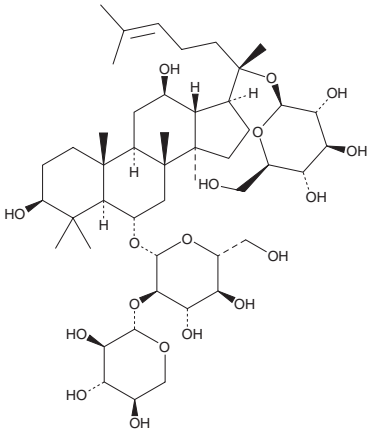
PRODUCT INFORMATION

Notoginsenoside R1

Item No. 29691

CAS Registry No.:	80418-24-2
Formal Name:	(3β,6α,12β)-20-(β-D-glucopyranosyloxy)-3,12-dihydroxydammar-24-en-6-yl 2-O-β-D-xylopyranosyl-β-D-glucopyranoside
Synonym:	Sanchinoside R1
MF:	$C_{47}H_{80}O_{18}$
FW:	933.1
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Panax notoginseng*



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

Laboratory Procedures

Notoginsenoside R1 is supplied as a crystalline solid. A stock solution may be made by dissolving the notoginsenoside R1 in the solvent of choice, which should be purged with an inert gas. Notoginsenoside R1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of notoginsenoside R1 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 notoginsenoside R1 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of notoginsenoside R1 in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Notoginsenoside R1 is a saponin that has been found in *P. notoginseng* and has diverse biological activities, including cardioprotective, neuroprotective, and anti-inflammatory properties.[1] It decreases serum total cholesterol, triacylglycerol, and oxidized LDL (oxLDL) levels, as well as reduces atherosclerotic lesion area and lipid deposition in the aortic root of *ApoE*$^{-/-}$ mice fed a Western diet when administered at a dose of 25 mg/kg per day for eight weeks.[2] Notoginsenoside R1 (100 mg/kg) inhibits apoptosis of hippocampal neurons and reduces infarct size in a rat model of cerebral ischemia-reperfusion injury induced by bilateral common carotid artery occlusion.[3] It decreases colonic NF-κB and myeloperoxidase (MPO) activities and TNF-α and IL-6 levels, as well as reduces colonic shortening, tissue damage, and inflammatory cell infiltration in a mouse model of colitis induced by dextran sulfate sodium (DSS; Item No. 23250) when administered at a dose of 25 mg/kg per day for seven days.[4]

References

1. Li, L., Zhang, J.-l., Sheng, Y.-x., *et al. J. Pharm. Biomed. Anal.* **38(1)**, 45-51 (2005).
2. Jia, C., Xiong, M., Wang, P., *et al. PLoS One* **9(6)**, e99849 (2014).
3. Zou, S., Zhang, M., Feng, L., *et al. Exp. Ther. Med.* **14(6)**, 6012-6016 (2017).
4. Zhang, J., Ding, L., Wang, B., *et al. J. Pharmacol. Exp. Ther.* **352(2)**, 315-324 (2015).

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