Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Alvespimycin (hydrochloride)

Catalog No: tcsc0162

Available Sizes

Size: 10mg

Size: 25mg

Size: 100mg

Size: 200mg

Specifications

CAS No:
467214-21-7

Formula:
$C_{32}H_{49}ClN_4O_8$

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

Target:
HSP;HSP

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 50 mg/mL (76.55 mM)

Alternative Names:
17-DMAG hydrochloride;KOS-1022;BMS 826476

Observed Molecular Weight:
653.21

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Product Description

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

IC50 & Target: EC50: 62 nM±29 nM (Hsp90)[1]

In Vitro: Alvespimycin (17-DMAG) hydrochloride inhibits the 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, 17-DMAG exerts 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 17-DMAG. 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 17-DMAG at either 10 or 20 mg/kg elicited a significant reduction in tumor size [3].