

Ginsenoside-Rb2 from Panax ginseng C.A.Mey.



Product	Name:	3- <i>O</i> -[β-D-glucopyranosyl-(1→2)-β	
-D-glucopyranosyl]-20- O -[α -L-arabinopyranosyl-(1 \rightarrow 6)-			
β -D-glucopyranosyl]-dammar-24-ene-3 β ,12 β ,20 <i>S</i> -triol			
Product N	Number:	G016002	
CAS Nun	iber:	11021-13-9	
Formula	(Hill metho	d): C53H90O22	
Formula	Weight:	1079.27 AMU	
Purity(H	PLC):	≥98.00 %	
Stock Sta	tus:	In Stock	

Solubility:	10 mM in water	
Mechanisms:	Pathways: Others; Target: Others	
Biological Activity:	Ginsenoside Rb ₂ is a 20(S)-protopanaxadiol glycoside extracted from ginseng, shows	
	potent antioxidant and anticancer biological activities.	
IC50 Value & Target:		
In Vitro:	Treatment of 0.1 to 10µM Rb ₂ promoted the proliferation of MC3T3-E1 cells,	
	improved alkaline phosphatase (ALP) expression, elevated calcium mineralization	
	and mRNA expressions of Alp, Col ₁ a ₁ , osteocalcin (Ocn) and osteopontin (Opn)	
	against oxidative damage induced by H2O2. Importantly, Rb2 reduced the	
	expression levels of receptor activator of nuclear factor kappa-B ligand (RANKL)	
	and IL-6 and inhibited the H ₂ O ₂ -induced production of ROS [1].	
	Ginsenoside-Rb ₂ showed the highest protective activity, although other	
	dammarane-type and oleanolic acid-type ginsenosides also induced a signific	
	protection against HVJ [2].	
	Rb ₂ (3~30 µM), perfused into an adrenal vein for 90 min, inhibited ACh (5.32	
	mM)-evoked CA secretory response in a dose- and time-dependent fashion. Rb ₂ (10	
	$\mu M)$ also time-dependently inhibited the CA secretion evoked by DMPP (100 $\mu M,$ a	
	selective neuronal nicotinic receptor agonist) and high K(+) (56 mM, a direct	
	membrane depolarizer) [3].	
In Vivo:	Multiple administrations of ginsenoside-Rb2 after the intravenous inoculation of	
	B16-BL6 melanoma cells resulted in a significant inhibition of lung metastasis as	
	compared with the untreated control [1].	

References:

[1]. Huang Q, et al. Ginsenoside-Rb₂ displays anti-osteoporosis effects through reducing oxidative damage and bone-resorbing cytokines during osteogenesis. Bone. 2014 Sep;66:306-14.

[2]. Yoo YC, et al. Protective effect of ginsenoside-Rb₂ from Korean red ginseng on the lethal infection of haemagglutinating virus of Japan in mice. J Ginseng Res. 2013 Mar;37(1):80-6.

[3]. Lim HJ, et al. Inhibitory effects of ginsenoside-Rb₂ on nicotinic stimulation-evoked catecholamine secretion. Korean J Physiol Pharmacol. 2014 Oct;18(5):431-9.

Caution: Not fully tested. For research purposes only!

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