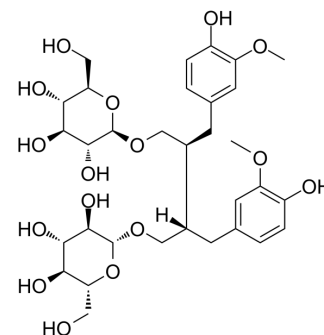


Secoisolariciresinol diglucoside

Cat. No.:	HY-105008		
CAS No.:	257930-74-8		
Molecular Formula:	C ₃₂ H ₄₆ O ₁₆		
Molecular Weight:	686.7		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (145.62 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		1.4562 mL	7.2812 mL	14.5624 mL
	5 mM		0.2912 mL	1.4562 mL	2.9125 mL
	10 mM		0.1456 mL	0.7281 mL	1.4562 mL

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

In Vivo

1. Add each solvent one by one: PBS
 Solubility: 50 mg/mL (72.81 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Secoisolariciresinol diglucoside ((S,S)-SDG), the main lignan in wholegrain flaxseed, is known for its beneficial effects including anti-inflammatory, antioxidant, anti-mutagenic, anti-microbial, anti-obesity, hypolipidemic, and neuroprotective effects^{[1][2]}.

In Vitro

Secoisolariciresinol diglucoside (1-500 μM) possesses strong reducing power and high free radical scavenging activity for hydroxyl, peroxy and DPPH free radicals^[1].
 Secoisolariciresinol diglucoside (1-50 μM; 24 h) attenuates human monocyte adhesion to and migration across human brain endothelial monolayers^[2].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Secoisolariciresinol diglucoside (4 mg/mouse; a single p.o.) diminishes leukocyte adhesion and migration across blood-

brain barrier (BBB) in neuroinflammation^[2].

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

Animal Model:	Hand feeding mice (10 weeks old, male) are injected with TNF α ^[2]
Dosage:	4 mg/mouse
Administration:	P.o. 2 h before i.c. administration of TNF α
Result:	Attenuated adhesion of leukocytes to the endothelium by 50% and attenuated migration of leukocytes across the BBB by 64%.

CUSTOMER VALIDATION

- Biomed Pharmacother. 2023 Jun 1;164:114964.
- Int Immunopharmacol. 2020 Jan;78:105931.
- Drug Dev Res. 2022 Apr 26.
- Mediat Inflamm. 2020 Jun 24;2020:3621261.

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REFERENCES

- [1]. Mishra OP, et al. Synthesis and antioxidant evaluation of (S,S)- and (R,R)-secoisolariciresinol diglucosides (SDGs). Bioorg Med Chem Lett. 2013 Oct 1;23(19):5325-8.
- [2]. Rom S, et, al. Secoisolariciresinol diglucoside is a blood-brain barrier protective and anti-inflammatory agent: implications for neuroinflammation. J Neuroinflammation. 2018 Jan 27;15(1):25.

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

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