

## Certificate of Analysis

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**Product Name:** Apocynin

CAS Number: 498-02-2

IUPAC Name: 4'-Hydroxy-3'-methoxyacetophenone

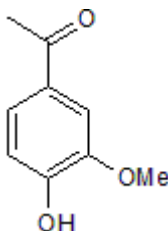
**Catalog No.:** 4663

EC Number: 207-854-5

**Batch No.:** 1

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>9</sub>H<sub>10</sub>O<sub>3</sub>  
**Batch Molecular Weight:** 166.17  
**Physical Appearance:** Pale orange solid  
**Solubility:** DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 100% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	65.05	6.06	
Found	65.15	6.07	

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

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**Description:**

NADPH oxidase inhibitor. Demonstrates anti-inflammatory properties in a mouse model of carrageenan-induced pleurisy. Bioactivated by intracellular peroxidases; acts as an antioxidant in endothelial cells and vascular smooth muscle cells.

**Physical and Chemical Properties:**

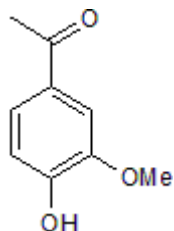
Batch Molecular Formula: C<sub>9</sub>H<sub>10</sub>O<sub>3</sub>

Batch Molecular Weight: 166.17

Physical Appearance: Pale orange solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Stolk et al** (1994) Characteristics of the inhibition of NADPH oxidase activation in neutrophils by apocynin, a methoxy-substituted catechol. *Am.J.Respir.Cell Mol.Biol.* **11** 95. PMID: 8018341.

**Heumüller et al** (2008) Apocynin is not an inhibitor of vascular NADPH oxidases but an antioxidant. *Hypertension* **51** 211. PMID: 18086956.

**Impellizzeri et al** (2011) Effect of apocynin, a NADPH oxidase inhibitor, on acute lung inflammation. *Biochem.Pharmacol.* **81** 636. PMID: 21147071.

**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol 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. 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.

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