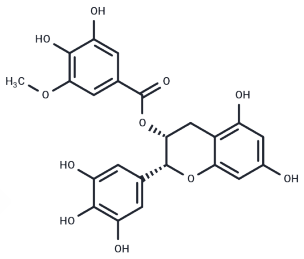
Data Sheet (Cat.No.TN1608)

TargetMol

(-)-Epigallocatechin-3-(3''-O-methyl) gallate

Chemical Properties



CAS No. : 83104-87-4

Formula: C23H20O11

Molecular Weight: 472.4

Storage: Store at low temperature,Keep away from direct sunlight
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	(-)-Epigallocatechin-3-(3''-O-methyl) gallate ((-)-EGCG-3''-O-ME) is a natural compound isolated from tea leaves. (-)-EGCG-3''-O-ME exhibits potent antioxidant, anti-inflammatory, and antibacterial activities, and enhances the bond stability between etching-rinsing agents and dentin. (-)-Epigallocatechin-3-(3''-O-methyl) gallate ((-)-EGCG-3''-O-ME) can be used in tumor and metabolic syndrome research.
Targets(IC50)	Antioxidant,Antibacterial
In vitro	**Methods**: Mouse RAW264.73 macrophages were pretreated with (-)-epigallocatechin-3-(3''-O-methyl) gallate (0–12.5 μM) for 30 minutes, then stimulated with SNP (0.25 mM) for 30 minutes. ROS levels were measured by flow cytometry (DHR123 fluorescence). **Results**: (-)-Epigallocatechin-3-(3''-O-methyl) gallate significantly reduced SNP-induced ROS levels. [1] **Methods**: HaCaT cells were treated with (-)-epigallocatechin-3-(3''-O-methyl) gallate (0–12.5 μM) for 24, 48, and 72 h, and cell proliferation was assessed using the MTT assay. **Results**: (-)-Epigallocatechin-3-(3''-O-methyl) gallate significantly promoted cell proliferation starting at 24 h. [1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1169 mL	10.5843 mL	21.1685 mL
5 mM	0.4234 mL	2.1169 mL	4.2337 mL
10 mM	0.2117 mL	1.0584 mL	2.1169 mL
50 mM	0.0423 mL	0.2117 mL	0.4234 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

Kim E, et al. Antioxidant and Cytoprotective Effects of (-)-Epigallocatechin-3-(3″-O-methyl) Gallate. Int J Mol Sci. 2019 Aug 16;20(16):3993.
Yu HH, et al. Epigallocatechin-3-gallate and Epigallocatechin-3-O-(3-O-methyl)-gallate Enhance the Bonding Stability of an Etch-and-Rinse Adhesive to Dentin. Materials (Basel). 2017;10(2):183. Published 2017 Feb 15.
Kawase M, et al. Antioxidative activity of (-)-epigallocatechin-3-(3''-O-methyl)gallate isolated from fresh tea leaf and preliminary results on its biological activity. Biosci Biotechnol Biochem. 2000 Oct;64(10):2218-20.
Kagaya N, et al. Suppression of cytotoxin-induced cell death in isolated hepatocytes by tea catechins. Eur J Pharmacol. 2002;450(3):231-236.