



LKT Laboratories, Inc.

20(S)-Ginsenoside Rh2

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Product Information

Product ID G3453

CAS No. 78214-33-2

Chemical Name

Synonym 20S-GinsenosideRh2, 20S-protopanaxadiol-3-O-β-D-glucopyranoside, β-D-Glucopyranoside

Formula C₃₆H₆₂O₈ H₂O

Formula Wt. 640.89

Melting Point

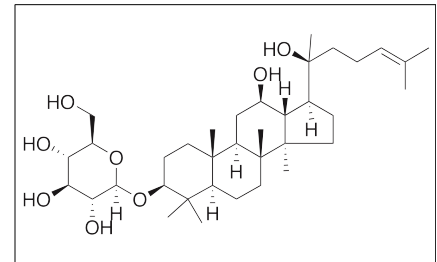
Purity ≥98%

Solubility Soluble in ethanol to 10 mM. Insoluble in water.

Store Temp 4° C

Ship Temp Ambient

Description Ginsenoside Rh2 is a triterpene saponin found in *Panax* and exhibits anticancer chemotherapeutic, anti-metastatic, neuroprotective, cognition enhancing, anti-inflammatory, anti-osteoporotic, antioxidative, and anti-diabetic activities. Ginsenoside Rh2 inhibits aldose reductase and also decreases levels of ROS in keratinocytes. Ginsenoside Rh2 inhibits cell migration, decreases levels of matrix metalloproteinase 3 (MMP3), and increases recruitment of HDAC4 in liver carcinoma cells. In cellular and animal models of glioblastoma, ginsenoside Rh2 inhibits cell and tumor growth. Additionally, ginsenoside Rh2 improves learning and memory by decreasing levels of amyloid-β (Aβ) in animal models of Alzheimer's disease. In LPS-stimulated macrophages, this compound decreases the release of IL-1β, TNF-α, IL-6, PGE2, and NO and suppresses phosphorylation of p38 MAPK, ERK1/2, JAK, and NF-κB. Ginsenoside Rh2 inhibits osteoclastogenesis by suppressing RANKL-induced osteoclast differentiation in vitro and in vivo. This compound also induces B-cell proliferation by activating Akt and PDX-1, improves glucose tolerance, and increases insulin levels in animal models.



Bulk quantities available upon request

Product ID	Size
G3453	1 mg
G3453	5 mg
G3453	10 mg
G3453	25 mg

References Fatmawati S, Ersam T, Yu H, et al. 20(S)-Ginsenoside Rh2 as aldose reductase inhibitor from *Panax ginseng*. *Bioorg Med Chem Lett.* 2014 Aug 12. [Epub ahead of print]. PMID: 25152999.

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Li S, Gao Y, Ma W, et al. EGFR signaling-dependent inhibition of glioblastoma growth by ginsenoside Rh2. *Tumour Biol.* 2014 Jun;35(6):5593-8. PMID: 24557544.

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He L, Lee J, Jang JH, et al. Ginsenoside Rh2 inhibits osteoclastogenesis through down-regulation of NF-κB, NFATc1 and c-Fos.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.