(-)-Epicatechin gallate from green tea

Product Number E3893
Storage Temperature 2-8 °C

Product Description
Molecular Formula: C_{22}H_{18}O_{10}
Molecular Weight: 442.4
CAS Number: 1257-08-5
Synonym: (2R,3R)-2-(3,4-dihydroxyphenyl)-3,4-dihydro-1(2H)-benzopyran-3,5,7-triol 3-(3,4,5-trihydroxybenzoate)

(-)-Epicatechin gallate is a polyphenol compound, or catechin, that occurs naturally in tea (Camellia sinensis). This compound and other tea polyphenols have been studied for their antioxidant properties.\(^1,2\)

Epicatechin gallate has been shown to inhibit tyrosine phosphorylation of platelet-derived growth factor R\(_B\) in rat and human vascular smooth muscle cells and of vascular endothelial growth factor receptor 2 (VEGF R2).\(^3,4\) A study of the action of epicatechin gallate and other compounds on plasma coagulation by Staphylococcus aureus has been described.\(^5\)

A protocol for the purification of epicatechin gallate that uses liquid-liquid partitioning, high-speed countercurrent chromatography, and gel chromatography has been published.\(^6\) The analysis of epicatechin gallate and other green tea constituents by microemulsion electrospray chromatography has been described.\(^7\) An HPLC/electrochemical detection technique for the analysis of epicatechin gallate and other tea catechins has been reported.\(^8\) An HPLC/MS study has analyzed the presence of epicatechin gallate and other polyphenols in grapes.\(^9\)

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in water (5 mg/ml), with heat and sonication as needed, yielding a clear, colorless solution.

References

GCY/RXR 5/06