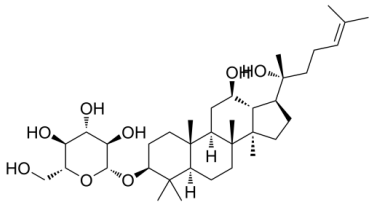
Data Sheet

Product Name:	20(R)-Ginsenoside Rh2
Cat. No.:	CS-0016819
CAS No.:	112246-15-8
Molecular Formula:	$C_{36}H_{62}O_8$
Molecular Weight:	622.87
Target:	Apoptosis; HSV; MMP
Pathway:	Anti-infection; Apoptosis; Metabolic Enzyme/Protease
Solubility:	DMSO : 125 mg/mL (200.68 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

20(R)-Ginsenoside Rh2, a **matrix metalloproteinase (MMP)** inhibitor, acts as a cell antiproliferator. It has anticancer effects via blocking cell proliferation and causing G1 phase arrest. 20(R)-Ginsenoside Rh2 induces apoptosis, and has anti-inflammatory and antioxidative activity[1][2][3]. 20(R)-Ginsenoside Rh2 inhibits the replication and proliferation of **mouse and human gammaherpesvirus 68 (MHV-68)** with an **IC_{50}** of 2.77 μM for **murine MHV-68**[4]. IC50 & Target: MMP[1]

References:

[1]. Choi WY, et al. Anti-inflammatory, antioxidative and matrix metalloproteinase inhibitory properties of 20(R)-ginsenoside Rh2 in cultured macrophages and keratinocytes. J Pharm Pharmacol. 2013 Feb;65(2):310-6.

[2]. Chung KS, et al. Ginsenoside Rh2 induces cell cycle arrest and differentiation in human leukemia cells by upregulating TGF-β expression. Carcinogenesis. 2013 Feb;34(2):331-40.

[3]. Choi S, et al. Ginsenoside Rh2-mediated G1 phase cell cycle arrest in human breast cancer cells is caused by p15 Ink4B and p27 Kip1-dependent inhibition of cyclin-dependent kinases. Pharm Res. 2009 Oct;26(10):2280-8.

[4]. Kang S, et al. Antiviral activity of 20(R)-ginsenoside Rh2 against murine gammaherpesvirus. J Ginseng Res. 2017 Oct;41(4):496-502.

CAIndexNames:

β-D-Glucopyranoside, (3β,12β,20R)-12,20-dihydroxydammar-24-en-3-yl

SMILES:

O[C@H]([C@H]([C@@H]([C@@H](CO)O1)O)O)[C@@H]1O[C@H]2CC[C@]3(C)[C@@]4([H])C[C@@H](O)[C@@H]5[C@@H]([C@](C)(O)CC/C=C(C)\C)CC[C@](C)5[C@@](C)4CC[C@@]3([H])C2(C)C

Caution: Product has not been fully validated for medical applications. For research use only.

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