

PRODUCT INFORMATION



Ginkgolide B

Item No. 14636

CAS Registry No.: 15291-77-7

Formal Name: (1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11R,11aR)-3-(1,1-dimethylethyl)hexahydro-4,7b,11-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

Synonyms: BN 52021, BN 52051

MF: $C_{20}H_{24}O_{10}$

FW: 424.4

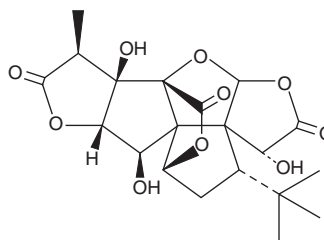
Purity: $\geq 98\%$

UV/Vis.: λ_{max} : 219 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ginkgolide B is supplied as a crystalline solid. A stock solution may be made by dissolving the ginkgolide B in the solvent of choice, which should be purged with an inert gas. Ginkgolide B is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of ginkgolide B in these solvents is approximately 14 and 25 mg/ml, respectively.

Ginkgolide B is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ginkgolide B should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Ginkgolide B has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Platelet-activating factor (PAF) is an important mediator of cell proliferation, angiogenesis, inflammatory response regulation, vasodilation, superoxide formation, and platelet aggregation.¹ These cellular effects are mediated through its specific G-protein coupled receptor, PAFR.² Ginkgolide B, a terpenoid extracted from *G. biloba* leaves, is a potent PAFR antagonist that inhibits platelet aggregation at concentrations from 10-500 μM .³ It has been shown to inhibit non-mucinous ovarian cancer proliferation by blocking cell cycling.⁴ Ginkgolide B also demonstrates number of other anti-inflammatory, anti-allergic, antioxidant, and neuroprotective effects.⁵

References

1. Prescott, S.M., Zimmerman, G.A., and McIntyre, T.M. Platelet-activating factor. *J. Biol. Chem.* **265**(29), 17381-17384 (1990).
2. Funkunaga, K., Ishii, S., Asano, K., et al. Single nucleotide polymorphism of human platelet-activating factor impairs G-protein activation. *J. Biol. Chem.* **276**(46), 43025-43030 (2001).
3. Cho, H.J. and Nam, K.S. Inhibitory effect of ginkgolide B on platelet aggregation in a cAMP- and cGMP-dependent manner by activated MMP-9. *J. Biochem. Mol. Biol.* **40**(5), 678-683 (2007).
4. Aponte, M., Jiang, W., Lakkis, M., et al. Activation of PAF-receptor and pleiotropic effects on tyrosine phospho-EGFR/Src/FAK/paxillin in ovarian cancer. *Cancer Res.* **68**(14), 5839-5848 (2008).
5. Shi-hai, X. and Dian-chun, F. Pharmacological action and mechanisms of ginkgolide B. *Chin. Med. J. (Engl.)* **120**(10), 922-928 (2007).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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