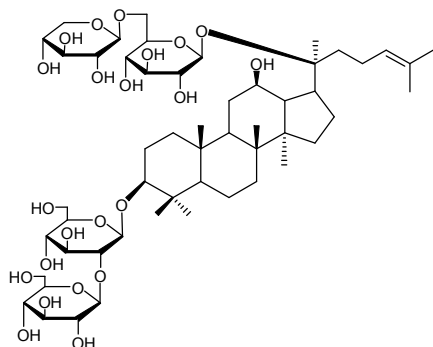


## Ginsenoside-Rb<sub>3</sub> from *Panax ginseng* C.A.Mey.



**Product Name:** 3-O- [β-D- glucopyranosyl - (1→2) - β  
-D-glucopyranosyl]-20-O-[β-D-xylopyranosyl-(1→6)-β  
-D-glucopyranosyl]-dammar-24-ene-3β,12β,20S-triol

**Product Number:** G016003

**CAS Number:** 68406-26-8

**Formula (Hill method):** C<sub>53</sub>H<sub>90</sub>O<sub>22</sub>

**Formula Weight:** 1079.27 AMU

**Purity(HPLC):** ≥ 98.00 %

**Stock Status:** In Stock

**Solubility:** 10 mM in DMSO

**Mechanisms:** Pathways: Others; Target: Others

**Biological Activity:** Ginsenoside Rb<sub>3</sub> is a natural triterpenoid saponin; has various pharmacological effects.

### IC50 Value & Target:

**In Vitro:** Ginsenoside Rb<sub>3</sub> suppresses OGD-Rep-induced cell apoptosis by the suppression of ROS generation. Ginsenoside Rb<sub>3</sub> inhibits the upregulation of phospho-IκB-α and nuclear translocation of NF-κB subunit p65 which are induced by ORD-Rep injury. In addition, the extract also inhibits the OGD-Rep-induced increase in the expression of inflammation-related factors, such as IL-6, TNF-α, monocyte chemotactic protein-1 (MCP-1), MMP-2 and MMP-9 [1].

Ginsenoside Rb<sub>3</sub> decreased cell cycle progression from G(0)/G(1) to S phase. Furthermore, ginsenoside Rb<sub>3</sub> significantly attenuated the expression of mRNA of proto-oncogene c-myc, c-fos and c-jun [2].

Ginsenoside Rb<sub>3</sub> (0.1-10 micromol/L) significantly increased cell viability and inhibited LDH release in a dose-dependent manner on the ischemic model. In addition, ginsenoside Rb<sub>3</sub> also significantly inhibited ischemic injury-induced apoptosis, [Ca(2+)](i) elevation, and decrease of MMP [3].

**In Vivo:** Ex vivo treatment with Rb<sub>3</sub> concentration-dependently augmented endothelium-dependent relaxations, suppressed endothelium-dependent contractions and reduced ROS production and expressions of NOX-2, NOX-4 and p67(phox) in arterial rings from SHR. Rb<sub>3</sub> treatment also normalized angiotensin II (Ang II)-stimulated elevation in ROS and expression of NOX-2 and NOX-4 in arterial rings from WKY rats [4].

### References:

- [1]. Ma L, et al. Ginsenoside Rb<sub>3</sub> protects cardiomyocytes against ischemia-reperfusion injury via the inhibition of JNK-mediated NF-κB pathway: a mouse cardiomyocyte model. PLoS One. 2014 Aug 1; 9(8):e103628.
- [2]. Wang T, et al. Ginsenoside Rb<sub>3</sub> inhibits angiotensin II-induced vascular smooth muscle cells proliferation. Basic Clin Pharmacol Toxicol. 2010 Aug;107(2):685-9.

Caution: Not fully tested. For research purposes only!

E-mail: [sales@star-ocean-biotech.com](mailto:sales@star-ocean-biotech.com)