



Product Information

Product ID E6234

CAS No. 989-51-5

Chemical Name 3,4,5-Trihydroxybenzoic acid, (2R,3R)-3,4-dihydro- 5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)-2H-1- benzopyran-3-yl

Synonym (-)-Epigallocatechin gallate, EGCG, 3-O-gallate

Formula $C_{22}H_{18}O_{11}$

Formula Wt. 458.37

Melting Point 218°C

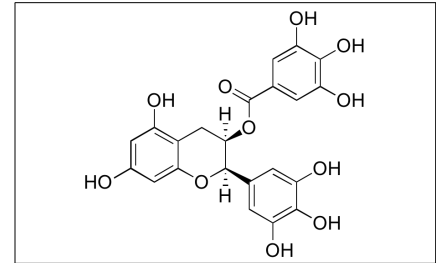
Purity ≥98%

Solubility Soluble in methanol, ethanol (92 mg/mL) or DMSO (92 mg/mL). Slightly soluble in water.

Store Temp 4°C

Ship Temp Ambient

Description Epigallocatechin gallate (EGCG) is a flavonoid (flavanol) found in *Camilla* (green tea); it is one of several green tea catechins. EGCG exhibits neuroprotective, antioxidative, anti-inflammatory, anti-diabetic, antifungal, anti-metastatic, and anticancer chemotherapeutic activities. EGCG directly inhibits STAT3 and the aryl hydrocarbon receptor. EGCG inhibits α -synuclein oligomerization in models of Parkinson's disease and limits amyloid- β (A β) aggregation in models of Alzheimer's disease. In animal models of autoimmune sialadenitis, EGCG inhibits ROS-mediated DNA damage and oxidative stress and increases levels of heme oxygenase 1 (HO-1) and Bcl-2. Additionally, EGCG decreases levels of toll-like receptor 4 (TLR4), IKK β , activated NF- κ B, TNF- α , CD68, and IL-6, suppresses macrophage infiltration, increases levels of PI3K and GLUT4, inhibits α -amylase and α -glucosidase, and improves insulin signaling in animal models of diabetes. In hepatocarcinoma cells, this compound induces S-phase cell cycle arrest and apoptosis and decreases levels of PI3K, Akt, and NF- κ B. In other cellular models, EGCG inhibits the epithelial-to-mesenchymal transition (EMT) and limits cell motility; it also indirectly inhibits EGFR. In animal models of bladder cancer, EGCG decreases tumor growth. This compound also induces apoptosis in *Candida*. EGCG directly inhibits HSP90 in animal models of prostate cancer, decreasing tumor size and progression.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
E6234	25 mg	\$57.10
E6234	50 mg	\$94.10
E6234	100 mg	\$110.30

References Moses MA, Henry EC, Ricke WA, et al. The heat shock protein 90 inhibitor, (-)-epigallocatechin gallate, has anticancer activity in a novel human prostate cancer progression model. *Cancer Prev Res (Phila)*. 2015 Mar;8(3):249-57. PMID: 25604133.

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Ma YC, Li C, Gao F, et al. Epigallocatechin gallate inhibits the growth of human lung cancer by directly targeting the EGFR signaling pathway. *Oncol Rep*. 2014 Mar;31(3):1343-9. PMID: 24366444.

Saito K, Mori S, Date F, et al. Epigallocatechin gallate inhibits oxidative stress-induced DNA damage and apoptosis in MRL-Fas

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