碧云天网站 微信公众号

碧云天生物技术/Beyotime Biotechnology
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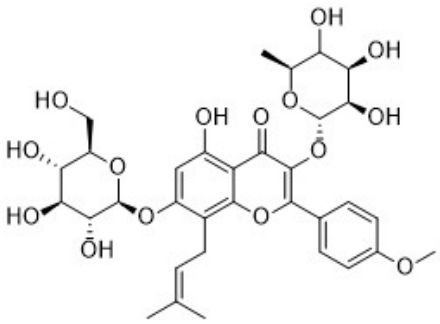
淫羊藿苷(98%, HPLC)

产品编号	产品名称	包装
SM2199-10mM	淫羊藿苷(98%, HPLC)	10mM×0.2ml
SM2199-25mg	淫羊藿苷(98%, HPLC)	25mg
SM2199-100mg	淫羊藿苷(98%, HPLC)	100mg

产品简介:

- **化学信息:**

中文名	淫羊藿苷
英文名	Icariin
中文别名	淫羊藿甙
英文别名	Ieariline
来源	淫羊藿*Epimedium brevicornu* Maxim.
化合物类型	黄酮类(Flavonoids)>黄酮>黄酮醇
化学式	$C_{33}H_{40}O_{15}$
分子量	676.66
CAS号	489-32-7
纯度	98%, HPLC
溶剂/溶解度	DMSO: ≥ 34 mg/ml (50.25 mM); Water: < 0.1 mg/ml (insoluble)
溶液配制	10mg 加入 1.48ml DMSO，或者每 6.77mg 加入 1ml DMSO，配制成10mM溶液。



- **生物信息**

产品描述	Icariin is a flavonol glycoside. Icariin inhibits PDE5 and PDE4 activities with IC50s of 432 nM and 73.50 μM, respectively. Icariin also is a PPARα activator.				
信号通路	Autophagy				
靶点	PDE5	PDE4	PPARα	-	-
IC_{50}	432 nM	73.50 μM	-	-	-
体外研究	Icariin is a cGMP-specific PDE5 inhibitor. The inhibitory effects of Icariin on PDE5 and PDE4 activities are investigated by the two-step radioisotope procedure with 3H-cGMP/3H-cAMP. The potency of selectivity of Icariin on PDE5 (PDE4/PDE5 of IC50) is 167.67 times. Cell viability is measured in the present study to evaluate whether Icariin protect endothelial HUVECs from injuries induced by oxidized low-density lipoprotein (ox-LDL). The exposure of the cells to ox-LDL for 24 h significantly decreases the cell viability compared with control group ($P<0.05$). However, Icariin can inhibit cell injury induced by ox-LDL in a concentration-dependent manner, and has significant difference ($P<0.05$) compared with ox-LDL-simulated group. Icariin protects BMSCs against OGD-induced apoptosis by inhibiting ERs-mediated (ER Stress) autophagy via MAPK signaling pathway.				
体内研究	Icariin is a PPARα activator, induces Cyp4a10 and Cyp4a14, and regulates the mRNA levels of lipid metabolism enzymes and proteins, including fatty acid binding protein, fatty acid oxidation in mitochondria and in peroxisome. Icariin is effective in the treatment of hyperlipidemia. To understand the effect of Icariin on lipid metabolism, effects of Icariin on PPARα and its target genes are investigated. Mice are treated orally with Icariin at doses of 0, 100, 200, and 400 mg/kg, or Clofibrate (500 mg/kg) for five days. Liver total RNA is isolated and the expressions of PPARα and lipid metabolism genes are examined. PPARα and its marker genes Cyp4a10 and Cyp4a14 are induced 2-4 fold by Icariin, and 4-8 fold by Clofibrate. The fatty acid (FA) binding and co-activator proteins Fabp1, Fabp4 and Acsl1 are increased 2-fold. The mRNAs of mitochondrial FA β-oxidation enzymes (Cpt1a, Acat1, Acad1 and Hmgcs2) are increased 2-3 fold. The mRNAs of proximal β				

	-oxidation enzymes (Acox1, Ech1, and Ehhadh) are also increased by Icariin and Clofibrate. The expression of mRNAs for sterol regulatory element-binding factor-1 (Srebf1) and FA synthetase (Fasn) are unaltered by Icariin. The lipid lysis genes Lipe and Pnpla2 are increased by Icariin and Clofibrate. Adult rats are treated orally with Icariin at doses of 0 (control), 50, 100, or 200 mg/kg body weight for 35 consecutive days. The results show that Icariin has virtually no effect on the body weight or organ coefficients of the testes or epididymides. However, 100 mg/kg Icariin significantly increases epididymal sperm counts. In addition, 50 and 100 mg/kg Icariin significantly increase testosterone levels. Furthermore, 100 mg/kg Icariin treatment also affects follicle stimulating hormone receptor (FSHR) and claudin-11 mRNA expression in Sertoli cells. Superoxide dismutase (SOD) activity and malondialdehyde (MDA) levels are measured in the testes; 50 and 100 mg/kg Icariin treatment improve antioxidative capacity, while 200 mg/kg Icariin treatment upregulates oxidative stress.
临床实验	NCT01979133: Bipolar Disorder|Substance Use Disorder, Phase 3; NCT02112123: the Pharmacokinetic Profile of Icariin in Humans, Phase 1.

参考文献：

1. Xin ZC, et al. Asian J Androl. 2003,5(1):15-8.
2. Lu YF, et al. Molecules. 2014,19(11):18179-91.
3. Hu Y, et al. Int J Clin Exp Med. 2015,8(3):3585-9.
4. Chen M, et al. Molecules. 2014,19(7):9502-14.
5. Liu D, et al. Life Sci. 2020,253:117730.

包装清单：

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-	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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