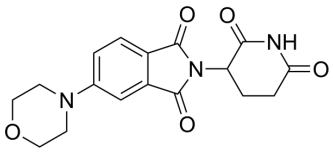
PT-179

Cat. No.:	HY-160695
CAS No.:	2924858-25-1
Molecular Formula:	$C_{17}H_{17}N_3O_5$
Molecular Weight:	343.33
Target:	Ligands for E3 Ligase; Molecular Glues
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 : 125 mg/mL (364.08 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9126 mL	14.5632 mL	29.1265 mL
	5 mM	0.5825 mL	2.9126 mL	5.8253 mL
	10 mM	0.2913 mL	1.4563 mL	2.9126 mL

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

BIOLOGICAL ACTIVITY

Description

PT-179 is an orthogonal Thalidomide (HY-14658) derivative that targets cereblon without causing off-target degradation effects. PT-179 is able to specifically bind CRBN, form a ternary complex with a target protein fused to a zinc finger (ZF) degron, and mediate the degradation of the tagged protein. For example, PT-179 binds to the ubiquitin ligase substrate receptor cereblon by forming a complex with SD40 and efficiently degrades proteins N- or C-terminally fused to SD40 or SD36 (DC50 for eGFP: 4.5 nM and 14.3 nM). PT-179 can be used to develop compact protein degradation tagging platforms[1].

In Vitro

SD40 is a degradation tag specific for PT-179. PT-179 (1-10 μM; 24 h) can induce eGFP degradation in HEK293T cells. The higher the evolution degree of the degron variant, the stronger the degradation efficiency of the corresponding tagged protein[1].

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

REFERENCES

[1]. Mercer JAM, et al. Continuous evolution of compact protein degradation tags regulated by selective molecular glues. Science. 2024 Mar 15;383(6688):eadk4422.

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