

Catalposide Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Catalposide

Catalog No.: CFN97148

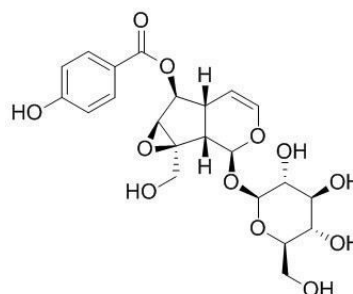
Cas No.: 6736-85-2

Purity: > 98%

M.F: C₂₂H₂₆O₁₂

M.W: 482.4

Physical Description: Powder



Synonyms: Catalpin; (1aS,1bS,2S,5aR,6S,6aS)-1a,1b,2,5a,6,6a-hexahydro-6-[(4-hydroxy benzoyl)oxy]-1a-(hydroxymethyl)oxireno[4,5]cyclopenta[1,2-c]pyran-2-yl-β-D-Glucopyranoside.

[Intended Use]

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

[Source]

The herb of *Catalpa ovata* G.Don.

[Biological Activity or Inhibitors]

Catalposide, isolated from the stem of *Catalpa ovata* (*Bignoniaceae*), it significantly inhibit the production of nitric oxide (NO) in lipopolysaccharide (LPS)-stimulated RAW 264.7 macrophages in a dose-dependent manner; it suppresses the expression of inducible nitric oxide synthase (iNOS) gene and iNOS protein; it also significantly inhibits the NO production in cytokine-stimulated human DLD-1 and rat vascular smooth muscle (VSM) cells in a dose-dependent manner; suggests that catalposide has inhibition of inducible nitric oxide synthesis.^[1]

Catalposide can attenuate induction of intestinal epithelial proinflammatory gene expression and reduce the severity of trinitrobenzene sulfonic acid-induced colitis in mice, it may be an effective agent for the treatment of diseases characterized by mucosal inflammation.^[2]

Catalposide possesses anti-microbial, anti-tumoral, and anti-inflammatory properties, it can protect Neuro 2A cells from hydrogen peroxide-induced cytotoxicity via the expression of Heme oxygenase-1 (HO-1) ; indicates that it is a potent inducer of HO-1 and HO-1 induction is responsible for the catalposide-mediated cytoprotection against oxidative damage.^[3]

Catalposide is a natural agonistic ligand of peroxisome proliferator-activated receptor- α , is hypolipidemic by activation of PPAR α via a ligand-mediated mechanism that modulates the expression of lipid metabolism genes in hepatocytes.^[4]

Catalposide has antioxidant activity.^[5]

Catalposide has anti-apoptotic effects.^[6]

[Solvent]

Pyridine, Methanol, Hot water, etc.

[HPLC Method]

Mobile phase: Methanol : Acetonitrile : Ammonium formate(10Mm, PH4.5)=30:5:65;

Flow rate: 0.4 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 210 nm.

[Storage]

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

[References]

- [1] Oh H, Pae H O, Oh G S, *et al. Planta Med.*, 2002, 68(8):685-9.
- [2] Sang-Wook Kim M D, Suck-Chei Choi M D, Eun-Young Choi M S, *et al. Inflamm. Bowel. Dis.*, 2004, 10(5):564-72.
- [3] Mi K M, Choi B M, Oh G S, *et al. Toxicol. Lett.*, 2003, 145(1):46-54.
- [4] Ji H L, Jun H J, Hoang M H, *et al. Biochem. Bioph. Res. Co.*, 2012, 422(4):568-72.
- [5] Diopan V, Babula P, Shestivska V, *et al. J. Pharmaceut. Biomed.* , 2008, 48(1):127-33.
- [6] Oh Cheon-Sik, Hwang Sang-Wook, Kim Yong-Woo, *et al. The Korea Journal of Herbology.* 2005, 20(3):29-41.

[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