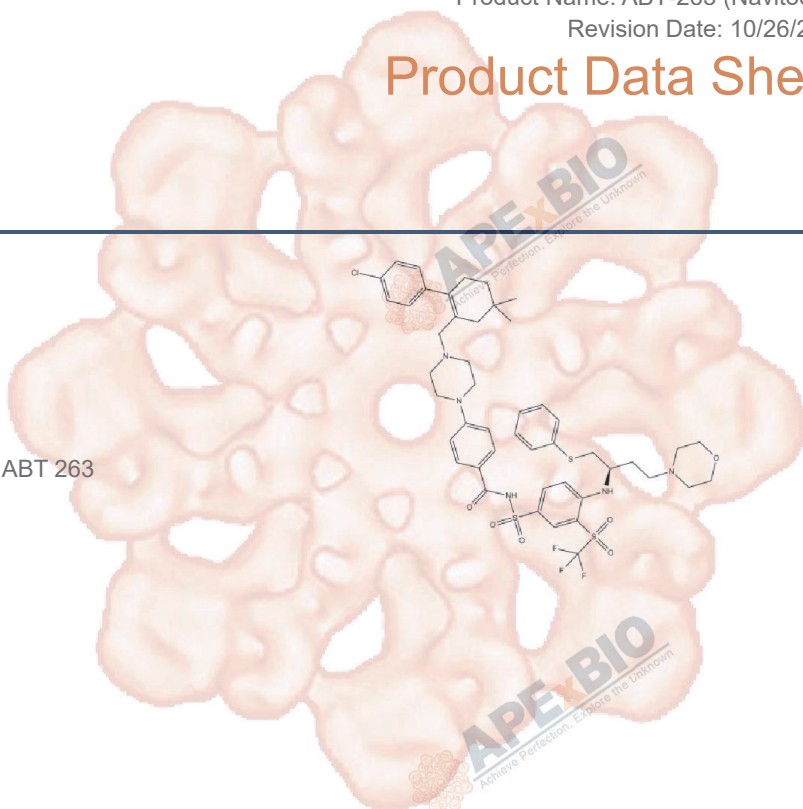


Product Data Sheet

ABT-263 (Navitoclax)

Cat. No.:	A3007
CAS No.:	923564-51-6
Formula:	C47H55ClF3N5O6S3
M.Wt:	974.61
Synonyms:	Navitoclax, ABT-263, ABT263, ABT 263
Target:	Apoptosis
Pathway:	Bcl-2 Family
Storage:	Desiccate at -20°C



Solvent & Solubility

≥48.73 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

In Vitro

Preparing Stock Solutions	Solvent	Mass Concentration	Mass		
			1mg	5mg	10mg
		1 mM	1.0261 mL	5.1303 mL	10.2605 mL
		5 mM	0.2052 mL	1.0261 mL	2.0521 mL
		10 mM	0.1026 mL	0.5130 mL	1.0261 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary

Potent Bcl-2 family inhibitor, inhibits Bcl-2, Bcl-xL, and Bcl-w

IC₅₀ & Target

≤ 0.5 nM (Ki) (Bcl-xL), ≤ 1 nM (Ki) (Bcl-2), ≤ 1 nM (Ki) (Bcl-w)

In Vitro

Cell Viability Assay

Cell Line: Murine DO11.10 T-hybridoma cells expressing murine Bcl-2, Bcl-xL and Bcl-w proteins

Preparation method: The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

	Reacting conditions:	None specific suggestion
	Applications:	ABT-263 is an antitumor effector in preclinical and early clinical studies. It binds to Bcl-2, Bcl-xL, and Bcl-w in vitro, but only targets Bcl-2 in vivo. In human non-Hodgkin lymphomas, high expression of Bcl-2 sensitized to ABT-263 elevated proapoptotic Bim.
In Vivo	Animal experiment	
	Animal models:	Immune-deficient NOD/SCID or NOD/SCID, ILy receptor negative mice
	Dosage form:	Orally taken at 100 mg/kg/day for 21 days
	Applications:	ABT-263 can largely inhibited the activity of patient-derived pediatric acute lymphoblastic leukemia xenograft. ABT-263 sensitivity was correlated with low MCL1 mRNA expression levels. BH3 profiling revealed that resistance to ABT-263 correlated with mitochondrial priming by NOXA peptide.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Santos LC, Vogel R, et al. "Mitochondrial origins of fractional control in regulated cell death." Nat Commun. 2019 Mar 21;10(1):1313.PMID:30899020
2. Joe T Sharick, Christine M Walsh, et al. "Optical Metabolic Imaging of Heterogeneous Drug Response in Pancreatic Cancer Patient Organoids." bioRxiv. 2019 February 06.
3. Wu S, Fatkhutdinov N, et al. "SWI/SNF catalytic subunits' switch drives resistance to EZH2 inhibitors in ARID1A-mutated cells." Nat Commun. 2018 Oct 8;9(1):4116.PMID:30297712
4. Bera R, Chiu MC, et al. "Genetic and Epigenetic Perturbations by DNMT3A-R882 Mutants Impaired Apoptosis through Augmentation of PRDX2 in Myeloid Leukemia Cells." Neoplasia. 2018 Nov;20(11):1106-1120.PMID:30245403
5. Roscoe I, Parker M, et al. "Human Serum Albumin and the p53-Derived Peptide Fusion Protein Promotes Cytotoxicity Irrespective of p53 Status in Cancer Cells." Mol Pharm. 2018 Oct 10.PMID:30226785

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References

1. Mérimo D1, Khaw SL, Glaser SP et al. Bcl-2, Bcl-x(L), and Bcl-w are not equivalent targets of ABT-737 and navitoclax (ABT-263) in lymphoid and leukemic cells. Blood. 2012 Jun 14;119(24):5807-16.
2. Suryani S, Carol H, Chonghaile TN et al. Cell and Molecular Determinants of In Vivo Efficacy of the BH3 Mimetic ABT-263 against Pediatric Acute Lymphoblastic Leukemia Xenografts. Clin Cancer Res. 2014 Jul 10.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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