Natural Products

ChemFaces

Prunetin Datasheet

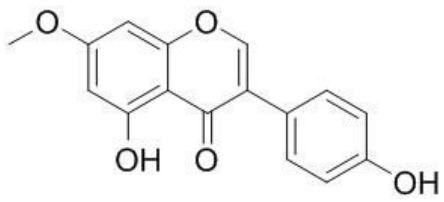
4th Edition (Revised in July, 2016)

[Product Information]

Name: Prunetin

Catalog No.: CFN90189

Cas No.: 552-59-0



Purity: >=98%

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

M.W: 284.26

Physical Description: Powder

Synonyms:4',5-Dihydroxy-7-methoxy-isoflavon;5-Hydroxy-3-(4-hydroxyphenyl)-7-methoxy-4-benzopyrone.

[Intended Use]

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

[Source]

The herbs of *Millettia dielsiana.*

[Biological Activity or Inhibitors]

Prunetin, a prodrug of genistein that is a highly active cancer prevention agent, prunetin glucuronidation is species-, organ-, and UGT-isoform-dependent, all of which may be impacted by the thermostability of specific UGT isoforms involved in the metabolism.[1]

Prunetin can regulate the secretion, production and gene expression of mucin, by directly acting on airway epithelial cells.[2]

Prunetin can mediate anti-obesity/adipogenesis effects by suppressing obesity-related transcription through a feedback mechanism that regulates the expression of adiponectin, adipoR1, adipoR2, and AMPK. [3]

Prunetin can significantly reduce serum levels of inflammatory cytokines and mortality in mice challenged with lipopolysaccharide, these findings offer a potential mechanism for the anti-inflammatory activity of prunetin.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: 0.5% Acetic acid H2O-Methanol ,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 254 nm.

[Storage]

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

[References]

[1] Joseph T, Wang S X, Kulkarni K, *et al. Mol. Pharm., 2007, 4(6):883-94.*

[2] Hyun Jae Lee , Su Yel Lee , Mi N L, *et al. Phytother. Res., 2011, 25(8):1196-200.*

[3] Ahn T G, Yang G, Lee H M, *et al. Biochem. Pharmacol., 2013, 85(10):1525-33.*

[4] Gabsik Yang, Inhye Ham, Ho-Young Choi. *Food Chem. Toxicol. , 2013, 58:124-32.*

[5] Wang H, Liu Y, Zeng Z, *et al. China Journal of Chinese Materia Medica, 2011, 36(18):2525-9.*

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