

# 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 :  $\geq 50$  mg/mL (76.55 mM)

**Alternative Names:**

17-DMAG hydrochloride;KOS-1022;BMS 826476

**Observed Molecular Weight:**

653.21

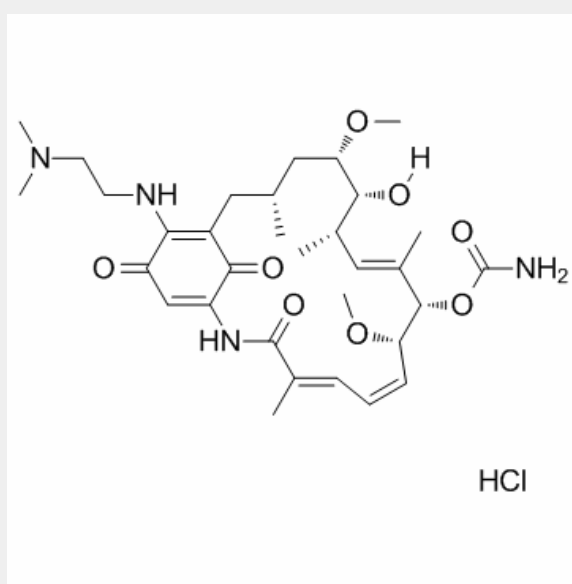
## Product Description

Alvespimycin hydrochloride is a potent inhibitor of **Hsp90**, binding to Hsp90 with **EC<sub>50</sub>** of 62±29 nM.

IC50 & Target: EC50: 62 nM±29 nM (Hsp90)<sup>[1]</sup>

**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<sub>50</sub> of 8±4 nM and 46±24 nM in SKBR3 and SKOV3 cells, respectively; for Hsp70 induction with EC<sub>50</sub> of 4±2 nM and 14±7 nM in SKBR3 and SKOV3 cells, respectively<sup>[1]</sup>. 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].



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