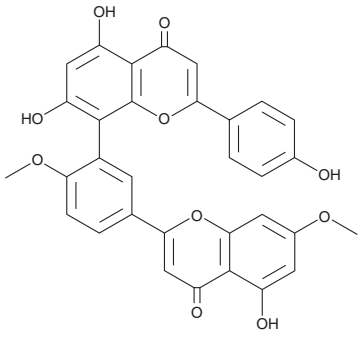
PRODUCT INFORMATION

Ginkgetin

Item No. 25103

CAS Registry No.:	481-46-9
Formal Name:	5,7-dihydroxy-8-[5-(5-hydroxy-7-methoxy-4-oxo-4H-1-benzopyran-2-yl)-2-methoxyphenyl]-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one
MF:	$C_{32}H_{22}O_{10}$
FW:	566.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 272, 331 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

Ginkgetin is supplied as a crystalline solid. A stock solution may be made by dissolving the ginkgetin in the solvent of choice, which should be purged with an inert gas. Ginkgetin is soluble in the organic solvent DMSO at a concentration of approximately 3 mg/ml.

Ginkgetin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ginkgetin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ginkgetin has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ginkgetin is a biflavonoid that has been isolated from *G. biloba* and has diverse biological activities, including pro-apoptotic, antiproliferative, anti-inflammatory, anti-atherosclerosis, and neuroprotective properties.[1-4] It inhibits the proliferation of OVCAR-3 ovarian and HeLa cervical cancer cells (EC_{50}s = 3 and 5.2 µg/ml, respectively) and induces apoptosis and caspase-3 cleavage in OVCAR-3 cells when used at a concentration of 3 µg/ml.[1] Topical ginkgetin (20 µg/ear) reduces ear edema and prostaglandin E_2 (PGE_2; Item No. 14010) levels in a mouse model of chronic skin inflammation induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014).[2] It decreases the thickness of the intima-media and lipid plaque deposition in the thoracic aorta in a rat model of high-fat diet-induced atherosclerosis when administered at a dose of 100 mg/kg.[3] Ginkgetin (0.8 mg/kg per day) improves sensorimotor coordination and increases the time spent on a rotating bar in a mouse model of Parkinson's disease induced by MPTP.[4]

References

1. Su, Y., Sun, C.M., Chuang, H.H., *et al.* Studies on the cytotoxic mechanisms of ginkgetin in a human ovarian adenocarcinoma cell line. *Naunyn Schmiedebergs Arch. Pharmacol.* **362(10)**, 82-90 (2000).
2. Lim, H., Son, K.H., Chang, H.W., *et al.* Effects of anti-inflammatory biflavonoid, ginkgetin, on chronic skin inflammation. *Biol. Pharm. Bull.* **29(5)**, 1046-1049 (2006).
3. Lian, N., Tong, J., Li, W., *et al.* Ginkgetin ameliorates experimental atherosclerosis in rats. *Biomed. Pharmacother.* **102**, 510-516 (2018).
4. Wang, Y.Q., Wang, M.Y., Fu, X.R., *et al.* Neuroprotective effects of ginkgetin against neuroinjury in Parkinson's disease model induced by MPTP via chelating iron. *Free Radic Res.* **49(9)**, 1069-1080 (2015).

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