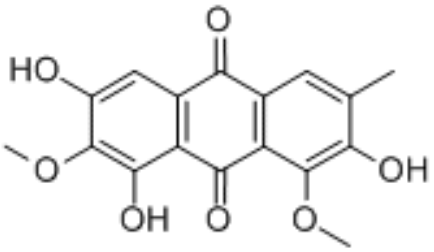
Natural Products

ChemFaces

Aurantio-obtusin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Aurantio-obtusin

Catalog No.: CFN99732

Cas No.: 67979-25-3

Purity: >=98%

M.F: $C_{17}H_{14}O_7$

M.W: 330.29

Physical Description: Powder

Synonyms: 1,3,7-Trihydroxy-2,8-dimethoxy-6-methylanthracene-9,10-dione; 1,3,7-Trihydroxy-2,8-diMethoxy-6-Methyl-9,10-anthracenedione.

[Intended Use]

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

[Source]

The seeds of *Cassia obtusifolia L.*

[Biological Activity or Inhibitors]

Aurantio-obtusin is a natural effective compound isolated from Semen Cassiae, which possesses hypotensive and hypolipidemic effects; vasorelaxation induced by aurantio-obtusin is dependent on endothelium integrity and NO production, which mediated by endothelial PI3K/Akt/eNOS pathway; suggest aurantio-obtusin may offer therapeutic effects in hypertension, as a new potential vasodilator.[1]

Aurantio-obtusin can inhibit allergic responses in IgE-mediated mast cells and anaphylactic models, it suppresses degranulation, histamine production, and reactive oxygen species generation and inhibits the production and mRNA expression of tumor necrosis factor- α and interleukin-4, and also suppresses the prostaglandin E2 production and expression of cyclooxygenase 2.[2]

Aurantio-obtusin exhibits strong competitive inhibition towards the glucuronidation of SN-38, but negligible inhibition potential of glucoaurantio-obtusin towards SN-38 glucuronidation. [3]

Aurantio-obtusin has a good lipid regulating effect mainly by affecting the body amino acid and fatty acid metabolism.[4]

Aurantio-obtusin stimulates chemotactic migration and differentiation of MC3T3-E1 osteoblast cells, it is a promising osteoanabolic compound with potential therapeutic applications in the prevention of osteoporosis and other metabolic bone diseases.[5]

[Solvent]

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

[HPLC Method][6]

Mobile phase: Methanol-0.1% Phosphonic acid H2O, 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] Li S, Qian L, Lv X, *et al. J. Pharmacol. Sci., 2015, 128(3):108-15.*

[2] Kim M, Lim S J, Lee H J, *et al. J. Agr. Food Chem., 2015, 63(41):9037-46.*

[3] Yu J, Han J C, Gao Y J. *Phytother. Res., 2014, 28(10):1577-80.*

[4] Sheng Y U, Deng N, Liu W, *et al. J.Anal.Sci., 2016, 32(2):178-82.*

[5] Vishnuprasad C N, Tsuchiya T, Kanegasaki S, *et al. Planta Med., 2014, 80(7):544-9.*

[6] Wei Y F, Xie D W, Wan L, *et al. World Science & Technology, 2009, 11(6):868-71.*

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