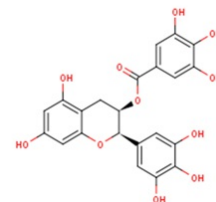


(-)-Epigallocatechin Gallate

Chemical Properties

CAS No.:	989-51-5
Formula:	C ₂₂ H ₁₈ O ₁₁
Molecular Weight:	458.38
Appearance:	Solid
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Epigallocatechol Gallate(EGCG) is an antioxidant polyphenol flavonoid that inhibits telomerase and DNA methyltransferase. EGCG blocks the activation of EGF receptors and HER-2 receptors. EGCG is a phenolic antioxidant found in a number of plants such as green and black tea. It inhibits cellular oxidation and prevents free radical damage to cells.
Targets(IC ₅₀)	Others: None
In vivo	Epigallocatechol Gallate (5 and 20 mg/kg, p.o.) inhibits the growth of tumor in the subcutaneous orthotopic transplant model[4].
Cell Research	LoVo, SW480, HCT-8, and HT-29 cells are seeded in 96-well plates at a concentration of 5×10 ³ cells; each cell line is totally seeded in the 12 wells. Complete medium is added to the wells, up to 200 μL; the medium contains 0 μg/mL, 10 μg/mL, 20 μg/mL, and 35 μg/mL of epigallocatechol gallate. The inhibition rate=[1 - (absorbance of Epigallocatechol Gallate group - absorbance of control group)/(absorbance of control group - absorbance of blank control group)] × 100.
Animal Research	Animal Model: Mice

Solubility Information

Solubility	Ethanol: 45.8 mg/mL (100 mM) water: 4.6 mg/mL (10 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.182 mL	10.908 mL	21.816 mL
5 mM	0.436 mL	2.182 mL	4.363 mL
10 mM	0.218 mL	1.091 mL	2.182 mL
50 mM	0.044 mL	0.218 mL	0.436 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

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5. Lu J, Lu Z, Liu L, et al. Identification of crocin as a new hIAPP amyloid inhibitor via a simple yet highly biospecific screening system[J]. Chemistry & Biodiversity. 2021
5. Castellano-González G, et al. Epigallocatechin-3-gallate induces oxidative phosphorylation by activating cytochrome c oxidase in human cultured neurons and astrocytes. Oncotarget. 2016 Feb 16;7(7):7426-40.
6. Zhou H, Ning Y, Zeng G, et al. Curcumin promotes cell cycle arrest and apoptosis of acute myeloid leukemia cells by inactivating AKT[J]. Oncology Reports. 2021, 45(4): 1-1.

Inhibitors · Natural Compounds · Compound Libraries

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