

# PRODUCT INFORMATION



## ABT-737

Item No. 11501

CAS Registry No.: 852808-04-9

Formal Name: 4-[4-[(4'-chloro[1,1'-biphenyl]-2-yl)methyl]-1-piperazinyl]-N-[[4-[[[(1R)-3-(dimethylamino)-1-[(phenylthio)methyl]propyl]amino]-3-nitrophenyl]sulfonyl]-benzamide

MF:  $C_{42}H_{45}ClN_6O_5S_2$

FW: 813.4

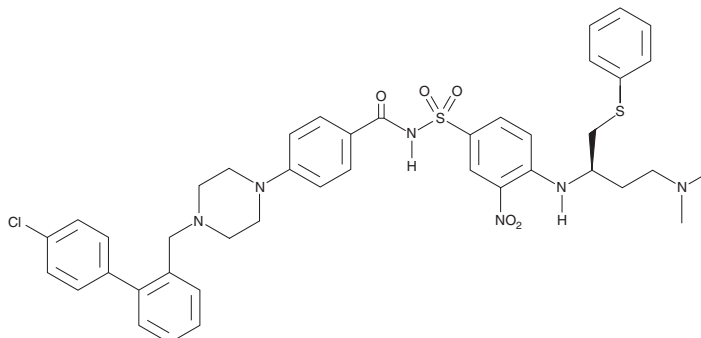
Purity:  $\geq 98\%$

UV/Vis.:  $\lambda_{max}$ : 251, 311, 409 nm

Supplied as: A crystalline solid

Storage:  $-20^{\circ}C$

Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

ABT-737 is supplied as a crystalline solid. A stock solution may be made by dissolving the ABT-737 in the solvent of choice, which should be purged with an inert gas. ABT-737 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of ABT-737 in these solvents is approximately 5 and 10 mg/ml, respectively.

ABT-737 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ABT-737 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ABT-737 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

The family of Bcl-2 proteins plays pivotal roles in either promoting or preventing apoptosis. Bcl-2 family members contain one or more of four characteristic Bcl-2 homology (BH) domains, which are crucial for function. For example, anti-apoptotic Bcl-2 family proteins prevent death signaling by heterodimerizing with pro-death proteins at their BH3 domains.<sup>1</sup> ABT-737 is a potent, cell-permeable mimetic of BH3 domains that avidly binds Bcl-2, Bcl-xL, and Bcl-W ( $K_i < 1$  nM for all three proteins).<sup>2,3</sup> It blocks the interaction of these proteins with pro-death proteins, leading to apoptosis.<sup>2</sup> ABT-737, alone, can induce regression of some tumors in some xenograft mouse models of cancer.<sup>1,2</sup> It shows synergy with diverse therapeutics and radiation to trigger apoptosis in cancer cells and xenografts.<sup>2,4,5</sup>

### References

1. Ni Chonghaile, T. and Letai, A. *Oncogene* **27**(Suppl 1), S149-S157 (2008).
2. Oltsersdorf, T., Elmore, S.W., Shoemaker, A.R., et al. *Nature* **435**(7042), 677-681 (2005).
3. Bruncko, M., Oost, T.K., Belli, B.A., et al. *J. Med. Chem.* **50**(4), 641-662 (2007).
4. Trudel, S., Stewart, A.K., Li, Z., et al. *Clin. Cancer Res.* **13**(2), 621-629 (2007).
5. Konopleva, M., Watt, J., Contractor, R., et al. *Cancer Res.* **68**(9), 3413-3420 (2008).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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