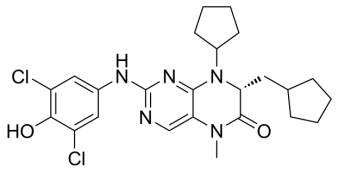
CC260

Cat. No.:	HY-139188
CAS No.:	2411088-26-9
Molecular Formula:	$C_{24}H_{29}Cl_2N_5O_2$
Molecular Weight:	490.43
Target:	PI5P4K
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 160 mg/mL (326.24 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0390 mL	10.1951 mL	20.3903 mL
5 mM	0.4078 mL	2.0390 mL	4.0781 mL
10 mM	0.2039 mL	1.0195 mL	2.0390 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 4 mg/mL (8.16 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 4 mg/mL (8.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CC260 is a selective PI5P4Kα and PI5P4Kβ inhibitor with K_is of 40 nM and 30 nM, respectively. CC260 does not inhibit or weakly inhibits other protein kinases, such as Plk1 and RSK2. CC260 can be used for cell energy metabolism, diabetes and cancer research[1].

IC_{50} & Target

Ki: 40 nM (PI5P4Kα) and 30 nM (PI5P4Kβ)[1]

In Vitro

In cultured C2C12 myotubes, CC260 (20 μM) enhances Insulin-induced Akt phosphorylation at both Thr-308 and Ser-473 but suppresses S6K phosphorylation (Thr-389) by mTORC1[1].
CC260 (2.5 μM, 5 μM, 10 μM, 20 μM) significantly increases phosphorylation of acetyl-CoA carboxylase (ACC) in a dose-dependent manner[1].

CC260 treatment reduces the ability of BT474 cells to survive serum starvation, which could be rescued by expressing the PI5P4Kβ refractory mutant[1].

In BT474 cells, CC260 treatment causes an increase in glycolytic ATP production[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Song Chen, et al. Pharmacological inhibition of PI5P4Kα/β disrupts cell energy metabolism and selectively kills p53-null tumor cells. Proc Natl Acad Sci U S A. 2021 May 25;118(21):e2002486118.

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