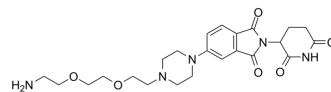


Thalidomide-Piperazine-PEG2-NH2

Cat. No.:	HY-138788
CAS No.:	2357110-14-4
Molecular Formula:	C ₂₃ H ₃₁ N ₅ O ₆
Molecular Weight:	473.52
Target:	E3 Ligase Ligand-Linker Conjugates
Pathway:	PROTAC
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (527.96 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	2.1118 mL	10.5592 mL	21.1184 mL
		5 mM	0.4224 mL	2.1118 mL	4.2237 mL
	10 mM	0.2112 mL	1.0559 mL	2.1118 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 (4.39 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.39 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Thalidomide-Piperazine-PEG2-NH2 is a synthesized E3 ligase ligand-linker conjugate that incorporates the Thalidomide based cereblon ligand and a linker used in PROTAC technology ^[1] .
IC ₅₀ & 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 ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[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]. Nalawansha DA, et al. PROTACs: An Emerging Therapeutic Modality in Precision Medicine. *Cell Chem Biol.* 2020;27(8):998-999.

Caution: Product has not been fully validated for medical applications. For research use only.

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