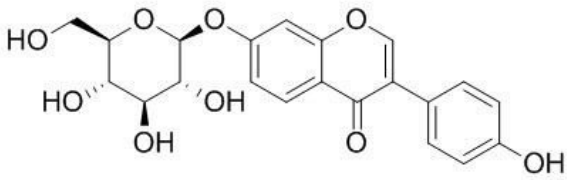
Natural Products

ChemFaces

Daidzin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Daidzin

Catalog No.: CFN99101

Cas No.: 552-66-9

Purity: > 98%

M.F: $C_{21}H_{20}O_9$

M.W: 416.38

Physical Description: Powder

Synonyms: 7-Glucsyl-4'--hydroxyisoflavone;7-O-glucosyl-4'-hydroxyisoflavone; Daidzin-7-glucoside;7,4-Dihydroxyisoflavone7-glucoside;Daidzein-7-O-β-D-glucopyranoside; 7-(beta-d-glucopyranosyloxy)-3-(4-hydroxyphenyl)-5-hydroxy-4h-1-benzopyran-4-one.

[Intended Use]

1. Reference standards;

2. Pharmacological research;

3. Food and cosmetic research;

4. Synthetic precursor compounds;

5. Others.

[Source]

The root of *Pueraria lobata (Willd.) Ohwi.*

[Biological Activity or Inhibitors]

Daidzin is a potent, selective inhibitor of human mitochondrial aldehyde dehydrogenase

with a Ki of 40 nM, and uncompetitively with respect to the coenzyme NAD^+. [1]

Daidzin has preventive effect on bone loss in ovariectomized rats appears to be due to suppression of bone turnover. [2]

Daidzin in the rhizome of Pueraria lobata are prodrugs, which has antiallergic and antithrombotic activities, can inhibit ADP- and collagen-induced platelet aggregation, produced by intestinal microflora.[3]

Daidzinand puerarin can induce a conformational change of beta-CD, which is compressed in one direction and stretched in the other. [4]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol.

[HPLC Method][5]

Mobile phase: Methanol: H2O=20:80;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 250 nm.

[Storage]

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

[References]

[1] Keung W M, Vallee B L. *P. Natl.Acad .Sci. U.S.A., 1993, 90(4):1247-51.*

[2] Ishida H, Uesugi T, Hirai K, *et al. Biol. Pharm. Bull., 1998, 21(1):62-6.*

[3] Choo M K, Park E K, Yoon H K, *et al. Biol. Pharm. Bull., 2002, 25(10):1328-32.*

[4] Zhang H, Feng W, Li C, *et al. J. Phys. Chem. B, 2010, 114(14):4876-83.*

[5] Dong H W, Liu W H, Pharmacy S O, *et al. J .Pharm. Res., 2014, 33(2):73-5.*

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