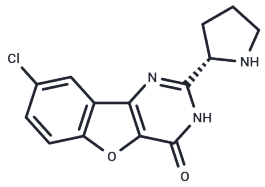
Data Sheet (Cat.No.T71339)

TargetMol

XL413 xHCl

Chemical Properties



CAS No. :	1169562-71-3
Formula:	C14H12ClN3O2.xHCl
Molecular Weight:	326.18
Storage:	Store at low temperature Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	XL413 HCl is an ATP-competitive Cdc7 inhibitor (IC50: 3.4 nM) that is potent and selective.XL413 HCl inhibited CK2 and PIM1 with IC50 values of 215 and 42 nM, respectively.XL413 HCl showed an EC50 value of 118 against pMCM.
Targets(IC50)	Casein Kinase,CDK,Pim
In vitro	XL413 HCl shows cytotoxic effects on tumors, with IC50 of 22.9 μM in HCC1954 cells and 1.1 μM in Colo-205 cells.[2] BMS-863233 HCl is an effective DDK inhibitor in vitro, with an IC50 of 22.7 nM.[2] XL413 HCl is defective in inhibiting DDK-dependent Mcm2 phosphorylation in HCC1954 cells but is effective in Colo-205 cells.[2]
In vivo	XL413 HCl (10, 30, or 100 mg/kg; p.o.; mice) is well tolerated at all doses, with no significant body weight loss.[1] XL413 HCl (100 mg/kg; p.o.; mice) show excellent plasma exposures in mice and possesses good PK properties.[1]

Solubility Information

Solubility	H2O: 9.00 mg/mL (27.59 mM),Sonication is recommended. DMSO: 3.10 mg/mL (9.50 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0658 mL	15.329 mL	30.6579 mL
5 mM	0.6132 mL	3.0658 mL	6.1316 mL
10 mM	0.3066 mL	1.5329 mL	3.0658 mL
50 mM	0.0613 mL	0.3066 mL	0.6132 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Koltun ES, et al. Discovery of XL413, a potent and selective CDC7 inhibitor [published correction appears in Bioorg Med Chem Lett. 2012 Aug 1;22(15):5157]. Bioorg Med Chem Lett. 2012;22(11):3727-3731.
Sasi NK, et al. The potent Cdc7-Dbf4 (DDK) kinase inhibitor XL413 has limited activity in many cancer cell lines and discovery of potential new DDK inhibitor scaffolds. PLoS One. 2014;9(11):e113300.