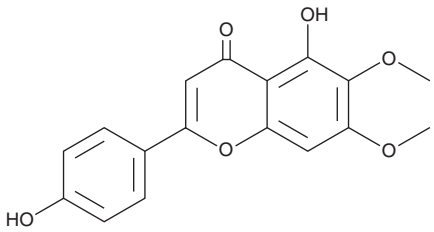
PRODUCT INFORMATION

Cirsimaritin

Item No. 34498

CAS Registry No.:	6601-62-3
Formal Name:	5-hydroxy-2-(4-hydroxyphenyl)-6,7-dimethoxy-4H-1-benzopyran-4-one
Synonym:	5,4'-Dihydroxy-6,7-dimethoxyflavone
MF:	$C_{17}H_{14}O_6$
FW:	314.3
Purity:	≥90%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/Unidentified sp.



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

Laboratory Procedures

Cirsimaritin is supplied as a solid. A stock solution may be made by dissolving the cirsimaritin in the solvent of choice, which should be purged with an inert gas. Cirsimaritin is soluble in the organic solvent DMSO at a concentration of approximately 10 mM.

Description

Cirsimaritin is a flavone that has been found in *D. kotschyi* and has diverse biological activities.[1-5] It binds to rat adenosine A_1, rat A_{2A}, and human A_3 receptors (K_is = 1.2, 3, and 1.72 µM, respectively, in radioligand binding assays), as well as inhibits dipeptidyl peptidase 4 (DPP-4; IC_{50} = 0.43 µM).[1,2] Cirsimaritin is active against the chloroquine-sensitive NF54 strain of *P. falciparum* (IC_{50} = 16.9 µM).[3] It inhibits the proliferation of AGS, HT-29, Saos-2, and WEHI 164 cells (IC_{50}s = 14.4, 13.1, 38.5, and 40.7 µM, respectively).[4] Cirsimaritin (10 mg/kg) increases the number of entries into, and percentage of time spent in, the open arms of the elevated plus maze in mice, indicating anxiolytic-like activity.[5]

References

1. Ji, X.-d., Melman, N., and Jacobson, K.A. Interactions of flavonoids and other phytochemicals with adenosine receptors. *J. Med. Chem.* **39(3)**, 781-788 (1996).
2. Li, N., Wang, L.-J., Jiang, B., *et al*. Recent progress of the development of dipeptidyl peptidase-4 inhibitors for the treatment of type 2 diabetes mellitus. *Eur. J. Med. Chem.* **151**, 145-157 (2018).
3. Tasdemir, D., Lack, G., Brun, R., *et al*. Inhibition of *Plasmodium falciparum* fatty acid biosynthesis: evaluation of FabG, FabZ, and FabI as drug targets for flavonoids. *J. Med. Chem.* **49(11)**, 3345-3353 (2006).
4. Moghaddam, G., Ebrahimi, S.A., Rahbar-Roshandel, N., *et al*. Antiproliferative activity of flavonoids: Influence of the sequential methoxylation state of the flavonoid structure. *Phytother. Res.* **26(7)**, 1023-1028 (2012).
5. Abdelhalim, A., Karim, N., Chebib, M., *et al*. Antidepressant, anxiolytic and antinociceptive activities of constituents from *Rosmarinus officinalis*. *J. Pharm. Pharm. Sci.* **18(4)**, 448-459 (2015).

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