LKT Laboratories, Inc.

Protocatechuic Acid

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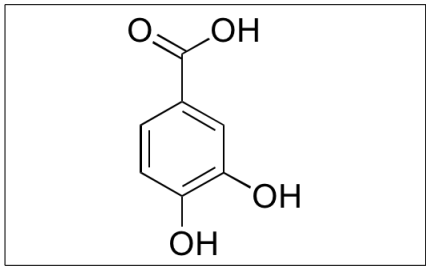
Product Information

Product ID P6857
CAS No. 99-50-3
Chemical Name 4-Carboxy-1,2-dihydroxybenzene

Synonym 3,4-Dihydroxybenzoic acid

Formula $C_7H_6O_4$
Formula Wt. 154.12
Melting Point 200-202°C
Purity ≥97%
Solubility Slightly soluble in water.
Soluble in alcohol or ether.



Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
P6857	25 g	$44.10
P6857	50 g	$71.70
P6857	100 g	$110.30

Store Temp Ambient
Ship Temp Ambient

Description Protocatechuic acid is a polyphenol found in many plants and foods; its exhibits anticancer chemotherapeutic, chemopreventive, antiviral, anti-anginal, cardioprotective, antioxidative, and neuroprotective activities. Protocatechuic acid decreases cell migration and invasion of melanoma cells through targeting of PKC/RhoB activation and resulting decreases in NF-κB activation and Matrix metalloproteinase 2 (MMP2) expression. Protocatechuic acid also induces apoptosis in gastric adenocarcinoma cells, increasing activation of JNK and p38 MAPK. Additionally this compound inhibits topoisomerase II. In avian models of infectious bursal disease virus, protocatechuic acid increases lymphocyte proliferation and virus clearance. Protocatechuic acid also displays benefit in ischemic conditions, decreasing fatty acid oxidation in the rodent heart. This compound prevents oxidative stress-induced apoptosis in PC12 neurons as well, inhibiting changes in mitochondrial membrane potential, caspase 3 activation, and decreases in Bcl-2 and glutathione.

References

Kuriyama I, Nakajima Y, Nishida H, et al. Inhibitory effects of low molecular weight polyphenolics from Inonotus obliquus on human DNA topoisomerase activity and cancer cell proliferation. Mol Med Rep. 2013 Aug;8(2):535-42. PMID: 23799608.

Ou CB, Pan Q, Chen X, et al. Protocatechuic acid, a new active substance against the challenge of avian infectious bursal disease virus. Poult Sci. 2012 Jul;91(7):1604-9. Erratum in: Poult Sci. 2012 Oct;91(10):2722. Pang, Q [corrected to Pan, Q]. PMID: 22700505.

Lin HH, Chen JH, Chou FP, et al. Protocatechuic acid inhibits cancer cell metastasis involving the down-regulation of Ras/Akt/NF-κB pathway and MMP-2 production by targeting RhoB activation. Br J Pharmacol. 2011 Jan;162(1):237-54. PMID: 20840540.

Cao YG, Zhang L, Ma C, et al. Metabolism of protocatechuic acid influences fatty acid oxidation in rat heart: new anti-angina mechanism implication. Biochem Pharmacol. 2009 Mar 15;77(6):1096-104. PMID: 19109930.

Liu YM, Jiang B, Bao YM, et al. Protocatechuic acid inhibits apoptosis by mitochondrial dysfunction in rotenone-induced PC12 cells. Toxicol In Vitro. 2008 Mar;22(2):430-7. PMID: 18082360.

Lin HH, Chen JH, Huang CC, et al. Apoptotic effect of 3,4-dihydroxybenzoic acid on human gastric carcinoma cells involving JNK/p38 MAPK signaling activation. Int J Cancer. 2007 Jun 1;120(11):2306-16. PMID: 17304508.

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