

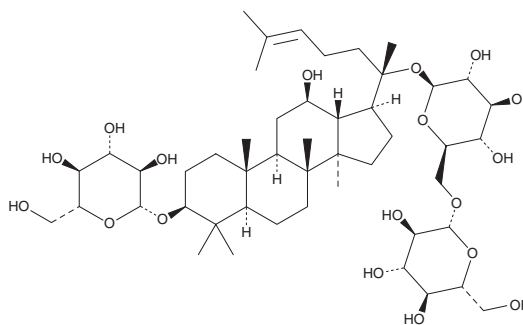
PRODUCT INFORMATION



Gyenoside XVII

Item No. 34514

CAS Registry No.: 80321-69-3
Formal Name: 3 β -(β -D-glucopyranosyloxy)-12 β -hydroxydammar-24-en-20-yl 6-O- β -D-glucopyranosyl- β -D-glucopyranoside
Synonyms: Gyp-17, Gyp-XVII, Gynosaponin S
MF: C₄₈H₈₂O₁₈
FW: 947.2
Purity: \geq 98%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Plant/*Gynostemma pentaphyllum*



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

Laboratory Procedures

Gyenoside XVII is supplied as a solid. A stock solution may be made by dissolving the gyenoside XVII in the solvent of choice, which should be purged with an inert gas. Gyenoside XVII is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of gyenoside XVII in these solvents is approximately 5 and 10 mg/ml, respectively.

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

Description

Gyenoside XVII is a saponin that has been found in *P. notoginseng* and has diverse biological activities.¹⁻⁴ It induces autophagic clearance of amyloid- β precursor protein (APP), A β 40, and A β 42 in PC12 cells expressing Swedish mutant APP isoform 695 (APP695 Swe) when used at a concentration of 10 μ M.¹ Gyenoside XVII (40 mg/kg) prevents the formation of hippocampal and cortical A β plaques and ameliorates spatial cognitive deficits in the transgenic APP/PS1 mouse model of Alzheimer's disease. It decreases lipid deposition in the aortic sinus and serum levels of malondialdehyde (MDA), reduces aortic plaque area, and increases serum levels of superoxide dismutase (SOD), glutathione peroxidase (GPX), and catalase in *ApoE*^{-/-} mice.² Gyenoside XVII (10 and 50 mg/kg) reduces spinal cord edema and neuronal apoptosis in a mouse model of mechanical compression-induced spinal cord injury.³ It also maintains retinal permeability and structure and reduces retinal levels of apoptotic proteins in a *db/db* mouse model of early diabetic retinopathy.⁴

References

1. Meng, X., Luo, Y., Liang, T., et al. *J. Alzheimers Dis.* **52(3)**, 1135-1150 (2016).
2. Yang, K., Zhang, H., Luo, Y., et al. *Int. J. Mol. Sci.* **18(2)**, 77 (2017).
3. Sun, T., Duan, L., Li, J., et al. *Int. J. Mol. Med.* **48(2)**, 146 (2021).
4. Luo, Y., Dong, X., Lu, S., et al. *Eur. J. Pharmacol.* **895**, 173893 (2021).

WARNING

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

SAFETY 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.

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