

Product Data Sheet

Product Name: UPCDC-30245

Cat. No.: GC64694

Chemical Properties

Cas. No. 1883351-01-6

Formula C₂₈H₃₈FN₅

M.Wt 463.63

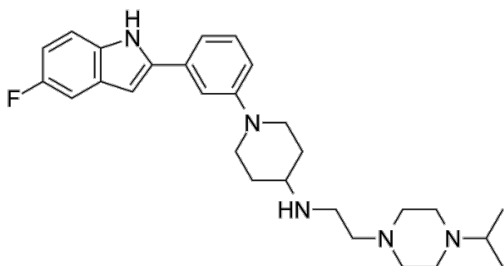
Solubility

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

UPCDC-30245 is an allosteric p97 inhibitor with an IC₅₀ of approximately 27 nM[1]. UPCDC-30245 inhibits the p97 mutant N660K similar to wild type (WT; IC₅₀=300 nM) and shows 3-fold resistance for p97 mutant T688A[2]. UPCDC-30245 can be used in the research of cancer[1][2][3].

UPCDC-30245 binds at the junction between the D1 and D2 domains of p97[1]. UPCDC-30245 inhibits cell proliferation in HeLa, A549, BxPC-3, PRMI8226, MM1S, HCT116 cells, and appears more potent in HT29 cells[2]. UPCDC-30245 (0.01-100 µM) shows anti-proliferative effects on parental and CB-5083 resistant HCT116 cell lines that harbor a new p97 double mutation

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

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(D649A/T688A)[2].UPCDC-30245 (4 μ m; 2, 6, 10, 18, 24 hours; functional enrichment analysis) is not linked to pathways typically impacted by p97 inhibition, such as protein processing in the ER, UPR, and asparagine N-linked glycosylation[3].

[1]. Banerjee S, et al. 2.3 Å resolution cryo-EM structure of human p97 and mechanism of allosteric inhibition. Science. 2016 Feb 19;351(6275):871-5.

[2]. Wang F, et al. Allosteric p97 Inhibitors Can Overcome Resistance to ATP-Competitive p97 Inhibitors for Potential Anticancer Therapy. ChemMedChem. 2020 Apr 20;15(8):685-694.

[3]. Wang F, et al. Temporal proteomics reveal specific cell cycle oncoprotein downregulation by p97/VCP inhibition. Cell Chem Biol. 2021 Nov 23:S2451-9456(21)00482-7.

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