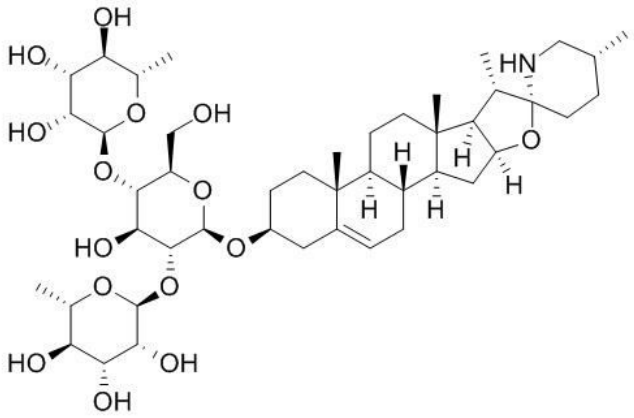
Natural Products

ChemFaces

Solamargine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Solamargine

Catalog No.: CFN90159

Cas No.: 20311-51-7

Purity: > 98%

M.F: $C_{45}H_{73}NO_{15}$

M.W: 868.06

Physical Description: Cryst.

Synonyms:δ-Solanigrine;(3beta,2

nopyranosyl-(1-2)-O-[6-deoxy-alpha-L-mannopyranosyl-(1-4)]-beta-D-glucopyranoside.

[Intended Use]

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

[Source]

The fruits of *Solanum incanum.*

[Biological Activity or Inhibitors]

Solamargine (SM), an herbal and molluscicidal medicine derived from Solanum incanum, displays a superior cytotoxicity in four human lung cancer cell lines, the half-inhibitory concentrations (IC), of the cell viability assay for H441, H520, H661 and H69 cells were 3, 6.7, 7.2 and 5.8 uM, respectively; it can modulate the expressions of TNFRs and Bcl-2, and might be a potential anticancer agent for TNFs and Bcl-2 related resistance of human lung cancer cells.[1]

Interactions between the glycoalkaloids solasonine and solamargine have inhibition of fungal growth.[2]

Solamargine exerts potential anticancer activity on SMMC-7721 cells in vitro through the activation of caspase-3 and the regulation of the cell cycle progression to induce apoptosis and inhibit hepatoma cells proliferation.[3]

Solamargine induces Fas and tumor necrosis factor receptors (TNFRs)-induced NSCLC cell apoptosis and reduces HER2 expression, provides the synergistic therapeutic interaction between SM and epirubicin, suggesting that such combinations may be effectively exploited in future human cancer clinical trials.[4]

[Solvent]

Pyridine, Methanol, Ethanol, Hot water, etc.

[HPLC Method][5]

Mobile phase: Methanol- 0.01 M Sodium phosphate buffer (pH 7.2), gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 200 nm.

[Storage]

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

[References]

[1] Liu L F, Liang C H, Shiu L Y, *et al. Febs Lett., 2004, 577(1-2):67-74.*

[2] Fewell A M, Roddick J G, Weissenberg M. *Phytochemistry, 1994, 37(4):1007-11.*

[3] Ding X, Zhu F S, Li M, *et al. J. Ethnopharmacol., 2012, 139(2):599-604.*

[4] Liang C H, Shiu L Y, Chang L C, *et al. Mol. Nutr. Food Res., 2007, 51(8):999-1005.*

[5] Tiossi R F J, Costa J C D, Miranda M A, *et al. Química Nova, 2011, 35(11):2312-6.*

[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