碧云天网站 微信公众号

碧云天生物技术/Beyotime Biotechnology
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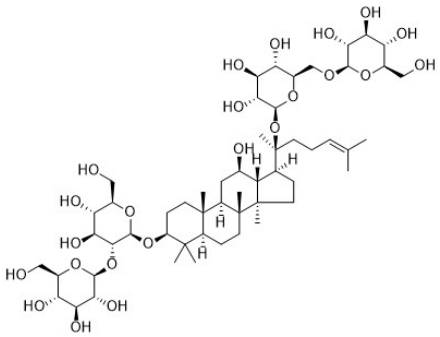
人参皂苷Rb1 (98%, HPLC)

产品编号	产品名称	包装
SM6032-10mM	人参皂苷 Rb1 (98%, HPLC)	10mM×0.2ml
SM6032-25mg	人参皂苷 Rb1 (98%, HPLC)	25mg
SM6032-100mg	人参皂苷 Rb1 (98%, HPLC)	100mg

产品简介:

- **化学信息:**

中文名	人参皂苷Rb1
英文名	Ginsenoside Rb1
中文别名	-
英文别名	Sanchinoside E1; Gypenoside III; Gynosaponin C
来源	人参*Panax ginseng* C. A. Meyer
化合物类型	萜类(Terpenoids)>三萜>达玛烷型四环三萜皂苷
化学式	$C_{54}H_{92}O_{23}$
分子量	1109.29
CAS号	41753-43-9
纯度	98%, HPLC
溶剂/溶解度	DMSO: 100 mg/ml (90.15 mM)
溶液配制	15mg加入1.35ml DMSO，或者每11.09mg加入1ml DMSO，配制成10mM溶液。



- **生物信息**

产品描述	Ginsenoside Rb1, a main constituent of the root of Panax ginseng, inhibits Na+, K+-ATPase activity with an IC50 of 6.3±1.0 μM. Ginsenoside also inhibits IRAK-1 activation and phosphorylation of NF-κB p65.				
信号通路	Autophagy; HSV-1				
靶点	Na^+, K^+-ATPase	IRAK-1	NF-κB p65	-	-
IC_{50}	6.3±1.0 μM	-	-	-	-
体外研究	Rat brain microsomal Na+, K+-ATPase activity is inhibited significantly and rapidly by Ginsenoside Rb1. The IC50 of Ginsenoside Rb1 for Na+, K+-ATPase is 6.3±1.0 μM. The inhibition is enhanced with increasing the concentration of Ginsenoside Rb1 or decreasing that of Na+ and K+. Kinetic analysis reveals that Ginsenoside is an uncompetitive inhibitor with respect to ATP. Ginsenoside Rb1 significantly inhibits the activation of interleukin-1 receptor-associated kinase-1 (IRAK-1), IKK-β, NF-κB, and MAP kinases (ERK, JNK, and p-38); however, interaction between LPS and Toll-like receptor-4, IRAK-4 activation and IRAK-2 activation are unaffected. Ginsenoside Rb1 is an ingredient of a Chinese medicine Panax ginseng. Ginsenoside Rb1 is a major bioactive compound in the regulating pregnane X receptor (PXR)/NF-κB signaling. Ginsenoside Rb1 is the compound with potent anti-inflammatory activity in ginseng saponin extract (GSE). The concentration for Ginsenoside Rb1 (10 μM) is optimized from a preliminary study to ensure sufficient anti-inflammatory activity and without apparent cytotoxicity. Ginsenoside Rb1 significantly reduces TNF-α-induced upregulation of IL-1β and iNOS mRNA levels, and restores the mRNA levels of PXR and CYP3A4 in LS174T cells. TNF-α causes a significant reduction in PXR protein levels and increase in the ratio of phosphorylated to total NF-κB p65, both of which are significantly abrogated by Ginsenoside Rb1.				
体内研究	Ginsenoside Rb1 at the both doses of 30mg/kg and 60mg/kg significantly attenuates the histological lung injury. Ginsenoside Rb1 at the dose of 30mg/kg and 60mg/kg both significantly attenuates the histological intestine injury. Ginsenoside Rb1 (Rb1), an ingredient of a Chinese medicine Panax ginseng, has beneficial effects on mesentery microvascular hyperpermeability induced by				

	Lipopolysaccharide (LPS) and the underlying mechanisms. In some rats, Ginsenoside Rb1 (5 mg/kg per hour) is administrated through the left jugular vein 30 min after LPS infusion. Ginsenoside Rb1 decreases caveolae number in endothelial cells of microvessels. Ginsenoside Rb1 ameliorates microvascular hyperpermeability after the onset of endotoxemia and improves intestinal edema through inhibiting caveolae formation and junction disruption, which is correlated to suppression of NF-κB and Src activation.
临床实验	N/A

参考文献：

1. Cao J, et al. Zhongguo Yao Li Xue Bao. 1990,11(1):10-4.
2. Zhang J, et al. Drug Metab Dispos. 2015,43(8):1181-9.
3. Joh EH, et al. Biochem Pharmacol. 2011,82(3):278-86.
4. Jiang Y, et al. Oxid Med Cell Longev. 2015:843721.
5. Zhang Y, et al. Am J Physiol Gastrointest Liver Physiol. 2014,306(4):G289-300.

包装清单：

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SM6032-10mM	人参皂苷 Rb1 (98%, HPLC)	10mM×0.2ml
SM6032-25mg	人参皂苷 Rb1 (98%, HPLC)	25mg
SM6032-100mg	人参皂苷 Rb1 (98%, HPLC)	100mg
-	说明书	1 份

保存条件：

-20℃保存，至少一年有效。固体粉末4℃保存，至少一个月有效。如果溶于非DMSO溶剂，建议分装后-80℃保存，预计6个月内有效。

注意事项：

- 本产品可能对人体有一定的毒害作用，请注意适当防护，以避免直接接触人体或吸入体内。
- 本产品仅限于专业人员的科学研究用，不得用于临床诊断或治疗，不得用于食品或药品，不得存放于普通住宅内。
- 为了您的安全和健康，请穿实验服并戴一次性手套操作。

使用说明：

1. 收到产品后请立即按照说明书推荐的条件保存。使用前可以在2,000-10,000g离心数秒，以使液体或粉末充分沉降至管底后再开盖使用。
2. 对于10mM溶液，可直接稀释使用。对于固体，请根据本产品的溶解性及实验目的选择相应溶剂配制成高浓度的储备液(母液)后使用。
3. 具体的最佳工作浓度请参考本说明书中的体外、体内研究结果或其它相关文献，或者根据实验目的，以及所培养的特定细胞和组织，通过实验进行摸索和优化。
4. 不同实验动物依据体表面积的等效剂量转换表请参考如下网页：
   https://www.beyotime.com/support/animal-dose.htm

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