

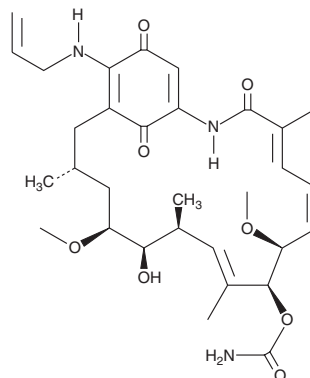
# PRODUCT INFORMATION



## 17-AAG

Item No. 11039

**CAS Registry No.:** 75747-14-7  
**Formal Name:** 17-demethoxy-17-(2-propenylamino)-geldanamycin  
**Synonyms:** BMS 722782, CP 127374, KOS 953, NSC 330507, Tanespimycin  
**MF:** C<sub>31</sub>H<sub>43</sub>N<sub>3</sub>O<sub>3</sub>  
**FW:** 585.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 219, 239, 332, 528 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

17-AAG is supplied as a crystalline solid. A stock solution may be made by dissolving the 17-AAG in the solvent of choice. 17-AAG is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 17-AAG in these solvents is approximately 5, 20, and 10 mg/ml, respectively.

17-AAG is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 17-AAG should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 17-AAG has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

17-AAG is an inhibitor of heat shock protein 90 (Hsp90) and a derivative of geldanamycin (Item No. 13355) that selectively inhibits BT474 tumor cell Hsp90 over fibroblast Hsp90 (IC<sub>50</sub>s = 5 and 943 nM, respectively).<sup>1</sup> It inhibits the growth of prostate cancer cell lines (IC<sub>50</sub>s = 25-45 nM) and promotes the degradation of HER2 and induces growth arrest and apoptosis in breast cancer cells overexpressing HER2 (IC<sub>50</sub>s = 4-72 nM).<sup>2,3</sup> *In vivo*, 17-AAG (25 mg/kg, i.p.) reduces tumor size in a G-415 gallbladder cancer mouse xenograft model.<sup>4</sup>

### References

1. Kamal, A., Thao, L., Sensintaffar, J., *et al.* A high-affinity conformation of Hsp90 confers tumour selectivity on Hsp90 inhibitors. *Nature* **425(6956)**, 407-410 (2003).
2. Solit, D.B., Zheng, F.F., Drobnjak, M., *et al.* 17-allylamino-17-demethoxygeldanamycin induces the degradation of androgen receptor and HER-2/neu and inhibits the growth of prostate cancer xenografts. *Clin. Cancer Res.* **8(5)**, 986-993 (2002).
3. Münster, P.N., Marchion, D.C., Basso, A.D., *et al.* Degredation of HER2 by ansamycins induces growth arrest and apoptosis in cells with HER2 overexpression via a HER3, phosphatidylinositol 3'-kinase-AKT-dependent pathway. *Cancer Research* **62(11)**, 3132-3137 (2002).
4. Weber, H., Valbuena, J.R., Barbhuiya, M.A., *et al.* Small molecule inhibitor screening identified Hsp90 inhibitor 17-AAG as potential therapeutic agent for gallbladder cancer. *Oncotarget* **8(16)**, 26169-26184 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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