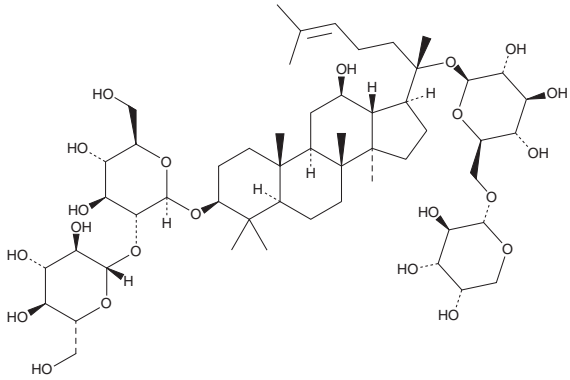
PRODUCT INFORMATION

Ginsenoside Rb_2

Item No. 22265

CAS Registry No.: 11021-13-9
Formal Name: (3β,12β)-20-[(6-*O*-α-L-arabinopyranosyl-β-D-glucopyranosyl)oxy]-12-hydroxydammar-24-en-3-yl 2-*O*-β-D-glucopyranosyl-β-D-glucopyranoside
Synonyms: Ginsenoside C, NSC 308878
MF: $C_{53}H_{90}O_{22}$
FW: 1,079.3
Purity: ≥98%
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 Rb_2 is supplied as a crystalline solid. A stock solution may be made by dissolving the ginsenoside Rb_2 in the solvent of choice. Ginsenoside Rb_2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of ginsenoside Rb_2 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 Rb_2 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ginsenoside Rb_2 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 Rb_2 is a steroid glycoside found in plants of the genus *Panax* that has diverse biological activities.[1] It inhibits LPS-stimulated increases in vascular cell adhesion molecule 1 (VCAM-1) and intercellular adhesion molecule 1 (ICAM-1) expression *in vitro*. It dose-dependently reverses LPS-induced decreases in the expression of IκBα in human umbilical vein endothelial cells (HUVECs).[2] Ginsenoside Rb_2 reduces adhesion of THP-1 cells to LPS-stimulated HUVEC cells, also in a dose-dependent manner. Ginsenoside Rb_2 reduces UVB-induced cytotoxicity and apoptotic nuclear fragmentation in HaCaT cells.[3] It also lowers total cholesterol and triacylglycerol in 3T3-L1 adipocytes cultured under high fatty acid conditions to levels comparable to lovastatin (Item No. 10010338).[4]

References

1. Liang, Y. and Zhao, S. *Plant Biol.(Stuttg)* **10(4)**, 415-421 (2008).
2. Cho, Y.S., Kim, C.H., Ha, T.S., *et al. Korean J.Physiol.Pharmacol.* **17(2)**, 133-137 (2013).
3. Ha, S.E., Shin, D.H., Kim, H.D., *et al. Naunyn Schmiedebergs Arch. Pharmacol.* **382(1)**, 89-101 (2010).
4. Kim, E.J., Lee, H.I., Chung, K.J., *et al. BMB Rep.* **42(4)**, 194-199 (2009).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM