

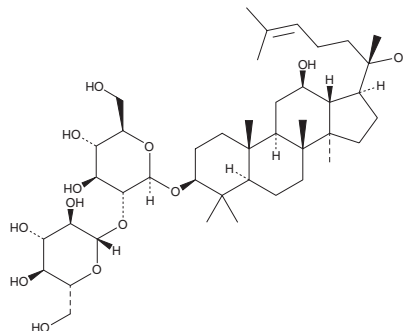
PRODUCT INFORMATION



20(S)-Ginsenoside Rg₃

Item No. 15332

CAS Registry No.: 14197-60-5
Formal Name: 12 β ,20-dihydroxydammar-24-en-3 β -yl 2-O- β -D-glucopyranosyl- β -D-glucopyranoside
Synonym: 20(S)-Propanaxadiol
MF: C₄₂H₇₂O₁₃
FW: 785.0
Purity: \geq 95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

20(S)-Ginsenoside Rg₃ is supplied as a crystalline solid. A stock solution may be made by dissolving the 20(S)-ginsenoside Rg₃ in the solvent of choice, which should be purged with an inert gas. 20(S)-Ginsenoside Rg₃ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 20(S)-ginsenoside Rg₃ in ethanol is approximately 20 mg/ml and approximately 10 mg/ml in DMSO and DMF.

20(S)-Ginsenoside Rg₃ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 20(S)-ginsenoside Rg₃ should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 20(S)-Ginsenoside Rg₃ has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ginsenosides are pharmacologically active natural constituents of ginseng and other plants of the genus *Panax*.¹ Structurally, they are steroid glycosides derived from the triterpene squalene.¹ 20(S)-Ginsenoside Rg₃ is a panaxadiol found in white and red *P. ginseng*.² This ginsenoside has diverse *in vitro* and *in vivo* effects, including anti-cancer, neuroprotective, anti-hypertensive, and anti-inflammatory actions.^{2,3} 20(S)-Ginsenoside Rg₃ induces apoptosis and inhibits angiogenesis in a variety of cancer models.^{2,4,5} Notably, this ginsenoside can be produced by heating other ginsenosides, leading to elevated levels in steamed or dried ginseng preparations.^{2,6}

References

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3. Helms, S. *Altern. Med. Rev.* **9(3)**, 259-274 (2004).
4. Yu, Y., Zhang, C., Liu, L., et al. *Exp. Ther. Med.* **5(3)**, 761-766 (2013).
5. Liu, T.-G., Huang, Y., Cui, D.-D., et al. *BMC Cancer* **9**, 250 (2009).
6. Kim, I.-W., Cha, K.-M., Wee, J.J., et al. *J. Ginseng Res.* **37(4)**, 475-482 (2013).

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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