LKT Laboratories, Inc.

Epigallocatechin Gallate

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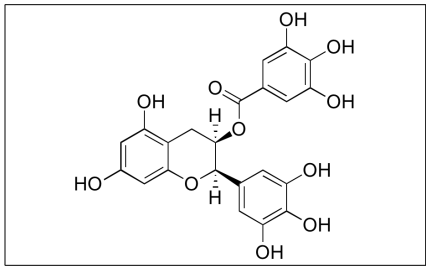
Product Information

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, ethnol (92 mg/mL) or DMSO (92 mg/mL). Slightly soluble in water.
Store Temp 4°C
Ship Temp Ambient

Bulk quanitites available upon request

Product ID	Size
E6234	25 mg
E6234	50 mg
E6234	100 mg

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-ß (Aß) 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), IKKß, activated NF-κB, 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-κB. 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.

References

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