Print Date: Dec 22nd 2016

Certificate of Analysis

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Product Name: **7,8-Dihydroxyflavone** **Catalog No.: 3826** **Batch No.: 2**

CAS Number: 38183-03-8 EC Number: 253-812-4

IUPAC Name: 7,8-Dihydroxy-2-phenyl-4*H*-1-benzopyran-4-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{15}H_{10}O_4.H_2O$

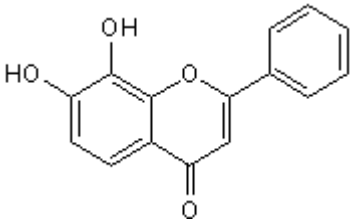
Batch Molecular Weight: 272.26

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM
ethanol to 25 mM
2eq. NaOH to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.18	4.44	
Found	66.39	4.4	

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Product Information

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CAS Number: 38183-03-8 EC Number: 253-812-4

IUPAC Name: 7,8-Dihydroxy-2-phenyl-4*H*-1-benzopyran-4-one

Description:

Tyrosine kinase receptor B (TrkB) agonist that binds to the extracellular domain of the receptor (K_d = 320 nM). Inhibits glutamate-triggered apoptosis in hippocampal neurons in vitro and in vivo. Exhibits neuroprotective effects in an HD mouse model.

Physical and Chemical Properties:

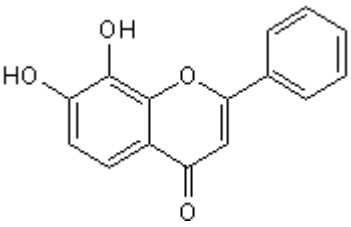
Batch Molecular Formula: $C_{15}H_{10}O_4.H_2O$

Batch Molecular Weight: 272.26

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°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 25 mM
2eq. NaOH 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:

Jiang *et al* (2013) Small-molecule TrkB receptor agonists improve motor function and extend survival in a mouse model of Huntington's disease. Hum.Mol.Genet. ***22*** 2462. PMID: 23446639.

Andero *et al* (2012) 7,8-dihydroxyflavone, a TrkB receptor agonist, blocks long-term spatial memory impairment caused by immobilzation stress in rats. Hippocampus ***22*** 399. PMID: 21136519.

Jang *et al* (2010) A selective TrkB agonist with potent neurotrophic activities by 7,8-dihydroxyflavone. Proc.Natl.Acad.Sci.USA ***107*** 268.

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