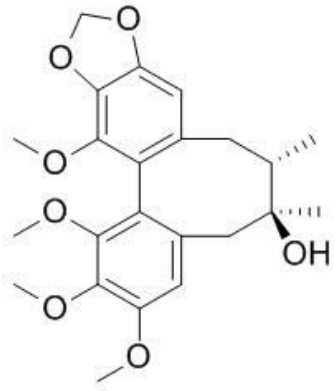
Natural Products

ChemFaces

Gomisin A Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Gomisin A

Catalog No.: CFN98990

Cas No.: 58546-54-6

Purity: > 98%

M.F: $C_{23}H_{28}O_7$

M.W: 416.5

Physical Description: Powder

Synonyms:

Besigomsin; Schisantherinol B; Schizandrol B; Wuweizi alcohol B; Wuweizichun B; Wuweizisu B; 3,3',4,5-Tetramethoxy-4',5'-methylenedioxy-2,2'-cyclolignan-8-ol.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Ingredient in supplements, beverages;
8. Others.

[Source]

The fruits of *Schizandra chinensis.*

[Biological Activity or Inhibitors]

Gomisin A(GA), a dibenzocyclooctadiene compound isolated from Schisandra chinensis, reverses multidrug resistance (MDR) in Pgp-overexpressing HepG2-DR cells; it is relatively non-toxic but without altering Pgp expression, it restores the cytotoxic actions of anticancer drugs such as vinblastine and doxorubicin that are Pgp substrates but may act by different mechanisms; suggests that gomisin A alters Pgp-substrate interaction but itself is neither a Pgp substrate nor competitive inhibitor.[1]

Gomisin A improves hepatic cell degeneration, vasodilatory activity and insulin sensitivity. These effects also impact the immune system, including various inflammatory mediators and cytokines; the anti-inflammatory properties of GA potentially result from the inhibition of COX-2, iNOS, IL-6, TNF-α and NO through the down-regulation of RIP2 and NF-κB activation. [2]

Gomisin A has anti-apoptotic and hepatoprotective effects on fulminant hepatic failure induced by D-galactosamine and lipopolysaccharide in mice.[3]

Gomisin A protects the liver from injury after administration of acetaminophen through the suppression of lipid peroxidation.[4]

Gomisin A inhibits tumor promotion by 12-O-tetradecanoylphorbol-13-acetate in two-stage carcinogenesis in mouse skin.[5]

Gomisin A induces Ca^{2+}-dependent activation and translocation of eNOS in HCAEC, events linked to NO production and thereby endothelial-dependent vasorelaxation.[6]

Gomisin A has antihypertensive effect on angiotensin II-induced hypertension via preservation of nitric oxide bioavailability.[7]

[Solvent]

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

[HPLC Method][8]

Mobile phase: Acetonitrile-0.03%Phosphoric acid H2O, gradient eiution ;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 280 nm.

[Storage]

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

[References]

[1] Wan C K, Zhu G Y, Shen X L, *et al. Bioch. Pharmacol., 2006, 72(7):824-37.*

[2] Jeong H J, Han N R, Kim K Y, *et al. Immunopharm. Immunot., 2014, 36(3):195-201.*

[3] Kim S, Kim Y, Kang S, *et al. J. Pharmacol. Sci., 2008, 106(2):225-33.*

[4] Yamada S, Murawaki Y, Kawasaki H. *Biochem. Pharmacol., 1993, 46(6):1081-5.*

[5] Yasukawa K, Ikeya Y, Mitsuhashi H, *et al. Oncology, 1992, 49(1):68-71.*

[6] Ji Y P, Shin H K, Choi Y W, *et al. J. Ethnopharmacol., 2009, 125(2):291-6.*

[7] Young P J, Wook Y J, Whan C Y, *et al. Hypertension Research Official Journal of the Japanese Society of Hypertension, 2012, 35(9):928-34.*

[8] Ying Z, Diao Y P, You X M, *et al. J. Med .Plants Res., 2010, 4(16):1628-36.*

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