

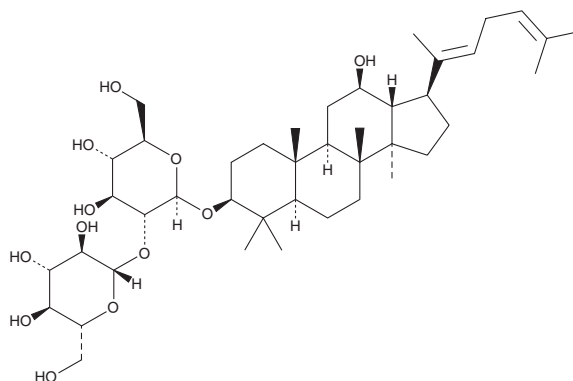
PRODUCT INFORMATION



Ginsenoside Rg₅

Item No. 25147

CAS Registry No.: 186763-78-0
Formal Name: (3 β ,12 β ,20E)-12-hydroxydammar-20(22),24-dien-3-yl 2-O- β -D-glucopyranosyl- β -D-glucopyranoside
MF: C₄₂H₇₀O₁₂
FW: 767.0
Purity: $\geq 95\%$
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 Rg₅ is supplied as a crystalline solid. A stock solution may be made by dissolving the ginsenoside Rg₅ in the solvent of choice, which should be purged with an inert gas. Ginsenoside Rg₅ is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ginsenoside Rg₅ in these solvents is approximately 10 mg/ml.

Description

Ginsenoside Rg₅ is a ginsenoside originally isolated from *P. ginseng* that has diverse biological activities, including anticancer, anti-inflammatory, neuroprotective, and antioxidant properties.¹⁻³ It inhibits the growth of HeLa and MS751 cervical cancer cells (IC₅₀s = ~2.5-10 μ M) and induces apoptosis in a concentration-dependent manner.¹ Ginsenoside Rg₅ (5 and 10 μ M) inhibits LPS-induced increases in IL-1 β , TNF- α , COX-2, and inducible nitric oxide synthase (iNOS) protein levels in murine alveolar macrophages.² It also inhibits LPS-induced increases in the number of neutrophils and protein levels of IL-1 β , TNF- α , COX-2, and iNOS in lung in a mouse model of acute lung inflammation when administered at a dose of 10 mg/kg. In a rat model of Alzheimer's disease induced by streptozotocin (STZ; Item No. 13104), ginsenoside Rg₅ blocks STZ-induced increases in amyloid- β accumulation in the hippocampus and cerebral cortex and prevents STZ-induced decreases in step through latency time in a passive avoidance foot-shock test in a dose-dependent manner.³

References

1. Liang, L.-D., He, T., Du, T.-W., *et al.* Ginsenoside Rg₅ induces apoptosis and DNA damage in human cervical cancer cells. *Mol. Med. Rep.* **11**(2), 940-946 (2015).
2. Kim, T.-W., Joh, E.-H., Kim, B., *et al.* Ginsenoside Rg₅ ameliorates lung inflammation in mice by inhibiting the binding of LPS to toll-like receptor-4 on macrophages. *Int. Immunopharmacol.* **12**(1), 110-116 (2012).
3. Chu, S., Gu, J., Feng, L., *et al.* Ginsenoside Rg₅ improves cognitive dysfunction and beta-amyloid deposition in STZ-induced memory impaired rats *via* attenuating neuroinflammatory responses. *Int. Immunopharmacol.* **19**(2), 317-326 (2014).

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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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