Natural Products

ChemFaces

Momordin Ic Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Momordin Ic

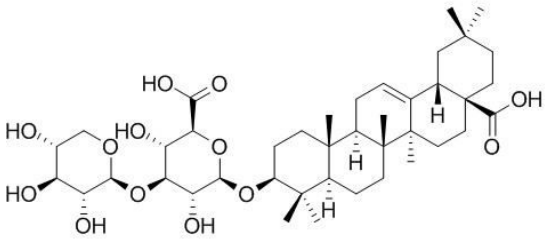
Catalog No.: CFN99726

Cas No.: 96990-18-0

Purity: >=98%

M.F: $C_{41}H_{64}O_{13}$

M.W: 764.93



Physical Description: Brown powder

Synonyms: 28-Norolean-12-en-3-yl 3-O- β -D-xylopyranosyl-;

β -D-Glucopyranosiduronic acid, (3 β)-17-carboxy-.

[Intended Use]

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

[Source]

The fruits of *Kochia scoparia (L.) Schrad.*

[Biological Activity or Inhibitors]

Momordin Ic is the active component of Kochiae Fructus, Kochiae Fructus not only inhibits humoral immunity but also influences cellular immunity, and should be recognized as a material for anti-allergic reactions; also, the mode of its anti-pruritogenic activity may be mediated by anti-allergic action.[1]

Momordin Ic and oleanolic acid appear to contribute to alleviating the adverse effects of CCl4 treatment by enhancing the hepatic antioxidant defense system.[2]

Momordin Ic induces apoptosis through oxidative stress-regulated mitochondrial dysfunction involving the MAPK and PI3K-mediated iNOS and HO-1 pathways, thus, momordin Ic may represent a potential source of anticancer candidate. [3]

Momordin Ic is a novel SUMO-specific protease 1 (SENP1) inhibitor with potential therapeutic value for prostate cancer (PCa).[4]

Momordin Ic and its aglycone, oleanolic acid, have antinociceptive and anti-inflammatory effects, they could be active principles for rheumatoid arthritis.[5]

Momordin Ic and oleanolic acid 3-O-glucuronide exhibit their hypoglycemic activity by suppressing the transfer of glucose from the stomach to the small intestine and by inhibiting glucose transport at the brush border of the small intestine.[6]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][7]

HPLC-ELSD

Mobile phase: Methanol -H2O- Acetic acid =85:15:0.2 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

Drift tube temperature: 70 ℃;

Carrier gas: N_2;

Pressure of gas:0.21 kPa.

[Storage]

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

[References]

[1] Matsuda H, Dai Y, Ido Y, *et al. Biol. Pharm. Bull., 1997, 20(11):1165-70.*

[2] Kim N Y, Lee M K, Park M J, *et al. J. Med. Food, 2005, 8(2):177-83.*

[3] Wang J, Yuan L, Xiao H, *et al. Apoptosis, 2013, 18(6):751-65.*

[4] Wu J, Lei H, Zhang J, *et al. Oncotarget, 2016, 10636.*

[5] Choi J, Lee K T, Jung H, *et al. Arch. Pharm. Res., 2002, 25(3):336-42.*

[6] Matsuda H, Li Y, Murakami T, *et al. Chem. Pharm. Bul., 1998, 46(9):1399-403.*

[7] Xia Y F, Wang Q, Dai Y, *et al. China Journal of Chinese Materia Medica, 2002, 27(12):890-3.*

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