Syringin

Cat. No.: HY-N0824

CAS No.: 118-34-3

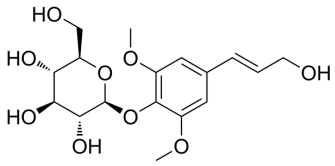
Molecular Formula: $C_{17}H_{24}O_9$

Molecular Weight: 372.37

Target: Autophagy

Pathway: Autophagy

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (268.55 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6855 mL	13.4275 mL	26.8550 mL
	5 mM	0.5371 mL	2.6855 mL	5.3710 mL
	10 mM	0.2686 mL	1.3428 mL	2.6855 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: ≥ 2.5 mg/mL (6.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.71 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Syringin (Eleutheroside B) is an active natural phenolic glycoside possessing various pharmacological activities, including anti-inflammatory, anti-irradiation, anti-osteoporosis and anticancer activities. Syringin also can be used to enhance memory, relieve fatigue, improve human cognition and protect ischemia heart against cerebrovascular damage, etc[1].

In Vitro

Syringin (15 μM; 24 h) results in a marked decrease in the expression levels of hypertrophic markers and an inrease in the levels of α-MHC[2].

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

RT-PCR[2]

Cell Line:	H9c2 cells
Concentration:	15 μM
Incubation Time:	24 h
Result:	Resulted in a marked decrease in the expression levels of hypertrophic markers and an inrease in the levels of α-MHC.

In Vivo

Syringin (10-40 mg/kg; orally active, daily, 12 weeks) significantly downregulates the expression of TRAF6, NF-κB and RANKL proteins levels, upregulated the expression of osteoprotegerin (OPG), PI3K and AKT levels, and subsequently increasing the OPG/RANKL ratio and inhibiting the osteoclastogenesis, finally promoting bone formation[1].

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

Animal Model:	Sixty female ICR mice (24 g) bearing ovariectomized[1]
Dosage:	10 mg/kg, 20 mg/kg and 40 mg/kg
Administration:	Orally active, daily, 12 weeks
Result:	Significantly improved the BMD, bone maximum load and trabecular bone microarchitecture in ovariectomized mice.

CUSTOMER VALIDATION

- Immun Inflamm Dis. 2023 Feb;11(2):e775.

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REFERENCES

[1]. Liu J, et al. Syringin prevents bone loss in ovariectomized mice via TRAF6 mediated inhibition of NF-κB and stimulation of PI3K/AKT. Phytomedicine. 2018 Mar 15;42:43-50.

[2]. Li F, et al. Syringin prevents cardiac hypertrophy induced by pressure overload through the attenuation of autophagy. Int J Mol Med. 2017 Jan;39(1):199-207.

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