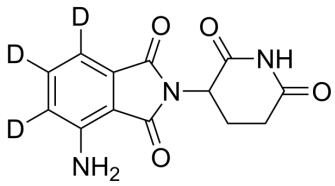
Pomalidomide-d_3

Cat. No.:	HY-10984S1
CAS No.:	2093128-28-8
Molecular Formula:	$C_{13}H_8D_3N_3O_4$
Molecular Weight:	276.26
Target:	Apoptosis; Ligands for E3 Ligase; Molecular Glues
Pathway:	Apoptosis; PROTAC

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Pomalidomide-d_3 is the deuterium labeled Pomalidomide. Pomalidomide, the third-generation immunomodulatory agent, acts as molecular glue. Pomalidomide interacts with the E3 ligase cereblon and induces degradation of essential Ikaros transcription factors[1][2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Schafer PH, et al. Enhancement of cytokine production and AP-1 transcriptional activity in T cells by thalidomide-related immunomodulatory drugs. J Pharmacol Exp Ther. 2003 Jun;305(3):1222-32.

[3]. Lu J, et al. Hijacking the E3 Ubiquitin Ligase Cereblon to Efficiently Target BRD4. Chem Biol. 2015 Jun 18;22(6):755-63.

[4]. Liu D, et al. Tumour necrosis factor-α inhibits hepatic lipid deposition through GSK-3β/β-catenin signaling in juvenile turbot (Scophthalmus maximus L.). Gen Comp Endocrinol. 2016 Mar 1;228:1-8.

[5]. Zhu YX, et al. Molecular mechanism of action of the immune-modulatory drugs, thalidomide, lenalidomide and pomalidomide in multiple myeloma. Leuk Lymphoma. 2013 Apr;54(4):683-7.

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[7]. Li Z, et al. Pomalidomide shows significant therapeutic activity against CNS lymphoma with a major impact on the tumor microenvironment in murine models. PLoS One. 2013 Aug 5;8(8):e71754.

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

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