



LKT Laboratories, Inc.

Limonin

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Product Information

Product ID L3550

CAS No. 1180-71-8

Chemical Name 8-(3-furyl)decahydro-2,2,4a,8a-tetramethyl-11H,13H-oxireno-[d]pyrano[4',3':3,3a]isobenzofuro[5,4-f][2]-benzopyran-4,6,13-(2H,5aH)-trione

Synonym Evodine, Limonoic acid di- δ -lactone, limonoic acid 3,19:16,17-dilactone, Citrolimonin

Formula C₂₆H₃₀O₈

Formula Wt. 470.52

Melting Point 298-300°C

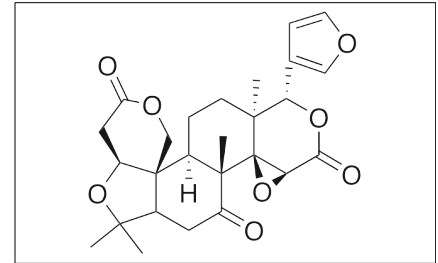
Purity \geq 98%

Solubility Soluble in ethanol, acetic acid, or DMSO. Slightly soluble in water.

Store Temp Ambient

Ship Temp Ambient

Description Limonin is a furanolactone found in fruits in the *Citrus* family. Limonin exhibits antioxidative, anti-inflammatory, hepatoprotective, anticancer, antiviral, anti-parasitic, and immunomodulatory activities. In animal models of hepatic ischemia/reperfusion, limonin upregulates expression of IL-10 and downregulates expression of toll-like receptors 2 and 4 (TLR2, TLR4), MyD88, TRIF, TNF- α , and NF- κ B. In colon adenocarcinoma cells, limonin induces mitochondria-dependent apoptosis and inhibits proliferation. Additionally, limonin inhibits expression of HIV-1 and HTLV-1 in infected cells. This compound also exhibits larvicidal activity against species of *Aedes* and decreases NF- κ B activation and CD4+ T cell stimulation in vitro.



Bulk quantities available upon request

Product ID	Size
L3550	50 mg
L3550	100 mg
L3550	500 mg

References Mahmoud MF, Gamal S, El-Fayoumi HM. Limonin attenuates hepatocellular injury following liver ischemia and reperfusion in rats via toll-like receptor dependent pathway. *Eur J Pharmacol.* 2014 Oct 5;740:676-82. PMID: 24967531.

Hafeez F, Akram W, Shaalan EA. Mosquito larvicidal activity of citrus limonoids against *Aedes albopictus*. *Parasitol Res.* 2011 Jul;109(1):221-9. PMID: 21212981.

Chidambara Murthy KN, Jayaprakasha GK, et al. Citrus limonin and its glucoside inhibit colon adenocarcinoma cell proliferation through apoptosis. *J Agric Food Chem.* 2011 Mar 23;59(6):2314-23. PMID: 21338095.

Balestrieri E, Pizzimenti F, Ferlazzo A, et al. Antiviral activity of seed extract from *Citrus bergamia* towards human retroviruses. *Bioorg Med Chem.* 2011 Mar 15;19(6):2084-9. PMID: 21334901.

Kim W, Fan YY, Smith R, et al. Dietary curcumin and limonin suppress CD4+ T-cell proliferation and interleukin-2 production in mice. *J Nutr.* 2009 May;139(5):1042-8. PMID: 19321585.

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