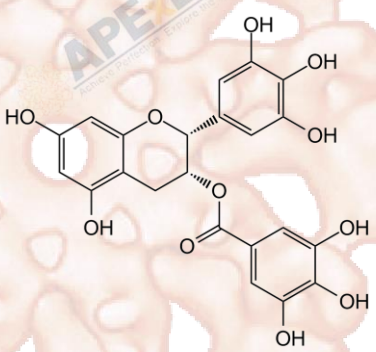
Product Data Sheet

(-)-Epigallocatechin gallate (EGCG)

Cat. No.: A2600
CAS No.: 989-51-5
Formula: C22H18O11
M.Wt: 458.37
Synonyms: EGCG
Target: TGF-β / Smad Signaling
Pathway: PKC
Storage: Store at -20°C



Solvent & Solubility

In Vitro

⩾22.9 mg/mL in DMSO; ⩾10.9 mg/mL in H2O with ultrasonic; ⩾6.76 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Concentration \ Mass / Solvent	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

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Antioxidant, antiangiogenic and antitumor agent
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Human and rat neural progenitor cells (NPCs)
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	0, 1, 2, 5 and 10 μM; 24 or 48 hrs

	Applications:	(-)-Epigallocatechin Gallate (EGCG) altered human and rat NPC development in vitro. EGCG affected migration distance, migration pattern and nuclear density of NPCs growing as neurospheres. EGCG exerted these functional impairments by binding to the extracellular matrix (ECM) glycoprotein laminin, preventing its binding to β1-integrin subunits, thereby prohibiting cell adhesion and resulting in altered glia alignment and decreased number of migrating young neurons.
In Vivo	**Animal experiment**	
	Animal models:	A rat model of partial bladder outlet obstruction (pBOO)-induced bladder injury
	Dosage form:	4.5 mg/kg/day; i.p.; 2 days or 30 days
	Applications:	EGCG attenuated bladder inflammation caused by pBOO at the 48th hr. At the 30th day, EGCG attenuated endoplasmic reticulum (ER) stress-related apoptosis. In addition, EGCG improved bladder compliance, contractile frequency and inflammation at the 30th day.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Barenys M, Gassmann K, Baksmeier C, Heinz S, Reverte I, Schmuck M, Temme T, Bendt F, Zschauer TC, Rockel TD, Unfried K, W?tjen W, Sundaram SM, Heuer H, Colomina MT, Fritsche E. Epigallocatechin gallate (EGCG) inhibits adhesion and migration of neural progenitor cells in vitro. Arch Toxicol. 2016 Apr 26.

[2]. Hsieh JT, Kuo KL, Liu SH, Shi CS, Chang HC, Lin WC, Chou CT, Hsu CH, Liao SM, Wang ZH, Li CC, Huang KH. Epigallocatechin Gallate Attenuates Partial Bladder Outlet Obstruction-induced Bladder Injury via Suppression of Endoplasmic Reticulum Stress-related Apoptosis-In Vivo Study. Urology. 2016 May;91:242.e1-9.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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