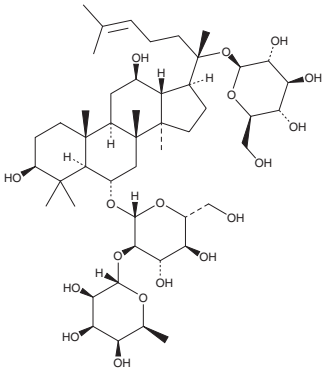
PRODUCT INFORMATION

Ginsenoside Re

Item No. 15330

CAS Registry No.: 52286-59-6
Formal Name: (6α)-20-(β-D-glucopyranosyloxy)-3β,12β-dihydroxydammar-24-en-6-yl 2-O-(6-deoxy-α-L-mannopyranosyl)-β-D-glucopyranoside
Synonyms: Chikusetsusaponin IVc, NSC 308877, Panaxoside Re, Sanchinoside Re
MF: $C_{48}H_{82}O_{18}$
FW: 947.2
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Ginsenoside Re is supplied as a crystalline solid. A stock solution may be made by dissolving the ginsenoside Re in the solvent of choice, which should be purged with an inert gas. Ginsenoside Re is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ginsenoside Re in these solvents is approximately 5, 15, and 20 mg/ml, respectively.

Ginsenoside Re is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ginsenoside Re should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Ginsenoside Re has a solubility of approximately 0.5 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

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] Ginsenoside Re is a panaxatriol saponin that is more abundant in some *Panax* species (*e.g.*, *P. quinquefolium*) than others.[2] This ginsenoside has diverse *in vitro* and *in vivo* effects, including vasorelaxant, antioxidant, antihyperlipidemic, and angiogenic actions.[2-5] Ginsenoside Re improves the effectiveness of chemotherapeutic agents by decreasing the expression of Multidrug Resistance Protein 1 and inhibiting P-glycoprotein.[6] Notably, this ginsenoside is converted to other forms in response to steaming or heating plant materials, leading to loss of activity.[2]

References

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2. Chen, C.-F., Chiou, W.-F., and Zhang, J.-T. *Acta Pharmacol. Sin.* **29(9)**, 1103-1108 (2008).
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4. Han, D.-H., Kim, S.H., Higashida, K., *et al. Metabolism* **61(11)**, 1615-1621 (2012).
5. Gao, Y., Yang, M.-F., Su, Y.-P., *et al. J. Ethnopharmacol.* **147(2)**, 509-516 (2013).
6. Helms, S. *Altern. Med. Rev.* **9(3)**, 259-274 (2004).

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