Product Name: Arctigenin
CAS Number: 7770-78-7
IUPAC Name: (3R,4R)-4-[(3,4-Dimethoxyphenyl)methyl]dihydro-3-[(4-hydroxy-3-methoxyphenyl)methyl]-2(3H)-furanone

1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: C_{21}H_{24}O_{6}
   Batch Molecular Weight: 372.42
   Physical Appearance: White solid
   Solubility: ethanol to 25 mM with gentle warming
                DMSO to 100 mM
   Storage: Desiccate at -20°C
   Batch Molecular Structure:

2. ANALYTICAL DATA

   HPLC: Shows 98.6% purity
   ^1H NMR: Consistent with structure
   Mass Spectrum: Consistent with structure
   Microanalysis:

      Carbon Hydrogen Nitrogen
      Theoretical  67.73  6.5
      Found       67.79  6.56
Product Information

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Description:
Antioxidant, anti-inflammatory, antiproliferative and antiviral agent. Inhibits LPS-induced iNOS expression via inhibition of IκBα phosphorylation and p65 nuclear translocation (IC_{50} = 10 nM). Inhibits HIV-1 replication in vitro. Also potently inhibits MKK1 (MEK1) (IC_{50} = 0.5 nM) and provides neuroprotection by binding to kainate receptors.

Physical and Chemical Properties:
Batch Molecular Formula: C_{21}H_{22}O_{6}
Batch Molecular Weight: 372.42
Physical Appearance: White solid
Minimum Purity: >98%

Storage: Desiccate at -20°C

Solubility & Usage Info:
ethanol to 25 mM with gentle warming
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. 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: