

Product Specification Sheet

Product Name: ABT-888 (Veliparib)

Catalog Number: C2888

Technical information:

Chemical Formula: C₁₃H₁₆N₄O

CAS #: 912444-00-9,912445-05-7

Molecular Weight: 244.29

Purity: > 98%

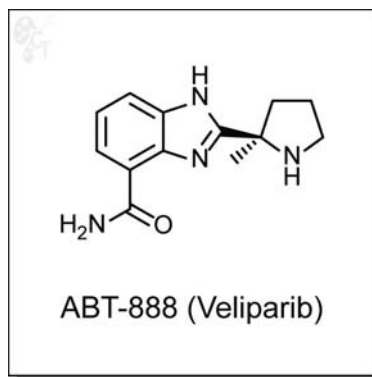
Appearance: White solid

Solubility: Soluble in DMSO up to 75 mM

Chemical Name: (R)-2-(2-methylpyrrolidin-2-yl)-1H-benzo[d]imidazole-4-carboxamide

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



- Handling:**
- To make 10 mM stock solution, add 0.409mL of DMSO for each mg of ABT-888 (Veliparib)
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: ABT-888 (Veliparib) is an orally-available, benzimidazole-based inhibitor of poly(ADP-ribose) polymerase with Ki values of 5.2 and 2.9 nM, for PARP1 and PARP2, respectively. [1] ABT-888 exhibits activity in C41 whole cells at an EC50 of 2 nM [2], and inhibits PAR formation in cells at an EC50 of 4.5 nM. [3]

ABT-888 efficiently crosses the blood-brain barrier and has been shown to potentiate DNA-damaging agents such as temozolomide, cisplatin, carboplatin, cyclophosphamide, irinotecan, and radiation. [1, 4] Treatment with temozolomide in the S phase generated higher levels of double-stranded DNA breaks and general higher levels of cytotoxicity.

- Reference:**
1. Palma et al., The PARP inhibitor, ABT-888 potentiates temozolomide: correlation with drug levels and reduction in PARP activity in vivo. *Anticancer Res.* 2008, 28, 2625-2636. Pubmed ID: 19035287
 2. Penning et al., Discovery of the Poly(ADP-ribose) polymerase (PARP) inhibitor 2-[(R)-2-methylpyrrolidin-2-yl]-1H-benzimidazole-4-carboxamide (ABT-888) for the treatment of cancer. *J. Med. Chem.* 2009, 52, 514-523. Pubmed ID: 19143569
 3. Liu et al., Potentiation of temozolomide cytotoxicity by poly(ADP)ribose polymerase inhibitor ABT-888 requires a conversion of single-stranded DNA damages to double-stranded DNA breaks. *Mol. Cancer Res.* 2008, 6, 1621-1629. Pubmed ID: 18922977
 4. Donawho et al., ABT-888, an orally active poly(ADP-ribose) polymerase inhibitor that potentiates DNA-damaging agents in preclinical tumor models. *Clin. Cancer Res.* 2007, 13(9), 2728-2737. Pubmed ID: 17473206

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