Certificate of Analysis

Product Name: **Macbecin I** **Catalog No.: 3061** **Batch No.: 1**

CAS Number: 73341-72-7

IUPAC Name: (15*R*)-6,17-Didemethoxy-15-methoxy-6-methyl-11-*O*-methyl-geldanamycin

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{30}H_{42}N_2O_8$

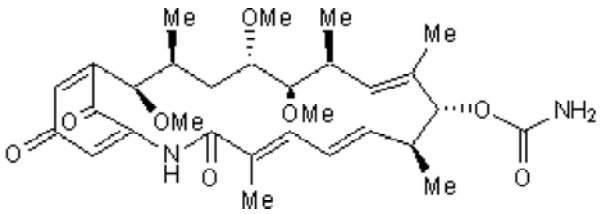
Batch Molecular Weight: 558.67

Physical Appearance: Yellow lyophilised solid

Solubility: Soluble in DMSO

Storage: Desiccate at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >95% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

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Product Information

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Description:

Ansamycin antibiotic compound that inhibits Hsp90 activity (IC_{50} = 2 µM) by binding to the ATP-binding site. Exhibits antitumor and cytocidal activities (IC_{50} ~ 0.4 µM) by causing degradation of key oncogenic client proteins such as ErbB2 and cRaf1. Displays higher affinity and potency than geldanamycin (Cat. No. 1368).

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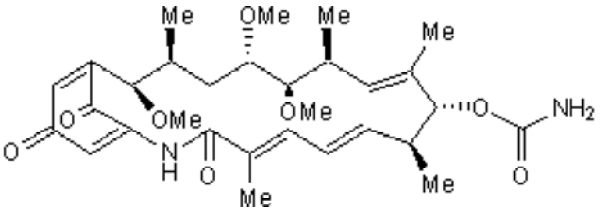

Storage: Desiccate at -20°C. This product is packaged under an inert atmosphere.

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:

Soluble in DMSO

This product is supplied as a lyophilized solid and may 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. Our standard recommendations are:

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.

References:

Martin *et al* (2008) Molecular characterization of macbecin as an Hsp90 inhibitor. J.Med.Chem. ***51*** 2853. PMID: 18357975.

Uehara *et al* (2003) Natural product origins of Hsp90 inhibitors. Curr.Cancer Drug Targets ***3*** 325. PMID: 14529384.

Ono *et al* (1982) Antitumor and cytocidal activities of a newly isolated benzenoid ansamycin, macbecin I. Gann. ***73*** 938. PMID: 6186564.