

Product Data Sheet

Product Name: Sophoricoside

Cat. No.: GC31781

Chemical Properties

Cas. No. 152-95-4

SMILES OC1=CC(O)=C(C(C(C2=CC=C(O[C@H]3[C@H](O)[C@@H](O)[C@H](O)[C@@H](CO)O3)C=C2)=CO4)=O)C4=C1

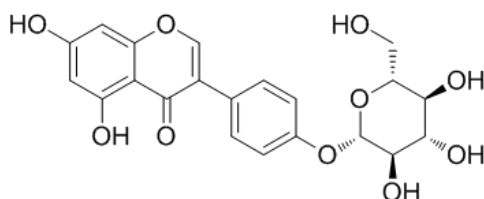
Formula $C_{21}H_{20}O_{10}$ M.Wt 432.38

Solubility DMSO : ≥ 150 mg/mL (346.92 mM) Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Protocol

Caution: Product has not been fully validated for medical applications. For research use only.

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- Kinase experiment:** Cells are incubated with the Sophoricoside for 1 h, and then incubated with PMACI for 2 h. The reaction is stopped by cooling the tubes in ice. The cells are separated from the released histamine by centrifugation at 400×g for 5 min at 4°C. The histamine levels are measured by ELISA using a histamine assay kit according to the manufacturer's directions. Duplicate aliquots of supernatant are measured for each sample[1].
- Cell experiment:** To test the cell viability by each concentration of Sophoricoside, the MTT colorimetric assay is performed. Briefly, HMC-1 cells (3×10⁵ cells/well) are incubated with Sophoricoside (1 to 50 µM) for 12 h. After the addition of MTT solution, the cells are incubated at 37°C for 4 h. The crystallized MTT (formazan) is dissolved in dimethyl sulfoxide and the absorbance is measured at 540 nm[1].
- Animal experiment:** BALB/c mice (5 weeks, 19 to 20 g) are used in this study. The dorsal skin of the BALB/c mice (n=6) is shaved and treated with a depilatory prior to the experiment. The mice are sensitized with 100 µL of 0.15% DNCB in acetone-olive oil (3:1) applied to the dorsal skin twice per week for 5 weeks. Control mice receive vehicle (acetone/olive oil=3:1). After 3 weeks, Sophoricoside (2 mg/kg) is orally administered 2 weeks until the end of the experiment[1].

References:

[1]. Kim SJ, et al. The ameliorative effect of sophoricoside on mast cell-mediated allergic inflammation in vivo and in vitro. *Molecules*. 2013 May 22;18(5):6113-27.

Background

Sophoricoside is an isoflavone glycoside isolated from *Sophora japonica* and has anti-inflammatory, anti-cancer and immunosuppressive effects.

Sophoricoside is an isoflavone glycoside isolated from *Sophora japonica* and has anti-inflammatory, anti-cancer and immunosuppressive effects. The results show that Sophoricoside (50 µM)

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significantly inhibits the PMACI-induced histamine release. The inhibition rate reaches up to 30.24%. The maximal rates of TNF- α , IL-8 and IL-6 inhibition by Sophoricoside (50 μ M) are approximately 31.42%, 43.43% and 34.24%, respectively. The rates of the levels of Rel/p65 inhibition in nuclear by Sophoricoside (50 μ M) is approximately 50.14%. Results show that the enhanced caspase-1 activity induced by PMACI is significantly reduced by Sophoricoside in a dose-dependent manner[1].

When the Sophoricoside is orally administered 1 h before compound 48/80 injections, the scratching behaviors is reduced. The inhibition rate of Sophoricoside (2 mg/kg) is approximately 41.21%. Orally administered Sophoricoside inhibits the scratching behaviors by 47.31%. When mice are treated for 2 weeks with Sophoricoside, the atopic dermatitis is recovered to a significant extent[1].

[1]. Kim SJ, et al. The ameliorative effect of sophoricoside on mast cell-mediated allergic inflammation in vivo and in vitro. *Molecules*. 2013 May 22;18(5):6113-27.

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