

Small Molecules

ABT-888 (Dihydrochloride)

PARP1 and PARP2 inhibitor

Catalog #100-1170

25 mg



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

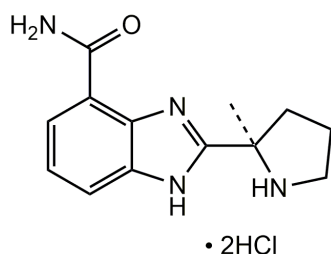
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

ABT-888 (Dihydrochloride) is a potent poly ADP ribose polymerase (PARP) inhibitor with affinity for both PARP1 and PARP2 ($IC_{50} = 5.2$ and 2.9 nM; Donawho et al.). It is inactive against sirtuin 2 (SIRT2) (Donawho et al.). ABT-888 inhibits PARPs and prevents them from repairing DNA breaks during DNA replication, which leads to DNA damage and apoptosis (Javle & Curtin).

Alternative Names:	Veliparib
CAS Number:	912445-05-7
Chemical Formula:	$C_{13}H_{16}N_4O \cdot 2HCl$
Molecular Weight:	317.2 g/mol
Purity:	$\geq 98\%$
Chemical Name:	2-[(2R)-2-Methyl-2-pyrrolidinyl]-1H-benzimidazole-7-carboxamide, dihydrochloride
Structure:	



Properties

Physical Appearance:	A white powder
Storage:	Product stable at $-20^{\circ}C$ as supplied. As a precaution, STEMCELL recommends storing all small molecules away from direct light. For long-term storage, store with a desiccant. Stable as supplied for 12 months from date of receipt.
Solubility:	<ul style="list-style-type: none">• Water ≤ 125 mM• DMSO ≤ 90 mM <p>For example, to prepare a 10 mM stock solution in water, resuspend 10 mg in 3.15 mL of water.</p> <p>Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported; however, as a general guide we recommend storage in DMSO at $-20^{\circ}C$. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.</p> <p>For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.</p>

Published Applications

CANCER RESEARCH

- Inhibits the growth of Capan1 cells with BRCA 2 mutations (Cincinelli et al.).
- Inhibits colony growth of PC-3 tumors, but no effect was found in DU-145 tumors (Barreto-Andrade et al.).

References

- Barreto-Andrade JC et al. (2011) Response of human prostate cancer cells and tumors to combining PARP inhibition with ionizing radiation. *Mol Cancer Ther* 10(7): 1185–93.
- Cincinelli R et al. (2014) 7-azaindole-1-carboxamides as a new class of PARP-1 inhibitors. *Bioorg Med Chem* 22(3): 1089–1103.
- Donawho CK et al. (2007) ABT-888, an orally active poly (ADP-ribose) polymerase inhibitor that potentiates DNA-damaging agents in preclinical tumor models. *Clin Cancer Res* 13(9): 2728–37.
- Javle M & Curtin NJ. (2011) The potential for poly (ADP-ribose) polymerase inhibitors in cancer therapy. *Ther Adv Med Oncol* 3(6): 257–67.

Related Small Molecules

For a complete list of small molecules available from STEMCELL Technologies, visit www.stemcell.com/smallmolecules, or contact us at techsupport@stemcell.com.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2023 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.