Natural Products



Cornuside Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Cornuside

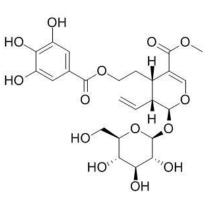
Catalog No.: CFN98159

Cas No.: 131189-57-6

Purity: >=95%

M.F: C₂₄H₃₀O₁₄

M.W: 542.49



Physical Description: Powder

Synonyms:Methyl(2R,3S,4R)-3-ethenyl-4-[2-(3,4,5-trihydroxybenzoyl)oxyethyl]-2-[(2S,3 R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl]oxy-3,4-dihydro-2H-pyran-5-car boxylate.

[Intended Use]

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

[Source]

The fruits of Cornus officinalis Sieb. et Zucc.

[Biological Activity or Inhibitors]

Cornuside has antisepsis therapeutic effect, which is mediated by decreased local and systemic levels of a wide spectrum of inflammatory mediators, suggests that cornuside could as a new immunomodulatory drug that has the capacity to inhibit the inflammatory response in sepsis.^[1]

Cornuside has protective potential against cerebral ischemic injury, and its protective effects may be due to the suppression of intracellular Caelevation and caspase-3 activity, and improvements in mitochondrial energy metabolism and antioxidant properties.^[2]

Cornuside has vasorelaxant and anti-inflammatory effects, it dilates vascular smooth muscle and suppresses the vascular inflammatory process via endothelium-dependent nitric oxide (NO)/cGMP signaling.^[3]

Cornuside protects the liver from CCl₄ -induced acute hepatotoxicity, perhaps due to its ability to restore the CYP2E1 function and suppress inflammatory responses, in combination with its capacity to reduce oxidative stress.^[4]

Cornuside appeares to protect the rat from myocardial ischemia and reperfusion (I/R) injury by acting as an anti-inflammatory agent, suggests that cornuside may be used therapeutically in the setting of myocardial I/R where inflammation and oxidant injury are prominent.^[5]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[6]

Mobile phase: Acetonitrile-H2O,gradient elution; Flow rate:1.0 ml/min; Column temperature: Room Temperature; The wave length of determination:240 nm.

[Storage]

 $2-8^{\circ}$ C, Protected from air and light, refrigerate or freeze.

[References]

[1] Jiang W L, Chen X G, Zhu H B, et al. Planta Med., 2009, 75(75):614-9.

[2] Jiang W L, Chen X G, Zhu H B, et al. Pharmacology, 2009; 84(3): 162-70.

[3] Kang D G, Mi K M, Li H C, et al. The FASEB Journal, 2006, 20(4):A668.

[4] Song S Z, Yun H C, Jin G Y, et al. Biosci. Biotechnol. Biochem., 2011;75(4):656-61.

[5] Jiang W L, Zhang S M, Tang X X, et al. Phytomedicine., 2011 Feb 15;18(4):266-71.

[6] He J N, Liu X, Mou Z L, et al. Zhong Yao Cai, 2011 Jul;34(7):1118-22.

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