

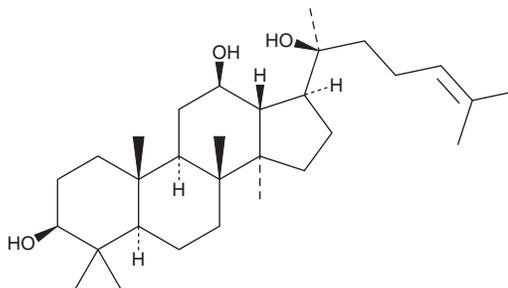
PRODUCT INFORMATION



20(S)-Protopanaxadiol

Item No. 33201

CAS Registry No.: 30636-90-9
Formal Name: dammar-24-ene-3 β ,12 β ,20-triol
Synonyms: 20(S)-APPD,
20-Epiprotopanaxadiol
MF: C₃₀H₅₂O₃
FW: 460.7
Purity: \geq 95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Plant/*Panax ginseng*



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

Laboratory Procedures

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

Description

20(S)-Protopanaxadiol is a saponin and an isomer of 20(R)-protopanaxadiol (Item No. 25052) that has been found in *P. ginseng* and has anticancer and antibacterial activities.¹⁻³ 20(S)-Protopanaxadiol is cytotoxic to MT-4 human T cell leukemia cells with a 50% cytotoxic concentration (CC₅₀) value of 7.2 μ M and inhibits the growth of human A549 lung carcinoma, SKOV3 ovarian adenocarcinoma, SK-MEL-2 melanoma, and K562 chronic leukemia cells (EC₅₀s = 9.8-20 μ M), as well as P388 and L1210 murine leukemia cells (EC₅₀s = 9.8 and 10 μ M, respectively).^{1,2} It also inhibits the growth of *H. pylori* *in vitro* (MIC = 50 μ g/ml).³

References

1. Hasegawa, H., Matsumiya, S., Uchiyama, M., *et al.* Inhibitory effect of some triterpenoid saponins on glucose transport in tumor cells and its application to *in vitro* cytotoxic and antiviral activities. *Planta Med.* **60(3)**, 240-243 (1994).
2. Nam-In, B., Kim, D.S., Lee, Y.H., *et al.* Cytotoxicities of ginseng saponins and their degradation products against some cancer cell lines. *Arch. Pharm. Res.* **18(3)**, 164-168 (1995).
3. Bae, E.A., Han, M.J., Choo, M.K., *et al.* Metabolism of 20(S)- and 20(R)-ginsenoside Rg3 by human intestinal bacteria and its relation to *in vitro* biological activities. *Biol. Pharm. Bull.* **25(1)**, 58-63 (2002).

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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