Web: www.taiclone.com
Tel: +886-2-2735-9682
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Veliparib (dihydrochloride)

Catalog No: tcsc0077

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g

Specifications

CAS No:
912445-05-7

Formula:
$C_{13}H_{18}Cl_2N_4O$

Pathway:
Epigenetics;Cell Cycle/DNA Damage;Autophagy

Target:
PARP;PARP;Autophagy

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 3.2 mg/mL (10.09 mM); H2O : ≥ 50 mg/mL (157.62 mM)

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Alternative Names:
ABT-888 dihydrochloride

Observed Molecular Weight:
317.21

Product Description

Veliparib (dihydrochloride) is a potent inhibitor of **PARP1** and **PARP2** with **K_i** of 5.2 nM and 2.9 nM in cell-free assays, respectively.

IC50 & Target: Ki: 5.2 nM (PARP1), 2.9 nM (PARP2)[1]

In Vitro: Veliparib is inactive to SIRT2 (>5 μM)[1]. Veliparib inhibits the PARP activity with EC_{50} of 2 nM in C41 cells[2]. Veliparib can decrease the PAR levels in both irradiated and nonirradiated H460 cells. Veliparib reduces clonogenic survival and inhibits DNA repair by PARP-1 inhibition in H460 cells. Veliparib increases apoptosis and autophagy in H460 cells when combination with radiation [3]. Veliparib inhibits PARP activity in H1299, DU145 and 22RV1 cells and the inhibition is independent of p53 function. Veliparib (10 μM) suppresses the surviving fraction (SF) by 43% in the clonogenic H1299 cells. Veliparib shows effective radiosensitivity in oxic H1299 cells. Veliparib can attenuate the SF of hypoxic-irradiated cells including H1299, DU145 and 22RV1[4].

In Vivo: The oral bioavailability of Veliparib is 56%-92% in mice, SD rats, beagle dogs, and cynomolgus monkeys after oral administration[1]. Veliparib (25 mg/kg, i.p.) can improve tumor growth delay in a NCI-H460 xenograft model. Combination with radiation, veliparib decreases the tumor vessel formation[3]. Veliparib reduces intratumor PAR levels by more than 95% at a dose of 3 and 12.5 mg/kg in A375 and Colo829 xenograft models and the suppression can be maintained over time[4].