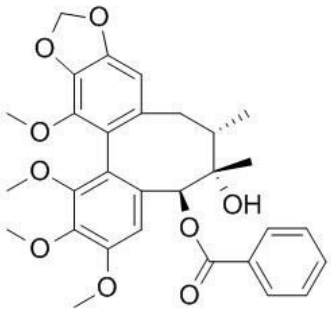
Schisantherin A Datasheet

5th Edition (Revised in January, 2017)

[Product Information]



Name: Schisantherin A

Catalog No.: CFN99925

Cas No.: 58546-56-8

Purity: >= 98%

M.F: $C_{30}H_{32}O_9$

M.W: 536.56

Physical Description: Cryst.

Synonyms:(5S-(5alpha,6beta,7beta))-5,6,7,8-Tetrahydro-1,2,3,13-tetramethoxy-6,7-dimethylbenzo(3,4)cycloocta(1,2-f)(1,3)benzodioxole-5,6-diol 5-benzoate;GomisinC.

[Intended Use]

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

[Source]

The seed of *Schisandra chinensis (Turcz.) Baill.*

[Biological Activity or Inhibitors]

Schisantherin A exhibits anti-inflammatory and antioxidant effects, it can significantly attenuate Aβ1-42-induced learning and memory impairment and noticeably improve the histopathological changes in the hippocampus, it could serve as a potential agent in treatment of Alzheimer's disease.[1]

Schisantherin A can protect against myocardial ischemia-reperfusion injury, the underlining mechanism may be related to their role in inhibiting cardiomyocyte apoptosis.[2]

Schisantherin A shows anti-inflammatory potentials, it may inhibit LPS-induced production of inflammatory cytokines by blocking NF-kappaB and MAPKs signaling in RAW264.7 cells.[3]

100 muM of Deoxyschizandrin and schisantherin A exhibit strong inhibition on UDP-glucuronosyltransferases (UGTs)1A3, suggests that herb-drug interaction may occur when deoxyschizandrin or schisantherin A containing herbs were co-administered with drugs which mainly undergo UGT1A3-mediated metabolism.[4]

Schisantherin A has been used as an antitussive, tonic, and sedative agent, it also can attenuate osteoclast formation and wear particle-induced osteolysis by mediating RANKL signaling pathways, indicates that it is a promising therapeutic natural compound for the treatment of osteoclast-related prosthesis loosening.[5]

Schisantherin A exhibits neuroprotection against 1-methyl-4-phenylpyridinium ion (MPP(+)) through the regulation of two distinct pathways including increasing CREB-mediated Bcl-2 expression and activating PI3K/Akt survival signaling, suggests that it may be a promising neuroprotective agent for the prevention of Parkinson's disease.[6]

[Solvent]

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

[HPLC Method][7]

Mobile phase: Acetonitrile-Tetrahydrofuran-H2O=18:18:64;

Flow rate: 1.0 ml/min;

Column temperature: 25 ℃;

The wave length of determination: 222 nm.

[Storage]

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

[References]

[1] Li X, Xu Z, Xuan X, *et al. Physiol. Behav., 2014, 132(132):10-6.*

[2] Chang R, Li Y, Yang X, *et al. Plos One, 2013, 8(4):e61590.*

[3] Ci X, Ren R, Xu K, *et al. Inflammation, 2010, 33(2):126-36.*

[4] Liu C. *Fitoterapia, 2012, 83(8):1415-9.*

[5] He Y, Zhang Q, Shen Y, *et al. Biochem. Biophy. Res. Commun., 2014, 449(3):344-50.*

[6] Sa F, Zhang L Q, Chong C M, *et al. Neurosci. Lett., 2015, 593:7-12.*

[7] Sun H Z, Le X U, Yuan H, *et al. China Pharmacy, 2014, 25(8):752-4.*

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