

## Limonin Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Limonin

**Catalog No.:** CFN99280

**Cas No.:** 1180-71-8

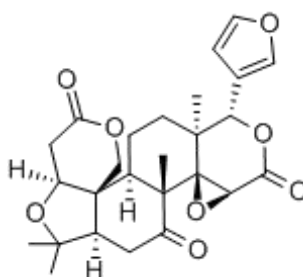
**Purity:** >=98%

**M.F:** C<sub>26</sub>H<sub>30</sub>O<sub>8</sub>

**M.W:** 470.51

**Physical Description:** Powder

**Synonyms:** Evodin; Citrolimon; Dictamkolactone; Limonine; Limonoate-D-ring-lactone; Limonoic acid di-delta-lactone.



### [ Intended Use ]

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

### [ Source ]

The peels of *Citrus maxima*.

## **[ Biological Activity or Inhibitors ]**

Limonin and nomilin show bitterness. <sup>[1]</sup>

Limonin and nomilin have anti-human immunodeficiency virus(HIV)activity, have inhibition effects on the growth of HIV-1 in culture of human peripheral blood mononuclear cells (PBMC) and on monocytes/macrophages (M/M).<sup>[2]</sup>

Limonin and nomilin have high antioxidant capacities (2.9-8.3 times than that of vitamine C).<sup>[3]</sup>

Limonin is a widely used dietary supplement and one of the most prevalent citrus limonoids, which is known to have inhibitory effects on cytochrome P450 enzymes and P-glycoprotein. <sup>[4]</sup>

Limonin possesses an antinociceptive effect and the effect may be accompanied by an anti-inflammatory action, and that the antinociceptive activity in Evodiae Fructus is partially attributable to limonin.<sup>[5]</sup>

Limonin and Nomilin have inhibitory effects on chemical-induced tumorigenesis,they are potential cancer chemopreventive agents.<sup>[6]</sup>

## **[ Solvent ]**

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

## **[ HPLC Method ]<sup>[7]</sup>**

Mobile phase: Acetonitrile- H<sub>2</sub>O=45:55;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 210 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Guadagni D G, Maier V P, Turnbaugh J G. *J. Sci. Food Agr.*, 1973, 24(24):1277-88.
- [2] Battinelli L, Mengoni F, Lichtner M, *et al. Planta Med.*, 2003, 69(10):910-3.
- [3] Sun C D, Chen K S, Yang C, *et al. Food Chem.*, 2006, 93(4):599-605.
- [4] Han Y L, Yu H L, Li D, *et al. Toxicol. Vitro An International Journal Published in Association with Bibra*, 2011, 25(8):1828-33.
- [5] Matsuda H, Yoshikawa M, Iinuma M, *et al. Planta Med.*, 1998, 64(4):339-42.
- [6] Lam L K T, Hasegawa S, Bergstrom C, *et al. ACS Symposium Series*. 2000:185–200.
- [7] Tan R Y, Lei P, Huang Q, *et al. Central South Pharmacy*, 2014(8):808-11.

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