#8132 Store at -20°C

17-AAG

500 µg

Cell Signaling TECHNOLOGY®

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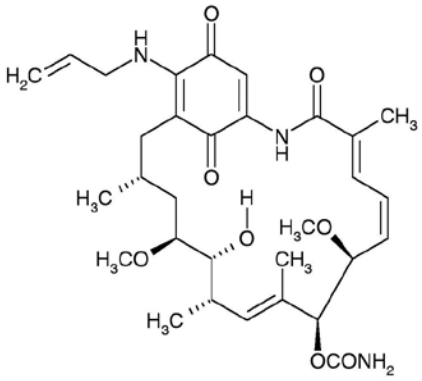
For Research Use Only. Not For Use In Diagnostic Procedures.

Background: 17-AAG is a semi-synthetic derivative of geldanamycin, demonstrating greater stability than its parent compound (1). It binds specifically to heat shock protein HSP90 in a manner similar to geldanamycin, but with weaker binding (1). Through specific binding with HSP90, 17-AAG has been shown to decrease levels of many proteins including androgen receptor (AR), HER2, and Akt, while increasing levels of HSP90 in prostate cancer cell lines (2). 17-AAG binds to a conserved pocket in the HSP90 family of chaperone proteins and this occupation causes the degradation of several signaling proteins (2).

Molecular Formula: $C_{31}H_{43}N_3O_8$

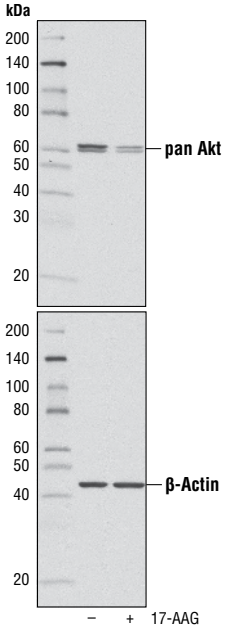


Molecular Weight: 585.70 g/mol

Solubility: Soluble in DMSO at 150 mg/mL; soluble in ethanol at 5 mg/mL. Maximum solubility in plain water estimated to be about 20-50 µM.

Purity: Greater than 98%.

Directions for Use: 17-AAG is supplied as a lyophilized powder. For a 1 mM stock, reconstitute the 500 µg in 853.7 µl DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used at 0.1-1 µM for 4-24 hours.



Western blot analysis of extracts from LNCaP cells, untreated (-) or treated with 17-AAG (1 µM, 24 hr), using Akt (pan) (11E7) Rabbit mAb #4685 (upper) and β-Actin (13E5) Rabbit mAb #4970 (lower).

Storage: Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Background References:

(1) Schulte, T.W. and Neckers, L.M. (1998) *Cancer Chemother Pharmacol* 42, 273-9.

(2) Solit, D.B. et al. (2002) *Clin Cancer Res* 8, 986-93.

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