Natural Products

ChemFaces

Gracillin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Gracillin

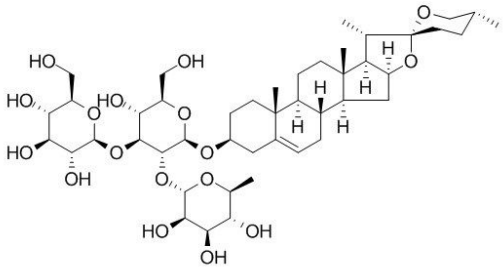
Catalog No.: CFN98537

Cas No.: 19083-00-2

Purity: >=98%

M.F: $C_{45}H_{72}O_{17}$

M.W: 885.04



Physical Description: Powder

Synonyms:(3beta,25R)-spirost-5-en-3-yl-6-deoxy-alpha-L-mannopyranosyl-(1->2)-[beta-D-glucopyranosyl-(1->3)]-beta-D-glucopyranoside.

[Intended Use]

1. Reference standards;

2. Pharmacological research;

3. Synthetic precursor compounds;

4. Intermediates & Fine Chemicals;

5. Others.

[Source]

The roots of *Dioscorea opposita Thunb.*

[Biological Activity or Inhibitors]

Gracillin is cytotoxic against most cell lines with GI(50), TGI and LC(50) at micromolar levels, but no activity against EKVX (non-small cell lung cancer), HT29 (colon cancer), OVCAR-5 (ovarian cancer), and SN12C (renal cancer).[1]

Gracillin and Zingibernsis newsaponin have antiparasitic activity against Ichthyophthirius multifiliis, they could be 100% effective against I. multifiliis at concentrations of 0.8 and 4.5 mg/L, with median effective concentration (EC_{50}) values of 0.53 and 3.2 mg/L, respectively; they could be selected as lead compounds for the development of new drugs against I. multifiliis.[2]

Gracillin can induce cell cycle arrest, oxidative stress, and apoptosis in HL60 cells, and has the potential to be developed as an antitumor agent. [3]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][4]

HPLC-ELSD:

Mobile phase: Acetonitrile-H2O,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 23 ℃;

Drift tube temperature: 90 ℃;

Flow rate of gas : 2.8L/min.

[Storage]

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

[References]

[1] Hu K, Yao X. *Phytother. Res., 2003, 17(6):620-6.*

[2] Zheng W, Yan C M, Zhang Y B, *et al. Parasitology, 2015, 142(3):1-7.*

[3] Chen C R, Zhang J, Wu K W, *et al. Pharmazie, 2015, 70(3):199-204.*

[4] Zhang X, Liang J, Su Q, *et al. Chinese Journal of Pharmaceutical Analysis, 2013, 33:1235-8.*

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