



LKT Laboratories, Inc.

Luteolin

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID L8377

CAS No. 491-70-3

Chemical Name 2-(3,4-Dihydroxyphenyl)-5,7-dihydroxy-4H-1-benzopyran-4-one

Synonym 3',4',5,7-Tetrahydroxyflavone, Digitoflavone, Cyanidenon

Formula C₁₅H₁₀O₆

Formula Wt. 286.24

Melting Point ~330°C (lit.)

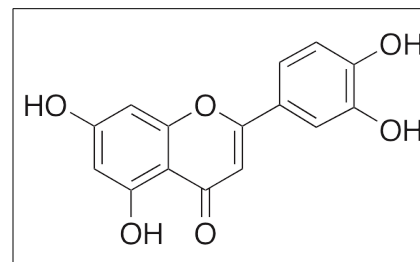
Purity ≥95%

Solubility Soluble in methanol and alkaline solutions. Slightly soluble in water. DMSO to 57 mg/mL, Ethanol to 6mg/mL

Store Temp 4°C

Ship Temp Ambient

Description Luteolin is a flavonoid found in various plant sources. Luteolin exhibits antioxidative, anti-inflammatory, neuromodulatory, anti-diabetic, antihypertensive, and anticancer chemotherapeutic activities. In vitro and in vivo, luteolin inhibits LPS-induced expression of IL-6 by inhibiting JNK phosphorylation and decreasing the binding of AP-1 transcription factor to the IL-6 promoter. In animal models of experimental autoimmune encephalitis (EAE), luteolin inhibits mast cell activity and mast cell-dependent T cell activation, lessening disease pathology. Luteolin inhibits phosphodiesterases (PDE 1-5) and may also inhibit α2-adrenergic receptors as it reverses xylazine/ketamine-induced anesthesia in vivo. Luteolin also increases monoamine transport, potentially through potentiation of DAT and NET. In diabetic mice, luteolin decreases mast cell and macrophage infiltration, expression of inflammatory cytokines, glucose tolerance, insulin sensitivity, and apoptosis. Luteolin decreases systolic blood pressure in spontaneously hypertensive rats and decreases expression of MMP9 and VEGF, suppressing tumor growth in animal models with gastric cancer xenografts. Additionally, luteolin inhibits heat shock protein 90 (HSP90) and IGF-1R.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
L8377	100 mg	\$139.00
L8377	500 mg	\$433.90
L8377	1 g	\$607.70

References Xu N, Zhang L, Dong J, et al. Low-dose diet supplement of a natural flavonoid, luteolin, ameliorates diet-induced obesity and insulin resistance in mice. *Mol Nutr Food Res*. 2014 Jun;58(6):1258-68. PMID: 24668788.

Chen D, Bi A, Dong X, et al. Luteolin exhibits anti-inflammatory effects by blocking the activity of heat shock protein 90 in macrophages. *Biochem Biophys Res Commun*. 2014 Jan 3;443(1):326-32. PMID: 24321097.

Lv GY, Zhang YP, Gao JL, et al. Combined antihypertensive effect of luteolin and buddleoside enriched extracts in spontaneously hypertensive rats. *J Ethnopharmacol*. 2013 Nov 25;150(2):507-13. PMID: 24080032.

Yang Y, Shen J, Yu X, et al. Identification of an inhibitory mechanism of luteolin on the insulin-like growth factor-1 ligand-receptor interaction. *Chembiochem*. 2013 May 27;14(8):929-33. PMID: 23630137.

Lu XY, Li YH, Xiao XW, et al. Inhibitory effects of luteolin on human gastric carcinoma xenografts in nude mice and its mechanism. *Zhonghua Yi Xue Za Zhi*. 2013 Jan 8;93(2):142-6. PMID: 23648354.

Yu MC, Chen JH, Lai CY, et al. Luteolin, a non-selective competitive inhibitor of phosphodiesterases 1-5, displaced [3H]-rolipram from high-affinity rolipram binding sites and reversed xylazine/ketamine-induced anesthesia. *Eur J Pharmacol*. 2010 Feb 10;627(1-3):269-75. PMID: 19853596.

Zhao G, Qin GW, Wang J, et al. Functional activation of monoamine transporters by luteolin and apigenin isolated from the

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.