

Nepetin

Chemical Properties

CAS No. : 520-11-6

Formula: C₁₆H₁₂O₇

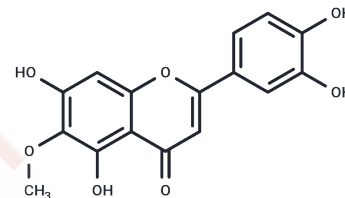
Molecular Weight: 316.26

Storage:

Keep away from direct sunlight,Keep away from moisture,Store under nitrogen

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	Nepetin (6-Methoxyluteolin) has antioxidant activity, it is a potent inhibitor of histamine release and calcium influx via down-regulation of the FcεRI α chain.
Targets(IC50)	Calcium Channel,Histamine Receptor,Interleukin
In vitro	Using the human basophilic KU812F cells, we assessed the inhibitory effects of 6-Methoxyluteolin, isolated from Chrysanthemum zawadskii, in the FcαRI-mediated allergic reaction. We determined that 6-Methoxyluteolin inhibited anti-FcαRI α± chain antibody (CRA-1)-induced histamine release, as well as elevation of intracellular calcium concentration [Ca ²⁺] _i in a dose-dependent manner. Moreover, the inhibitory effects of 6-Methoxyluteolin on the cell surface expression and the mRNA level of the FcαRI α± chain were determined by flow cytometric analysis and reverse transcription-polymerase chain reaction (RTPCR), respectively.

Solubility Information

Solubility	DMSO: 140 mg/mL (442.67 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 1 mg/mL (3.16 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.162 mL	15.8098 mL	31.6196 mL
5 mM	0.6324 mL	3.162 mL	6.3239 mL
10 mM	0.3162 mL	1.581 mL	3.162 mL
50 mM	0.0632 mL	0.3162 mL	0.6324 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

6-Methoxyluteolin from *Chrysanthemum zawadskii* var. *latilobum* suppresses histamine release and calcium influx via down-regulation of Fc α RI α chain expression. *J Microbiol Biotechnol.* 2012 May;22(5):622-7.

Bu W, Li S, Liu C, et al. Nepetin limits NLRP3 inflammasome activation and alleviates NLRP3-driven inflammatory diseases via PINK1-dependent mitophagy. *Free Radical Biology and Medicine.* 2024

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481