

# Geldanamycin

An inhibitor of the heat-shock protein Hsp 90

Catalog ant-gl-5, ant-gl-25

For research use only

Version # 16D07-MM

## PRODUCT INFORMATION

### Content:

Geldanamycin is supplied as a yellow powder. It is available in two pack sizes:

- **ant-gl-5:** 5 mg
- **ant-gl-25:** 25 mg

### Storage and stability:

- Geldanamycin is shipped at room temperature. Store product at -20 °C. Protect from light. Product in powder form is stable for 6 months when stored properly.

- Once resuspended geldanamycin should be aliquoted and stored at -20 °C. Protect from light. Avoid repeated freeze-thaw cycles. Resuspended product is stable for 3 months when properly stored.

## QUALITY CONTROL

- Purity: ≥95% (UHPLC)
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) is confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

## DESCRIPTION

Geldanamycin (GA) is a natural product produced by *Streptomyces hygroscopicus*. InvivoGen produces GA from a mutant strain of *S. hygroscopicus*, inactivated for the synthesis of nigericin, a common contaminant of GA. GA binds with high affinity into the ATP binding pocket of Hsp90. Hsp90 is a ubiquitous molecular chaperone critical for the folding, assembly and activity of multiple mutated and overexpressed signaling proteins that promote the growth and/or survival of tumor cells. Hsp90 client proteins include mutated p53, Raf-1, Akt, ErbB2 and hypoxia-inducible factor 1a (HIF-1a)<sup>1</sup>. Binding of GA to Hsp90 causes the destabilization and degradation of its client proteins<sup>2</sup>.

1. Neckers L., 2002. Hsp90 inhibitors as novel cancer chemotherapeutic agents. Trends Mol Med 8(4 Suppl):S55-61. 2. Whitesell L. et al., 1994. Inhibition of heat shock protein HSP90-pp60v-src heteroprotein complex formation by benzoquinone ansamycins: essential role for stress proteins in oncogenic transformation. PNAS 91(18):8324-8.

## CHEMICAL PROPERTIES

**CAS number:** 30562-34-6

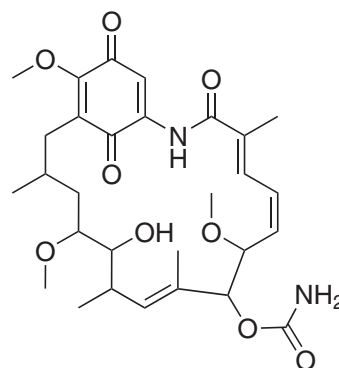
**Formula:** C<sub>29</sub>H<sub>40</sub>N<sub>2</sub>O<sub>9</sub>

**Molecular weight:** 560

**Solubility:** DMSO (1 mg/ml)

**Working concentration:** 1 nM - 10 μM

### Structure:



## RELATED PRODUCTS

Product	Catalog Code
17-AAG (GA analogue)	ant-agl-5
17-DMAG (water soluble GA analogue)	ant-dgl-5
FITC-Geldanamycin	ant-fgl-1

## TECHNICAL SUPPORT

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