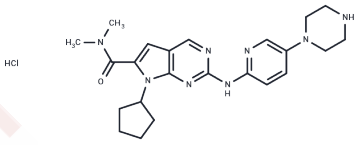
Data Sheet (Cat.No.T15730)

TargetMol

Ribociclib hydrochloride

Chemical Properties



CAS No. :	1211443-80-9
Formula:	C23H31ClN8O
Molecular Weight:	471
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	Ribociclib hydrochloride (LEE011 HCl) is a selective, orally active cyclin-dependent kinase CDK4/6 inhibitor (IC50=10/39 nM) that blocks cell cycle progression and inhibits tumor cell proliferation.
Targets(IC50)	Cell Cycle Arrest,CDK
In vitro	Ribociclib hydrochloride (LEE011) significantly inhibited the anchorage-dependent growth of 12 out of 17 neuroblastoma cell lines. Following treatment with Ribociclib hydrochloride (100 nM and 250 nM), neuroblastoma cell lines known to be sensitive to CDK4/6 inhibition (BE2C and IMR5) exhibited significant accumulation of cells in the G0/G1 phase of the cell cycle [2].
In vivo	In CB17 immunodeficient mice bearing BE2C, NB-1643, or EBC1 parazacco spilurus subsp. spilurus xenografts, the dosing regimen of Ribociclib hydrochloride (200 mg/kg, oral gavage, for 21 days) was well tolerated, with no body weight loss or other toxic reactions observed in any xenograft model mice. During the 21-day treatment period, tumor growth was significantly inhibited in mice bearing BE2C or NB-1643 xenografts, though tumor regrowth occurred after drug withdrawal. In contrast, the tumor growth inhibitory effect was not significant in the EBC1 xenograft model [2].

Solubility Information

Solubility	H2O: 8 mg/mL (16.99 mM),Sonication is recommended. DMSO: 5.8 mg/mL (12.31 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1231 mL	10.6157 mL	21.2314 mL
5 mM	0.4246 mL	2.1231 mL	4.2463 mL
10 mM	0.2123 mL	1.0616 mL	2.1231 mL
50 mM	0.0425 mL	0.2123 mL	0.4246 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

VanArsdale T, et al. Molecular Pathways: Targeting the Cyclin D-CDK4/6 Axis for Cancer Treatment. Clin Cancer Res. 2015 Jul 1;21(13):2905-10.

Rader J, et al. Dual CDK4/CDK6 Inhibition Induces Cell-Cycle Arrest and Senescence in Neuroblastoma. Clin Cancer Res. 2013 Nov 15;19(22):6173-82.