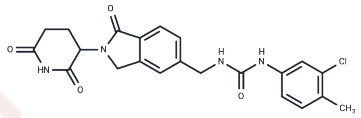
Data Sheet (Cat.No.T14893)

TargetMol

CC-885

Chemical Properties



CAS No. : 1010100-07-8

Formula: C22H21ClN4O4

Molecular Weight: 440.88

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	CC-885 is a modulator of cereblon (CRBN). It has potent anti-tumour activity.
Targets(IC50)	Ligand for E3 Ligase
In vitro	CC-885 exhibits stronger antiproliferative effects than Lenalidomide and Pomalidomide across various cell types, including acute myeloblastic leukemia (AML) cell lines, THLE-2 human liver epithelial cells, and human peripheral blood mononuclear cells (PBMC), with IC50 values ranging from 10×-6-1 μM. The compound's efficacy was also assessed in 293T HEK cells engineered to express variants of GSPT1 that are either sensitive or resistant to CC-885. The study further explores the mechanism behind CC-885's cytotoxicity, particularly its dependency on cereblon-mediated degradation of GSPT1. By utilizing a GSPT1 mutant which maintains its functionality but lacks the cereblon binding affected by CC-885, the research distinguishes GSPT1's role from other potential targets. Notably, cells overexpressing the CC-885-resistant GSPT1 variant (GSPT1Δ(1-138)/(G575N)) were completely resistant to the compound's inhibitory effects on cell proliferation. In contrast, overexpressing a CC-885-sensitive variant (GSPT1Δ(1-138)) provided only partial protection against these effects, indicating the critical role of GSPT1 degradation in CC-885's mechanism of action. Similar outcomes were observed in AML cell lines[1].

Solubility Information

Solubility	DMSO: 67.5 mg/mL (153.10 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2682 mL	11.341 mL	22.6819 mL
5 mM	0.4536 mL	2.2682 mL	4.5364 mL
10 mM	0.2268 mL	1.1341 mL	2.2682 mL
50 mM	0.0454 mL	0.2268 mL	0.4536 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.

Reference

Mary E. Matyskiela, et al. A novel cereblon modulator recruits GSPT1 to the CRL4CRBN ubiquitin ligase. Nature. 2016 Jul 14;535(7611):252-7.

Li P, Hu X, Fan Z, et al.Novel potent molecular glue degraders against broad range of hematological cancer cell lines via multiple neosubstrates degradation.Journal of Hematology & Oncology.2024, 17(1): 77.