Natural Products

ChemFaces

Saikosaponin A Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Saikosaponin A

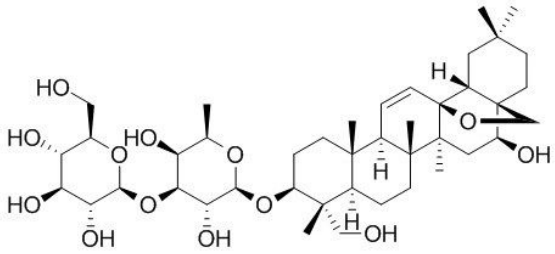
Catalog No.: CFN99987

Cas No.: 20736-09-8

Purity: > 98%

M.F: $C_{42}H_{68}O_{13}$

M.W: 780.99



Physical Description: Powder

Synonyms:(3beta,4alpha,16beta)-13,28-epoxy-16,23-dihydroxyolean-11-en-3-yl-6-deoxy-3-o-beta-d-glucopyranosyl-beta-d-galactopyranoside;(3beta,13alpha,16beta,17alpha)-16,23-dihydroxy-13,28-epoxyolean-11-en-3-yl-6-deoxy-3-O-beta-D-glucopyranosyl-beta-D-galactopyranoside.

[Intended Use]

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

[Source]

The root of *Bupleurum chinense DC.*

[Biological Activity or Inhibitors]

Saikosaponin A (SSa), a main constituent of the Chinese herb Bupleurum chinense DC, it has antiepileptic activity, can inhibit NMDA receptor current and persistent sodium current, and inhibit epileptiform discharges induced by 4AP in a dose-dependent manner.[1]

Saikosaponin A has anti-inflammatory activity, can decrease PMA plus A23187-induced cysteine-aspartic acid protease (caspase)-1 activity, and the number of nasal rubs and serum TNF-α level in the ovalbumin-sensitized allergic rhinitis mouse model, and inhibit the IL-1β production.[2]

Saikosaponin A extends to alcohol self-administration the capacity to suppress morphine and cocaine self-administration in rats ,the GABA B receptor system is likely part of the neural substrate underlying the reducing effect of SSA on alcohol self-administration. [3]

Saikosaponin A as antioxidants improve antioxidant status, supplementation with curcumin and/or saikosaponin A suppress inflammation and fibrogenesis in rats with CCl_4-induced liver injury, however, the combination has no additive effects on anti-inflammation and antifibrosis.[4]

[Solvent]

Pyridine, Methanol, Hot water, etc.

[HPLC Method][5]

Mobile phase: Acetonitrile : H2O=35:65;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 205 nm.

[Storage]

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

[References]

[1] Xie W, Yu Y H, Du Y P, *et al. Evid.-Based. Compl. Alt., 2013(1):221-9.*

[2] Han N R, Kim H M, Jeong H J.*Biol. Pharm. Bull., 2011, 34(6):817-23.*

[3] Maccioni P, Lorrai I, Carai M A M, *et al. Neurosci. Lett., 2016, 621:62-7.*

[4] Shu-JuWu, Ka-WaiTam, Ya-HuiTsai, *et al. Am. J. Chinese Med., 2012, 38(1):99-111.*

[5] Tang Y H, Zhang Y Y, Zhu H Y, *et al. Biomed. Chromatogr., 2007, 21(5):458-62.*

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