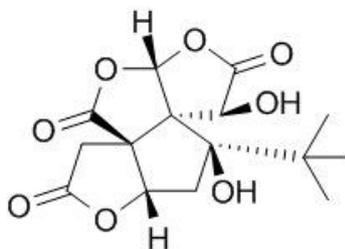


(-)-Bilobalide Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: (-)-Bilobalide**Catalog No.:** CFN99789**Cas No.:** 33570-04-6**Purity:** >=98%**M.F:** C₁₅H₁₈O₈**M.W:** 326.30**Physical Description:** White powder**Synonyms:** Bilobalide; (3aS,5aS,9R,10aS)-9-tert-butyl-8,9-dihydroxydihydro-9H-furo[2,3-b]furo[3',2':2,3]cyclopenta[1,2-c]furan-2,4,7(3H,8H)-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]

Bilobalide, a terpene extracted from the leaves of Ginkgo biloba, can protect PC12 cells from A beta 25-35-induced cytotoxicity, it dose-dependently attenuates the cytotoxic effect of A beta 25-35 and inhibits A beta 25-35 (100 μmol.L-1)-induced elevation of lipid peroxidation and decline of antioxidant enzyme activities. [1]

Bilobalide exerts protective and trophic effects on neurons, the PI3K/Akt pathway may be involved in the protective effects of bilobalide; since modern technology allows production of purified bilobalide with high bioavailability, bilobalide may be useful in developing therapy for diseases involving age-associated neurodegeneration.[2]

Bilobalide possesses anticonvulsant activity, the anticonvulsant effect is due to elevation of GABA levels, possibly through potentiation of glutamic acid decarboxylase activity and enhancement of the protein amount of 67 kDa glutamic acid decarboxylase by bilobalide.[3]

PAF(platelet-activating factor) and its receptor may be involved in the cellular response of cardiomyocytes to hypoxia and that bilobalide may interact with this receptor to exert its cardioprotective effects. [4]

Bilobalide and its derivatives(contain trilactone structure) have insecticidal activity.[5]

[Solvent]

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

[HPLC Method]^[6]

HPLC-ELSD

Mobile phase: Methanol-H₂O-Tetrahydrofuran=25:70:12;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

Drift tube temperature: 110 °C

Flow rate of gas : 2.8L/min.

[Storage]

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

[References]

- [1] Zhou L J, Song W, Zhu X Z, *et al. Acta Pharmacol.Sin.*, 2000, 21(1):75-9.
- [2] Shi C, Wu F, Yew D T, *et al. Apoptosis An International Journal on Programmed Cell Death*, 2010, 15(6):715-27.
- [3] Sasaki K, Hatta S, Haga M, *et al. Eur. J. Pharmacol.*, 1999, 367(2-3):165-73.
- [4] Maerz S, Liu C H, Guo W, *et al. Biosci. Rep.*, 2011, 31(5):439-47.
- [5] Yang Eun-Young, Hong Su-Myeong, Ahn Young-Joon,*et al. The Korean Society of Pesticide Science*,2001,5(1):24-9.
- [6] Song J Y, Kang B X, Zhu H M, *et al.Chinese Journal of Pharmaceutical Analysis*, 2009(4):532-5.

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