

Corilagin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Corilagin

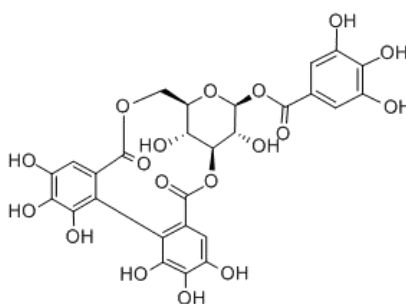
Catalog No.: CFN90176

Cas No.: 23094-69-1

Purity: >=98%

M.F: C₂₇H₂₂O₁₈

M.W: 634.45



Physical Description: Powder

Synonyms: beta-D-Glucopyranose, cyclic 3,6-(4,4',5,5',6,6'-hexahydroxy(1,1'-biphenyl)-2,2'-dicarboxylate)1-(3,4,5-trihydroxybenzoate), (R)-;

(8R,10S,11R,12S,19R)-1,2,3,11,16,17,18,19-octahydroxy-5,14-dioxo-5,7,8,11,12,14-hexahydro-10H-8,12-methanodibenzo[j,l][1,4,8]trioxacyclotetradecin-10-yl 3,4,5-trihydroxybenzoate; 1,2,3,11,16,17,18,19-octahydroxy-5,14-dioxo-5,7,8,11,12,14-hexahydro-10H-8,12-methanodibenzo[j,l][1,4,8]trioxacyclotetradecin-10-yl 3,4,5-trihydroxybenzoate.

[Intended Use]

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

[Source]

The herbs of *Geranium wilfordii Maxim.*

[Biological Activity or Inhibitors]

Corilagin is a polyphenol isolated from the extract of *Arctostaphylos uvaursi*, it can remarkably reduce the minimum inhibitory concentration (MIC) of beta-lactams in methicillin-resistant *Staphylococcus aureus* (MRSA), it suppresses the activity of beta-lactamase to some extent.^[1]

Corilagin has antioxidant activity, it is protective against GalN/LPS-induced liver injury through suppression of oxidative stress and apoptosis.^[2]

Corilagin significantly suppresses the binding of thrombin-stimulated platelets to neutrophils, with the IC₅₀ value of 73.5 mol/L, and inhibits neutrophil-induced platelet aggregation, the IC₅₀ values was 134.3 mol/L, thus, it shows inhibitory effects on the interaction between neutrophils and platelets. ^[3]

Corilagin is effective in inhibiting the progress of atherosclerosis by alleviating oxidation injury or by inhibiting oxidized low-density lipoprotein (ox-LDL)-induced vascular smooth muscular cells (VSMC) proliferation, which may be promising mechanisms for treating atherosclerosis.^[4]

Corilagin possesses the ability to lower blood pressure through the reduction of noradrenaline release and (or) direct vasorelaxation.^[5]

Corilagin has anti-inflammatory effects, it can promote HO-1 production to induce regression of inflammation but can inhibit IL-10 production like Dexamethasone, it has a good prospect to be used in many inflammation-related diseases.^[6]

Corilagin has the potential to reduce HSV-1-induced inflammatory insult to the brain, and its mode of action is through the induction of apoptosis of microglia and reduction of cytokines production.^[7]

Corilagin is a potential anti-tumor herbal medicine, it inhibits ovarian cancer cell growth through blocking the TGF- β signaling pathways.^[8]

Corilagin has antiviral effect, it can reduce the cytotoxicity induced by human enterovirus

71 (EV71) or coxsackievirus A16 (CA16) on Vero cells with and IC50 value of 5.6 and 32.33 µg/mL, respectively; it is a potential candidate for the development of novel drugs to treat hand, foot, and mouth disease (HFMD).^[9]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[10]

Mobile phase: Methanol 0.2% Aqueous acetic acid, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 270 nm.

[Storage]

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

[References]

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[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