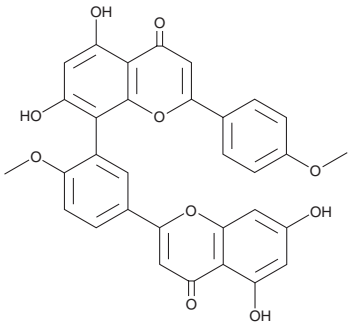
PRODUCT INFORMATION

Isoginkgetin

Item No. 25104

CAS Registry No.:	548-19-6
Formal Name:	8-[5-(5,7-dihydroxy-4-oxo-4H-1-benzopyran-2-yl)-2-methoxyphenyl]-5,7-dihydroxy-2-(4-methoxyphenyl)-4H-1-benzopyran-4-one
MF:	$C_{32}H_{22}O_{10}$
FW:	566.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 213, 272, 328 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

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

Isoginkgetin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, isoginkgetin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Isoginkgetin 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

Isoginkgetin is a biflavonoid that has been found in *G. biloba* and is an inhibitor of pre-mRNA splicing.[1] Isoginkgetin (33 µM) reduces the activity of an mRNA-dependent luciferase reporter by 5-fold, shifts the composition of total RNA extract from predominantly mRNA to pre-mRNA, and arrests cell growth in HEK293 cells. Isoginkgetin (10 µM) suppresses mouse lymphocyte proliferation induced by concanavalin A (Con A; Item No. 14951) and LPS by approximately 87 and 90%, respectively.[2] It also suppresses arachidonic acid release induced by phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) and the calcium ionophore A23187 (Item No. 11016) by 32.5 and 48.4%, respectively, in rat peritoneal macrophages when used at a concentration of 10 µM.[3] Isoginkgetin (5-20 µM) reduces matrix metalloproteinase-9 (MMP-9) activity, expression, and mRNA levels in and decreases cell invasion by HT1080 fibrosarcoma cells in a concentration-dependent manner.[4]

References

1. O'Brien, K., Matlin, A.J., Lowell, A.M., *et al.* The biflavonoid isoginkgetin is a general inhibitor of pre-mRNA splicing. *J. Biol. Chem.* **283(48)**, 33147-33154 (2008).
2. Lee, S.J., Choi, J.H., Son, K.H., *et al.* Suppression of mouse lymphocyte proliferation *in vitro* by naturally-occurring biflavonoids. *Life Sci.* **57(6)**, 551-558 (1995).
3. Lee, S.J., Son, K.H., Chang, H.W., *et al.* Inhibition of arachidonate release from rat peritoneal macrophage by biflavonoids. *Arch. Pharm. Res.* **20(6)**, 533-538 (1997).
4. Yoon, S.-O., Shin, S.S., Lee, H.-J., *et al.* Isoginkgetin inhibits tumor cell invasion by regulating phosphatidylinositol 3-kinase/Akt-dependent matrix metalloproteinase-9 expression. *Mol. Cancer Ther.* **5(11)**, 2666-2675 (2006).

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