



Certificate of Analysis

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Product Name: Garcinol Catalog No.: 4827 Batch No.: 1

CAS Number: 78824-30-3 EC Number: 616-656-1

IUPAC Name: (1R,5R,7R)-3-(3,4-Dihydroxybenzyol)-4-hydroxy-8,8-dimethyl-1,7-bis(3-methyl-2-buten-1-yl)-5-[(2S)-5-methyl-2-(1-

methylethenyl)-4-hexen-1-yl]bicyclo[3.3.1]non-3-ene-2,9-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{38}H_{50}O_6$ Batch Molecular Weight: 602.8

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.9% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 75.71 8.36 Found 75.34 8.36



Product Information

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Print Date: Jan 16th 2016

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Description:

Inhibitor of PCAF and p300 histone acetyltransferase (HAT) activity (IC $_{50}$ values are 5 and 7 μ M, respectively). Promotes expansion of human HSCs ex vivo. Causes reversal of EMT and inhibits β -catenin in breast cancer cell lines MDA-MB-231 and BT-549.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{38}H_{50}O_6$ Batch Molecular Weight: 602.8 Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Store 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:

DMSO to 100 mM ethanol to 100 mM

This product has been packed under inert atmosphere, and should be stored under inert atmosphere after use.

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:

Balasubramanyam *et al* (2004) Polyisoprenylated benzophenone, garcinol, a natural histone acetyltransferase inhibitor, represses chromatin transcription and alters global gene expression. J.Biol.Chem. **279** 33716. PMID: 15155757.

Nishino *et al* (2011) *Ex vivo* expansion of human hematopoietic stem cells by garcinol, a potent inhibitor of histone acetyltransferase. PLoS One *6* e24298. PMID: 21931675.

Ahmad et al (2012) Garcinol regulates EMT and Wnt signaling pathways in vitro and in vivo, leading to anticancer activity against breast cancer cells. Mol.Cancer.Ther. 11 2193. PMID: 22821148.