

[Open Peer Review on Qeios](#)

BH3 Mimetic ABT-737

National Cancer Institute

Source

National Cancer Institute. *BH3 Mimetic ABT-737*. NCI Thesaurus. Code C114384.

An orally bioavailable, selective small molecule B-cell lymphoma 2 (Bcl-2) Homology 3 (BH3) mimetic, with potential pro-apoptotic and antineoplastic activities. ABT-737 binds to the hydrophobic groove of multiple members of the anti-apoptotic Bcl-2 protein family, including Bcl-2, Bcl-xl and Bcl-w. This inhibits the activity of these pro-survival proteins and restores apoptotic processes in tumor cells, via activation of Bak/Bax-mediated apoptosis. The pro-survival Bcl-2 proteins are overexpressed in many cancers and play important roles in the regulation of apoptosis. Their expression is associated with increased drug resistance and tumor cell survival. ABT-737 does not inhibit the pro-survival proteins Mcl-1, Bcl-B, Bfl-1 (A1); therefore, tumors that overexpress these Bcl-2 family proteins are resistant to ABT-737.