Web: www.taiclone.com
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Alvespimycin

Catalog No: tcsc0912

Available Sizes

Size: 1mg

Specifications

CAS No:
467214-20-6

Formula:
$C_{32}H_{48}N_4O_8$

Pathway:
Metabolic Enzyme/Protease;Cell Cycle/DNA Damage

Target:
HSP;HSP

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
17-DMAG;NSC 707545

Observed Molecular Weight:
616.75

Product Description

Alvespimycin is a potent inhibitor of **Hsp90**, binding to Hsp90 with an **EC_{50}** of 62 ± 29 nM.

IC50 & Target: EC50: 62 nM (Hsp90)[1]

In Vitro: Alvespimycin is a potent inhibitor of Hsp90, binding to Hsp90 with an EC_{50} of 62 nM. Alvespimycin (17-DMAG) inhibits the

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growth of the human cancer cell lines SKBR3 and SKOV3, which overexpress Hsp90 client protein Her2, and causes down-regulation of Her2 as well as induction of Hsp70 consistent with Hsp90 inhibition, for Her2 degradation with EC_{50} of 8 ± 4 nM and 46 ± 24 nM in SKBR3 and SKOV3 cells, respectively; for Hsp70 induction with EC_{50} of 4 ± 2 nM and 14 ± 7 nM in SKBR3 and SKOV3 cells, respectively[1]. Compared with the vehicle control, Alvespimycin dose-dependent apoptosis (P[2].

In Vivo: The tumors are grown for two months before the start of i.p. injections every four days over one month with 0, 50, 100 and 200 mg/kg dipalmitoyl-radicicol or 0, 5, 10 and 20 mg/kg Alvespimycin. Despite sample heterogeneity, the HSP90 inhibitor-treated animals have significantly lower tumour volumes than the vehicle control-treated animals. HSP90 inhibitors have been shown to cause liver toxicity in an animal model of gastrointestinal cancer. Nevertheless, the reduction in tumor size using dipalmitoyl-radicicol is statistically significant at 100 mg/kg, while Alvespimycin at either 10 or 20 mg/kg elicits a significant reduction in tumor size[3].