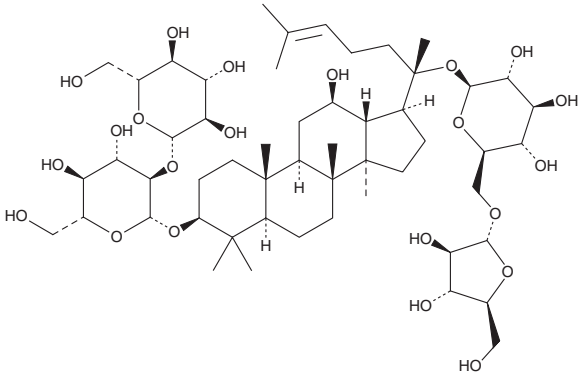
PRODUCT INFORMATION

Ginsenoside Rc

Item No. 29088



CAS Registry No.: 11021-14-0
Formal Name: (3β,12β)-20-[(6-O-α-L-arabinofuranosyl-β-D-glucopyranosyl)oxy]-12-hydroxydammar-24-en-3-yl 2-O-β-D-glucopyranosyl-β-D-glucopyranoside
Synonyms: NSC 310104, Panaxoside Rc
MF: $C_{53}H_{90}O_{22}$
FW: 1,079.3
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/Ginseng

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

Laboratory Procedures

Ginsenoside Rc is supplied as a crystalline solid. A stock solution may be made by dissolving the ginsenoside Rc in the solvent of choice, which should be purged with an inert gas. Ginsenoside Rc is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ginsenoside Rc 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 ginsenoside Rc can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ginsenoside Rc in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ginsenoside Rc is a saponin that has been found in *P. ginseng* and has diverse biological activities, including antioxidant, anti-inflammatory, and nootropic properties.[1-3] It prevents UVB-induced increases in the levels of reactive oxygen species (ROS) in HaCaT keratinocytes by 34.3, 54.4, and 65.4% when used at concentrations of 5, 12, and 30 µM, respectively.[1] Ginsenoside Rc (40 µg/ml) reduces increases in the expression of *Tnf*, *Il1b*, and *Ifnb1* induced by LPS in RAW 264.7 cells.[2] It reduces gastric ulcer and joint lesion indices in mouse models of HCl/ethanol-induced gastritis and collagen-induced arthritis, respectively, as well as reduces increased serum levels of aspartate aminotransferase (AST) induced by LPS/D-galactosamine in a mouse model of hepatitis, when administered at a dose of 20 mg/kg. Ginsenoside Rc increases GABA-induced inward current in *Xenopus* oocytes expressing recombinant human $\alpha_1\beta_1\gamma_{2S}$ subunit-containing $GABA_A$ receptors with an EC_{50} value of 53.2 µM.[3]

References

1. Oh, Y., Lim, H.-W., Park, K.H., *et al. Mol. Med. Rep.* **16(3),** 2907-2914 (2017).
2. Yu, T., Rhee, M.H., Lee, J., *et al. Am. J. Chin. Med.* **44(3),** 595-615 (2016).
3. Choi, S.-E., Choi, S., Lee, J.H., *et al. Arch. Pharm. Res.* **26(1),** 28-33 (2003).

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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