TOCRIS
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Print Date: Jan 13th 2016

Certificate of Analysis

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Product Name: **Liquiritigenin** **Catalog No.: 3819** **Batch No.: 3**

CAS Number: 578-86-9

IUPAC Name: (*S*)-2,3-Dihydro-7-hydroxy-2-(4-hydroxyphenyl)-4*H*-1-benzopyran-4-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{15}H_{12}O_4$

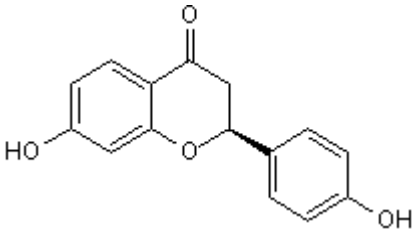
Batch Molecular Weight: 256.25

Physical Appearance: Off-white solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.6% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D$ = -40 (Concentration = 0.2, Solvent = Methanol)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.31	4.72	
Found	70.3	4.66	

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Description:

Potent ERβ agonist isolated from licorice root (EC_{50} = 36.5 nM for activation of the ERE tk-Luc reporter by ERβ in transfected U2OS cells). Displays 20-fold selectivity for ERβ; does not activate other nuclear receptors, including the androgen and glucocorticoid receptors. Displays anti-inflammatory effects.

Physical and Chemical Properties:

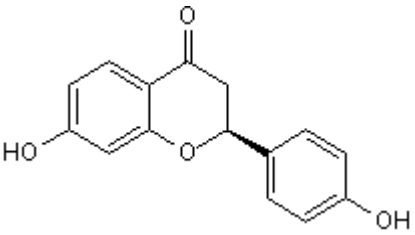
Batch Molecular Formula: $C_{15}H_{12}O_4$

Batch Molecular Weight: 256.25

Physical Appearance: Off-white solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store 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 100 mM
ethanol 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:

Yahara (1984) Flavonoid glucosides from licorice. Phytochemistry ***23*** 2108.

Mersereau *et al* (2008) Liquiritigenin is a plant-derived highly selective estrogen receptor beta agonist. Mol.Cell.Endocrinol. ***283*** 49. PMID: 18177995.

Kim *et al* (2008) Anti-inflammatory effects of liquiritigenin as a consequence of the inhibition of NK-kappaB-dependent iNOS and proinflammatory cytokines production. Br.J.Pharmacol. ***154*** 165. PMID: 18332856.

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