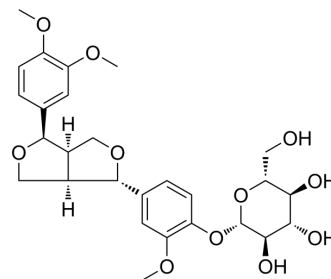


Phillyrin

Cat. No.:	HY-N0482		
CAS No.:	487-41-2		
Molecular Formula:	C ₂₇ H ₃₄ O ₁₁		
Molecular Weight:	534.55		
Target:	Cytochrome P450; Influenza Virus; Bacterial		
Pathway:	Metabolic Enzyme/Protease; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (467.68 mM; Need ultrasonic)

Concentration	Solvent	Mass	1 mg	5 mg	10 mg
			1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		1.8707 mL	9.3537 mL	18.7073 mL
	5 mM		0.3741 mL	1.8707 mL	3.7415 mL
	10 mM		0.1871 mL	0.9354 mL	1.8707 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.17 mg/mL (4.06 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.17 mg/mL (4.06 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.17 mg/mL (4.06 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Phillyrin is isolated from *Forsythia suspensa* Vahl (Oleaceae), has antibacterial and anti-inflammatory activities. Phillyrin has potential inductive effects on rat CYP1A2 and CYP2D1 activities, without affecting CYP2C11 and CYP3A1/2 activities^[1]. Phillyrin has anti-influenza A virus activities^[2].

IC₅₀ & Target

CYP1 CYP2

In Vitro

Phillyrin (1–5 μM; pretreatment 1 hour; 24 hours) inhibits high glucose-induced FAS protein significantly in HepG2 cells^[1].

Phillyrin (1–5 μ M; pretreatment 1 hour; 24 hours) inhibits high glucose-induced FAS mRNA expression by suppressing SREBP-1c activation in human HepG2 hepatocytes^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

RT-PCR^[1]

Cell Line:	Human HepG2 hepatocyte cells
Concentration:	1 μ M; 2.5 μ M; 5 μ M
Incubation Time:	24 hours
Result:	Reduced FAS and SREBP-1c mRNA expression.

CUSTOMER VALIDATION

- Phytomedicine. 2024 Aug 18:134:155952.
- Int Immunopharmacol. 2024 Aug 18:141:112960.
- Front Cell Dev Biol. 2021 Nov 10;9:763864.
- J Orthop Surg Res. 2024 May 22;19(1):308.

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REFERENCES

[1]. Cheng Y, et al. Effects of phillyrin and forsythoside A on rat cytochrome P450 activities in vivo and in vitro. *Xenobiotica*. 2017 Apr;47(4):297-303.

[2]. Do MT, et al. Phillyrin attenuates high glucose-induced lipid accumulation in human HepG2 hepatocytes through the activation of LKB1/AMP-activated protein kinase-dependent signalling. *Food Chem*. 2013 Jan 15;136(2):415-25.

[3]. Qu XY, et al. Protective effects of phillyrin against influenza A virus in vivo. *Arch Pharm Res*. 2016 Jul;39(7):998-1005.

Caution: Product has not been fully validated for medical applications. For research use only.

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