

# PRODUCT INFORMATION

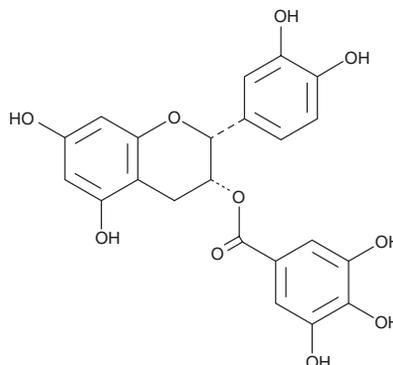


## (-)-Epicatechin Gallate

Item No. 11808

**CAS Registry No.:** 1257-08-5  
**Formal Name:** 3,4,5-trihydroxy-benzoic acid, (2R,3R)-2-(3,4-dihydroxyphenyl)-3,4-dihydro-5,7-dihydroxy-2H-1-benzopyran-3-yl ester

**Synonym:** ECG  
**MF:** C<sub>22</sub>H<sub>18</sub>O<sub>10</sub>  
**FW:** 442.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 206, 279 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

(-)-Epicatechin gallate (ECG) is supplied as a crystalline solid. A stock solution may be made by dissolving the ECG in the solvent of choice, which should be purged with an inert gas. ECG is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ECG in these solvents is approximately 1, 10, and 14 mg/ml, respectively.

ECG is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ECG should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ECG has a solubility of approximately 0.50 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

The catechins, including (-)-epicatechin (EC) and (-)-epigallocatechin gallate (EGCG) (Item No. 70935), are polyphenols which are abundant in green and black teas. ECG is a natural catechin with a single galloyl group. Like EGCG, it inhibits the growth of cancer cells and has anti-inflammatory effects.<sup>1-3</sup> The hydroxyl groups of ECG contribute to its potent antioxidant activity and facilitate the killing of methicillin-resistant strains of *S. aureus*.<sup>4,5</sup>

### References

1. Du, G.-J., Zhang, Z., Wen, X.-D., et al. *Nutrients* **4(11)**, 1679-1691 (2012).
2. Ravindranath, M.H., Ramasamy, V., Moon, S., et al. *Evid. Based Complement. Alternat. Med.* **6(4)**, 523-530 (2009).
3. Kürbitz, C., Heise, D., Redmer, T., et al. *Cancer Sci.* **102(4)**, 728-734 (2011).
4. Xu, J.Z., Yeung, S.Y.V., Chang, Q., et al. *Br. J. Nutr.* **91(6)**, 873-881 (2004).
5. Anderson, J.C., McCarthy, R.A., Paulin, S., et al. *Bioorg. Med. Chem. Lett.* **21(23)**, 6996-7000 (2011).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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