

Product Data Sheet

Product Name: Epimedokoreanin B

Cat. No.: GF13697

Chemical Properties

Cas. No. 161068-53-7

Formula C₂₅H₂₆O₆

M.Wt 422.47

Solubility

Storage 2-8°C, sealed storage, away from moisture

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Epimedokoreanin B is a natural flavonoid with anticancer, anti-inflammatory and antibacterial effects. Epimedokoreanin B inhibits the growth of lung cancer cells through endoplasmic reticulum stress-mediated apoptosis accompanied by autophagosome accumulation. Epimedokoreanin B is an anti-periodontitis agent that inhibits gingipains and Porphyromonas gingivalis growth and biofilm formation.

Epimedokoreanin B (compound6; 3.13-25 μM; 48 hours) shows significant inhibitory effect on proliferation against lung cancer cell A549, Calu1 and H1299. Epimedokoreanin B displays no toxic

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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on human bronchial epithelial cells BEAS-2B^[1]. Epimedokoreanin B treatment inhibits cell proliferation and migration accompanied by cytoplasmic vacuolation in A549 and NCI-H292 cells. Autophagosome accumulation accompanied with autophagy flux blocking is observed in Epimedokoreanin B treated cells, this was consistent with the occurrence of ER stress^[2]. Epimedokoreanin B (5 μM; 24 hours) inhibits CD163 expression and IL-10 production, which are known M2 markers, suggesting that Epimedokoreanin B inhibits M2 polarization in human monocyte-derived macrophages (HMDMs). Epimedokoreanin B suppresses STAT3 activation in HMDMs^[4].

Epimedokoreanin B (20 mg/kg; p.o; thrice a week; for 17 days) inhibits tumor growth in an LM8 tumor-bearing murine model^[4].

[1]. Huaran Zhang, et al. Flavonoids from the leaves of Epimedium Koreanum Nakai and their potential cytotoxic activities. Nat Prod Res. 2020 May;34(9):1256-1263.

[2]. Hao Zheng, et al. Epimedokoreanin B inhibits the growth of lung cancer cells through endoplasmic reticulum stress-mediated paraptosis accompanied by autophagosome accumulation. Chem Biol Interact. 2022 Oct 1;366:110125.

[3]. T Kariu, et al. Inhibition of gingipains and Porphyromonas gingivalis growth and biofilm formation by prenyl flavonoids. J Periodontal Res. 2017 Feb;52(1):89-96.

[4]. Cheng Pan , et al. Flavonoid Compounds Contained in Epimedium Herba Inhibit Tumor Progression by Suppressing STAT3 Activation in the Tumor Microenvironment. Front Pharmacol. 2020 Mar 18;11:262.

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