

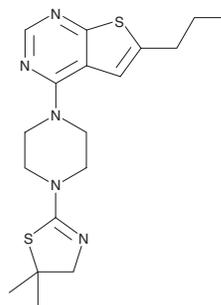
PRODUCT INFORMATION



MI-2

Item No. 29218

CAS Registry No.: 1271738-62-5
Formal Name: 4-[4-(4,5-dihydro-5,5-dimethyl-2-thiazolyl)-1-piperazinyl]-6-propylthieno[2,3-d]pyrimidine
MF: C₁₈H₂₅N₅S₂
FW: 375.6
Purity: ≥98%
UV/Vis.: λ_{max}: 223, 287 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

MI-2 is supplied as a crystalline solid. A stock solution may be made by dissolving the MI-2 in the solvent of choice, which should be purged with an inert gas. MI-2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MI-2 in ethanol and DMSO is approximately 10 mg/ml and approximately 16 mg/ml in DMF.

MI-2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MI-2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MI-2 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MI-2 is an inhibitor of the protein-protein interaction between menin and mixed lineage leukemia (MLL) fusion proteins (IC₅₀ = 446 nM).¹ It binds to menin (K_d = 158 nM) and inhibits the menin interaction with the MLL fusion protein MLL-AF9 in HEK293 cells without affecting protein levels of menin or MLL-AF9. MI-2 inhibits the growth of mouse bone marrow cells (BMCs) expressing the *Hoxa9* transformation-dependent MLL-AF9 (GI₅₀ = 5 μM). It also inhibits the growth of MV4, KOPN-8, ML-2, and MonoMac6 MLL cells expressing MLL fusion proteins (GI₅₀s = 9.5, 7.2, 8.7, and 18 μM, respectively), as well as induces hematopoietic differentiation.

Reference

1. Grembecka, J., He, S., Shi, A., *et al.* Menin-MLL inhibitors reverse oncogenic activity of MLL fusion proteins in leukemia. *Nat. Chem. Biol.* **8**(3), 277-284 (2012).

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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