Natural Products

ChemFaces

6,7,4'-Trihydroxyisoflavone Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: 6,7,4'-Trihydroxyisoflavone

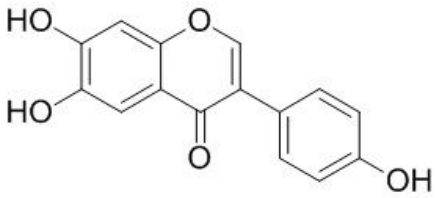
Catalog No.: CFN90796

Cas No.: 17817-31-1

Purity: >=98%

M.F: $C_{15}H_{10}O_5$

M.W: 270.24



Physical Description: Powder

Synonyms: Demethyltexasin;6,7-Dihydroxy-3-(4-hydroxyphenyl)-4H-chromen-4-one.

[Intended Use]

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

[Source]

The seeds of *Glycine max*.

[Biological Activity or Inhibitors]

6,7,4′-Trihydroxyisoflavone shows inhibitory activity against monophenolase activity of

mushroom tyrosinase , with IC 50 values of 0.009±0.001 mM.[1]

6,7,4'-Trihydroxyisoflavone bound directly to cyclin-dependent kinase (CDK)1 and CDK2 in vivo, resulting in the suppression of CDK1 and CDK2 activity in tumors, it significantly decreased tumor growth, volume and weight of HCT-116 xenografts in a xenograft mouse model; suggests that CDK1 and CDK2 are potential molecular targets of 6,7,4'-THIF to suppress HCT-116 cell proliferation in vitro and in vivo..[2]

6,7,4'-Trihydroxyisoflavone can suppress adipogenesis in 3T3-L1 preadipocytes via ATP-competitive inhibition of PI3K. [3]

6,7,4'-Trihydroxyisoflavone exhibits significant antistaphylococcal effects against various standard strains and clinical isolates, including methicillin and tetracycline resistant ones with the MICs ranging from 16 to 128 ug ml(-1).[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: 0.1% Formic acid in water- 0.1% Formic acid in acetonitrile,gradient elution ;

Flow rate: 12 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 254 nm.

[Storage]

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

[References]

[1] Chang T S, Ding H Y, Tai S, *et al. Food Chem., 2007, 105(4):1430-8.*

[2] Lee D E, Lee K W, Jung S K, *et al. Carcinogenesis, 2011, 32(4):629-35.*

[3] Seo SG, Yang H, Shin SH,*et al. Mol. Nutr. Food Res., 2013, 57(8):1446- 55.*

[4] Hummelova J, Rondevaldova J, Balastikova A, *et al. Lett. Appl. Microbiol., 2015, 60(3):242-7.*

[5] Ujang Z B, Subramaniam T, Diah M M, *et al. J. Biomat. Nanobiotech., 2013, 04(3):265-72.*

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