

Certificate of Analysis

Print Date: Feb 21st 2022

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Product Name: Anacardic acid Catalog No.: 3084 Batch No.: 3

CAS Number: 16611-84-0

IUPAC Name: 2-Hydroxy-6-pentadecylbenzoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{22}H_{36}O_3.1/4H_2O$

Batch Molecular Weight: 353.02

Physical Appearance: Beige solid

Solubility: DMSO to 100 mM

ethanol to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 97% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 74.85 10.42 Found 75.25 10.77



Product Information

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IUPAC Name: 2-Hydroxy-6-pentadecylbenzoic acid

Description:

Anacardic acid is a noncompetitive inhibitor of PCAF and p300 histone acetyltransferase (HAT) activity (IC $_{50}$ values are ~5.0 and ~8.5 μ M respectively). Inhibits NF- κ B activation. Also reported to selectively activate Aurora kinase A-mediated phosphorylation of histone H3 and to inhibit protein SUMOylation. Exhibits antitumor, antimicrobial and antioxidant activity. Also promotes cardiomyocyte differentiation from mESCs.

Physical and Chemical Properties:

Batch Molecular Formula: C22H36O3.14H2O

Batch Molecular Weight: 353.02 Physical Appearance: Beige solid

Minimum Purity: ≥97%

Batch Molecular Structure:

Storage: Store 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 100 mM ethanol to 50 mM

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:

Re et al (2016) Anacardic acid and thyroid hormone enhance cardiomyocytes production from undifferentiated mouse ES cells along functionally distinct pathways. Endocrine **53** 681. PMID: 26547215.

Fukuda *et al* (2009) Ginkgolic acid inhibits protein SUMOylation by blocking formation of the E1-SUMO intermediate. Chem.Biol. *16* 133. PMID: 19246003.

Cui et al (2008) Histone acetyltransferase inhibitor anacardic acid causes changes in global gene expression during in vitro *Plasmodium* falciparum development. Eurkaryot.Cell **7** 1200.