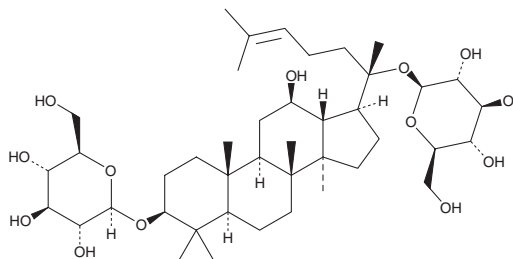


PRODUCT INFORMATION



Ginsenoside F₂ Item No. 23435

CAS Registry No.: 62025-49-4
Formal Name: (3 β ,12 β)-12-hydroxydammar-24-ene-3,20-diyl bis- β -D-glucopyranoside
MF: C₄₂H₇₂O₁₃
FW: 785.0
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Plant/Ginseng Radix Et Rhizoma



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

Laboratory Procedures

Ginsenoside F₂ is supplied as a crystalline solid. A stock solution may be made by dissolving the ginsenoside F₂ in the solvent of choice, which should be purged with an inert gas. Ginsenoside F₂ is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ginsenoside F₂ in these solvents is approximately 10 mg/ml.

Ginsenoside F₂ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ginsenoside F₂ should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Ginsenoside F₂ 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

Ginsenoside F₂ is a ginsenoside that has been found in *P. ginseng* and has diverse biological activities.¹⁻³ It increases the proliferation of human hair dermal papilla cells (HHDPCs) and HaCaT human keratinocytes when used at concentrations of 0.01, 0.1, and 1 μ M.¹ Ginsenoside F₂ (0.5 and 2.5 mg/kg) induces hair growth and increases hair density following depilation in mice. It is cytotoxic to U373MG glioblastoma cells *in vitro* (IC₅₀ = 50 μ g/ml) and reduces tumor growth in a U373MG mouse xenograft model when administered at a dose of 35 mg/kg every other day.² Ginsenoside F₂ (1 mg/ear) reduces ear edema induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) in mice.³ It is a human intestinal bacterial metabolite of ginsenoside Rb₁ (Item No. 15319) via the intermediate ginsenoside Rd (Item No. 15329).⁴

References

1. Shin, H.-S., Park, S.-Y., Hwang, E.-S., *et al.* The inductive effect of ginsenoside F2 on hair growth by altering the WNT signal pathway in telogen mouse skin. *Eur. J. Pharmacol.* **730**, 82-89 (2014).
2. Shin, J.Y., Lee, J.M., Sin, H.S., *et al.* Anti-cancer effect of ginsenoside F2 against glioblastoma multiforme in xenograft model in SD rats. *J. Ginseng Res.* **36**(1), 86-92 (2012).
3. Park, S.-H., Seo, W., Eun, H.S., *et al.* Protective effects of ginsenoside F2 on 12-O-tetradecanoylphorbol-13-acetate-induced skin inflammation in mice. *Biochem. Biophys. Res. Commun.* **478**(4), 1713-1719 (2016).
4. Kanaoka, M., Akao, T., and Kobashi, K. Metabolism of ginseng saponins, ginsenosides, by human intestinal flora. *Wakan Iyakugaku Zasshi* **11**(3), 241-245 (1994).

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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