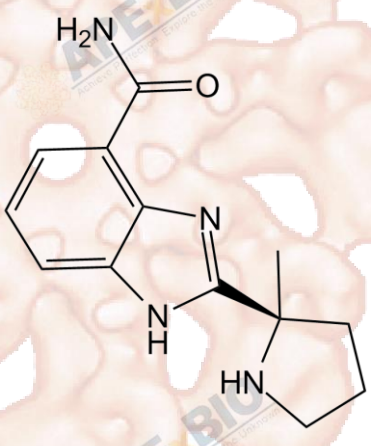
Product Data Sheet

ABT-888 (Veliparib)

Cat. No.:	A3002
CAS No.:	912444-00-9
Formula:	C13H16N4O
M.Wt:	244.3
Synonyms:	ABT-888,ABT 888,ABT888,Veliparib
Target:	Chromatin/Epigenetics
Pathway:	PARP
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

insoluble in H2O; ⩾10.6 mg/mL in EtOH with ultrasonic; ⩾6.11 mg/mL in DMSO

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	4.0933 mL	20.4666 mL	40.9333 mL
5 mM	0.8187 mL	4.0933 mL	8.1867 mL
10 mM	0.4093 mL	2.0467 mL	4.0933 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Potent PARP inhibitor
IC_{50} & Target	5.2 nM (Ki) (PARP1), 2.9 nM (Ki) (PARP2)

In Vitro

Cell Viability Assay

Cell Line:	HCT-116 and HT-29 cell lines
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.

	Reacting conditions:	4 μM; 24 h
	Applications:	In HCT-116 and HT-29 cell lines, the ability of ABT-888 to synergize the effect of the anti-cancer agents, SN38 or oxaliplatin, was determined using the SRB assay. PARP activity was significantly reduced in samples treated with SN38 in combination with ABT-888 (>4 fold at 24 h).
In Vivo	**Animal experiment**	
	Animal models:	Female nude athymic mice
	Dosage form:	12.5 mg/kg; oral gavage twice daily in 6-hour intervals.
	Applications:	HCT116 xenografts were established in 5- to 6-week-old female nude athymic mice by subcutaneous flank injections of 200 mL cell suspension (5*106cells) per flank. This triple-therapy group (RT, CPT-11, and ABT) showed a significantly longer tumor growth delay (TGD) when compared with the tumors treated with RT and CPT-11 but no ABT-888, which had a mean TGD of 14.21 days.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Poh W, Dilley RL, et al. "BRCA1 Promoter Methylation Is Linked to Defective Homologous Recombination Repair and Elevated miR-155 to Disrupt Myeloid Differentiation in Myeloidb Malignancies." Clin Cancer Res. 2019 Jan 28.PMID:30692098

2. Versano Z, Shany E, et al. "MutT homolog 1 counteracts the effect of anti-neoplastic treatments in adult and pediatric glioblastoma cells." Oncotarget. 2018 Jun 8;9(44):27547-27563.PMID:29938005

3. Gao Y, Li C, et al. "SSRP1 Cooperates with PARP and XRCC1 to Facilitate Single-Strand DNA Break Repair by Chromatin Priming." Cancer Res.
2017 May 15;77(10):2674-2685.

4. Wang X, Sekine Y, et al."Inhibition of Poly-ADP-Ribosylation Fails to Increase Axonal Regeneration or Improve Functional Recovery after Adult Mammalian CNS Injury." eNeuro. 2016 Dec 26;3(6). PMID:28032120

5. Yalon M, Tuval-Kochen L, et al. "Overcoming Resistance of Cancer Cells to PARP-1 Inhibitors with Three Different Drug Combinations." PLoS One. 2016 May 19;11(5):e0155711.PMID:27196668

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References

[1] Davidson D, Wang Y, Aloyz R, et al. The PARP inhibitor ABT-888 synergizes irinotecan treatment of colon cancer cell lines[J]. Investigational new drugs, 2013, 31(2): 461-468.

[2] Shelton J W, Waxweiler T V, Landry J, et al. In vitro and in vivo enhancement of chemoradiation using the oral parp inhibitor ABT-888 in colorectal cancer cells[J]. International Journal of Radiation Oncology* Biology* Physics, 2013, 86(3): 469-476.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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