

Certificate of Analysis

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Product Name: Quercetin

Catalog No.: 1125

Batch No.: 1

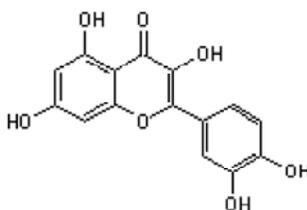
CAS Number: 117-39-5

EC Number: 204-187-1

IUPAC Name: 2-(3,4-Dihydroxyphenyl)-3,5,7-trihydroxy-4*H*-1-benzopyran-4-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₁₀O₇
Batch Molecular Weight: 302.24
Physical Appearance: Yellow solid
Solubility: DMSO to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.4 (Dichloromethane:Methanol [10:1])
Melting Point: Greater than 300°C
HPLC: Shows 98.3% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.26	4.17	0
Found	53.19	3.92	0

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

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Description:

Antitumor agent; induces apoptosis and inhibits synthesis of heat shock proteins. Inhibits many enzyme systems including tyrosine protein kinase, phospholipase A₂, phosphodiesterases, mitochondrial ATPase, PI 3-kinase and protein kinase C. Can also activate Ca²⁺ and K⁺ channels and behaves as an agonist at estrogen (GPER) receptors. Blocks cellular entry by influenza A virus via an interaction with hemagglutinin. Inhibits SARS-CoV 3CL^{pro} (IC₅₀ = 73 μM).

Physical and Chemical Properties:

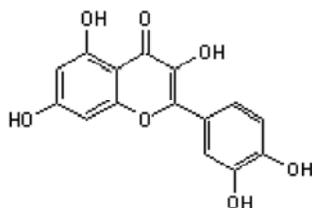
Batch Molecular Formula: C₁₅H₁₀O₇

Batch Molecular Weight: 302.24

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

Wu et al (2015) Quercetin as an antiviral agent inhibits influenza A virus (IAV) entry. *Viruses* **8** 6. PMID: 26712783.

Nguyen et al (2012) Flavonoid-mediated inhibition of SARS coronavirus 3C-like protease expressed in *Pichia pastoris*. *Biotechnol.Lett.* **34** 831. PMID: 22350287.

Cermak et al (2002) The flavonol quercetin activates basolateral K⁺ channels in rat distal colon epithelium. *Br.J.Pharmacol.* **135** 1183. PMID: 11877325.

Storage: Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

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. 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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