

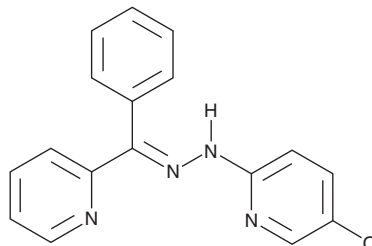
PRODUCT INFORMATION



JIB-04

Item No. 15338

CAS Registry No.: 199596-05-9
Formal Name: phenyl-2-pyridinyl-methanone, (E,E)-
2-(5-chloro-2-pyridinyl)hydrazone
Synonyms: JHDM Inhibitor VII, NSC 693627
MF: C₁₇H₁₃ClN₄
FW: 308.8
Purity: ≥95%
UV/Vis.: λ_{max}: 240, 334 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

JIB-04 is supplied as a crystalline solid. A stock solution may be made by dissolving the JIB-04 in the solvent of choice, which should be purged with an inert gas. JIB-04 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of JIB-04 in these solvents is approximately 1, 5, and 20 mg/ml, respectively.

Description

JIB-04 is a pyridine hydrazone that broadly inhibits Jumonji histone demethylases (IC₅₀s= 230, 340, 435, 445, 855 and 1,100 nM for JARID1A, JMJD2E, JMJD2B, JMJD2A, JMJD3, and JMJD2C, respectively).¹ It does not inhibit histone deacetylases and has minimal effect on the iron-containing enzymes methylcytosine dioxygenase TET1 and hypoxia-inducible factor prolyl hydroxylase 2.¹ JIB-04 inhibits Jumonji demethylase activity, alters gene expression, and blocks viability of cancer cells but not in patient-matched normal cells.^{1,2} It also inhibits Jumonji demethylase activity in cancer cells *in vivo*, resulting in reduced tumor burden and prolonged survival.¹

References

1. Wang, L., Chang, J., Varghese, D., *et al.* A small molecule modulates Jumonji histone demethylase activity and selectively inhibits cancer growth. *Nat. Commun.* **4**, 2035 (2013).
2. Easmon, J., Heinisch, G., Pürstinger, G., *et al.* Azinyl and diazanyl hydrazones derived from aryl N-heteroaryl ketones: Synthesis and antiproliferative activity. *J. Med. Chem.* **40**(26), 4420-4425 (1997).

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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