

# Certificate of Analysis

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**Product Name:** 17-DMAG hydrochloride

**Catalog No.:** 2610

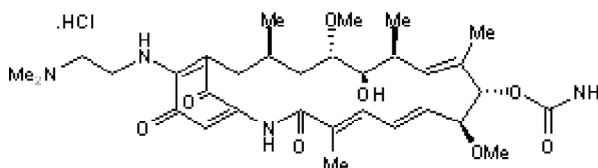
**Batch No.:** 1

**CAS Number:** 467214-21-7

**IUPAC Name:** 17-Demethoxy-17-[[2-(dimethylamino)ethyl]amino]geldanamycin hydrochloride

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>32</sub> H <sub>48</sub> N <sub>4</sub> O <sub>8</sub> .HCl
<b>Batch Molecular Weight:</b>	653.21
<b>Physical Appearance:</b>	Purple lyophilised solid
<b>Solubility:</b>	DMSO to 30 mM ethanol to 10 mM
<b>Storage:</b>	Desiccate at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>TLC:</b>	R <sub>f</sub> = 0.4 (Chloroform:Methanol:Ammonia[90:10:0.5])
<b>HPLC:</b>	Shows >99.9% purity
<b>Mass Spectrum:</b>	Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**1**

**CAS Number:** 467214-21-7

**IUPAC Name:** 17-Demethoxy-17-[[2-(dimethylamino)ethyl]amino]geldanamycin hydrochloride

**Description:**

17-DMAG hydrochloride is a water-soluble analog of 17-AAG (Cat. No. 1515) and geldanamycin (Cat. No. 1368). Binds the ATP binding site of Hsp90 and inhibits its chaperone activity. Displays more potent antitumor activity than 17-AAG (mean GI<sub>50</sub> values are 53 and 123 nM for 17-DMAG and 17-AAG respectively).

**Physical and Chemical Properties:**

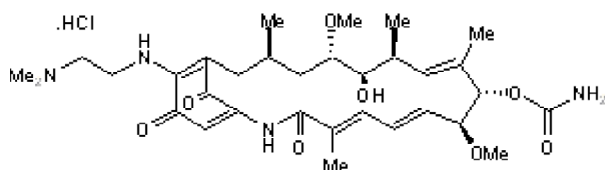
Batch Molecular Formula: C<sub>32</sub>H<sub>48</sub>N<sub>4</sub>O<sub>8</sub>.HCl

Batch Molecular Weight: 653.21

Physical Appearance: Purple lyophilised solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Desiccate at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 30 mM

ethanol to 10 mM

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**Licensing Information:**

Sold with the permission of the NIH, US Patent 6,890,917

**References:**

**Dote et al** (2006) Inhibition of Hsp90 compromises the DNA damage response to radiation. *Cancer Res.* **66** 9211. PMID: 16982765.

**Smith et al** (2005) Comparison of 17-dimethylaminoethylamino-17-demethoxy-geldanamycin (17DMAG) and 17-allylamino-17-demethoxygeldanamycin (17AAG) in vitro: effects on Hsp90 and client proteins in melanoma models. *Cancer Chemother.Pharmacol.* **56** 126. PMID: 15841378.

**Egorin et al** (2002) Pharmacokinetics, tissue distribution, and metabolism of 17-(dimethylaminoethylamino)-17-demethoxygeldanamycin (NSC 707545) in CD2F1 mice and fischer 344 rats. *Cancer Chemother.Pharmacol.* **49** 7. PMID: 11855755.

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