

Product Information

Product ID E4444
CAS No. 476-66-4
Chemical Name 2,3,7,8-Tetrahydroxy-[1]benzopyrano[5,4,3-cde][1]benzopyran-5,10-dione

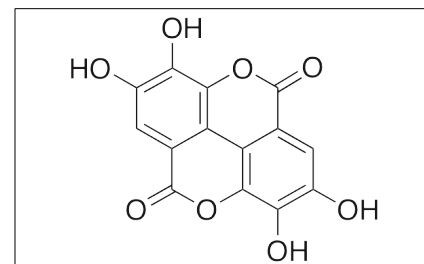
Synonym Benzoaric acid, Lagistase.

Formula C₁₄H₆O₈
Formula Wt. 302.20
Melting Point >300° C
Purity ≥98%
Solubility Very slightly soluble in water. Soluble in 1 N NaOH (10 mg/mL).

Store Temp Ambient

Ship Temp Ambient

Description Ellagic acid is a phenol found in various fruits that exhibits neuroprotective, anti-angiogenic, anti-inflammatory, anti-asthma, anti-allergic, antiviral, antioxidative, anti-parasitic, antimalarial, anticancer, and anti-ulcerative activities. Ellagic acid inhibits HIF-1α-induced PI3K/Akt and VEGF/VEGFR2 signaling, downregulates expression of HDAC6, and suppresses neovascularization and angiogenesis in vitro and in vivo. In animal models of OVA-induced allergy, ellagic acid decreases eosinophil infiltration, Th2 cytokine release, IgE levels, and NF-κB activation, preventing airway hyperresponsiveness. In vitro, ellagic acid upregulates expression of HDAC9 and decreases differentiation of adipocytes. This compound inhibits proliferation of *Plasmodium* and *Rhinovirus*. In animal models of inflammation, ellagic acid increases levels of glutathione and IL-10 and decreases levels of NO, malondialdehyde, IL-1β, TNF-α, COX-2, and NF-κB. In pancreatic adenocarcinoma cells, this compound suppresses cellular proliferation and induces apoptosis. Ellagic acid also inhibits the formation of ulcers in animal models.



Bulk quantities available upon request

Product ID	Size
E4444	1 g
E4444	5 g
E4444	10 g
E4444	50 g

References Zhou E, Fu Y, Wei Z, et al. Inhibition of allergic airway inflammation through the blockage of NF-κB activation by ellagic acid in an ovalbumin-induced mouse asthma model. *Food Funct.* 2014 Sep;5(9):2106-12. PMID: 24998475.

Kang I, Okla M, Chung S. Ellagic acid inhibits adipocyte differentiation through coactivator-associated arginine methyltransferase 1-mediated chromatin modification. *J Nutr Biochem.* 2014 Sep;25(9):946-53. PMID: 24929439.

Kowshik J, Giri H, Kiran Kishore TK, et al. Ellagic Acid Inhibits VEGF/VEGFR2, PI3K/Akt and MAPK Signaling Cascades in the Hamster Cheek Pouch Carcinogenesis Model. *Anticancer Agents Med Chem.* 2014 Jul 23. [Epub ahead of print]. PMID: 25060902.

Park SW, Kwon MJ, Yoo JY, et al. Antiviral activity and possible mode of action of ellagic acid identified in *Lagerstroemia speciosa* leaves toward human rhinoviruses. *BMC Complement Altern Med.* 2014 May 26;14:171. PMID: 24885569.

El-Shitany NA, El-Bastawissy EA, El-desoky K. Ellagic acid protects against carrageenan-induced acute inflammation through inhibition of nuclear factor kappa B, inducible cyclooxygenase and proinflammatory cytokines and enhancement of interleukin-10 via an antioxidant mechanism. *Int Immunopharmacol.* 2014 Apr;19(2):290-9. PMID: 24534771.

Njomnang Soh P, Witkowski B, Gales A, et al. Implication of glutathione in the in vitro antiplasmodial mechanism of action of ellagic acid. *PLoS One.* 2012;7(9):e45906. PMID: 23029306.

Beserra AM, Calegari PI, Souza Mdo C, et al. Gastroprotective and ulcer-healing mechanisms of ellagic acid in experimental

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