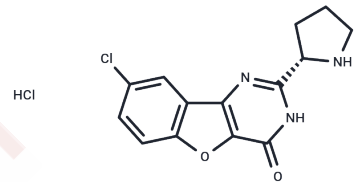


XL413 hydrochloride

Chemical Properties

CAS No. :	2062200-97-7
Formula:	C ₁₄ H ₁₃ Cl ₂ N ₃ O ₂
Molecular Weight:	326.18
Storage:	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 hydrochloride (BMS-863233 Hydrochloride) is a potent, selective and ATP competitive inhibitor of Cdc7, with an IC ₅₀ of 3.4 nM. XL413 hydrochloride also exhibits potent effect with IC ₅₀ s of 215, 42 nM on CK2, PIM1, respectively, and an EC ₅₀ of 118 nM on pMCM.
Targets(IC ₅₀)	Casein Kinase,CDK,Cholecystokinin Receptor,Pim
In vitro	XL413 (BMS-863233) hydrochloride effectively inhibits cell proliferation (IC ₅₀ = 2685 nM), reduces cell viability (IC ₅₀ = 2142 nM), and increases caspase 3/7 activity (EC ₅₀ = 2288 nM) in Colo-205 cells. Additionally, it significantly suppresses the anchorage-independent growth of Colo-205 cells in soft agar (IC ₅₀ = 715 nM) [1]. Demonstrating cytotoxic effects, XL413 hydrochloride has IC ₅₀ values of 22.9 μM in HCC1954 cells and 1.1 μM in Colo-205 cells. It triggers apoptosis in Colo-205 cells without affecting HCC1954 cells. As a DDK inhibitor, XL413 shows potent activity in vitro (IC ₅₀ = 22.7 nM), yet fails to inhibit DDK-dependent Mcm2 phosphorylation in HCC1954 cells, while remaining effective in Colo-205 cells [2].
In vivo	XL413 (BMS-863233; 100 mg/kg, p.o.) hydrochloride shows excellent plasma exposure and favorable pharmacokinetic properties in mice. Additionally, XL413 hydrochloride (10, 30, or 100 mg/kg, p.o.) is well tolerated at all tested doses without significant body weight loss [1].

Solubility Information

Solubility	DMSO: 2.5 mg/mL (7.66 mM),Sonication is recommended. H ₂ O: 4.76 mg/mL (14.59 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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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. Bioorg Med Chem Lett. 2012, 22(11), 3727-3731.

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