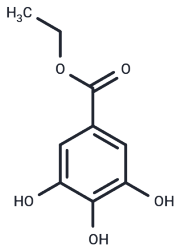
Data Sheet (Cat.No.T3729)

TargetMol

Ethyl gallate

Chemical Properties



CAS No. : 831-61-8

Formula: C9H10O5

Molecular Weight: 198.17

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Ethyl gallate (gallic acid ethyl ester) obviously decreases cell proliferation in MDA-MB-231 and MCF-7 cells in a dose- and time-dependent manner, exhibits cytotoxicity in a dose-dependent manner. Ethyl gallate can inhibit the abilities of invasion of breast cancer in vitro by inhibiting the mRNA levels of MMP-9/MMP-2, phosphorylation of Akt and protein expression of NF-κB and inhibits hydrogen peroxide signaling, may represent an alternative class of vasopressors for use in septic shock. Also, Ethyl gallate suppresses proliferation and invasion in human breast cancer cells by modulating the PI3K/Akt pathway, which may contribute to inhibiting their downstream targets such as NF-κB p-65, Bcl-2/Bax, and mRNA levels of MMP-2 and MMP-9 in breast cancer cells, could be used as potential antioxidants with safe therapeutic application in cancer chemotherapy.
Targets(IC50)	MMP,NF-κB,Akt,Antibacterial

Solubility Information

Solubility	DMSO: 36 mg/mL (181.66 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0462 mL	25.2309 mL	50.4617 mL
5 mM	1.0092 mL	5.0462 mL	10.0923 mL
10 mM	0.5046 mL	2.5231 mL	5.0462 mL
50 mM	0.1009 mL	0.5046 mL	1.0092 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.

Reference

Cui H, et al. Oncol Rep. Ethyl gallate suppresses proliferation and invasion in human breast cancer cells via Akt-NF-κB signaling. 2015 Mar;33(3):1284-90.
Hwang Y H, Jang S A, Kim T, et al. Anti-osteoporotic and Anti-adipogenic Effects of Rhus chinensis Nutgalls in Ovariectomized Mice Fed with a High-fat Diet. Planta Medica. 2019, 85(14/15): 1128-1135
Hu Q, Wang S, Cheng R, et al.Tannins in Phyllanthus emblica L. improves Cisplatin efficacy in lung cancer cells by boosting endoplasmic reticulum stress to trigger Immunogenic Cell Death.Phytomedicine.2023: 155219.
Mohan S, et al. Nat Prod Res. 2015;29(4):366-9.
Hwang Y H, Jang S A, Kim T, et al. Anti-osteoporotic and Anti-adipogenic Effects of Rhus chinensis Nutgalls in Ovariectomized Mice Fed with a High-fat Diet[J]. Planta medica. 2019.