Natural Products

ChemFaces

Syringic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

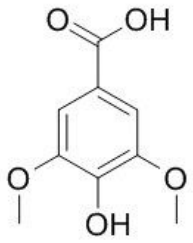
Name: Syringic acid

Catalog No.: CFN98884

Cas No.: 530-57-4

Purity: >=99%

M.F: $C_9H_{10}O_5$



M.W: 198.17

Physical Description: Powder

Synonyms: 4-Hydroxy-3,5-dimethoxy-benzoicaci;4-hydroxy-3,5-dimethoxy-; Benzoic acid.

[Intended Use]

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

[Source]

The herbs of *Michelia spaerantha C.Y.Wu.*

[Biological Activity or Inhibitors]

Syringic acid and vanillic acid inhibit the activation of cultured hepatic stellate cells, which play a central role in liver fibrogenesis, and maintained hepatocyte viability, suggests that the administration of syringic acid and vanillic acid could suppress hepatic fibrosis in chronic liver injury.[1]

Syringic acid has in vitro antimicrobial activity and fungitoxicity.[2]

Syringic acid can ameliorate L-arginine methyl ester-induced hypertension by reducing oxidative stress; it reduces oxidative stress markers and has antioxidant effects, it also augments antioxidant capacity in l-arginine-induced acute toxicity of pancreas in rats. [3,4]

Syringic acid treatment in cerebral ischemia reduced oxidative stress and neuronal degeneration, we think that syringic acid treatment may be an alternative treatment method.[5]

Syringic acid has antihyperglycemic effect on attenuating the key enzymes of carbohydrate metabolism in experimental diabetic rats, it can reduce the pancreatic damage induced by alloxan and stimulated β-cell regeneration in diabetic rats, suggests its therapeutic potential for the management of diabetes.[6]

Dietary syringic acid possesses anti-obesity, anti-inflammatory and anti-steatotic effects via the regulation of lipid metabolic and inflammatory genes, it is likely to be a new natural therapeutic agent for obesity or non-alcoholic liver disease.[7]

[Solvent]

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

[HPLC Method][8]

Mobile phase: Methanol- 1% Acetic acid H2O =20:80 ;

Flow rate: 1.0 ml/min;

Column temperature: 25 ℃;

The wave length of determination: 254 nm.

[Storage]

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

[References]

[1] Itoh A, Isoda K, Kondoh M, *et al. Biol. Pharmaceut. Bull., 2010, 33(6):983-7.*

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[3] Kumar S, Prahalathan P, Raja B. *Archiv Für Experimentelle Pathologie Und Pharmakologie, 2012, 385(12):1175-84.*

[4] Cikman O, Soylemez O, Ozkan O F, *et al. Int. Surg., 2015, 100(5):891-6.*

[5] Güven M, Aras A B, Topaloğlu N, *et al. Turk. J. Med. Sci., 2015, 45(1):233-40.*

[6] Srinivasan S, Muthukumaran J, Muruganathan U, *et al. Biomed. Prevent. Nutr., 2014, 4(4):595-602.*

[7] Ham J R, Lee H I, Choi R Y, *et al. Food Funct., 2016, 7(2):689-97.*

[8] Maity N, Pandit S, Nema N K, *et al. Planta Med., 2012, 78 - PI108(11).*

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