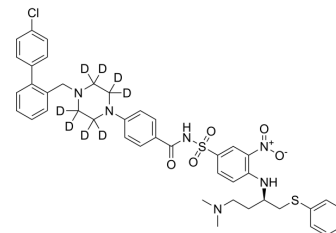


## ABT-737-d<sub>8</sub>

<b>Cat. No.:</b>	HY-50907S		
<b>CAS No.:</b>	1217686-68-4		
<b>Molecular Formula:</b>	C <sub>42</sub> H <sub>37</sub> D <sub>8</sub> ClN <sub>6</sub> O <sub>5</sub> S <sub>2</sub>		
<b>Molecular Weight:</b>	821.48		
<b>Target:</b>	Biochemical Assay Reagents		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (60.87 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	1.2173 mL	6.0866 mL	12.1732 mL	
5 mM	0.2435 mL	1.2173 mL	2.4346 mL	
10 mM	0.1217 mL	0.6087 mL	1.2173 mL	

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

### BIOLOGICAL ACTIVITY

#### Description

ABT 737-d<sub>8</sub> is the deuterium labeled ABT-737. ABT-737, a BH3 mimetic, is a potent Bcl-2, Bcl-x<sub>L</sub> and Bcl-w inhibitor with EC<sub>50</sub>s of 30.3 nM, 78.7 nM, and 197.8 nM, respectively. ABT-737 induces the disruption of the BCL-2/BAX complex and BAK-dependent but BIM-independent activation of the intrinsic apoptotic pathway. ABT-737 induces autophagy and has the potential for acute myeloid leukemia (AML) research<sup>[1][2][3]</sup>.

#### 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<sup>[1]</sup>.

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.

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[2]. Ahamed Saleem, et al. Effect of dual inhibition of apoptosis and autophagy in prostate cancer. Prostate. 2012 Sep 1;72(12):1374-81.

[3]. Clerc P, et al. Polster BM. Rapid Detection of an ABT-737-Sensitive Primed for Death State in Cells Using Microplate-Based Respirometry. PLoS One. 2012;7(8):e42487. Epub 2012 Aug 3.

[4]. Konopleva M, et al. Mechanisms of apoptosis sensitivity and resistance to the BH3 mimetic ABT-737 in acute myeloid leukemia. Cancer Cell. 2006 Nov;10(5):375-88.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA