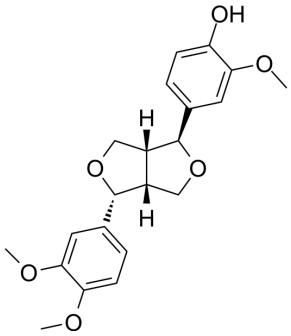
Phillygenin

Cat. No.:	HY-N0483
CAS No.:	487-39-8
Molecular Formula:	$C_{21}H_{24}O_6$
Molecular Weight:	372
Target:	Reactive Oxygen Species
Pathway:	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (67.20 mM; ultrasonic and warming and heat to 60°C)
H_2O : < 0.1 mg/mL (ultrasonic) (insoluble)

	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
Preparing Stock Solutions	**1 mM**	2.6882 mL	13.4409 mL	26.8817 mL
	5 mM	0.5376 mL	2.6882 mL	5.3763 mL
	10 mM	0.2688 mL	1.3441 mL	2.6882 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 3.25 mg/mL (8.74 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 3.25 mg/mL (8.74 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3.25 mg/mL (8.74 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Phillygenin (Phillygenol) is an active ingredient from Forsythia with many medicinal properties, such as antioxidant, reducing blood lipid, inhibition of low density lipoprotein oxidation.

In Vitro

1) Phillygenin shows a greater inhibition on mouse B16 melanoma cells potential than vincristine[1].
2) phillygenin had notable scavenging activity against DPPH, ABTS radicals, as well as potent reducing power in FRAP assay.
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo	The reference for rat is 5.6 mg/m l (i.v). MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Phytother Res. 2024 Feb 15.
- Biosci BioTech Bioch. 2021 Jan 9.

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REFERENCES

[1]. Ye LH et al. Determination of phillygenin in rat plasma by high-performance liquid chromatography and its application to pharmacokinetic studies. Eur J Drug Metab Pharmacokinet, 2013 Sep, 38(3):201-7.

[2]. Song W et al. Interaction between phillygenin and human serum albumin based on spectroscopic and molecular docking. Spectrochim Acta A Mol Biomol Spectrosc, 2012 Jan, 85(1):120-6.

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