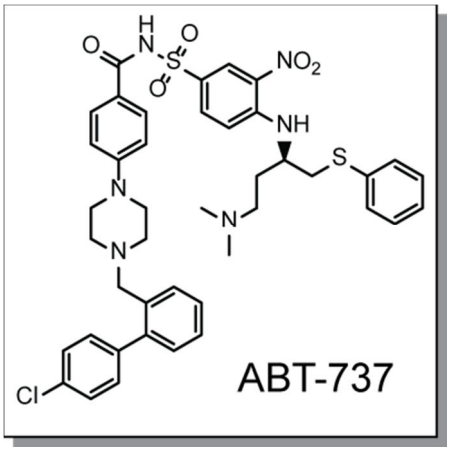
Product Specification Sheet

Product Name: ABT-737

Catalog Number: C2281-2 (powder)
C2281-2s (10mM in DMSO)

Package Size: 2 mg



Technical information:

Chemical Formula:	$C_{42}H_{45}ClN_6O_5S_2$
CAS #:	852808-04-9
Molecular Weight:	813.43
Purity:	>98%
Formulation:	Off white solid
Solubility:	Soluble in DMSO up to 50 mM
Chemical 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
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Handling:

- For C2281-2 (powder), add 0.246 mL of DMSO to make 10 mM solution.
- For C2281-2s, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity:

ABT-737 is a selective and potent small molecule inhibitor of protein Bcl-2, Bcl-XL, and Bcl-w. Like a BAD BH3 peptide, ABT-737 binds to and antagonizes anti-apototic Bcl-2 family proteins instead of directly activating the apoptotic process. ABT-737 binds with high affinity (ki<1nm) to Bcl-XL, Bcl-2 and Bcl-w, but not to Bcl-B, Mcl-1 and Al protein.
ABT-737 displays a wide range of single-agent activity against cells from lymphoma, leukemia, solid tumor SCLC, and primary cells derived from patient. In animal models, ABT-737 causes tumor regression and improves survival[1-2]. ABT-737 has shown synergistic anti-tumor activity when used together with vorinostat or bemicitabine[3,4].

Reference:

1. Oltersdorf, T. et al. An inhibitor of Bcl-2 family proteins induces regression of solid tumours. Nature. 2005 Jun 2;435(7042):677-81.
2. Van Deelft , MF. et al. The BH3 mimetic ABT-737 targets selective Bcl-2 proteins and efficiently induces apoptosis via Bak/Bax if Mcl-1 is neutralized. Cancer Cell. 2006 Nov;10(5):389-99.
3. Zhang, C. et al. Synergistic anti-tumor activity of gemcitabine and ABT-737 in vitro and in vivo through disrupting the interaction of USP9X and Mcl-1. Mol Cancer Ther. 2011 Jul;10(7):1264-75.
4. Wiegmans AP, et al. Deciphering the molecular events necessary for synergistic tumor cell apoptosis mediated by the histone deacetylase inhibitor vorinostat and the BH3 mimetic ABT-737. Cancer Res. 2011

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