

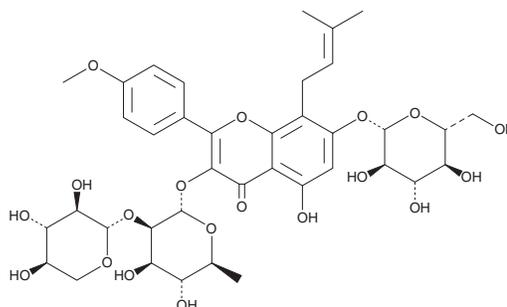
# PRODUCT INFORMATION



## Epimedin B

Item No. 29694

**CAS Registry No.:** 110623-73-9  
**Formal Name:** 3-[[6-deoxy-2-O-β-D-xylopyranosyl-α-L-mannopyranosyl]oxy]-7-(β-D-glucopyranosyloxy)-5-hydroxy-2-(4-methoxyphenyl)-8-(3-methyl-2-buten-1-yl)-4H-1-benzopyran-4-one  
**MF:** C<sub>38</sub>H<sub>48</sub>O<sub>19</sub>  
**FW:** 808.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 272, 316 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/Longspur epimedium



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

### Laboratory Procedures

Epimedin B is supplied as a crystalline solid. A stock solution may be made by dissolving the epimedin B in the solvent of choice, which should be purged with an inert gas. Epimedin B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of epimedin B in these solvents is approximately 1, 30, and 15 mg/ml, respectively.

Epimedin B is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, epimedin B should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Epimedin B has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Epimedin B is a flavonoid glycoside that has been found in *E. koreanum* and has antioxidant, anti-osteoporotic, and anti-inflammatory activities.<sup>1-5</sup> It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals in a cell-free assay (IC<sub>50</sub> = 107.9 μM).<sup>2</sup> Epimedin B increases proliferation of UMR-106 osteoblasts by 24.9 and 36.3% when used at concentrations of 10 and 100 μM, respectively.<sup>3</sup> It prevents osteoporosis induced by prednisolone (Item No. 20866) in zebrafish when used at a concentration of 1 μM.<sup>4</sup> Epimedin B inhibits ear edema induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) in mice (ED<sub>50</sub> = 114 nmol/ear).<sup>5</sup>

### References

1. Ito, Y., Hirayama, F., Suto, K., et al. *Phytochemistry* **27**(3), 911-913 (1988).
2. Kim, E.S., Kim, M.K., Kang, H.K., et al. *Nat. Prod. Sci.* **14**(4), 233-238 (2008).
3. Meng, F.-H., Li, Y.-B., Xiong, A.-L., et al. *Phytomedicine* **12**(3), 189-93 (2005).
4. Zhan, Y., Wei, Y.-J., Wang, C.-M., et al. *J. Chin. Pharma. Sci.* **49**(1), 30-35 (2014).
5. Yasukawa, K., Ko, S.-K., and Whang, W.-K. *J. Pharm. Nutr. Sci.* **6**(2), 38-42 (2016).

#### 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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