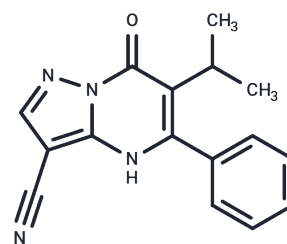


CPI-455

Chemical Properties

CAS No. : 1628208-23-0
Formula: C₁₆H₁₄N₄O
Molecular Weight: 278.31
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	CPI-455 is a specific KDM5 inhibitor.
Targets(IC50)	Histone Demethylase
In vitro	CPI-455 mediates KDM5 inhibition, elevates global levels of H3K4 trimethylation (H3K4me3) and decreases the number of DTPs in multiple cancer cell line models treated with standard chemotherapy or targeted agents[1]. CPI-455 has a high measured affinity for the target KDM5 proteins. Within 24 hours, CPI-455 and CPI-766 can dose-dependently increases in H3K4me3, but not H3K4me2. IC50 calculation for KDM5 Inhibitor CPI-455 in 3 luminal breast cancer cell lines MCF-7, T-47 and EFM-19 are 35.4, 26.19 and 16.13 μM, respectively.
Cell Research	All cell lines were treated with DMSO, CPI-4203 or CPI-455 for 5 d with two changes of medium and drug. Thereafter, the cells (PC9, Colo205, Hs888, M14, SKBR3 and EVSA-T) were plated at 2×10 ⁵ cells in six-well plates in triplicate and treated for an additional 9-15 d, depending on the cell line model. The Incucyte HD imaging system was used to monitor numbers of drug-tolerant cells after cells were stained with Nuclear-ID Red stain. (Only for Reference)

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 5.63 mg/mL (20.21 mM), < 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5931 mL	17.9656 mL	35.9312 mL
5 mM	0.7186 mL	3.5931 mL	7.1862 mL
10 mM	0.3593 mL	1.7966 mL	3.5931 mL
50 mM	0.0719 mL	0.3593 mL	0.7186 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Vinogradova M, et al. Nat Chem Biol. 2016, 12(7):531-8.

Li S T, Huang D, Shen S, et al. Myc-mediated SDHA acetylation triggers epigenetic regulation of gene expression