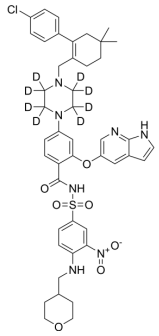
Venetoclax-d_8

Cat. No.:	HY-15531S
CAS No.:	1257051-06-1
Molecular Formula:	$C_{45}H_{42}D_8ClN_7O_7S$
Molecular Weight:	876.49
Target:	Autophagy; Bcl-2 Family
Pathway:	Autophagy; Apoptosis
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 : 100 mg/mL (114.09 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.1409 mL	5.7046 mL	11.4091 mL
	5 mM	0.2282 mL	1.1409 mL	2.2818 mL
	10 mM	0.1141 mL	0.5705 mL	1.1409 mL

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

BIOLOGICAL ACTIVITY

Description

Venetoclax-d_8 is deuterium labeled Venetoclax. Venetoclax (ABT-199; GDC-0199) is a highly potent, selective and orally bioavailable Bcl-2 inhibitor with a Ki of less than 0.01 nM. Venetoclax induces autophagy[1][2][3].

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]. Bi C, et al. Inhibition of 4EBP phosphorylation mediates the cytotoxic effect of mechanistic target of rapamycin kinase inhibitors in aggressive B-cell lymphomas. Haematologica. 2017 Apr;102(4):755-764.

[3]. Peirs S, et al. ABT-199 mediated inhibition of BCL-2 as a novel therapeutic strategy in T-cell acute lymphoblastic leukemia. Blood. 2014 Dec 11;124(25):3738-47.

[4]. Souers AJ, et al. ABT-199, a potent and selective BCL-2 inhibitor, achieves antitumor activity while sparing platelets. Nat Med. 2013 Feb;19(2):202-8.

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