



LKT Laboratories, Inc.

## Daidzein

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### Product Information

Product ID D0032

CAS No. 486-66-8

Chemical Name 7-Hydroxy-3-(4-hydroxyphenyl)-4H-1-benzopyran-4-one

Synonym 7,4'-Dihydroxyisoflavone

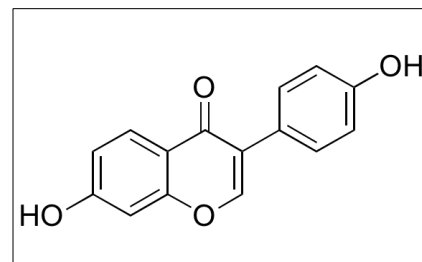
Formula  $C_{15}H_{10}O_4$

Formula Wt. 254.24

Melting Point 315-325°C(dec.)

Purity ≥97%

Solubility Soluble in ethanol or ether.



### Pricing and Availability

**Bulk quantities available upon request**

Product ID	Size	List Price
D0032	250 mg	\$75.60
D0032	1 g	\$165.40
D0032	5 g	\$330.80

Store Temp Ambient

Ship Temp Ambient

**Description** Daidzein is a phytoestrogen and isoflavone initially found in various plant sources, including soybeans. Daidzein exhibits pro-fibrotic, anti-inflammatory, anticancer chemotherapeutic, neuroprotective, immunomodulatory, anti-osteoporotic, anti-resorptive, anti-obesity, and antioxidative activities. Daidzein increases collagen synthesis and inhibits collagen degradation in fibroblasts by activating TGF- $\beta$ /Smad signaling. In vivo, daidzein decreases TNF- $\alpha$ -induced lung inflammation, expression of Cxcl2, activation of NF- $\kappa$ B, and activity of PARP-1. In hepatic cancer cells, daidzein induces apoptosis, increases cytochrome c release and activation of caspases 3 and 9, and decreases cellular proliferation. In other in vitro models, daidzein increases neurite growth by increasing activity of PKC, ERK, and Src. In vivo, daidzein decreases ovariectomy-induced increases in CD4<sup>+</sup> T cell levels; it also increases CD28<sup>+</sup> T cell levels, decreases RANKL expression, and suppresses osteoclast formation. This compound inhibits adipogenic differentiation by increasing lipolysis in vitro. In vivo, daidzein increases levels of superoxide dismutase, catalase, glutathione, glutathione peroxidase, and glutathione-S-transferase, inhibiting DMBA-induced breast cancer development. TEST!!!!!!

**References** Li HY, Pan L, Ke YS, et al. Daidzein suppresses pro-inflammatory chemokine Cxcl2 transcription in TNF- $\alpha$ -stimulated murine lung epithelial cells via depressing PARP-1 activity. *Acta Pharmacol Sin.* 2014 Apr;35(4):496-503. PMID: 24632845.

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Tyagi AM, Srivastava K, Sharan K, et al. Daidzein prevents the increase in CD4<sup>+</sup>CD28<sup>null</sup> T cells and B lymphopoiesis in ovariectomized mice: a key mechanism for anti-osteoclastogenic effect. *PLoS One.* 2011;6(6):e21216. PMID: 21731677.

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