**Natural Products** 



# Senkyunolide I Datasheet

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

#### [Product Information]

Name: Senkyunolide I

Catalog No.: CFN99596

Cas No.: 94596-28-8

**Purity:** >=98%

**M.F:** C<sub>12</sub>H<sub>16</sub>O<sub>4</sub>

**M.W:** 224.3

Physical Description: Oil

#### Synonyms:

(6 α, 7 β)-3-[(Z)-Butylidene]-4,5,6,7-tetrahydro-6,7-dihydroxy-1(3H)-isobenzofuranone.

HO

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#### [ Intended Use ]

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

### [Source]

The roots of Ligusticum chuanxiong hort.

#### [Biological Activity or Inhibitors]

Senkyunolide I may be an active component of L. chuanxiong, traditionally used to treat migraine, the mechanism of pain relief in migraine model rats may be through adjusting the levels of monoamine neurotransmitters and their turnover rates, as well as decreasing nitric oxide levels in the blood and brain; therefore, senkyunolide I may be developed as a potential treatment for migraine pain.<sup>[1]</sup>

Senkyunolide I can reduce the metamorphose damage of the RBC caused by ConA, the aggregation of the RBC can be alleviated by it.<sup>[2]</sup>

Senkyunolide I can protect rat brain against focal cerebral ischemia-reperfusion injury by up-regulating p-Erk1/2, Nrf2/HO-1 and inhibiting caspase 3, the neuroprotective mechanisms of itl are associated with its anti-oxidation and anti-apoptosis properties. <sup>[3]</sup>

#### [Solvent]

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

#### [ HPLC Method ]<sup>[4]</sup>

Mobile phase: Methanol-0.2% Glacial acetic acid=50: 50; Flow rate: 1.0 ml/min; Column temperature: 30 °C; The wave length of determination: 278 nm.

### [Storage]

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

### [References]

[1] Wang Y H, Liang S, Xu D S, et al. J. Pharm. Pharmacol., 2011, 63(2):261-6.
[2]Min H, Zi D, Quan Z. Lishizhen Medicine & Materia Medica Research, 2003, 14(12):738-9.

[3] Hu Y, Duan M, Liang S, et al. Brain Res., 2015, 1605:39-48.

[4] Xiong Y K, Liang S, Hong Y L, et al. Zhongguo Zhongyao Zazhi, 2013, 38(12):1947-50.

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