



LKT Laboratories, Inc.

## Isorhamnetin

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### Product Information

**Product ID** I7357

**CAS No.** 480-19-3

**Chemical Name** 3,5,7-Trihydroxy-2-(4-hydroxy-3-methoxyphenyl)-4-benzopyrone

**Synonym** 3-Methylquercetin, Quercetin- 3'-methyl ether

**Formula** C<sub>16</sub>H<sub>12</sub>O<sub>7</sub>

**Formula Wt.** 316.26

**Melting Point** 305°C (dec.)

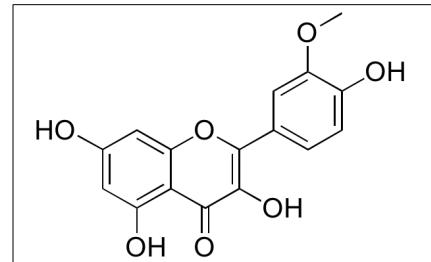
**Purity** ≥98%

**Solubility** Soluble in acetone, methanol, ethylacetate, DMSO or water.

**Store Temp** 4°C

**Ship Temp** Ambient

**Description** Isorhamnetin is a flavonol found in *Tagetes* that exhibits anti-obesity, anti-inflammatory, antioxidative, anticancer chemotherapeutic, and chemopreventive activities. Isorhamnetin decreases levels of PPAR $\gamma$ , CEBP $\alpha$ , LXRA, and lipoprotein lipase in adipocytes. In animal models of edema, isorhamnetin decreases expression of COX-2 and production of ROS and increases expression of Nrf2 and heme oxygenase 1 (HO-1). In colon cancer cells, isorhamnetin inhibits cell proliferation, induces G2/M phase cell cycle arrest, increases expression of cyclin B1, and inhibits signaling of the PI3K/Akt/mTOR pathway. Additionally, this compound decreases tumor development induced by DSS and azoxymethane in vivo by inhibiting activity of Src and  $\beta$ -catenin.



**Bulk quantities available upon request**

**Product ID** **Size**

I7357 1 mg

I7357 5 mg

I7357 25 mg

**References** Seo K, Yang JH, Kim SC, et al. The antioxidant effects of isorhamnetin contribute to inhibit COX-2 expression in response to inflammation: a potential role of HO-1. *Inflammation*. 2014 Jun;37(3):712-22. PMID: 24337631.

Li C, Yang X, Chen C, et al. Isorhamnetin suppresses colon cancer cell growth through the PI3K Akt mTOR pathway. *Mol Med Rep.* 2014 Mar;9(3):935-40. PMID: 24398569.

Saud SM, Young MR, Jones-Hall YL, et al. Chemopreventive activity of plant flavonoid isorhamnetin in colorectal cancer is mediated by oncogenic Src and  $\beta$ -catenin. *Cancer Res.* 2013 Sep 1;73(17):5473-84. PMID: 23824743.

Kim JE, Lee DE, Lee KW, et al. Isorhamnetin suppresses skin cancer through direct inhibition of MEK1 and PI3-K. *Cancer Prev Res (Phila)*. 2011 Apr;4(4):582-91. PMID: 21330379.

Lee J, Jung E, Lee J, et al. Isorhamnetin represses adipogenesis in 3T3-L1 cells. *Obesity (Silver Spring)*. 2009 Feb;17(2):226-32. PMID: 18948972.

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