Proteins

# **Screening Libraries**

# 20(R)-Ginsenoside Rh2

Cat. No.: HY-N1401 CAS No.: 112246-15-8 Molecular Formula: C<sub>36</sub>H<sub>62</sub>O<sub>8</sub> Molecular Weight: 622.87

Target: MMP; Apoptosis; HSV

Pathway: Metabolic Enzyme/Protease; Apoptosis; Anti-infection

Storage: 4°C, protect from light

\* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

**Product** Data Sheet

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 125 mg/mL (200.68 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.6055 mL	8.0274 mL	16.0547 mL
	5 mM	0.3211 mL	1.6055 mL	3.2109 mL
	10 mM	0.1605 mL	0.8027 mL	1.6055 mL

Please refer to the solubility information to select the appropriate solvent.

## **BIOLOGICAL ACTIVITY**

Description	$20(R)$ -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 <sub>50</sub> of 2.77 $\mu$ M for murine MHV-68 $^{[4]}$ .
IC <sub>50</sub> & 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 activi	ity of 20(R)-ginsenoside Rh2 aga	inst murine gammaherpesvirus	s. J Ginseng Res. 2017 Oct;41(4):496-50	2.		
	Caution: Product has not l	been fully validated for med	lical applications. For research use	e only.		
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