

Certificate of Analysis

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Product Name: ABT 737

Catalog No.: 6835

Batch No.: 2

CAS Number: 852808-04-9

IUPAC 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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄₂H₄₅ClN₆O₅S₂·½H₂O

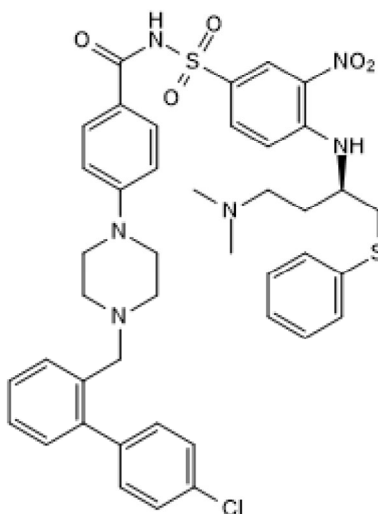
Batch Molecular Weight: 817.93

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = -180.2 (Concentration = 0.1, Solvent = DMSO)

Microanalysis:	Carbon Hydrogen Nitrogen		
	Theoretical	61.67	5.61 10.27
	Found	60.82	5.55 10.05

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

ABT 737 is a high affinity Bcl-2 family inhibitor ($K_i \leq 1\text{nM}$ for Bcl-X_L, Bcl-2 and Bcl-w). BH3 mimetic; triggers Bax/Bak-mediated apoptosis. Exhibits cytotoxicity in lymphoma cell lines overexpressing bcl-2 ($EC_{50} < 1\text{ }\mu\text{M}$) and multiple myeloma cells ($IC_{50} = 5\text{-}15\text{ }\mu\text{M}$). Induces apoptosis in patient-derived CLL cells. Promotes regression of SCLC tumors in a mouse xenograft model. Synergizes with certain other anticancer agents.

Physical and Chemical Properties:

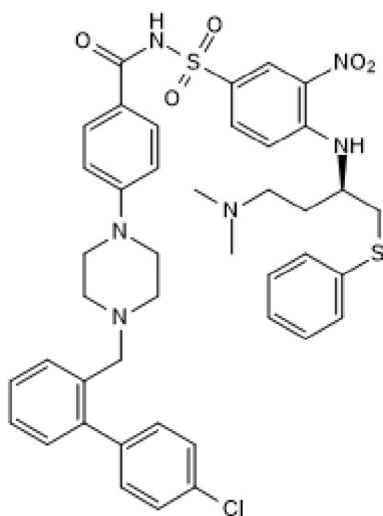
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Batch Molecular Weight: 817.93

Physical Appearance: Yellow solid

Minimum Purity: ≥97%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Kline *et al* (2007) ABT-737, an inhibitor of Bcl-2 family proteins, is a potent inducer of apoptosis in multiple myeloma cells. *Leukemia* **21** 1549. PMID: 17460700.

van Delft, MF *et al* (2006) The BH3 mimetic ABT-737 targets selective Bcl-2 proteins and efficiently induces apoptosis via Bak/Bax if Mcl-1 is neutralized. *Cancer Cell*. **10** 389. PMID: 17097561.

Oltersdorf *et al* (2005) An inhibitor of Bcl-2 family proteins induces regression of solid tumours. *Nature* **425** 677. PMID: 15902208.

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