



Certificate of Analysis

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Product Name: Urolithin A Catalog No.: 6762 Batch No.: 3

CAS Number: 1143-70-0

IUPAC Name: 3,8-Dihydroxy-6*H*-dibenzo[*b,d*]pyran-6-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{13}H_8O_4$. Batch Molecular Weight: 228.2

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 68.42 3.53 0 Found 67.51 3.53 0

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Product Information

Print Date: Jan 31st 2025

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IUPAC Name: 3,8-Dihydroxy-6*H*-dibenzo[*b,d*]pyran-6-one

Description:

Urolithin A is a PI 3-K/Akt/mTOR signaling pathway inhibitor; blocks phosphorylation of Akt and p70S6K in pancreatic ductal adenocarcinoma (PDAC). Inhibits proliferation and migration and promotes apoptosis of PDAC cell lines in vitro (IC $_{50}$ values are 10.23 - 62.28 $\mu M)$. Suppresses tumor growth and improves survival in mice bearing pancreatic tumor xenografts. Also blocks amyloid- β fibrillation in vitro.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₃H₈O₄. Batch Molecular Weight: 228.2 Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 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. *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.

References:

Totiger *et al* (2019) Urolithin A, a novel natural compound to target PI3K/AKT/mTOR pathway in pancreatic cancer. Mol.Cancer Ther. *18* 301. PMID: 30404927.

Yuan *et al* (2016) Pomegranate's neuroprotective effects against Alzheimer's disease are mediated by urolithins, its ellagitannin-gut microbial derived metabolites. ACS Chem.Neurosci. **7** 26. PMID: 26559394.

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