TD-106

Cat. No.: HY-114406

CAS No.: 2250288-69-6

Molecular Formula: $C_{12}H_{11}N_5O_3$

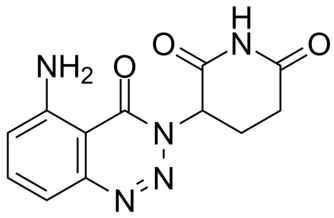
Molecular Weight: 273.25

Target: Ligands for E3 Ligase

Pathway: PROTAC

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 125 mg/mL (457.46 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.6597 mL	18.2983 mL	36.5965 mL
5 mM	0.7319 mL	3.6597 mL	7.3193 mL
10 mM	0.3660 mL	1.8298 mL	3.6597 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.15 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.15 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TD-106 is a cereblon (CRBN) modulator, which can be used for targeted protein degradation. BRD4 PROTACs with TD-106 induce BRD4 degradation[1].

IC_{50} & Target

CRBN[1]

In Vitro

TD-106 (0.1 nM, 1 nM, 10 nM, 100 nM, 1000 nM, 10 μM, and 100 μM; 72 hours) inhibits the proliferation of NCI-H929 myeloma cell line with an CC_{50} of 0.039 μM[1].

TD-106 (1, 10, 100, and 1000 nM) induces the degradation of IKZF1/3 in NCI-H929 cells[1].

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

Cell Cytotoxicity Assay[1]

Cell Line:	NCI-H929 cells
Concentration:	72 hours
Incubation Time:	0.1 nM, 1 nM, 10 nM, 100 nM, 1000 nM, 10 μM, and 100 μM
Result:	Inhibited cell proliferation with an CC_{50} of 0.039 μM.

In Vivo

TD-106 (50 mg/kg; intraperitoneally; q.d. for 14 days) possesses anti-myeloma activity in SCID mice with TMD-8 xenograft model.

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

Animal Model:	Female SCID (CB-17/IcrCri-scid) mice with TMD-8 xenograft model[1]
Dosage:	50 mg/kg
Administration:	Intraperitoneally (i.p.); q.d. for 14 days
Result:	Treatment inhibited tumor growth during this duration.

REFERENCES

[1]. Kim SA, et al. A novel cereblon modulator for targeted protein degradation. Eur J Med Chem. 2019 Mar 15;166:65-74.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA