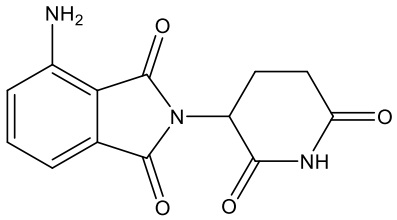
Catalog # 10-2768

Pomalidomide

CAS# 19171-19-8

1,3-Dioxo-2-(2,6-dioxopiperidin-3-yl)-4-aminoisoindoline; 3-amino-N-(2,6-dioxo-3-piperidyl)phthalamide

Lot # X109653



Thalidomide analog. Inhibits cereblon (CRBN) an E3 ubiquitin ligase, IC_{50} ~3 μM for CRBN-DDB1 complex.[1] Displays antiangiogenic and immunomodulatory activity *in vivo* potently inhibiting the production of TNFα and IL-2.[2] Promotes degradation of SALL4, a transcription factor implicated in Duane Radial Ray syndrome.[3] Conjugation with other ligands is a strategy to target proteins for *in vivo* proteasomal degradation via PROTACS.[4,5]

1) Lopez-Girona *et al*. (2012), *Cereblon is direct protein target for immunomodulatory and antiproliferative activities of lenalidomide and pomalidomide*; Leukemia, **26** 2326
2) Zhu *et al*. (2013), *Molecular mechanism of action of immune-modulatory drugs thalidomide, lenalidomide and pomalidomide in multiple myeloma*; Leukemia Lymphoma, **54** 683
3) Donovan *et al*. (2018), *Thalidomide promotes degradation of SALL4, a transcription factor implicated in Duane Radial Ray syndrome*; Elife, **7** e38430
4) Winter *et al*. (2015), *DRUG DEVELOPMENT. Phthalimide conjunction as a strategy for in vivo target protein degradation*; Science, **348** 1376
5) Lohbeck and Miller (2016), *Practical synthesis of a phthalimide-based Cereblon ligand to enable PROTAC development*; Bioorg. Med. Chem. Lett., **26** 5260

PHYSICAL DATA

Molecular Weight:	273.24
Molecular Formula:	$C_{13}H_{11}N_3O_4$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 50 mg/ml)
Physical Description:	Yellow solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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