

(-)-CATECHIN GALLATE with HPLC (Chromatography Standards)

Catalog No: tcsc3758



Available Sizes

Size: 10mg



Specifications

CAS No:

130405-40-2

Formula:

$C_{22}H_{18}O_{10}$

Pathway:

Immunology/Inflammation

Target:

COX

Purity / Grade:

>98% (HPLC)

Solubility:

10 mM in DMSO

Alternative Names:

(-)-Catechin 3-gallate;(-)-Catechin 3-O-gallate

Observed Molecular Weight:

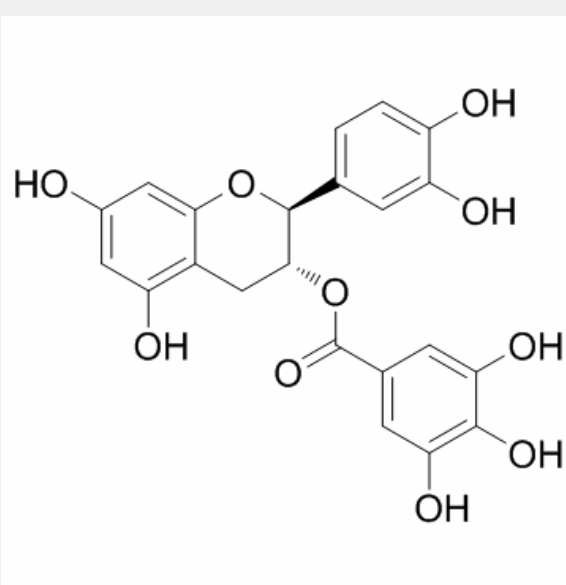
442.37

Product Description

(-)-Catechin gallate is a minor constituent in green tea catechins. (-)-Catechin gallate inhibits the activity of **COX-1** and **COX-2** enzymes.

IC50 & Target: COX-1 and COX-2^[1]

In Vitro: (-)-Catechin gallate (CG) directly interacts with DNA oligomers and inhibits the activity of COX-1 and COX-2 enzymes, the gene expression of matrix metalloproteinase-9 in macrophage-differentiated HL-60 myeloid leukemia cells, the adipocyte uptake of glucose by the transporter, GLUT4, and the activities of various proteasomes, i.e., the multicatalytic proteases responsible for the degradation of most cellular proteins. The relative cytotoxicities of a 3-day exposure to (-)-Catechin gallate are determined for cancerous CAL27 and HSG cells, immortalized epithelioid S-G cells, and normal HGF-1 gingival fibroblasts. The concentration at which toxicity ($P \leq 0.01$) initially occur is 25 μM (-)-Catechin gallate for S-G cells, 50 μM (-)-Catechin gallate for CAL27 cells, 62.5 μM (-)-Catechin gallate for HSG cells and 75 μM (-)-Catechin gallate for HGF-1 fibroblasts. The calculated neutral red (NR_{50}) values for a 3-day exposure to (-)-Catechin gallate are 58 μM for S-G cells, 62 μM for CAL27 cells, 90 μM for HSG cells and 132 μM for HGF-1 fibroblasts^[1].



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