Product Information

Name: Saikosaponin D
Catalog No.: CFN99989
Cas No.: 20874-52-6
Purity: > 98%
M.F: C_{42}H_{68}O_{13}
M.W: 780.96

Physical Description: Powder

Synonyms: (3b,4a,16a)-13,28-Epoxy-16,23-dihydroxyolean-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 herb of Bupleurum chinense DC.
[**Biological Activity or Inhibitors**]

Saikosaponin D (SSd) is a major triterpenoid saponin derivative from Radix bupleuri, which has been long used in Chinese traditional medicine for treatment of various inflammation-related diseases; it shows potent anti-inflammatory activity through inhibitory effects on NF-κB activation and thereby on iNOS, COX-2 and pro-inflammatory cytokines.[1]

Saikosaponin D attenuates CCl4-induced hepatic fibrosis in rats, which may be related to its effects of hepato-protective and anti-inflammation properties, the down-regulation of liver TNF-α, IL-6 and NF-κBp65 expression and the increased I-κBα activity in liver.[2]

Saikosaponin D is an agonist of the glucocorticoid receptor (GR), and it possesses neuroprotective effects in corticosterone-treated PC12 cells; SSD exhibits its anti-apoptotic effects via differential regulation of mitochondrial and nuclear GR translocation, partial reversal of mitochondrial dysfunction, inhibition of the mitochondrial apoptotic pathway, and selective activation of the GR-dependent survival pathway.[3]

Saikosaponin D is a novel autophagic inducer, can increase cytosolic calcium level via direct inhibition of sarcoplasmic/endoplasmic reticulum Ca(2+) ATPase pump, leading to autophagy induction through the activation of the Ca(2+)/calmodulin-dependent kinase AMP-activated protein kinase-mammalian target of rapamycin pathway, which has the potential of being developed into an anti-cancer agent for targeting apoptosis-resistant cancer cells.[4]

[**Solvent**]

Pyridine, Methanol, Ethanol, Hot water, etc.

[**HPLC Method**][5]

Mobile phase: Acetonitrile : H2O=38:62;
Flow rate: 1.0 ml/min;
Column temperature: 30 °C;
The wave length of determination: 210 nm.
**[Storage]**

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

**[References]**


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