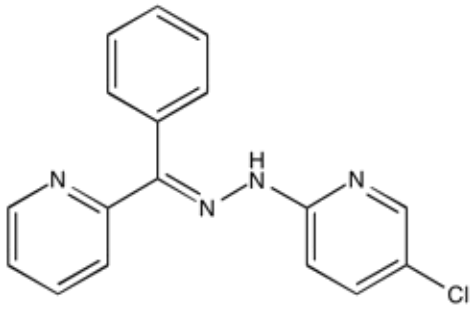
Catalog # 10-1618

JIB-04

CAS# 199596-05-9

(E)-5-Chloro-2-(2-(phenyl(pyridine-2-yl)methylene)hydrazinyl)pyridine

Lot # X107632



A novel specific inhibitor of the Jumonji family of histone demethylases *in vitro*, in cancer cells and in tumors *in vivo*. IC_{50} = 230, 340, 435, 445, 855 and 1100 nM for JARID1A, JMJD2E, JMJD2B, JMJD2A, JMJD3 and JMJD2C respectively. Reduces tumor burden and prolongs life in a mouse model.[1] Suppresses translation initiation and enhances mTOR inhibitor sensitivity.[2] Inhibits the growth of temozolomide-resistant glioblastoma cells and crosses the blood brain barrier.[3]

1) Wang *et al*. (2013), *A small molecule modulates Jumonji histone demethylase activity and selectively inhibits cancer growth*; Nature Commun., **4** 2035

2) Rechem *et al*. (2015), *Lysine demethylase KDM4A associates with translation machinery and regulates protein synthesis*; Cancer Discov., **5** 255

3) Banelli *et al*. (2017), *Small molecules targeting histone demethylase genes (KDMs) inhibit growth of temozolomide-resistant glioblastoma cells*; Oncotarget; **8** 34896

PHYSICAL DATA

Molecular Weight:	308.76
Molecular Formula:	$C_{17}H_{13}ClN_4$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 30 mg/ml)
Physical Description:	Yellow solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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