

Product Name: JIB 04

Catalog No.: 4972

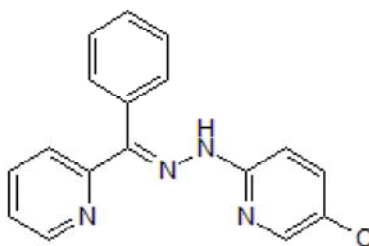
Batch No.: 2

CAS Number: 199596-05-9

IUPAC Name: 5-Chloro-2-[(E)-2-[phenyl(pyridin-2-yl)methylidene]hydrazin-1-yl]pyridine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₃ClN₄
Batch Molecular Weight: 308.76
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.46 (2M NH₃ in MeOH/DCM, 5:100)
HPLC: Shows 99% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.13	4.24	18.14
Found	66.08	4.17	18.35

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: 5-Chloro-2-[(E)-2-[phenyl(pyridin-2-yl)methylidene]hydrazin-1-yl]pyridine

Description:

Pan Jumonji histone demethylase inhibitor (IC₅₀ values are 230, 340, 435, 445, 855 and 1100 nM for JARID1A, JMJD2E, JMJD2B, JMJD2A, JMJD3 and JMJD2C respectively). Exhibits negligible activity at PHD2 and TET1. Selectively blocks cancer cell growth in vitro and diminishes tumor growth in H358 and A549 mouse xenograft models in vivo. Prolongs survival in a mouse model of breast cancer.

Physical and Chemical Properties:

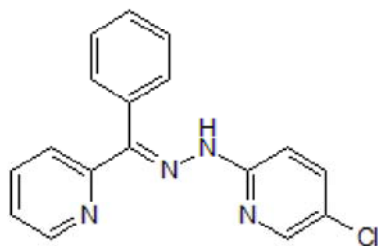
Batch Molecular Formula: C₁₇H₁₃ClN₄

Batch Molecular Weight: 308.76

Physical Appearance: Off White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Wang et al (2013) A small molecule modulates Jumonji histone demethylase activity and selectively inhibits cancer growth. *Nat. Commun.* **4** 2035. PMID: 23792809.

Grunicke and Hofmann (1997) Azinyl and diazinyl hydrazones derived from aryl N-heteroaryl ketones: synthesis and antiproliferative activity. *J. Med. Chem.* **40** 4420. PMID: 9435912.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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