**Natural Products** 



# **Ginkgolide B Datasheet**

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

#### [ Product Information ]

Name: Ginkgolide B

Catalog No.: CFN99640

Cas No.: 15291-77-7

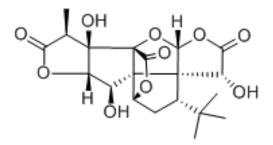
**Purity:** >=98%

M.F: C<sub>20</sub>H<sub>24</sub>O<sub>10</sub>

**M.W:** 424.40

Physical Description: Powder

**Synonyms:** 7-Deoxyginkgolide C;



(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aR)-3-(1,1-Dimethylethyl)hexahydro-4,7b,1 1-trihydroxy-8-methyl-9H-1,7a-(epoxymethano)-1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2': 3,4]cyclopenta[1,2-d]furan-5,9,12(4H)-trione;

#### [Intended Use]

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

# [Source]

The leaves of Ginkgo biloba L ..

#### [Biological Activity or Inhibitors]

Ginkgolide B (GB) has potent neuroprotective effects against ischemia-induced brain injury in vivo and in vitro; GB treatment shows marked reduction in infarction volume, brain edema and neurological deficits, GB also inhibits I/R induced NF-κB, microglia activation and production of pro-inflammatory cytokines, GB reduces Bax protein levels and increases Bcl-2 protein levels in the post-ischemic brains; suggests that GB's neuroprotection is attributable to its anti-inflammatory and anti-apoptotic effect through inhibition of NF-κB. <sup>[1]</sup>

Ginkgolide B is a platelet-activating factor antagonist, it can inhibit the neurotoxicity of prions or amyloid-beta1-42, may be relevant treatments for prion or Alzheimer's diseases.<sup>[2]</sup>

Ginkgolide B retards the proliferation and development of mouse embryonic stem cells (ESCs) and blastocysts in vitro and causes developmental injury in vivo.<sup>[3]</sup>

Ginkgolide B can protect isolated hearts against arrhythmias induced by ischemia but not reperfusion. <sup>[4]</sup>

# [ Solvent ]

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

#### [ HPLC Method ]<sup>[5]</sup>

Mobile phase: Tetrahydrofuran- N-propanol- Water=27: 1: 72; Flow rate: 1.0 ml/min; Column temperature: 30 ℃; The wave length of determination: 220 nm.

# [ Storage ]

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

# [ References ]

[1] Gu J H, Ge J B, Li M, et al. Eur. J. Pharm. Sci., 2012, 47(4):652-60.

[2] Bate C, Salmona M, Williams A. J.Neuroinflamm., 2004, 1(1):: 4.

[3] Chan W H. Human Reproduction, 2006, 21(11):2985-95.

[4] Koltai M, Tosaki A, Hosford D, et al. Eur. J. Pharmacol., 1989, 164(2):293-302.

[5] Wu Y, Yan B, Bi Y, et al. World Science & Technology, 2012, 14(2):1498-501.

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