# (-)-Gallocatechin

Cat. No.: HY-N0521 CAS No.: 3371-27-5 Molecular Formula: C<sub>15</sub>H<sub>14</sub>O<sub>7</sub> Molecular Weight: 306.27 Target: Others

Storage: 4°C, protect from light

Others

\* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

**Product** Data Sheet

### **SOLVENT & SOLUBILITY**

In Vitro

Pathway:

DMSO: 100 mg/mL (326.51 mM; Need ultrasonic)

H<sub>2</sub>O: 1.67 mg/mL (5.45 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	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

- 1. 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
- 2. 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
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.16 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description

(-)-Gallocatechin, an epimer of (-)-Epigallocatechin (EGC), is contained in various tea products. (-)-Gallocatechin has antioxidant activities<sup>[1][2][3]</sup>.

#### **REFERENCES**

[1]. Takagaki A, et, al. Biotransformation of (-)-epigallocatechin and (-)-gallocatechin by intestinal bacteria involved in isoflavone metabolism. Biol Pharm Bull. 2015;38(2):325-30.

[2]. Xu JZ, et, al. Comparison of antioxidant activity and bioavailability of tea epicatechins with their epimers. Br J Nutr. 2004 Jun;91(6):873-81.

[3]. Ikeda I, et, al. Heat-epimerized tea catechins rich in gallocatechin 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.

[4]. Ahn JW, Kim S, Ko S, Kim YH, Jeong JH, Chung S. Modified (-)-gallocatechin gallate-enriched green tea extract rescues age-related cognitive deficits by restoring hippocampal synaptic plasticity. Biochem Biophys Rep. 2022;29:101201.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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