

CC-115 hydrochloride

Chemical Properties

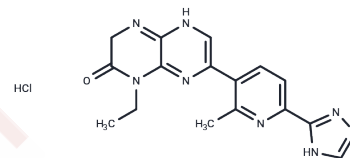
CAS No. : 1300118-55-1

Formula: C₁₆H₁₇ClN₈O

Molecular Weight: 372.82

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	CC-115 hydrochloride is a potent dual inhibitor of DNA-PK (IC ₅₀ = 13 nM) and mTOR kinase (IC ₅₀ = 21 nM), effectively blocking both mTORC1 and mTORC2 signaling pathways.
Targets(IC ₅₀)	Others,DNA-PK,mTOR
In vitro	CC-115 effectively inhibits the proliferation of PC-3 cells with an IC ₅₀ value of 138 nM. In kinase selectivity screenings at 3 μM against 250 protein kinases, it significantly inhibits only mTOR kinase and one other kinase, cFMS, by 57% (IC ₅₀ = 2.0 μM). Among the tested PI3K-related kinases (PIKKs), CC-115 shows equipotency to DNA PK with an IC ₅₀ of 15 nM, demonstrating a selectivity range of 40 to >1000 fold over other PIKKs such as PI3K-alpha (IC ₅₀ = 0.85 μM), ATR (50% inhibition at 30 μM), and ATM (IC ₅₀ >30 μM). Furthermore, CC-115 displays minimal inhibitory activity against CYP enzymes and the hERG ion channel with IC ₅₀ values exceeding 10 μM and 33 μM, respectively. In a screening against a Cerep receptor and enzyme panel at 10 μM, CC-115 notably inhibits only one target, PDE3, by more than 50% (IC ₅₀ = 0.63 μM) [1].
In vivo	CC-115 hydrochloride demonstrates favorable pharmacokinetic (PK) profiles in vivo across multiple species, achieving oral bioavailability rates of 53%, 76%, and approximately 100% in mice, rats, and dogs, respectively. When administered at doses of 0.25, 0.5, and 1 mg/kg twice daily (bid) or at a single daily dose (qd) of 1 mg/kg, CC-115 leads to notable tumor volume reductions of 46%, 57%, 66%, and 57%, respectively. The compound maintains its inhibitory effect for 24 hours, with significant activity noted at 1 and 3 hours post-administration at a 1 mg/kg dose, and continuous inhibition observable up to 10 hours. CC-115 has been assessed under both once daily (qd) and twice daily (bid) dosing regimens.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6823 mL	13.4113 mL	26.8226 mL
5 mM	0.5365 mL	2.6823 mL	5.3645 mL
10 mM	0.2682 mL	1.3411 mL	2.6823 mL
50 mM	0.0536 mL	0.2682 mL	0.5365 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481