**Proteins** 

## **Product** Data Sheet

# Thalidomide-PEG2-NH2 hydrochloride

Cat. No.: HY-133484B CAS No.: 2891597-17-2 Molecular Formula:  $C_{17}H_{20}CIN_{3}O_{6}$ 

Molecular Weight: 397.81

Target: E3 Ligase Ligand-Linker Conjugates

Pathway: **PROTAC** 

Storage: -20°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 125 mg/mL (314.22 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.5138 mL	12.5688 mL	25.1376 mL
	5 mM	0.5028 mL	2.5138 mL	5.0275 mL
	10 mM	0.2514 mL	1.2569 mL	2.5138 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 (5.23 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (5.23 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (5.23 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	Thalidomide-PEG2-NH2 hydrochloride is a synthesized E3 ligase ligand-linker conjugate (E3 Ligase Ligand-Linker Conjugates) that incorporates the Thalidomide (Thalidomide (HY-14658)) 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> . 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):998-996.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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Page 2 of 2 www.MedChemExpress.com