



Product Information

Product ID G3458

CAS No. 22427-39-0

Chemical Name

Synonym Sanchinoside Rg₁, Panaxoside A

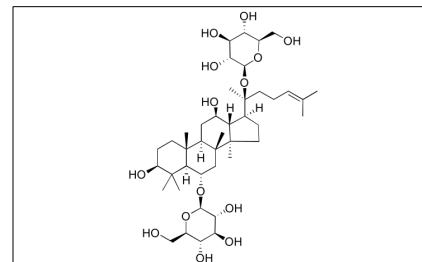
Formula C₄₂H₇₂O₁₄

Formula Wt. 801.01

Melting Point 194-196.5 °C

Purity ≥98%

Solubility



Bulk quantities available upon request

Product ID	Size
G3458	5 mg
G3458	10 mg
G3458	25 mg

Store Temp 4° C

Ship Temp Ambient

Description Ginsenoside Rg₁ is a triterpene saponin originally found in species of *Panax* that exhibits antioxidative, anti-inflammatory, neuroprotective, anti-aging, anti-fibrotic, anticancer, antithrombotic, anti-allergic, immunomodulatory, cardioprotective, and pro-angiogenic activities. In an animal model of aging, ginsenoside Rg₁ prevents decreases in cognitive capacity and neurogenesis, and suppresses astrocyte activation and production of TNF-α, IL-6, and IL-1β; it also increases activity of telomerase, glutathione peroxidase, and superoxide dismutase. In other animal models, ginsenoside Rg₁ decreases levels of ALT, AST, LDH, and ALP, inhibiting inflammation and hepatic stellate cell activation, decreasing fibrosis. Additionally, ginsenoside Rg₁ suppresses JAK2/STAT5 signaling in leukemia cells, upregulates expression of Bax and caspase 3, downregulates expression of Bcl-2, induces apoptosis, and inhibits cell proliferation. This compound also inhibits platelet aggregation, fibrinogen binding, P-selection expression, platelet adhesion, and ERK activation, increasing time to occlusion in vivo. Ginsenoside Rg₁ inhibits left ventricular hypertrophy and increases expression of HIF-1α and VEGF in other animal models. This compound also decreases serum histamine, IgE, and IgG and suppresses infiltration of eosinophils and mast cells in animal models of allergic rhinitis.

References Zhu J, Mu X, Zeng J, et al. Ginsenoside rg1 prevents cognitive impairment and hippocampus senescence in a rat model of d-galactose-induced aging. *PLoS One*. 2014 Jun 30;9(6):e101291. PMID: 24979747.

Li JP, Gao Y, Chu SF, et al. Nrf2 pathway activation contributes to anti-fibrosis effects of ginsenoside Rg₁ in a rat model of alcohol- and CCl₄-induced hepatic fibrosis. *Acta Pharmacol Sin*. 2014 Jun 30. [Epub ahead of print]. PMID: 24976156.

Li J, Wei Q, Zuo GW, et al. Ginsenoside Rg₁ induces apoptosis through inhibition of the EpoR-mediated JAK2/STAT5 signalling pathway in the TF-1/ Epo human leukemia cell line. *Asian Pac J Cancer Prev*. 2014;15(6):2453-9. PMID: 24761846.

Zhou Y, Li HQ, Lu L, et al. Ginsenoside Rg₁ provides neuroprotection against blood brain barrier disruption and neurological injury in a rat model of cerebral ischemia/reperfusion through downregulation of aquaporin 4 expression. *Phytomedicine*. 2014 Jun 15;21(7):998-1003. PMID: 24462216.

He Y, Zhao H, Su G. Ginsenoside Rg₁ decreases neurofibrillary tangles accumulation in retina by regulating activities of neprilysin and PKA in retinal cells of AD mice model. *J Mol Neurosci*. 2014 Jan;52(1):101-6. PMID: 24287922.

Zhou Q, Jiang L, Xu C, et al. Ginsenoside Rg₁ inhibits platelet activation and arterial thrombosis. *Thromb Res*. 2014 Jan;133(1):57-65. PMID: 24196231.

Oh HA, Seo JY, Jeong HJ, et al. Ginsenoside Rg₁ inhibits the TSLP production in allergic rhinitis mice. *Immunopharmacol*

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