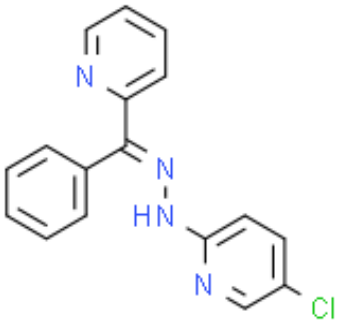
Product Data Sheet

Cas No.:	199596-05-9	Cat. No:	PL15128
Product Name:	JIB-04		
Product synonym:	5-氯-2(1H)-吡啶酮 (2E)-(苯基-2-吡啶基亚甲基)腙;JIB-04(NSC 693627) 抑制剂;5-氯-N[[(E)- [苯基(吡啶-2-基)甲叉基]氨基]吡啶-2-胺		
Chemical name:	JIB-04		
MF:	C17H13CLN4	FW:	308.76492190361
Purity:	≥98%	Batch No.:	-
Storage:			
Structural formula:			
λmax：	-	Formulation：	-
Solubility :			
SMILES :	C1=CC=CC=C1/C(/C1=CC=CC=N1)=N\NC1N=CC(Cl)=CC=1		
InChI Code:	-		
InChI Key:			
WARNING This product is not for human or veterinary use.			

Product Description

JIB-04 是 Jumonji 组蛋白去甲基酶 (Jumonji histone demethylase) 广谱抑制剂，能抑制 JARID1A，JMJD2E，JMJD3，JMJD2A，JMJD2B，JMJD2C 和 JMJD2D 的活性，其 IC_{50} 值分别为 230，340，855，445，435，1100 和 290 nM。

生物活性	JIB-04 is a pan-selective Jumonji histone demethylase inihibitor with IC 50 s of 230, 340, 855, 445, 435, 1100, and 290 nM for JARID1A, JMJD2E, JMJD3, JMJD2A, JMJD2B, JMJD2C, and JMJD2D, respectively.
IC50 & Target[1][2]	IC50: 230 nM (JARID1A), 445 nM (JMJD2A), 435 nM (JMJD2B), 1100 nM (JMJD2C), 290 nM (JMJD2D), 340 nM (JMJD2E), 855 nM (JMJD3)

体外研究(In Vitro)	JIB-04 is consistently selective for cancer vs. normal cells, demonstrated by the higher sensitivity of lung and prostate cancer lines (with IC50 as low as 10 nM) compared to HBECs and PrSCs/PrECs. JIB-04 inhibits cellular Jumonji demethylase activity, and Jumonji levels affect JIB-04 action in cells. JIB-04 significantly inhibits the proliferation of GB cell lines and stem-enriched cultures. JIB-04 exerts its maximal inhibitory activity against KDM5A, and modulates the expression of genes involved in the control of cancer cell growth and leads to hypermethylation of H3K4. Furthermore, JIB-04 (2500 nM) activates the autophagy and apoptotic pathways and inactivates PI3K. JIB-04 also cooperates with TMZ in killing GB cells. has not independently confirmed the accuracy of these methods. They are for referen
体内研究(In Vivo)	JIB-04 results in a significant reduction in cancer-induced death rates in mice, prolonging survival. JIB-04 (60, 40 and 20 mg/kg, i.p.) reaches bioactive concentration in the brain of the mice. The orthotopic GB xenograft model shows a trend toward longer survival in JIB-04-treated mice with an Hazard Ratio of 0.5. has not independently confirmed the accuracy of these methods. They are for reference only.
包装储存	Powder -20°C 3 years； 4°C 2 years
溶解度数据	In Vitro: DMSO : 50 mg/mL (161.94 mM; Need ultrasonic)Ethanol : 2 mg/mL (6.48 mM; Need ultrasonic)配制储备液