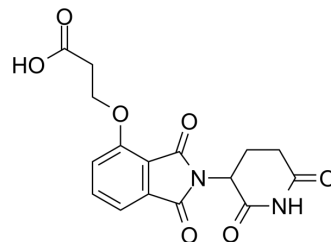


## Thalidomide-O-C2-acid

Cat. No.:	HY-131880		
CAS No.:	2369068-42-6		
Molecular Formula:	C <sub>16</sub> H <sub>14</sub> N <sub>2</sub> O <sub>7</sub>		
Molecular Weight:	346.29		
Target:	E3 Ligase Ligand-Linker Conjugates		
Pathway:	PROTAC		
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 : 250 mg/mL (721.94 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
	Preparing Stock Solutions		10 mg	
	1 mM	2.8878 mL	14.4388 mL	28.8775 mL
	5 mM	0.5776 mL	2.8878 mL	5.7755 mL
	10 mM	0.2888 mL	1.4439 mL	2.8878 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: ≥ 2.08 mg/mL (6.01 mM); Clear solution			
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (6.01 mM); Clear solution			
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (6.01 mM); Clear solution			

### BIOLOGICAL ACTIVITY

Description	Thalidomide-O-C2-acid is a synthesized E3 ligase ligand-linker conjugate that incorporates the Thalidomide based cereblon ligand and a linker used in PROTAC technology <sup>[1]</sup> .
IC <sub>50</sub> & Target	Cereblon
In Vitro	PROTACs contain two different ligands connected by a linker; one is a ligand for an E3 ubiquitin ligase and the other is for the target protein. PROTACs exploit the intracellular ubiquitin-proteasome system to selectively degrade target proteins <sup>[2]</sup> .

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

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## REFERENCES

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- [1]. Sato T, et al. Cereblon-Based Small-Molecule Compounds to Control Neural Stem Cell Proliferation in Regenerative Medicine. *Front Cell Dev Biol.* 2021;9:629326. Published 2021 Mar 11.
- [2]. Nalawansa DA, et al. PROTACs: An Emerging Therapeutic Modality in Precision Medicine. *Cell Chem Biol.* 2020;27(8):998-1008.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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