



LKT Laboratories, Inc.

Osthole

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Product Information

Product ID O7377

CAS No. 484-12-8

Chemical Name 2H-1-Benzopyran-2-one, 7-methoxy-8-(3-methyl-2-butenyl)-
(9CI)

Synonym Osthol, Ostol, Ostole.

Formula $C_{15}H_{16}O_3$

Formula Wt. 244.29

Melting Point 83-84 °C

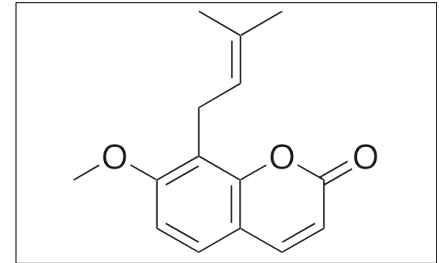
Purity ≥98%

Solubility Practically insoluble in water. Soluble in aq alkalies, alcohol, chloroform or acetone.

Store Temp Ambient

Ship Temp Ambient

Description Osthole is an *O*-methylated coumarin that inhibits Ca^{2+} channels. It exhibits anticancer, antioxidative, anti-inflammatory, and cardioprotective activities. In glioblastoma cells, osthole inhibits IGF-1-induced epithelial-to-mesenchymal transition (EMT), decreases phosphorylation of Akt and GSK-3 β , inhibiting cell migration. Osthole also exhibits anti-metastatic potential in lung cancer cells, inhibiting migration and invasion by decreasing expression of matrix metalloproteinases 2 and 9 (MMP2/9). In animal models of ischemia/reperfusion, osthole decreases levels of ROS, malondialdehyde, IL-6, TNF- α , and myeloperoxidase, increases activity of superoxide dismutase, and improves lung injury pathology. Osthole also inhibits lung inflammation induced by administration of carrageenan in vivo. In animal models of cardiac ischemia/reperfusion, this compound inhibits lipid peroxidation and decreases expression of HMGB1 and NF- κ B.



Bulk quantities available upon request

Product ID	Size
O7377	250 mg
O7377	1 g
O7377	5 g

References Lin YC, Lin JC, Hung CM, et al. Osthole inhibits insulin-like growth factor-1-induced epithelial to mesenchymal transition via the inhibition of PI3K/Akt signaling pathway in human brain cancer cells. *J Agric Food Chem.* 2014 May 14. [Epub ahead of print]. PMID: 24828835.

Li Z, Ji H, Song X, et al. Osthole attenuates the development of carrageenan-induced lung inflammation in rats. *Int Immunopharmacol.* 2014 May;20(1):33-6. PMID: 24576740.

Mo LQ, Chen Y, Song L, et al. Osthole prevents intestinal ischemia-reperfusion-induced lung injury in a rodent model. *J Surg Res.* 2014 Mar 15. [Epub ahead of print]. PMID: 24726060.

Wang XY, Dong WP, Bi SH, et al. Protective effects of osthole against myocardial ischemia/reperfusion injury in rats. *Int J Mol Med.* 2013 Aug;32(2):365-72. PMID: 23695269.

Xu XM, Zhang Y, Qu D, et al. Osthole suppresses migration and invasion of A549 human lung cancer cells through inhibition of matrix metalloproteinase-2 and matrix metalloproteinase-9 in vitro. *Mol Med Rep.* 2012 Nov;6(5):1018-22. PMID: 22923177.

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