Natural Products

ChemFaces

Picroside I Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Picroside I

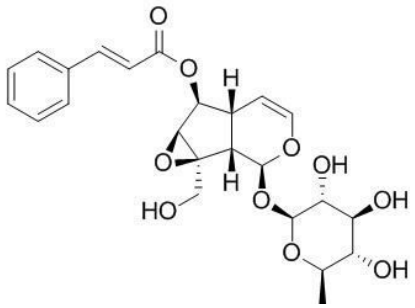
Catalog No.: CFN99565

Cas No.: 27409-30-9

Purity: >=98%

M.F: $C_{24}H_{28}O_{11}$

M.W: 492.47



Physical Description: White powder

Synonyms:beta-d-Glucopyranoside,1a,1b,2,5a,6,6a-hexahydro-6-hydroxy-1a-(hydroxymethyl)oxireno[4,5]cyclopenta[1,2-c]pyran-2-yl,6-(3-phenyl-2-propenoate),[1aS-[1aalpha,1bbeta,2beta(E),5abeta,6beta,6aalpha]]-;6-Hydroxy-1a-(hydroxymethyl)oxireno[4,5]cyclopenta[1,2-c]pyran-2-yl,6-(3-phenyl-2-propenoate), [1aS-[1aα,1bβ,2β(E),5aβ,6β,6aα]]-; β-D-Glucopyranoside, 1a,1b,2,5a,6,6a-hexahydro-.

[Intended Use]

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

[Source]

The roots of *Picrorhiza scrophulariiflora.*

[Biological Activity or Inhibitors]

Picroside-I, picroliv and kutkoside possess the properties of antioxidants which appear to be mediated through activity like that of superoxide dismutase, metal ion chelators and xanthine oxidase inhibitors.[1]

Picrosides I and II enhance basic fibroblast growth factor(bFGF)-, staurosporine- or dbc-mitogen-activated protein (MAP)-induced neurite outgrowth from PC12D cells, probably by amplifying a down-stream step of MAP kinase in the intracellular MAP kinase-dependent signaling pathway, they may become selective pharmacological tools for studying the MAP kinase-dependent signaling pathway in outgrowth of neurites induced by many kinds of neuritogenic substances including bFGF.[2]

Picroside-1 exerts antiinflammatory activity (AIA) in a variety of test models; significant AIA was recorded in adjuvant-induced and formaldehyde arthritis in rats and mice, in carrageenan-induced oedema inhibitory activity was remarkably enhanced upon intraperitoneal treatment in rats and mice. [3]

Picroside I (PS), Kutkoside (KS), and Kutkin (KT) may be the valuable anti-invasive drug candidates for cancer therapy by suppressing Collagenases and Gelatinases, PS, KS, and KT show good results in comparison with PE, PS and KS exhibit almost comparable down regulation while KT exhibits maximum suppression of invasion, migration, and expression of matrix metalloproteinases (MMPs).[4]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][5]

HPLC-ELSD

Mobile phase: Acetonitrile- H2O=78:22;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

Drift tube temperature: 81 ℃;

Flow rate of gas : 2.0L/min;

Carrier gas: N_2.

[Storage]

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

[References]

[1] Chander R, Kapoor N K, Dhawan B N. *Biochem. Pharmacol., 1992, 44(1):180-3.*

[2] Li P, Matsunaga K, Yamakuni T, *et al. Life Sci., 2002, 71(15):1821-35.*

[3] G. B. Singh, Sarang Bani, Surjeet Singh,*et al. Phytother. Res., 1993, 7(6):402-7.*

[4] Rathee D, Thanki M, Bhuva S, *et al. Arab. J. Chem. 2011, 6(1):49-58.*

[5] Bhandari P, Kumar N, Singh B, *et al. J. Chromatogr. A, 2008, 1194(2):257-61.*

[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