



LKT Laboratories, Inc.

Emodin

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## Product Information

Product ID E5057

CAS No. 518-82-1

Chemical Name

Synonym

Formula  $C_{15}H_{10}O_5$

Formula Wt. 270.24

Melting Point 253

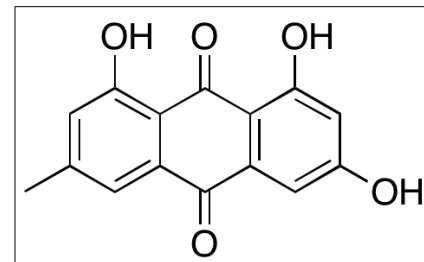
Purity  $\geq 95\%$

Solubility

Store Temp Ambient

Ship Temp Ambient

**Description** Emodin is an anthraquinone found in several sources, including the aloe plant, senna leaves, and rhubarb rhizomes. Emodin is most commonly known for its stimulant-laxative action, but also shows antioxidative, anticancer chemotherapeutic, and anti-angiogenic activity. This compound activates CFTR Cl<sup>-</sup> channels in the colon, potentially increasing fluid secretion and resulting in laxative activity. Emodin acts on a number of targets in cellular models of cancer, including p65I $\kappa$ B, ER $\alpha$ , NF- $\kappa$ B, and mTORC2. Additionally, emodin induces apoptosis in vivo through disruption of the mitochondria membrane potential.



**Bulk quantities available upon request**

**Product ID Size**

E5057 100 mg

E5057 250 mg

E5057 1 g

**References** Ismail S, Haris K, Abdul Ghani AR, et al. Enhanced induction of cell cycle arrest and apoptosis via the mitochondrial membrane potential disruption in human U87 malignant glioma cells by aloe emodin. *J Asian Nat Prod Res.* 2013 Jul 22. [Epub ahead of print]. PMID: 23869465.

Huang PH, Huang CY, Chen MC, et al. Emodin and Aloe-Emodin Suppress Breast Cancer Cell Proliferation through ER  $\alpha$  Inhibition. *Evid Based Complement Alternat Med.* 2013; Epub 2013 Jun 24. PMID: 23864887.

Zhang W, Chen H, Liu DL, et al. Emodin sensitizes the gemcitabine-resistant cell line Bxpc-3/Gem to gemcitabine via downregulation of NF- $\kappa$ B and its regulated targets. *Int J Oncol.* 2013 Apr;42(4):1189-96. PMID: 23440366.

Liu K, Park C, Li S, et al. Aloe-emodin suppresses prostate cancer by targeting the mTOR complex 2. *Carcinogenesis.* 2012 Jul;33(7):1406-11. PMID: 22532249.

Yang H, Xu LN, He CY, et al. CFTR chloride channel as a molecular target of anthraquinone compounds in herbal laxatives. *Acta Pharmacol Sin.* 2011 Jun;32(6):834-9. PMID: 21602836.

Srinivas G, Babykutty S, Sathiadevan PP, et al. Molecular mechanism of emodin action: transition from laxative ingredient to an antitumor agent. *Med Res Rev.* 2007 Sep;27(5):591-608. PMID: 17019678.

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