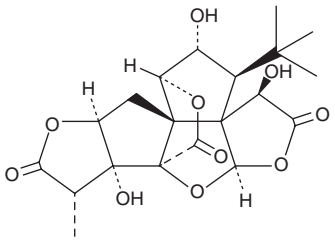
PRODUCT INFORMATION

Ginkgolide J

Item No. 29163

CAS Registry No.: 107438-79-9
Formal Name: (1S,2R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS, 11aS)-3-(1,1-dimethylethyl)hexahydro-2,4,7b-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
Synonym: BN 52024
MF: $C_{20}H_{24}O_{10}$
FW: 424.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Ginkgo biloba*



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

Laboratory Procedures

Ginkgolide J is supplied as a solid. A stock solution may be made by dissolving the ginkgolide J in the solvent of choice, which should be purged with an inert gas. Ginkgolide J is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ginkgolide J in ethanol and DMF is approximately 10 mg/ml and approximately 25 mg/ml in DMSO.

Ginkgolide J is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ginkgolide J should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ginkgolide J has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ginkgolide J is a terpene trilactone originally isolated from *G. biloba* that has diverse biological activities.[1,3] It inhibits platelet aggregation induced by platelet-activating factor (PAF) in rabbit and human platelet-rich plasma (IC_{50}s = 27 and 43.5 µg/ml, respectively).[2] Ginkgolide J (1 µM) inhibits cell death induced by amyloid-β (1-42) (Aβ42; Item No. 20574) in primary rat hippocampal neurons and reverses Aβ42-induced impairment of long-term potentiation (LTP) in the mouse CA1 region.[3]

References

1. Braquet, P., Esanu, A., Buisine, E., *et al.* Recent progress in ginkgolide research. *Med. Res. Rev.* **11(3)**, 295-355 (1991).
2. Koch, E. Inhibition of platelet activating factor (PAF)-induced aggregation of human thrombocytes by ginkgolides: Considerations on possible bleeding complications after oral intake of *Ginkgo biloba* extracts. *Phytomedicine* **12(1-2)**, 10-16 (2005).
3. Vitolo, O., Gong, B., Cao, Z., *et al.* Protection against β-amyloid induced abnormal synaptic function and cell death by Ginkgolide J. *Neurobiol. Aging* **30(2),** 257-265 (2009).

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