

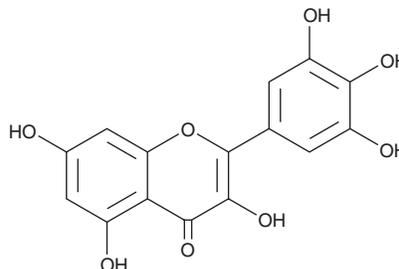
# PRODUCT INFORMATION



## Myricetin

Item No. 10012600

**CAS Registry No.:** 529-44-2  
**Formal Name:** 3,5,7-trihydroxy-2-(3,4,5-trihydroxyphenyl)-4H-1-benzopyran-4-one  
**Synonyms:** Cannabiscetin, LDN-0014058, NSC 407290  
**MF:** C<sub>15</sub>H<sub>10</sub>O<sub>8</sub>  
**FW:** 318.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 255, 376 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Myricetin is supplied as a crystalline solid. A stock solution may be made by dissolving the myricetin in the solvent of choice, which should be purged with an inert gas. Myricetin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of myricetin in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Myricetin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, myricetin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Myricetin has a solubility of approximately 0.5 mg/ml in a 1:10 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Myricetin is a flavonoid compound found in many fruits and vegetables, including red wine, that acts as a powerful antioxidant.<sup>1</sup> Myricetin inhibits TBARS formation with an IC<sub>50</sub> value of 6.34 and at 20 μM, blocks oxLDL uptake by U937-derived macrophages, reducing CD36 expression.<sup>2</sup> Myricetin demonstrates potent chemopreventative potential by binding JAK1/STAT3 to inhibit the neoplastic transformation of murine JB6 P+ cells and inhibiting MEK1 kinase activity.<sup>3,4</sup>

### References

1. Bennett, C.J., Caldwell, S.T., McPhail, D.B., *et al.* Potential therapeutic antioxidants that combine the radical scavenging ability of myricetin and the lipophilic chain of vitamin E to effectively inhibit microsomal lipid peroxidation. *Bioorg. Med. Chem.* **12(9)**, 2079-2098 (2004).
2. Lian, T.-W., Wang, L., Lo, Y.-H., *et al.* Fisetin, morin and myricetin attenuate CD36 expression and oxLDL uptake in U937-derived macrophages. *Biochim. Biophys. Acta* **1781(10)**, 601-609 (2008).
3. Kumamoto, T., Fujii, M., and Hou, D.X. Myricetin directly targets JAK1 to inhibit cell transformation. *Cancer Lett.* **275(1)**, 17-26 (2009).
4. Lee, K.W., Kang, N.J., Rogozin, E.A., *et al.* Myricetin is a novel natural inhibitor of neoplastic cell transformation and MEK1. *Carcinogenesis* **28(9)**, 1918-1927 (2007).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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