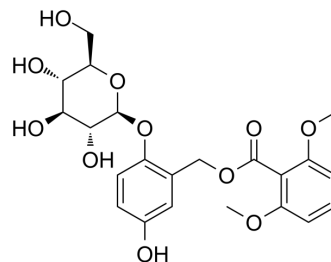


Curculigoside

Cat. No.:	HY-N0705
CAS No.:	85643-19-2
Molecular Formula:	C ₂₂ H ₂₆ O ₁₁
Molecular Weight:	466.44
Target:	JAK; STAT; NF-κB
Pathway:	Epigenetics; JAK/STAT Signaling; Stem Cell/Wnt; NF-κB
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 (214.39 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM		2.1439 mL	10.7195 mL	21.4390 mL
		5 mM		0.4288 mL	2.1439 mL	4.2878 mL
		10 mM		0.2144 mL	1.0719 mL	2.1439 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: ≥ 2.08 mg/mL (4.46 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Curculigoside is the main saponin in <i>C. orchioide</i> , exerts significant antioxidant, anti-osteoporosis, antidepressant and neuroprotection effects. Curculigoside possesses significant anti-arthritis effects in vivo and in vitro via regulation of the JAK/STAT/NF-κB signaling pathway ^[1] .
IC ₅₀ & Target	JAK; STAT; NF-κB ^[1]
In Vitro	Curculigoside (1-64 μg/ml; 72 hours) exerts significant inhibitory effects on MH7A cell viability between 1 and 64 μg/ml in MH7A cells ^[1] . Curculigoside (4-16 μg/ml; 24 hours) decreases the protein expression of JAK1, JAK3 and STAT3 compared to the TNF-α

group^[1].

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

Cell Viability Assay^[1]

Cell Line:	MH7A cells
Concentration:	1 µg/ml; 2 µg/ml; 4 µg/ml; 8 µg/ml; 16 µg/ml; 32 µg/ml; 64 µg/ml
Incubation Time:	72 hours
Result:	Had inhibitory effect on MH7A cells.

Western Blot Analysis^[1]

Cell Line:	MH7A cells
Concentration:	4 µg/ml; 64 µg/ml
Incubation Time:	24 hours
Result:	Downregulated JAK1, JAK3 and STAT3 protein expression.

CUSTOMER VALIDATION

- Life Sci. 2020 Oct 15;259:118356.
- Hum Exp Toxicol. Jan-Dec 2022;41:9603271221087146.
- J Orthop Surg Res. 2021 Apr 26;16(1):279.

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REFERENCES

[1]. Tan S, et al. Curculigoside exerts significant anti arthritic effects in vivo and in vitro via regulation of the JAK/STAT/NF κB signaling pathway. Mol Med Rep. 2019 Mar;19(3):2057-2064.

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

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