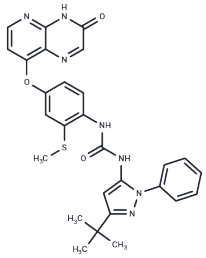
Data Sheet (Cat.No.T9638)

TargetMol

CCT241161

Chemical Properties



CAS No. : 1163719-91-2

Formula: C28H27N7O3S

Molecular Weight: 541.62

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	CCT241161 is an orally active pan-RAF inhibitor, with IC50 values of 3, 6, 10, 15, and 30 nM for LCK, CRAF, SRC, V600E-BRAF, and BRAF, respectively. It exhibits significant activity against BRAF and NRAS mutant melanomas and demonstrates anticancer cell proliferative effects [1].
Targets(IC50)	Apoptosis,Raf,Src
In vitro	CCT241161 demonstrated broad-spectrum efficacy across various concentrations and exposure times in inhibiting key cellular targets and pathways involved in melanoma and other cancers. At nanomolar to micromolar concentrations (ranging from 0.1 μM to 100 μM), and incubation times from 4 hours to 20 days, CCT241161 effectively inhibited MEK and ERK in WM266.4 cells, BRAF V600E in Ba/F3 cells, and maintained its inhibitory activity against A375 cells without inducing drug resistance over a 20-day period. Additionally, CCT241161 suppressed BRAF-inhibitor-resistant melanoma cells, demonstrated anti-proliferative activity in D04 cells, and inhibited MEK in NRAS mutant cells. Cell viability and proliferation assays, along with Western Blot analysis, confirmed the compound's effectiveness in not only inhibiting key signaling molecules like MEK, ERK, and SRC in various cell lines, including those resistant to BRAF inhibitors but also in suppressing cell growth in NRAS mutant and BRAF mutant cell lines, showcasing its potential as a versatile anticancer agent.
In vivo	CCT241161, administered at dosages of 10 and 20 mg/kg via oral gavage once daily for a period of seven days, effectively inhibits tumor growth in xenograft models of BRAF mutant A375, PLX4720-resistant A375, and NRAS mutant DO4 tumors in female nude mice aged 5 to 6 weeks without causing a reduction in body weight [1].

Solubility Information

Solubility	DMSO: 100 mg/mL (184.63 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8463 mL	9.2316 mL	18.4631 mL
5 mM	0.3693 mL	1.8463 mL	3.6926 mL
10 mM	0.1846 mL	0.9232 mL	1.8463 mL
50 mM	0.0369 mL	0.1846 mL	0.3693 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

Girotti MR, et al. Paradox-breaking RAF inhibitors that also target SRC are effective in drug-resistant BRAF mutant melanoma. Cancer Cell. 2015 Jan 12;27(1):85-96.