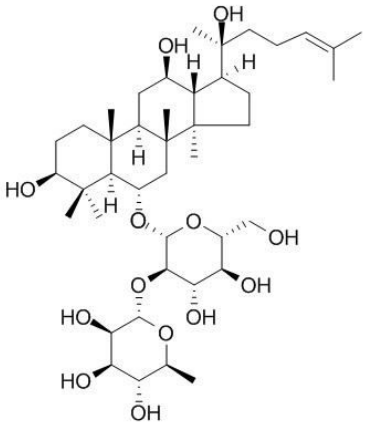
*Natural Products*

ChemFaces

# Ginsenoside Rg2 Datasheet

4th Edition (Revised in July, 2016)

## [ Product Information ]



**Name:** Ginsenoside Rg2

**Catalog No.:** CFN99968

**Cas No.:** 52286-74-5

**Purity:** > 98%

**M.F:** $C_{42}H_{72}O_{13}$

**M.W:** 785.02

**Physical Description:** White powder

**Synonyms:**(2S,3R,4R,5R,6S)-2-[[(2R,3R,4S,5S,6R)-2-[[(6R,10R,12S,14R)-3,12-dihydroxy-17-[(E,2S)-2-hydroxy-6-methyloct-5-en-2-yl]-4,4,10,14-tetramethyl-1,2,3,5,6,7,8,9,11,12,13,15,16,17-tetradecahydrocyclopenta[a]phenanthren-6-yl]oxy]-4,5-dihydroxy-6-(hydroxymethyl)-.

## [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Others.

## [ Source ]

The roots of *Panax ginseng C. A. Mey.*

## [ Biological Activity or Inhibitors]

Ginsenoside Rg2 suppresses the hepatic glucose production via AMPK-induced phosphorylation of GSK3β and induction of SHP gene expression, suggests that it has therapeutic potential for type 2 diabetic patients.[1]

Ginsenoside Rg2 inhibits nicotinic acetylcholine receptor-mediated Na+ influx and channel activity; it also inhibits the 5-HT-induced inward peak current (I5-HT) in dose dependent and reversible manner, the half-inhibitory concentrations (IC50) of ginsenoside Rg2 is 22.3 +/- 4.6 microM, suggests that it might regulate the 5-HT3A receptors that are expressed in Xenopus oocytes.[2]

Ginsenoside Rg2 can reduce LPS-mediated THP-1 monocyte adhesion to HUVEC, in a concentration-dependent manne, it may provide direct vascular benefits with inhibition of leukocyte adhesion into vascular wall thereby providing protection against vascular inflammatory disease.[3]

Ginsenoside Rg2 protects cells against UVB-induced genotoxicity by increasing DNA repair, in possible association with modulation of protein levels involved in p53 signaling pathway.[4]

Ginsenoside Rg2 improves learning and memory through mechanisms related to anti-apoptosis in MID rats, indicates that it may represent a potential neurorestorative treatment strategy for vascular dementia or other ischemic insults.[5]

Ginsenoside Rg2 has protective effects against H2O2-induced injury and apoptosis in H9c2 cells.[6]

## [ Solvent ]

Pyridine, Methanol, Ethanol, Hot water, etc.

## [ HPLC Method ][7]

Mobile phase: Methanol -H2O=65:35 ;

Flow rate: 1.0 ml/min;

Column temperature: 25 ℃;

The wave length of determination: 203 nm.

## [ Storage ]

2-8℃, Protected from air and light, refrigerate or freeze.

## [ References ]


[1] Yuan H D, Kim D Y, Quan H Y, *et al. Chem.-Biol. Interact., 2012, 195(1):35-42.*

[2] Choi S, Lee J H, Oh S, *et al. Mol. Cells, 2003, 15(1):108-13.*

[3] Cho Y S, Chan H K, Ha T S, *et al. Korean J. Physiol. Pham. 2013, 17(2):133-7.*

[4] Ha S E, Shin D H, Kim H D, *et al. N.-S. Arch. Pharmacol., 2010, 382(1):89-101.*

[5] Gong Z H, Liu M X, Gong L L, *et al. Prog. in Modern Biomed., 2010,10(06):1069-75.*

[6] Fu W, Sui D, Yu X, *et al. Int. J. Clin. Exp. Med., 2015, 8(11):19938-47.*

[7] Yu M, Mi H, Jiao L. *China Pharmacist, 2005, 8(12):1017-9.*


## [ Contact ]


**Address**:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

**Email:** info@chemfaces.com
**Tel:** +86-27-84237783
**Fax:** +86-27-84254680
**Web:** www.chemfaces.com
**Tech Support:** service@chemfaces.com