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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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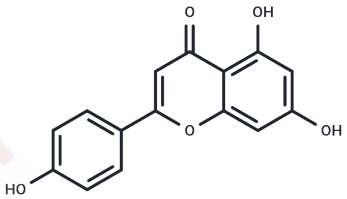
Data Sheet (Cat.No.T2175)

TargetMol

Apigenin

Chemical Properties



CAS No. : 520-36-5

Formula: C15H10O5

Molecular Weight: 270.24

Appearance: no data available

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

Biological Description

Description	Apigenin (NSC 83244) is an aromatic oil extracted from the flowers or leaves of the daisy-like plants. Extracts, oils and teas made from chamomile are used for its soothing qualities as a sedative, mild analgesic and sleep medication. Apigenin has not been implicated in causing serum enzyme elevations or clinically apparent liver injury.
Targets(IC50)	P450,Autophagy
In vitro	Apigenin inhibits the activity of protein kinase C, mitogen-activated protein kinase, and the transformation of C3HI mouse embryo fibroblasts, as well as downstream oncogenes in NIH3T3 cells transformed by v-Ha-ras. It also suppresses the activity and expression of cyclooxygenase-2 and nitric oxide synthase-2 in mouse macrophages induced by LPS and effectively blocks the upregulation of the cell adhesion molecule-1 in human endothelial cells triggered by TNFα. Moreover, apigenin inhibits the expression of HIF-1α and VEGF in human ovarian cancer cells through the PI3K/Akt/p70S6K1 and HDM2/p53 signaling pathways, reduces the phosphorylation levels of cellular proteins induced by TPA, and inhibits the expression of c-jun and c-fos also induced by TPA. It reverses the transformed phenotype of NIH3T3 cells with v-H-ras. In Chinese hamster ovary cells, apigenin prevents mutations caused by the toxicity gene induced by nitropyrene. It blocks the peroxisome proliferator-activated kinase and MAPK in hepatocytes ex vivo. In epithelial and fibroblast cells, apigenin causes reversible blocks at G2/M and G0/G1 phases by inhibiting p34 (cdc2) kinase activity, accompanied by an increase in p53 protein stability.
In vivo	Apigenin at a dosage of 12.5 mg/kg enhances the proliferation of cells in the dentate gyrus region of the hippocampus in adult mice. It also downregulates the production of IL-4 in ovalbumin-immunized BALB/C mice. Additionally, apigenin significantly increases both the weight of the uterus and the overall concentration of estrogen receptor (ER)-α in female mice (64), while inhibiting the growth of prostate and breast cancer cells via the estrogen receptor β1. This compound inhibits lung metastasis of melanoma by blocking the interaction between tumor cells and endothelial cells. Furthermore, apigenin reduces IGF-I levels in prostate xenografts and increases the content of IGFBP-3, a protein that binds IGF-I in the bloodstream.

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble) Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 50 mg/mL (185.02 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7004 mL	18.5021 mL	37.0041 mL
5 mM	0.7401 mL	3.7004 mL	7.4008 mL
10 mM	0.370 mL	1.8502 mL	3.7004 mL
50 mM	0.074 mL	0.370 mL	0.7401 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

Zhao G, et al. Apigenin inhibits proliferation and invasion, and induces apoptosis and cell cycle arrest in human melanoma cells. Oncol Rep. 2017 Apr;37(4):2277-2285.
Lu H, Wang C, Lu W, et al. Apigenin and Ampicillin as