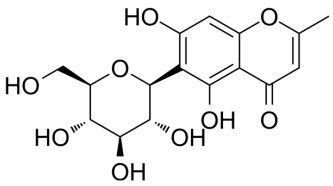
Biflorin

Cat. No.:	HY-119956
CAS No.:	89701-85-9
Molecular Formula:	$C_{16}H_{18}O_9$
Molecular Weight:	354.31
Target:	Apoptosis; STAT
Pathway:	Apoptosis; JAK/STAT Signaling; Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Biflorin has antimicrobial, antitumor, antiinflammatory and antimutagenic activities. Biflorin is found in the roots of Capraria biflora L[1][2][3].
IC_{50} & Target	STAT1
In Vitro	Biflorin (72 h) inhibits tumor cell growth with IC_{50}s ranging from 0.58 μg/mL (NCIH23 cell) to 14.61 μg/mL (MDA-MB-231 cell)[1]. Biflorin (3 and 6 μg/mL, 24 h) induces apoptosis, internucleosomal DNA fragmentation, mitochondrial depolarization in B16 melanoma cells[1]. Biflorin inhibits LPS-induced production of nitric oxide (NO) and prostaglandin E2 (PGE2) in RAW 264.7 macrophages via STAT1 Inactivation, with IC_{50} s of 51.7 and 37.1 μM, respectively[2]. Biflorin (5 and 10 μg/mL, 3 h) inhibits H_2O_2-induced oxidative damage by reducing lipid peroxidation and DNA damage in V79 mammalian cells[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Biflorin (25mg/day, i.p., for 10 days) inhibits tumor growth and increases the mean survival rate in B16 melanoma-bearing mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Vasconcellos MC, et al. The in-vitro and in-vivo inhibitory activity of biflorin in melanoma. Melanoma Res. 2011 Apr;21(2):106-14.

[2]. Lee HH, et al. Biflorin, Isolated from the Flower Buds of Syzygium aromaticum L., Suppresses LPS-Induced Inflammatory Mediators via STAT1 Inactivation in Macrophages and Protects Mice from Endotoxin Shock. J Nat Prod. 2016 Apr 22;79(4):711-20.

[3]. Vasconcellos MC,et al. Evaluation of the cytotoxic and antimutagenic effects of biflorin, an antitumor 1,4 o-naphthoquinone isolated from Capraria biflora L. Arch Toxicol. 2010 Oct;84(10):799-810.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA