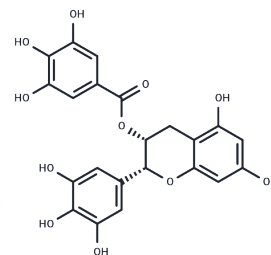


## (-)-Epigallocatechin Gallate

### Chemical Properties

CAS No. :	989-51-5
Formula:	C <sub>22</sub> H <sub>18</sub> O <sub>11</sub>
Molecular Weight:	458.37
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



### Biological Description

Description	(-)-Epigallocatechin Gallate (EGCG) is a phenolic antioxidant polyphenol flavonoid found in plants such as green and black tea, which inhibits telomerase and DNA methyltransferase, blocks the activation of EGF receptors and HER-2 receptors, inhibits cellular oxidation, and prevents free radical damage to cells.
Targets(IC50)	Apoptosis, Ferroptosis, Reactive Oxygen Species, HIV Protease, Mitochondrial Metabolism, Endogenous Metabolite, Autophagy
In vitro	<b>METHODS:</b> Human thyroid cancer cells TT, TPC-1 and ARO were treated with (-)-Epigallocatechin Gallate (10-200 μM) for 24 h. Cell viability was detected using MTS assay.
In vivo	<b>METHODS:</b> To investigate the protective effect against acute injury, (-)-Epigallocatechin Gallate (200 mg/kg) was administered to ICR mice by gavage once a day for one week, followed by intraperitoneal injection of LPS (15 mg/kg) to induce acute injury. <b>RESULTS:</b> (-)-Epigallocatechin Gallate protects mice from LPS-induced acute stress, while stabilizing gut microorganisms, improving sphingolipid metabolism, and inhibiting harmful metabolite levels. [3]
Cell Research	LoVo, SW480, HCT-8, and HT-29 cells are seeded in 96-well plates at a concentration of 5×10 <sup>3</sup> 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.

### Solubility Information

Solubility	DMSO: 242.5 mg/mL (529.05 mM), Sonication is recommended. H <sub>2</sub> O: 50 mg/mL (109.08 mM), Sonication is recommended. Ethanol: 45.8 mg/mL (99.92 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1816 mL	10.9082 mL	21.8164 mL
5 mM	0.4363 mL	2.1816 mL	4.3633 mL
10 mM	0.2182 mL	1.0908 mL	2.1816 mL
50 mM	0.0436 mL	0.2182 mL	0.4363 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

## Reference

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Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481