:** | ≥95% |
| **UV/Vis.:** | $\lambda_{max}$: 211, 233, 261, 284 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |




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

### Laboratory Procedures

FzM1 is supplied as a crystalline solid. A stock solution may be made by dissolving the FzM1 in the solvent of choice, which should be purged with an inert gas. FzM1 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of FzM1 in these solvents is approximately 10 and 12 mg/ml, respectively.

FzM1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, FzM1 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. FzM1 has a solubility of approximately 0.2 mg/ml in a 1:3 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.[1-3] Wnt proteins initiate cell signaling by binding Frizzled (Fz) receptors, a family of G protein-coupled receptors. FzM1 is an allosteric ligand of Fz4.[4] At 10 µM, it inhibits nuclear translocation of β-catenin in U87MG glioma cells treated with lithium chloride, a GSK3 inhibitor that enhances the Wnt canonical signaling pathway.[4] FzM1 impairs the ability of U87MG cells to form neurospheres in culture and stimulates the differentiation of Caco-2 epithelial colorectal adenocarcinoma cells.[4]

### References


1. Clevers, H. Wnt/β-catenin signaling in development and disease. *Cell* **127(3)**, 469-480 (2006).
2. Polakis, P. Wnt signaling and cancer. *Genes Dev.* **14(15)**, 1837-1851 (2000).
3. Reya, T. and Clevers, H. Wnt signalling in stem cells and cancer. *Nature* **434(7035)**, 834-850 (2005).
4. Generoso, S.F., Giustinano, M., La Regina, G., *et al.* Pharmacological folding chaperones act as allosteric ligands of Frizzled4. *Nat. Chem. Biol.* **11(4)**, 280-286 (2016).





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