Natural Products



Saikosaponin C Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Physical Description: Powder

Synonyms:(3beta,4alpha,16beta)-13,28-Epoxy-16,23-dihydroxyolean-11-en-3-yl-O-6-de oxy-alpha-L-mannopyranosyl-(1-4)-O-beta-D-glucopyranosyl-(1-6)-beta-D-glucopyranosi de.

[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 C (SSC) is one of the saikosaponins that are consisted in a Chinese herb, Radix Bupleuri, it yields a potent effect on inducing human umbilical vein endothelial cells (HUVECs) viability and growth, also induces endothelial cells migration and capillary tube formation.^[1]

Saikosaponin C can inhibit lipopolysaccharide-induced apoptosis by suppressing caspase-3 activation and subsequent degradation of focal adhesion kinase in human umbilical vein endothelial cells.^[2]

Saikosaponin C seems to have beneficial effects on cellular tau function, it accelerates nerve growth factor (NGF)-mediated neurite outgrowth and increases the assembly of microtubules (MT) and synaptic marker proteins such as synaptophysin and PSD-95, suggests SSc might be a novel therapeutic tool for treating human AD and other neurodegenerative diseases. ^[3]

Saikosaponin C can cure liver disease.[4]

[Solvent]

Pyridine, Methanol, Hot water, etc.

[HPLC Method]^[5]

Mobile phase: Methanol : H2O=61:39; Flow rate: 1.0 ml/min; Column temperature: 30 °C; The wave length of determination: 203 nm.

[Storage]

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

[<u>References</u>]

[1] Shyu K G, Tsai S C, Wang B W, et al. Life Sci., 2004, 76(7):813-26.
[2] Lee T H, Chang J, Kim B M. Biochem. Bioph. Res. Co., 2014, 445(3):615-21.
[3] Tae Ho Lee , Sung Ha Park , You M H, et al. J. Neurochem., 2015, 136(6):1232-45.
[4] Chen Y C, Wang H M, Niu Q X, et al. Molecules, 2016, 21(2):153.

[5] Wang X D, Zhang Z W, Sun X M, et al. J. Pharm. Practice, 2001, 19(05):298-300.

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