

Product Name: Rottlerin

Catalog No.: 1610

Batch No.: 5

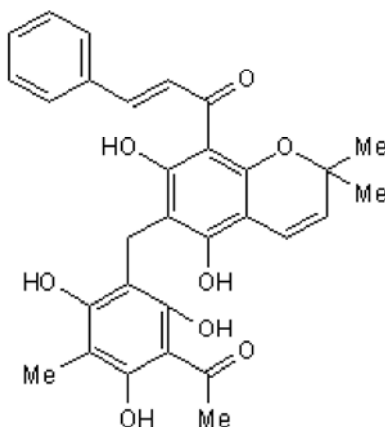
CAS Number: 82-08-6

EC Number: 201-395-4

IUPAC Name: 3'-[(8-Cinnamoyl-5,7-dihydroxy-2,2-dimethyl-2H-1-benzopyran-6-yl)methyl]-2',4',6'-trihydroxy-5'-methylacetophenone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₀H₂₈O₈
Batch Molecular Weight: 516.55
Physical Appearance: Red/brown solid
Solubility: DMSO to 20 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.8% purity
Mass Spectrum: Consistent with structure

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

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Description:

Originally reported to inhibit PKC isoforms. Also reported to inhibit CAM kinase III. However, recently shown to inhibit a wide range of protein kinases, and most potently to inhibit PRAK and MAPKAP-K2 (IC₅₀ values are 1.9 and 5 μM respectively). Also shown to act as a direct mitochondrial uncoupler. Thought to stimulate autophagy by targeting upstream mTORC1 control pathways.

Physical and Chemical Properties:

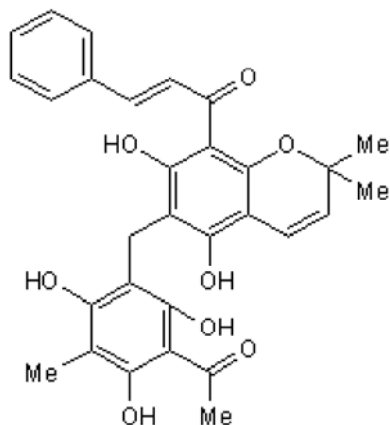
Batch Molecular Formula: C₃₀H₂₈O₈

Batch Molecular Weight: 516.55

Physical Appearance: Red/brown solid

Minimum Purity: ≥95%

Batch Molecular Structure:



References:

Balgi et al (2009) Screen for chemical modulators of autophagy reveals novel therapeutic inhibitors of mTORC1 signaling. *PLoS One* **4** e7124. PMID: 19771169.

Zhang et al (2007) Neuroprotective effect of protein kinase Cδ inhibitor rottlerin in cell culture and animal models of Parkinson's disease. *J.Pharmacol.Exp.Ther.* **322** 913. PMID: 17565007.

Davies et al (2000) Specificity and mechanism of action of some commonly used protein kinase inhibitors. *Biochem.J.* **351** 95. PMID: 10998351.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 20 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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