PRODUCT INFORMATION

ABT-263
Item No. 11500

CAS Registry No.: 923564-51-6

Synonyms: A-855071, Navitoclax

MF: C_{47}H_{55}ClF_3N_5O_6S_3
FW: 974.6
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} : 279, 320 \text{ nm} \)

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

ABT-263 is supplied as a crystalline solid. A stock solution may be made by dissolving the ABT-263 in the solvent of choice. ABT-263 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of ABT-263 in these solvents is approximately 0.5, 25, and 30 mg/ml, respectively.

ABT-263 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ABT-263 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ABT-263 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.\(^1\) ABT-263 is a potent, orally bioavailable mimetic of BH3 domains that avidly binds Bcl-2, Bcl-xL, and Bcl-W (K\(_i<1\) nM for all three proteins).\(^2\) It blocks the interaction of these proteins with pro-death proteins, like Bim, leading to apoptosis.\(^1,2\) ABT-263, alone, can induce regression of some tumors in some xenograft mouse models of cancer.\(^2,3\) It can also potentiate the therapeutic efficacy of chemotherapeutic compounds.\(^2,4\) Interestingly, ABT-263 induces apoptosis in cancer cell lines expressing mutants of \(\beta\)-catenin 1, a Wnt signaling factor commonly mutated in a range of cancer types.\(^5\)

References