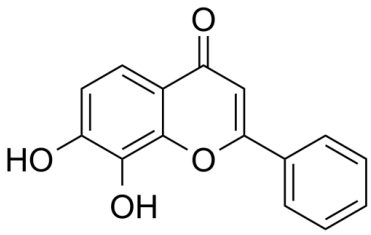
Data Sheet

Product Name:	7,8-Dihydroxyflavone
Cat. No.:	CS-W014088
CAS No.:	38183-03-8
Molecular Formula:	$C_{15}H_{10}O_4$
Molecular Weight:	254.24
Target:	Apoptosis; Trk Receptor
Pathway:	Apoptosis; Neuronal Signaling; Protein Tyrosine Kinase/RTK
Solubility:	DMSO : ≥ 100 mg/mL (393.33 mM)



BIOLOGICAL ACTIVITY:

7,8-Dihydroxyflavone is a potent and selective **TrkB** agonist that mimics the physiological actions of Brain-derived neurotrophic factor (BDNF). Displays therapeutic efficacy toward various neurological diseases[1]. IC50 & Target: TrkB[1] **In Vitro:** 7,8-Dihydroxyflavone (500 nM) protects the primary cortical neurons and locus coeruleus (LC) neurons from Aβ-induced toxicity and promotes dendritic growth and synaptogenesis[1]. **In Vivo:** 7,8-Dihydroxyflavone (5 mg/kg/day) prevents synaptic loss and memory deficits in a mouse model of Alzheimer's Disease[1].

Administration of 7,8- dihydroxyflavone to mice activates TrkB in the brain, inhibits kainic acid-induced toxicity, decreases infarct volumes in stroke in a TrkBdependent manner, and is neuroprotective in an animal model of Parkinson disease[2].

References:

[1]. Zhang Z, et al. 7,8-dihydroxyflavone prevents synaptic loss and memory deficits in a mouse model of Alzheimer's disease. Neuropsychopharmacology. 2014 Feb;39(3):638-50.

CAIndexNames:

4H-1-Benzopyran-4-one, 7,8-dihydroxy-2-phenyl-

SMILES:

O=C1C=C(C2=CC=CC=C2)OC3=C(O)C(O)=CC=C13

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