PRODUCT INFORMATION



Ginkgolide A

Item No. 24970

CAS Registry No.:	15291-75-5	
Formal Name:	(1R,3S,3aS,4R,6aR,7aR,7bR,8S,10aS,11	
	aS)-3-(1,1-dimethylethyl)hexahydro-4,7b-	
	dihydroxy-8-methyl-9H-1,7a-(epoxymethano)-	
	1H,6aH-cyclopenta[c]furo[2,3-b]furo[3',2':3,4]	0
	cyclopenta[1,2-d]furan-5,9,12(4H)-trione	0.
Synonym:	BN 52020	
MF:	C ₂₀ H ₂₄ O ₉	
FW:	408.4	
Purity:	≥98%	
UV/Vis.:	λ _{max} : 218 nm	
Supplied as:	A crystalline solid	
Storage:	-20°C	
Stability:	≥4 years	
Item Origin:	Plant/Ginkgo biloba L.	



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

Laboratory Procedures

Ginkgolide A is supplied as a crystalline solid. A stock solution may be made by dissolving the ginkgolide A in the solvent of choice. Ginkgolide A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. Ginkgolide A has a solubility of approximately 3 mg/ml in ethanol and approximately 20 mg/ml in DMSO and DMF.

Ginkgolide A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ginkgolide A should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ginkgolide A has a solubility of approximately 0.5 mg/ml in a 1:1 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 A is a terpenoid lactone originally isolated from G. biloba leaves with diverse biological activities.¹ Ginkgolide A inhibits platelet activating factor-dependent aggregation of human platelets $(IC_{50} = 15.8 \ \mu g/ml)^2$ It also inhibits GABA-induced currents in *Xenopus* oocytes expressing human $\alpha_1\beta_2\gamma_{2L}$ GABA_A receptors with an IC₅₀ value of 12 μ M.³ Ginkgolide A (100 μ M) reduces the proliferation rate of OVCA429 ovarian cancer cells by 40%.⁴ In vivo, ginkgolide A (1-2 mg/kg, p.o.) increases the time spent in the open arms of the elevated plus maze by 3-fold without altering activity level in mice, indicating anxiolytic-like activity.⁵ Ginkgolide A (10 mg/kg, p.o.) also reduces hexobarbital-induced sleeping time in mice by 44%.⁶ Ginkolide A (30 mg/kg per day) increases activity of the cytochrome P450 (CYP450) isoforms CYP1A2 and CYP2E1 by 1.82- and 1.27-fold, respectively, in rats.¹

References

- 1. Deng, Y., Bi, H.C., Zhao, L.Z., et al. Xenobiotica 38(5), 465-481 (2008).
- 2. Koch, E. Phytomedicine 12(1-2), 10-16 (2005).
- 3. Huang, S.H., Duke, R.K., Chebib, M., et al. Eur. J. Pharmacol. 494(2-3), 131-138 (2004).
- Ye, B., Aponte, M., Dai, Y., et al. Cancer Lett. 251(1), 43-52 (2007).
- 5. Kuribara, H., Weintraub, S.T., Yoahihama, T., et al. J. Nat. Prod. 66(10), 1333-1337 (2003).
- 6. Wada, K., Sasaki, K., Miura, K., et al. Biol. Pharm. Bull. 16(2), 210-212 (1993).

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

SAFFTY 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.

WARRANTY AND LIMITATION OF REMEDY

uyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 04/28/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM