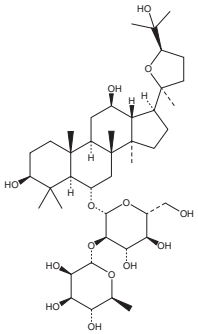
PRODUCT INFORMATION

Pseudoginsenoside F_{11}

Item No. 30222

CAS Registry No.: 69884-00-0
Formal Name: (3β,6α,12β,24R)-20,24-epoxy-3,12,25-trihydroxydammaran-6-yl 2-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranoside
Synonym: Ginsenoside A_1
MF: $C_{42}H_{72}O_{14}$
FW: 801.0
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Panax ginseng*



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

Laboratory Procedures

Pseudoginsenoside F_{11} is supplied as a solid. A stock solution may be made by dissolving the pseudoginsenoside F_{11} in the solvent of choice, which should be purged with an inert gas. Pseudoginsenoside F_{11} is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of pseudoginsenoside F_{11} in these solvents is approximately 0.1, 10, and 15 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of pseudoginsenoside F_{11} can be prepared by directly dissolving the solid in aqueous buffers. The solubility of pseudoginsenoside F_{11} in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Pseudoginsenoside F_{11} is an ocotillol-type ginsenoside that has been found in *P. ginseng* and has diverse biological activities.[1-4] *In vivo*, pseudoginsenoside F_{11} (10 mg/kg) prevents tubular cell apoptosis, decreases in renal glutathione peroxidase (GPX) and superoxide dismutase (SOD) levels, and increases in renal lipid peroxide levels in a rat model of nephrotoxicity induced by cisplatin (Item No. 13119).[1] It reduces infarct size, brain water content, and cortical accumulation of autophagosomes in a rat model of ischemic stroke induced by permanent middle cerebral artery occlusion.[2] Pseudoginsenoside F_{11} (4 and 8 mg/kg) inhibits morphine-induced memory impairment in the Morris water maze and development of morphine-induced conditioned place preference in mice.[3] It also reduces hippocampal advanced glycation end product (AGE) and malondialdehyde (MDA) levels, increases hippocampal SOD activity and glutathione (GSH) levels, and attenuates cognitive impairment in the Morris water maze in a mouse model of D-galactose-induced mild cognitive impairment.[4]

References

1. Wang, H., Kong, L., Zhang, J., *et al. Sci. Rep.* **4**, 4986 (2014).
2. Liu, Y.Y., Zhang, T.Y., Xue, X., *et al. CNS Neurosci. Ther.* **23(7)**, 567-579 (2017).
3. Li, Z., Wu, C.F., Pei, G., *et al. Pharmacol. Biochem. Behav.* **66(3)**, 595-601 (2000).
4. Zhang, Z., Yang, H., Yang, J., *et al. Int. Immunopharmacol.* **67**, 78-86 (2019).

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