

Product Name: Fisetin

Catalog No.: 5016

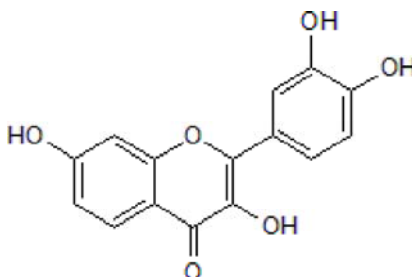
Batch No.: 2

CAS Number: 528-48-3

IUPAC Name: 2-(3,4-Dihydroxyphenyl)-3,7-dihydroxy-4*H*-1-benzopyran-4-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₀O₆
Batch Molecular Weight: 286.24
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
 ethanol to 10 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.0% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.94	3.52	
Found	62.46	3.58	

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

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IUPAC Name: 2-(3,4-Dihydroxyphenyl)-3,7-dihydroxy-4H-1-benzopyran-4-one

Description:

Naturally occurring flavonoid and antioxidant. Inhibits PI 3-K, Akt, mTOR and Cdk6. Displays antiproliferative activity in prostate cancer cells. Shown to activate ERK; exhibits neuroprotective activity in Huntington's disease models. Also a DNMT1 inhibitor.

Physical and Chemical Properties:

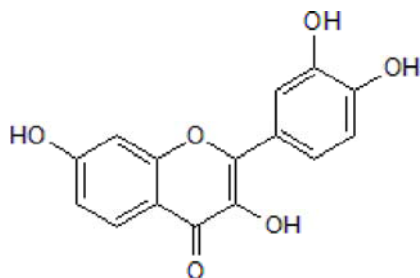
Batch Molecular Formula: C₁₅H₁₀O₆

Batch Molecular Weight: 286.24

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 10 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:

Adhami et al (2012) Dietary flavonoid fisetin: a novel dual inhibitor of PI3K/Akt and mTOR for prostate cancer management. *Biochem.Pharmacol.* **84** 1277. PMID: 22842629.

Maher et al (2011) ERK activation by the polyphenols fisetin and resveratrol provides neuroprotection in multiple models of Huntington's disease. *Hum.Mol.Genet.* **20** 261. PMID: 20952447.

Haddad et al (2010) Antiproliferative mechanisms of the flavonoids 2,2'-dihydroxychalcone and fisetin in human prostate cancer cells. *Nutr.Cancer* **62** 668. PMID: 20574928.

Lee et al (2005) Mechanisms for the inhibition of DNA methyltransferases by tea catechins and bioflavonoids. *Mol.Pharmacol.* **68** 1018. PMID: 16037419.

Lu et al (2005) Crystal structure of a human cyclin-dependent kinase 6 complex with a flavonol inhibitor, fisetin. *J.Med.Chem.* **48** 737. PMID: 15689157.

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