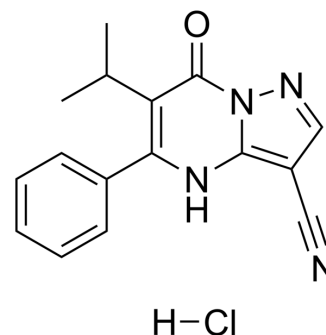


## CPI-455 hydrochloride

Cat. No.:	HY-100421A
CAS No.:	2095432-28-1
Molecular Formula:	C <sub>16</sub> H <sub>15</sub> ClN <sub>4</sub> O
Molecular Weight:	314.77
Target:	Histone Demethylase
Pathway:	Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	CPI-455 hydrochloride is a specific, pan-KDM5 inhibitor with an IC <sub>50</sub> of 10 nM for KDM5A. CPI-455 hydrochloride mediates KDM5 inhibition, elevates global levels of H3K4me3, and decreases the number of drug-tolerant persister cancer cells in multiple cancer cell line models treated with standard chemotherapy or targeted agents <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	KDM5
<b>In Vitro</b>	CPI-455 hydrochloride 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 <sup>[1]</sup> . CPI-455 hydrochloride, with high measured affinity for the target KDM5 proteins. Within 24 hours, increases in H3K4me3, are observed after exposure to either of the two active compounds, CPI-455 and CPI-766, in a dosedependent manner. IC <sub>50</sub> calculation for KDM5 Inhibitor CPI0455 in 3 luminal breast cancer cell lines MCF-7, T-47 and EFM-19 are 35.4, 26.19 and 16.13 μM, respectively <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Dual blockade of B7-H4 and KDM5B (CPI-455 hydrochloride, 50/70 mg/kg, ip, daily) in mice elicits protective immunity <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Oncogene. 2021 Apr;40(15):2711-2724.
- Cancers. 2019 Jan 15;11(1):92.
- Blood Adv. 2021 Sep 14;5(17):3241-3253.
- Inflammation. 2021 Apr 29.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

[1]. Vinogradova M, et al. An inhibitor of KDM5 demethylases reduces survival of drug-tolerant cancer cells. Nat Chem Biol. 2016 Jul;12(7):531-8.

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[2]. Benjamin R. Leadem. NOVEL HISTONE DEMETHYLASE INHIBITORS SYNERGISTICALLY

[3]. Xiang Yuan, et al. Blockade of Immune-Checkpoint B7-H4 and Lysine Demethylase 5B in Esophageal Squamous Cell Carcinoma Confers Protective Immunity against P. gingivalis Infection. Cancer Immunol Res. 2019 Sep;7(9):1440-1456.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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