Natural Products

ChemFaces

Artocarpin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Artocarpin

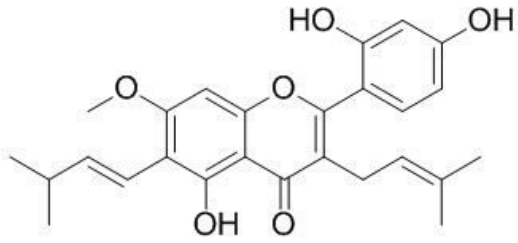
Catalog No.: CFN97239

Cas No.: 7608-44-8

Purity: > 95%

M.F: $C_{26}H_{28}O_6$

M.W: 436.5



Physical Description: Yellow powder

Synonyms:2',4',5-Trihydroxy-6-(3-methyl-1-butenyl)-3-(3-methyl-2-butenyl)-7-methoxyflavone.

[Intended Use]

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

[Source]

The heartwood of *Artocarpus incisus*.

[Biological Activity or Inhibitors]

Artocarpin has an efficient lightening effect on UV-stimulated hyperpigmented dorsal skins of brownish guinea pigs.[1]

Artocarpin possesses potent 5alpha reductase inhibitory effect.[2]

Artocarpin can cause a reduction of cell viability in a concentration-dependent manner and an alteration of cell and nuclear morphology, it induces apoptosis in T47D cells possibly via an extrinsic pathway. [3]

Artocarpin possesses anti-inflammation and anticancer activities, it can prevent skin damage from UVB irradiation-induced photodamage in hairless mice and this is likely mediated through its antioxidant and anti-inflammation mechanisms; suggestes that artocarpin could be a useful photoprotective agent in medicine and/or cosmetics.[4]

Artocarpin Is the only Neuraminidase (NA) inhibitor for which an inhibitory effect on pneumococcal growth (MIC: 0.99–5.75uM) and biofilm formation (MBIC: 1.15–2.97uM) was observable; the bactericidal effect of artocarpin can reduce the viability of pneumococci by a factor of >1000, without obvious harm to lung epithelial cells; this renders artocarpin a promising natural product for further investigations.[5]

[Solvent]

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

[HPLC Method][6]

Mobile phase: Methanol -H2O,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 285 nm.

[Storage]

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

[References]

[1] Shimizu K, Jp K U A, Kondo R, *et al. Planta Med., 2002, 68(1):79-81.*

[2] Pitaksuteepong T, Somsiri A, Waranuch N.*Eur.J.Pharm.Biopharm.,2007, 67(3):639-45.*

[3] Arung E T, Wicaksono B D, Handoko Y A, *et al. J. Nat.Med., 2010, 64(4):423-9.*

[4] Lee C W, Ko H H, Lin C C, *et al. Food Chem. Toxicol., 2013, 60(10):123-9.*

[5] Walther E, Richter M, Xu Z, *et al. Int. J. Med. Microbiol., 2014, 305(3):18-20.*

[6] Wira A, Panichayupakaranant P. *Nat. Prod. Sci., 2016, 22(2):1-5.*

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