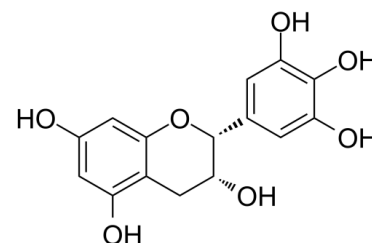


Data Sheet

Product Name:	(-)-Epigallocatechin
Cat. No.:	CS-3762
CAS No.:	970-74-1
Molecular Formula:	C ₁₅ H ₁₄ O ₇
Molecular Weight:	306.27
Target:	Autophagy; MMP
Pathway:	Autophagy; Metabolic Enzyme/Protease
Solubility:	DMSO : ≥ 150 mg/mL (489.76 mM)



BIOLOGICAL ACTIVITY:

(-)-Epigallocatechin (EGCG) is the most abundant flavonoid in green tea, can bind to unfolded native polypeptides and prevent conversion to amyloid fibrils. **In Vitro:** EGCG is a potent inhibitor of amyloidogenic cystatin I66Q amyloid fibril formation in vitro. Computational analysis suggests that EGCG prevents amyloidogenic cystatin fibril formation by stabilizing the molecule in its native-like state as opposed to redirecting aggregation to disordered, amorphous aggregates [1]. Combined curcumin and EGCG treatment reduced the cancer stem-like Cluster of differentiation 44 (CD44)-positive cell population. Western blot and immunoprecipitation analyses revealed that curcumin and EGCG specifically inhibited STAT3 phosphorylation and STAT3-NFκB interaction was retained [2]. EGCG exhibited a MIC and MBC of 5μg/mL and 20μg/mL respectively and effectively eradicated *E. faecalis* biofilms. EGCG induced the formation of hydroxyl radicals in *E. faecalis*. The addition of DIP protected *E. faecalis* against EGCG-mediated antibacterial effects. At sub-MIC, EGCG induced significant down-regulation of *E. faecalis* virulence genes [3].

References:

- [1]. Wang N, et al. (-)-Epigallocatechin-3-gallate Inhibits Fibrillogenesis of Chicken Cystatin. *J Agric Food Chem.* 2015 Jan 26
- [2]. Chung SS, et al. Curcumin and Epigallocatechin Gallate Inhibit the Cancer Stem Cell Phenotype via Down-regulation of STAT3-NFκB Signaling. *Anticancer Res.* 2015 Jan;35(1):39-46.
- [3]. Lee P, et al. Effects of Epigallocatechin gallate against *Enterococcus faecalis* biofilm and virulence. *Arch Oral Biol.* 2015 Mar;60(3):393-9.

CAIndexNames:

2H-1-Benzopyran-3,5,7-triol, 3,4-dihydro-2-(3,4,5-trihydroxyphenyl)-, (2R,3R)-

SMILES:

O[C@@H]1[C@@H](C2=CC(O)=C(O)C(O)=C2)OC3=CC(O)=CC(O)=C3C1

Caution: Product has not been fully validated for medical applications. For research use only.

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