

## (-)-Gallocatechin gallate

### Chemical Properties

CAS No. : 4233-96-9

Formula: C<sub>22</sub>H<sub>18</sub>O<sub>11</sub>

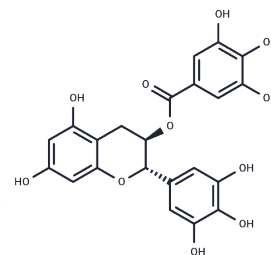
Molecular Weight: 458.37

Storage:

Keep away from direct sunlight, Keep away from moisture

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	(-)-Gallocatechin gallate ((-)-gallocatechin-3-O-gallate) is the polyphenol isolated from tea, with cancer-preventive activities. (-)-Gallocatechin gallate decreases osteoclastogenesis at 20 microm.
Targets(IC50)	Others, Transferase

### Solubility Information

Solubility	DMSO: 82 mg/mL (178.89 mM), Sonication is recommended. Chloroform, Dichloromethane, Ethyl Acetate, Acetone: Soluble, ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (7.2 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### 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

- Ko CH, et al. Effects of tea catechins, epigallocatechin, gallic acid, and gallic acid gallate, on bone metabolism. *J Agric Food Chem.* 2009 Aug 26;57(16):7293-7.
- Zhao, Ming, et al. GCG inhibits SARS-CoV-2 replication by disrupting the liquid phase condensation of its nucleocapsid protein. *Nature Communications.* 2021 Apr 9;12(1):2114. doi: 10.1038/s41467-021-22297-8.
- Xiao T, Cui M, Zheng C, et al. Both Baicalein and Gallic acid Gallate Efficaciously Inhibit SARS-CoV-2 Replication by Targeting Mpro and Sepsis in Mice. *Inflammation.* 2021: 1-13.
- Ikeda I, et al. Heat-epimerized tea catechins rich in gallic acid gallate and catechin gallate are more effective to inhibit cholesterol absorption than tea catechins rich in epigallocatechin gallate and epicatechin gallate. *J Agric Food Chem.* 2003 Dec 3;51(25):7303-7.
- Chen J, Zhou X, Fu L, et al. Natural Product-Based Screening for Lead Compounds Targeting SARS CoV-2 Mpro[J]. *Pharmaceuticals*, 2023, 16(5): 767..Pharmaceuticals.2023, 16(5): 767.
- Zhao, Ming, et al. GCG inhibits SARS-CoV-2 replication by disrupting the liquid phase condensation of its nucleocapsid protein. *Nature Communications* . 12.1 (2021): 1-14.

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