
Product Data Sheet

Product Name: CPI-455 HCl

Cat. No.: GC25305

Chemical Properties

Cas. No. 2095432-28-1

Formula C₁₆H₁₅ClN₄O

M.Wt 314.77

Solubility DMSO: Insoluble; Water: Insoluble; Ethanol: Insoluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

CPI-455 HCl is a specific KDM5 inhibitor with a half-maximal inhibitory concentration (IC₅₀) of 10 ± 1 nM for full-length KDM5A in enzymatic assays, elevating global levels of H3K4 trimethylation (H3K4me₃) and decreased the number of DTPs in multiple cancer cell line models treated with standard chemotherapy or targeted agents. This product has poor solubility, animal experiments are available, cell experiments please choose carefully!

CPI-455 has improved potency against KDM5A while demonstrating ~200-fold selectivity for KDM5A over KDM4C. CPI-455 inhibits KDM5A, KDM5B and KDM5C to similar extents but showed substantially weaker potency toward KDM4C and KDM7B (~200- and 770-fold, respectively) and no measurable inhibition of KDM2B, KDM3B or KDM6A. CPI-455-mediated KDM5 inhibition results in a dose-dependent increase in global H3K4me₃ in HeLa cells. CPI-455 specifically alters H3K4 methylation in cells and binds at the demethylase active site[1].

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

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

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