

Product data sheet



MedKoo Cat#: 584989 Name: Myricitrin CAS: 17912-87-7 Chemical Formula: C ₂₁ H ₂₀ O ₁₂ Exact Mass: 464.0955 Molecular Weight: 464.379		
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions	Ambient temperature	
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

Myricitrin is a flavonoid that has been found in *C. menyharthii* leaf extracts and has diverse biological activities.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	65.0	139.97
DMSO:PBS (pH 7.2) (1:5)	0.16	0.34
Ethanol	1.0	2.15

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.15 mL	10.77 mL	21.53 mL
5 mM	0.43 mL	2.15 mL	4.31 mL
10 mM	0.22 mL	1.08 mL	2.15 mL
50 mM	0.04 mL	0.22 mL	0.43 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

- Shen C, Xu M, Xu S, Zhang S, Lin W, Li H, Zeng S, Qiu Q, Liang L, Xiao Y, Xu H. Myricitrin inhibits fibroblast-like synoviocyte-mediated rheumatoid synovial inflammation and joint destruction by targeting AIM2. *Front Pharmacol*. 2022 Aug 31;13:905376. doi: 10.3389/fphar.2022.905376. PMID: 36120327; PMCID: PMC9471193.
- de Souza AP, Schardosim RF, Al Kateeb JE, Lehmann M, Grivicich I, Dihl RR. Modulatory effect of myricitrin against chromosome instability and cytostasis induced by bleomycin and oxaliplatin in CHO-K1 cells. *Drug Chem Toxicol*. 2022 Jun 14:1-10. doi: 10.1080/01480545.2022.2085739. Epub ahead of print. PMID: 35702048.

In vivo study

- Sun GB, Qin M, Ye JX, Pan RL, Meng XB, Wang M, Luo Y, Li ZY, Wang HW, Sun XB. Inhibitory effects of myricitrin on oxidative stress-induced endothelial damage and early atherosclerosis in ApoE^{-/-} mice. *Toxicol Appl Pharmacol*. 2013 Aug 15;271(1):114-26. doi: 10.1016/j.taap.2013.04.015. Epub 2013 Apr 29. PMID: 23639522.
- Meotti FC, Luiz AP, Pizzolatti MG, Kassuya CA, Calixto JB, Santos AR. Analysis of the antinociceptive effect of the flavonoid myricitrin: evidence for a role of the L-arginine-nitric oxide and protein kinase C pathways. *J Pharmacol Exp Ther*. 2006 Feb;316(2):789-96. doi: 10.1124/jpet.105.092825. Epub 2005 Oct 31. PMID: 16260583.

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7. Bioactivity

Biological target:

Myricitrin is a major antioxidant flavonoid.

In vitro activity

Myr (myricitrin) treatment inhibited the lamellipodia formation, migration, and invasion, but not the apoptosis and proliferation, of RA FLSs. Myr also reduced the expression of CCL2, IL-6, IL-8, MMP-1, MMP-3, and MMP-13 induced by TNF- α . The RNA-seq results indicated that AIM2 may be a target gene of Myr in RA FLSs.

Reference: Front Pharmacol. 2022 Aug 31;13:905376. <https://pubmed.ncbi.nlm.nih.gov/36120327/>

In vivo activity

Myricitrin given by i.p. or p.o. routes produced dose-related antinociception when assessed on acetic acid-induced visceral pain in mice. In addition, the i.p. administration of myricitrin exhibited significant inhibition of the neurogenic pain induced by intraplantar (i.pl.) injection of capsaicin. Like-wise, myricitrin given by i.p. route reduced the nociception produced by i.pl. injection of glutamate and phorbol myristate acetate (PMA).

Reference: J Pharmacol Exp Ther. 2006 Feb;316(2):789-96. <https://pubmed.ncbi.nlm.nih.gov/16260583/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.