

Certificate of Analysis

www.tocris.com

Product Name: Hispidulin

Catalog No.: 2174

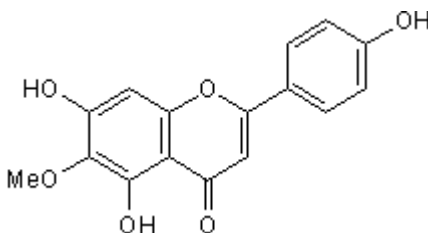
Batch No.: 2

CAS Number: 1447-88-7

IUPAC Name: 5,7-Dihydroxy-2-(4-hydroxyphenyl)-6-methoxy-4*H*-1-benzopyran-4-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₆ H ₁₂ O ₆
Batch Molecular Weight:	300.27
Physical Appearance:	Yellow solid
Solubility:	DMSO to 25 mM ethanol to 10 mM
Storage:	Desiccate at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 98.4% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure

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

Product Name: Hispidulin

Catalog No.: 2174

Batch No.: 2

CAS Number: 1447-88-7

IUPAC Name: 5,7-Dihydroxy-2-(4-hydroxyphenyl)-6-methoxy-4H-1-benzopyran-4-one

Description:

Partial positive allosteric modulator at the benzodiazepine receptor ($IC_{50} = 1.3 \mu M$ for inhibition of flumazenil binding); natural sage flavone. Stimulates GABA-induced chloride currents in *Xenopus* oocytes expressing $\alpha 1$ -, $\alpha 2$ -, $\alpha 3$ -, $\alpha 5$ - or $\alpha 6$ - $\beta 2$ $\gamma 2S$ GABA_A receptors. Brain penetrant; oral administration reduces seizures in a gerbil model of epilepsy. Also has antifungal, antiproliferative, antioxidant and antithrombotic properties.

Physical and Chemical Properties:

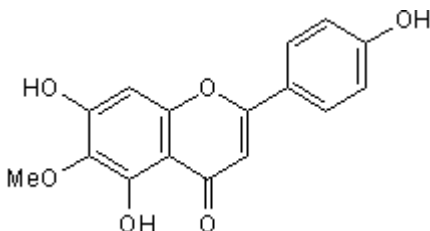
Batch Molecular Formula: C₁₆H₁₂O₆

Batch Molecular Weight: 300.27

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at -20°C

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 25 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:

Bourdillat et al (1988) Hispidulin, a natural flavone, inhibits human platelet aggregation by increasing cAMP levels. *Eur.J.Pharmacol.* **147** 1. PMID: 2836213.

Kavvadias et al (2003) Constituents of sage (*Salvia officinalis*) with *in vitro* affinity to human brain benzodiazepine receptor. *Planta Med.* **69** 113. PMID: 12624814.

Kavvadias et al (2004) The flavone hispidulin, a benzodiazepine receptor ligand with positive allosteric properties, traverses the blood-brain barrier and exhibits anticonvulsive effects. *Br.J.Pharmacol.* **142** 811. PMID: 15231642.

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

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956