Natural Products

ChemFaces

Biochanin A Datasheet

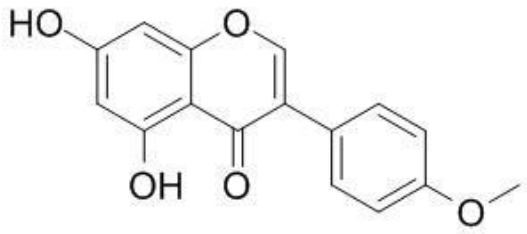
5th Edition (Revised in January, 2017)

[Product Information]

Name: Biochanin A

Catalog No.: CFN99734

Cas No.: 491-80-5



Purity: >=98%

M.F: $C_{16}H_{12}O_5$

M.W: 284.26

Physical Description: Yellow cryst.

Synonyms: 5,7-Dihydrox -4'-methoxyisoflavone;Genistein 4'-Methyl Ether.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The herbs of *Trifolium pretense L.*

[Biological Activity or Inhibitors]

Biochanin A and genistein inhibit both serum and EGF-stimulated growth of LNCaP and

DU-145 cells (IC_{50} values from 8.0 to 27 micrograms/ml for serum and 4.3 to 15 micrograms/ml for EGF), suggest that the mechanism of action of genistein and biochanin A does not depend on inhibition of EGF receptor tyrosine autophosphorylation, but on a more distal event in the EGF receptor-mediated signal transduction cascade.[1]

Biochanin A, morin, phloretin, and silymarin all inhibit P-glycoprotein (P-gp)-mediated cellular efflux and the mechanism of the interaction involved, at least in part, a direct interaction.[2]

Biochanin A shows anti-proliferative and anti-inflammatory activities through the inhibition of iNOS expression, p38-MAPK and ATF-2 phosphorylation and blocking NFκB nuclear translocation. [3]

BiochaninA, a phytoestrogen compound has protective effects against L-glutamate-induced cytotoxicity in a PC12 cell line, it may act as an antiapoptotic agent in order to perform its protective function.[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method][5]

Mobile phase: H2O- Methanol- Acetonitrile- Orthophosphoric acid=60:30:38:1;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 262 nm.

[Storage]

2-8℃, Protected from air and light, refrigerate or freeze.

[References]

[1] Peterson G, Barnes S. *Prostate, 1993, 22(4):335-45.*

[2] Zhang S, Morris M E. *J. Pharmacol. Exp. Ther.,2003,304(3):1258-67.*

[3] Kole L, Giri B, Manna S K, *et al. Eur. J. Pharmacol.,2011,653(1-3):8-15.*

[4] Tan J W, Tham C L, Israf D A, *et al. Neurochem. Res., 2013, 38(3):512-8.*

[5] Zaveri M, Khandhar A, Jain S. *Eurasian J. Anal. Chem., 2008, 3(2):245-57.*

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