[ **Product Information** ]

**Name:** Sophoricoside

**Catalog No.:** CFN90148

**Cas No.:** 152-95-4

**Purity:** \( \geq 99\% \)

**M.F:** \( C_{21}H_{20}O_{10} \)

**M.W:** 432.38

**Physical Description:** Powder

**Synonyms:** 5,7-Dihydroxy-3-[4-[(2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl]oxyphenyl]chromen-4-one.

[ **Intended Use** ]

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

[ **Source** ]

The fruits of *Sophora japonica* L.
[Biological Activity or Inhibitors]

Sophoricoside (SOP), an isoflavone glycoside was isolated from immature fruits of Sophora japonica (Leguminosae family), it has anti-inflammatory action, it inhibits the interleukin (IL)-6 bioactivity with an IC50 value of 6.1 microM whereas it has no effects on IL-1beta and TNF-alpha bioactivities; it is a selective inhibitor of cyclooxygenase (COX)-2 activity with an IC50 value of 4.4 microM, but does not show inhibitory effect on the synthesis of COX-2. [1]

Sophoricoside has been widely reported as an immunomodulator, sophoricoside at concentrations of 1-10 uM inhibited lipid accumulation in HepG2 cells in a dose-dependent manner, the lipid-lowering effect is mediated via the phosphorylation of AMPK; it has the capability to increase glucose uptake by C2C12 myotubes, also effectively inhibits the activities of α-glucosidase and α-amylase in vitro and remarkably lowered postprandial hyperglycaemia in starch-loaded C57BL6/J mice; suggests that sophoricoside is an effective regulator of lipogenesis and glucose consumption and may find utility in the treatment of obesity and type 2 diabetes. [2]

Sophoricoside has ameliorative effect on mast cell-mediated allergic inflammation in vivo and in vitro, the findings provide us with novel insights into the pharmacological actions of sophoricoside as a potential molecule for use in the treatment of allergic inflammation diseases. [3]

Sophoricoside exposure can reduce the number of implanted embryos in a dose-dependent manner and fails the embryo implantation through altering the morphology of uterine and compromising the endometrial receptivity. [4]

Sophoricoside can be efficient in preventing ovariectomy-induced bone loss in rats. [5]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][6]

Mobile phase: Methanol- Acetonitrile-0.08 %Phosphoric acid H2O=29:8:63;
Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wavelength of determination: 260 nm.

[ Storage ]

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

[ References ]


[ Contact ]

Address: S5-3 Building, No. 111, Dongfeng Rd., Wuhan Economic and Technological Development Zone, Wuhan, Hubei 430056, China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com