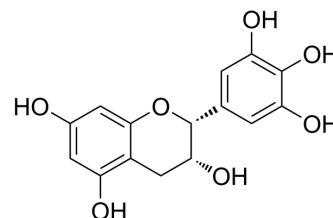


(-)-Epigallocatechin

Cat. No.:	HY-N0225		
CAS No.:	970-74-1		
Molecular Formula:	C ₁₅ H ₁₄ O ₇		
Molecular Weight:	306.27		
Target:	MMP; Autophagy		
Pathway:	Metabolic Enzyme/Protease; Autophagy		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 66.67 mg/mL (217.68 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.2651 mL	16.3255 mL	32.6509 mL
		5 mM	0.6530 mL	3.2651 mL	6.5302 mL
10 mM		0.3265 mL	1.6325 mL	3.2651 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.16 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.16 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.16 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	(-)-Epigallocatechin (Epigallocatechin) is the most abundant flavonoid in green tea, can bind to unfolded native polypeptides and prevent conversion to amyloid fibrils.
In Vitro	(-)-Epigallocatechin (EGC) is a potent inhibitor of amyloidogenic cystatin I66Q amyloid fibril formation in vitro. Computational analysis suggests that (-)-Epigallocatechin 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 (-)-Epigallocatechin (EGC) specifically inhibited STAT3 phosphorylation and STAT3-NFκB interaction was retained [2]. (-)-Epigallocatechin (EGC) exhibits a MIC and MBC of 5 µg/mL and 20 µg/mL respectively and effectively eradicated *E. faecalis* biofilms. (-)-Epigallocatechin induces the formation of hydroxyl radicals in *E. faecalis*. The addition of DIP protected *E. faecalis* against EGCG-mediated antibacterial effects. At sub-MIC, (-)-Epigallocatechin induces significant down-regulation of *E. faecalis* virulence genes [3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Plants. 2021, 10(11), 2525.

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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.

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

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