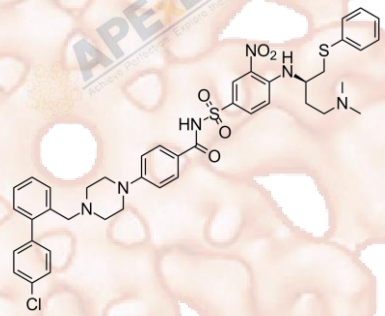
Product Data Sheet

ABT-737

Cat. No.:	A8193
CAS No.:	852808-04-9
Formula:	C42H45ClN6O5S2
M.Wt:	813.43
Synonyms:	ABT 737, ABT737
Target:	Apoptosis
Pathway:	Bcl-2 Family
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

≥40.67 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	1.2294 mL	6.1468 mL	12.2936 mL
5 mM	0.2459 mL	1.2294 mL	2.4587 mL
10 mM	0.1229 mL	0.6147 mL	1.2294 mL

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

Biological Activity

Shortsummary	Bcl-2 inhibitor
IC_{50} & Target	78.7 nM (EC50) (Bcl-xL), 30.3 nM (EC50) (Bcl-2), 197.8 nM (EC50) (Bcl-w)

In Vitro

Cell Viability Assay

Cell Line:	Small-cell lung cancer (SCLC) cell (NCI-H889, NCI-H1963, NCI-H1417, NCI-H146, NCI-187, DMS79, NCI-1048, NCI-H82, NCI-H196, H69AR, and DMS114) lines.
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:	48 h; 10 μM
	Applications:	The ability of ABT-737 to inhibit cell proliferation with single-agent activity was evaluated against a panel of 11 kinds of SCLC cell lines. Ac-DEVD-AMC, a substrate for activated caspase 3, was used to treatment of H146 cells for 24 h. A dose-dependent increase in apoptosis coincided with a dose-dependent decrease in cell viability following ABT-737 treatment suggesting that ABT-737 inhibits cell proliferation through the induction of apoptosis.
In Vivo	**Animal experiment**	
	Animal models:	Lymphoma-prone Eμ- myc transgenic mice
	Dosage form:	75 mg/kg body weight; the tail injection.
	Applications:	All B-lymphoid subsets in the ABT-737-treatment (75 mg/kg) cohort were significantly decreased, compared with the vehicle-treated animals, in both the bone marrow and the spleen. Eμ- myc animals treated with ABT-737 contained significantly (**P<0.01) more apoptotic cells in their bone marrow than vehicle-treated mice.
	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. Lee B, Min JA, et al. "A novel mechanism of irinotecan targeting MDM2 and Bcl-xL." Biochem Biophys Res Commun. 2019 Jun 25;514(2):518-523.PMID:31056264

2. Thompson PJ, Shah A, et al. "Targeted Elimination of Senescent Beta Cells Prevents Type 1 Diabetes." Cell Metab. 2019 Feb 14. pii: S1550-4131(19)30021-X.PMID:30799288

3. Rello-Varona S, Fuentes-Guirado M, et al. "Bcl-x(L) inhibition enhances Dinaciclib-induced cell death in soft-tissue sarcomas." Sci Rep. 2019 Mar 7;9(1):3816.PMID:30846724

4. Yochum ZA, Cades J, et al. "Targeting the EMT transcription factor TWIST1 overcomes resistance to EGFR inhibitors in EGFR-mutant non-small-cell lung cancer." Oncogene. 2018 Aug 31.PMID:30171258

5. Jeong HJ, Ryu KJ, et al. "Anticancer agent ABT-737 possesses anti-atopic dermatitis activity via blockade of caspase-1 in atopic dermatitis in vitro and in vivo models." Immunopharmacol Immunotoxicol. 2018 Jun 29:1-8.PMID:29957081

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References

[1] Tahir S K, Yang X, Anderson M G, et al. Influence of Bcl-2 family members on the cellular response of small-cell lung cancer cell lines to ABT-737[J]. Cancer research, 2007, 67(3): 1176-1183.

[2] Kelly P N, Grabow S, Delbridge A R D, et al. Prophylactic treatment with the BH3 mimetic ABT-737 impedes Myc-driven lymphomagenesis in mice[J]. Cell Death & Differentiation, 2012, 20(1): 57-63.

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. Shortterm 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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