

## Ginkgetin Datasheet

5<sup>th</sup> Edition (Revised in January, 2017)

### [ Product Information ]

**Name:** Ginkgetin

**Catalog No.:** CFN90173

**Cas No.:** 481-46-9

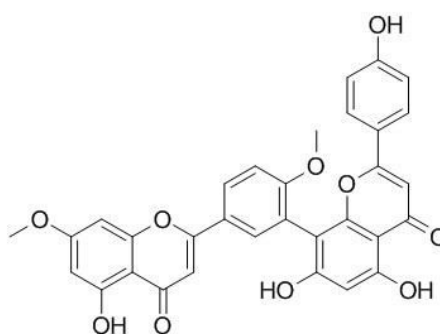
**Purity:** >=98%

**M.F:** C<sub>32</sub>H<sub>22</sub>O<sub>10</sub>

**M.W:** 566.51

**Physical Description:** Yellow powder

**Synonyms:** 5,7-Dihydroxy-8-[5-(5-hydroxy-7-methoxy-4-oxo-4H-chromen-2-yl)-2-methoxyphenyl]-2-(4-hydroxyphenyl)-4H-chromen-4-one; Amentoflavone 7,4'-dimethyl ether.



### [ 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 ]

Ginkgetin has dose-dependent inhibition on the growth of OVCAR-3 (human ovarian adenocarcinoma) cells with 50% inhibition occurring at 1.8 ug/mL.<sup>[1]</sup>

Ginkgetin is a phospholipase A2 inhibitor, and it shows the potent antiarthritic activity in rat adjuvant-induced arthritis as well as analgesic activity via down-regulating COX-2 induction in vivo.<sup>[2]</sup>

Ginkgetin induces apoptosis in PC-3 cells via activation of caspase 3 and inhibition of survival genes as a potent chemotherapeutic agent for prostate cancer treatment.<sup>[3]</sup>

Ginkgetin has neuroprotective effects against neurological injury induced by MPTP occurs via regulating iron homeostasis, it may provide neuroprotective therapy for Parkinson's disease and iron metabolism disorder related diseases.<sup>[4]</sup>

Ginkgetin, lumbrici kinase and ginkgetin + lumbrici kinase have strong effect of anti coagulation.<sup>[5]</sup>

Ginkgetin is a good signal transducer and activator of transcription 3 (STAT3) inhibitor, it inhibits the growth of DU-145 prostate cancer cells through inhibition of signal transducer and activator of transcription 3 activity.<sup>[6]</sup>

Ginkgetin can prevent liver from injury induced by CCl<sub>4</sub> to some extent, and the protective effects are dose-dependant remarkably, activation of PXR, CYP3A11, CYP3A13 and RXR $\alpha$  gene may play an important role in protection of hepatic injury in mice.<sup>[7]</sup>

Ginkgetin can markedly reduce the infarct size caused by myocardial ischemia.<sup>[8]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]<sup>[9]</sup>**

Mobile phase: Acetonitrile-H<sub>2</sub>O, gradient elution;

Flow rate: 0.3 ml/min;

Column temperature: 30 °C;

The wave length of determination: 360 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Sun C M, Syu W J, Huang Y T, *et al. J. Nat. Prod.*, 1997 Apr;60(4):382-4.
- [2] Kwak W J, Han C K, Son K H, *et al. Planta Med.*, 2002 Apr;68(4):316-21.
- [3] You O H, Kim S H, Kim B, *et al. Bioorg. Med. Chem. Lett.*, 2013 May 1;23(9):2692-5.
- [4] Wang Y Q, Wang M Y, Fu X R, *et al. Free Radic. Res.*, 2015;49(9):1069-80.
- [5] Chen J, Wang L, Li K, *et al. Chinese Heart Journal*, 2001, 13(4):308-9.
- [6] Jeon Y J, Jung S N, Yun J, *et al. Cancer Sci.*, 2015 Apr;106(4):413-20.
- [7] Zhang T, Jin J J, Lai L, *et al. Lishizhen Medicine & Materia Medica Research*, 2012, 23(7):1704-6.
- [8] Chen J K, Wei Z R, Liu S B, *et al. Chinese Heart Journal*, 2007, 19 (3):293-4.
- [9] Ruan X, Yan L Y, Li X X, *et al. Molecules*, 2014, 19(11):17682-96.

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