



LKT Laboratories, Inc.

Isoxanthohumol

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Product Information

Product ID I7759

CAS No. 70872-29-6

Chemical Name 7-hydroxy-2-(4-hydroxyphenyl)-5-methoxy-8-(3-methylbut-2-enyl)-2,3-dihydrochromen-4-one

Synonym

Formula $C_{21}H_{22}O_5$

Formula Wt. 354.39

Melting Point

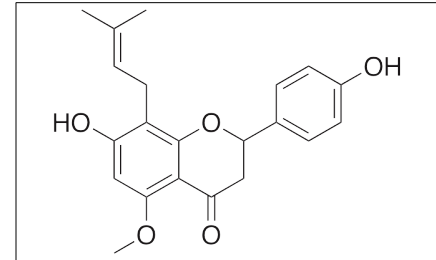
Purity $\geq 98\%$

Solubility Soluble in DMSO (50mg/ml)
or methanol (50mg/ml).

Store Temp 4° C

Ship Temp ambient

Description Isoxanthohumol (IX) is a prenylflavonoid and derivative of xanthohumol found in *Humulus lupulus*. IX, similar to xanthohumol, exhibits anti-inflammatory, anti-angiogenic, and pro-apoptotic activities, although at a lesser potency than xanthohumol. IX modulates signaling between endothelial cells and vascular smooth muscle cells in a variety of cell lines, decreasing levels of TNF- α , NF- κ B, VEGF-R2, and angiopoietins 1 and 2. In mature adipocytes, IX increases ROS and induces apoptosis; in preadipocytes, this compound inhibits differentiation and also induces apoptosis as exhibited by increases in cytochrome c and PARP and decreases in PPAR γ , adipocyte protein 2, and CEBP2 upon stimulation with IX. IX undergoes transformation in vitro and in the intestine to form 8-prenylnaringenin, a potent phytoestrogen.



Bulk quantities available upon request

Product ID	Size
I7759	1 mg
I7759	5 mg
I7759	10 mg

References Negrão R, Duarte D, Costa R, et al. Isoxanthohumol modulates angiogenesis and inflammation via vascular endothelial growth factor receptor, tumor necrosis factor alpha and nuclear factor kappa B pathways. *Biofactors*. 2013 Aug 1. [Epub ahead of print] PMID: 23904052.

Negrão R, Costa R, Duarte D, et al. Angiogenesis and inflammation signaling are targets of beer polyphenols on vascular cells. *J Cell Biochem*. 2010 Dec 1;111(5):1270-9. PMID: 20803553.

Possemiers S, Rabot S, Espin JC, et al. Eubacterium limosum activates isoxanthohumol from hops (*Humulus lupulus* L.) into the potent phytoestrogen 8-prenylnaringenin in vitro and in rat intestine. *J Nutr*. 2008 Jul;138(7):1310-6. PMID: 18567753.

Yang JY, Della-Fera MA, Rayalam S, et al. Effect of xanthohumol and isoxanthohumol on 3T3-L1 cell apoptosis and adipogenesis. *Apoptosis*. 2007 Nov;12(11):1953-63. PMID: 17874298.

Possemiers S, Bolca S, Grootaert C, et al. The prenylflavonoid isoxanthohumol from hops (*Humulus lupulus* L.) is activated into the potent phytoestrogen 8-prenylnaringenin in vitro and in the human intestine. *J Nutr*. 2006 Jul;136(7):1862-7. PMID: 16772450.

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