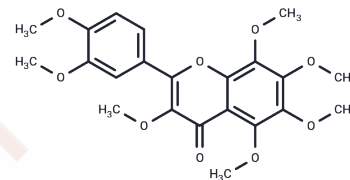


3,5,6,7,8,3',4'-Heptemthoxyflavone

Chemical Properties

CAS No. :	1178-24-1
Formula:	C ₂₂ H ₂₄ O ₉
Molecular Weight:	432.42
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	3,5,6,7,8,3',4'-Heptemthoxyflavone exhibits neuroprotective, chemopreventive, anti-allergic, anti-inflammatory, immunomodulatory, anti-aging, and photoprotective effects; it inhibits collagenase activity, induces type I procollagen synthesis in HDFn cells, and combats nitric oxide (NO) carcinogenesis.
Targets(IC50)	Others,PDE
In vitro	3,5,6,7,8,3',4'-Heptamethoxyflavone (HMF), extracted from C. unshiu peels using ethanol extraction and hexane fractionation, inhibited collagenase activity and increased type I procollagen content in UV-induced human dermal fibroblast neonatal (HDFn) cells. HMF also suppressed matrix metalloproteinases 1 (MMP-1) expression and induced type I procollagen protein expression in these cells. Additionally, HMF inhibited UVB-induced phosphorylation of MAPK cascade signaling components—ERK, JNK, and c-Jun—thereby reducing MMP-1 expression. Furthermore, HMF modulated the TGF-β/Smad signaling pathway by inducing Smad3 and suppressing Smad7 protein expressions in a dose-dependent manner in UV-induced HDFn cells.

Solubility Information

Solubility	DMSO: 50 mg/mL (115.63 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1 mg/mL (2.31 mM),Sonication is recommended. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (11.56 mM),Solution. 10% DMSO+90% Saline: < 5 mg/mL (11.56 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. <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	2.3126 mL	11.5628 mL	23.1257 mL
5 mM	0.4625 mL	2.3126 mL	4.6251 mL
10 mM	0.2313 mL	1.1563 mL	2.3126 mL
50 mM	0.0463 mL	0.2313 mL	0.4625 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

3,5,6,7,8,3',4'-Heptamethoxyflavone, a Citrus Flavonoid, Inhibits Collagenase Activity and Induces Type I Procollagen Synthesis in HDFn Cells. *Int J Mol Sci.* 2018 Feb 22;19(2). pii: E620.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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