# Thalidomide-O-amido-PEG3-C2-NH2 hydrochloride

**Cat. No.:** HY-107440A

**CAS No.:** 2245697-84-9

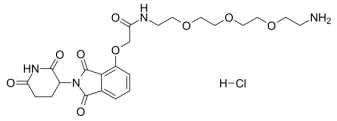
**Molecular Formula:** $C_{23}H_{31}ClN_4O_9$

**Molecular Weight:** 542.97

**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 (230.22 mM; Need ultrasonic)
$H_2O$ : 100 mg/mL (184.17 mM; Need ultrasonic)

**Preparing Stock Solutions**

| Concentration \ Solvent \ Mass | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 1.8417 mL | 9.2086 mL | 18.4172 mL |
| 5 mM | 0.3683 mL | 1.8417 mL | 3.6834 mL |
| 10 mM | 0.1842 mL | 0.9209 mL | 1.8417 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 (3.83 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (3.83 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.83 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Thalidomide-O-amido-PEG3-C2-NH2 hydrochloride is a synthesized E3 ligase ligand-linker conjugate that incorporates the Thalidomide based cereblon ligand and 3-unit PEG linker used in PROTAC technology[1].

**$IC_{50}$ & Target**

Cereblon

**In Vitro**

Thalidomide-O-amido-PEG3-C2-NH2 hydrochloride is composed of Degron (E3 ubiquitin ligase) and a linker, and they are used in PROTAC technology. Thalidomide-O-amido-PEG3-C2-NH2 binds to the targeting ligand to induce the target protein (including BRD4, BRD2, and BRD3) degradation[1].

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

## REFERENCES

[1]. Methods to induce targeted protein degradation through bifunctional molecules. WO2017007612A1.



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