

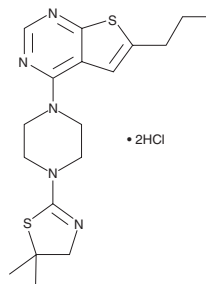
PRODUCT INFORMATION



MI-2 (hydrochloride)

Item No. 11620

Formal Name: 4-(4-(5,5-dimethyl-4,5-dihydrothiazol-2-yl)piperazin-1-yl)-6-propylthieno[2,3-d]pyrimidine, dihydrochloride
MF: C₁₈H₂₅N₅S₂ • 2HCl
FW: 448.5
Purity: ≥98%
UV/Vis.: λ_{max}: 224, 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

MI-2 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the MI-2 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. MI-2 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of MI-2 (hydrochloride) in these solvents is approximately 30, 10, and 20 mg/ml, respectively.

Description

Menin, a product of the multiple endocrine neoplasia gene, is an essential component of histone methyltransferase complexes involving the mixed lineage leukemia (MLL) gene product.^{1,2} Also, the leukemogenic activity of MLL fusion proteins depends on their direct interaction with menin.³ MI-2 potently binds menin, blocks the menin-MLL fusion protein interaction (IC₅₀ = 0.45 μM), and induces apoptosis in cells expressing MLL fusion proteins.³ Its actions can be compared with those of MI-nc (Item No. 11621), a weak inhibitor of the menin MLL interaction (IC₅₀ = 193 μM).³

References

1. Chandrasekharappa, S.C., Guru, S.C., Manickam, P., *et al.* Positional cloning of the gene for multiple endocrine neoplasia-type 1. *Science* **276**(5311), 404-407 (1997).
2. Guccione, E., Bassi, C., Casadio, F., *et al.* Methylation of histone H3R2 by PRMT6 and H3K4 by an MLL complex are mutually exclusive. *Nature* **449**(7164), 933-937 (2007).
3. 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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM