LKT Laboratories, Inc.

7,8-Dihydroxyflavone Hydrate

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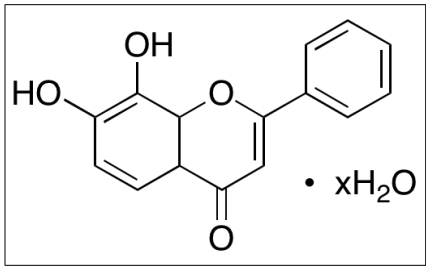
Product Information

Product ID D3329
CAS No. 38183-03-8
Chemical Name

Synonym

Formula $C_{15}H_{10}O_4 \cdot xH_2O$
Formula Wt. 254.24 (anhy)
Melting Point
Purity ≥99%
Solubility DMSO: 24 mg/mL



Bulk quanitites available upon request

Product ID	Size
D3329	25 mg
D3329	100 mg
D3329	500 mg

Store Temp Ambient
Ship Temp Ambient

Description 7,8-Dihydroxyflavone (DHF) is a brain-derived neurotrophic factor (BDNF) mimetic that activates TrkB receptors. DHF displays neuromodulatory, neuroprotective, antipsychotic, anti-obesity, anticancer, antioxidative, anti-inflammatory, and antihypertensive activities. In animal models of traumatic brain injury (TBI), DHF decreases brain edema, neuronal death, and brain tissue damage and improves functional deficits. In animal models of schizophrenia, this compound reverses cognitive deficits and promotes synaptic plasticity. DHF also benefits neurodegenerative disease models such as Parkinson's disease, Alzheimer's disease, and amyotrophic lateral sclerosis (ALS); in these models, DHF decreases motor deficits and improves cognitive abilities. DHF prevents the induction of diet-induced obesity in animal models and also decreases adiposity, increases energy expenditure, and improves insulin sensitivity in already-obese animals. In oral squamous cell carcinoma cells, this compound decreases cell growth and induces apoptosis by suppressing Sp1 signaling. DHF also decreases production of NO and PGE2 and suppresses expression of COX-2, iNOS, TNF-α, and IL-1β in LPS-stimulated microglia. In other cellular models, DHF increases levels of HO-1 and Nrf2, protecting against H2O2- and UV light-induced oxidative damage. DHF also increases eNOS expression in vitro and decreases blood pressure in spontaneously hypertensive rats.

References

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