

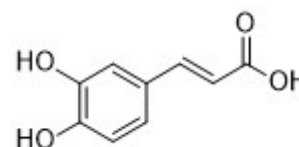
## 咖啡酸(98%, HPLC)

产品编号	产品名称	包装
SM1022-10mM	咖啡酸(98%, HPLC)	10mM×0.2ml
SM1022-25mg	咖啡酸(98%, HPLC)	25mg
SM1022-100mg	咖啡酸(98%, HPLC)	100mg

### 产品简介:

#### ➤ 化学信息:

中文名	咖啡酸
英文名	Caffeic acid
中文别名	-
英文别名	3,4-Dihydroxycinnamic acid
来源	蒲公英 <i>Taraxacum mongolicum</i> Hand.-Mazz.; 柠檬 <i>Citrus limon</i> (L.) Burm. f.
化合物类型	苯丙素类(Phenylpropanoids)>苯丙烯酸类
化学式	C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>
分子量	180.16
CAS号	331-39-5
纯度	98%, HPLC
溶剂/溶解度	DMSO: 100 mg/mL (555.06 mM) Water: < 0.1 mg/mL (insoluble)
溶液配制	2mg加入1.11ml DMSO, 或者每1.80mg加入1ml DMSO, 配制成10mM溶液。



#### ➤ 生物信息

产品描述	Caffeic acid is an inhibitor of both TRPV1 ion channel and 5-Lipoxygenase (5-LO).				
信号通路	-				
靶点	TRPV1	5-LO	-	-	-
IC <sub>50</sub>	-	-	-	-	-
体外研究	Caffeic acid has inhibitory effects on histamine-induced responses and the inhibitory effect of Caffeic acid is gradually increased when the concentration used for pretreatment is increased from 0.1 to 1 mM, similar to typical dose-dependent responses. Pretreatment of HEK293T-TRPV1 cells with 1 mM Caffeic acid results in significant inhibition of capsaicin-induced responses. When lower concentration of Caffeic acid is used, the inhibitory effect for capsaicin-induced responses is less evident. Calcium imaging experiments show that Caffeic acid incubation results in significant inhibition in histamine-sensitive dorsal root ganglion (DRG) neurons. Pretreatment with Caffeic acid (1 mM) results in a significant decrease in the percentage of responsive DRG neurons to histamine application from 12.5% to 2.1%. Pretreatment with 1 mM Caffeic acid dramatically blocks the allylisothiocyanate (AITC)-induced intracellular calcium increase in TRPA1-expressing cells. Caffeic acid is also able to block the AITC-induced activation of TRPA1.				
体内研究	Mice pretreated with Caffeic acid (500 mg/kg) exhibit significantly less histamine-induced scratching (30.50±10.87 bouts/1 h, n=6). It is further found that the lower dose of Caffeic acid (100 mg/kg) is not significantly effective in terms of anti-scratching effects in histamine-induced scratching, although there appears to be a tendency of reduction (49.40±12.35 bouts/1 h, n=5). The chloroquine induced scratching is significantly inhibited by pretreatment with 500 mg/kg of Caffeic acid (161.6±31.42 bouts/1 h, n=5). Caffeic acid significantly reduces the expression of 5-LO mRNA (P<0.01) dose-dependently in hippocampus. Compare with the ischemia-reperfusion (I/R) non-treated group, 5-LO protein expression is significantly reduced in the I/R-Caffeic acid group (P<0.05 or P<0.01), especially in the I/R-Caffeic acid group (50 mg/kg). Compare with the I/R				

	non-treated group, the latency to find platform is significantly shortened in low- and high-dose Caffeic acid groups, the shortened platform latency is most evident in the I/R- Caffeic acid group (50 mg/kg) (P<0.01). In the low-dose Caffeic acid group, cell injury is still marked, the pyknosis ratio is (63.6 ± 2.8)%, whereas in the high-dose Caffeic acid group, hippocampal neuron karyopyknosis is significantly reduced and the pyknosis ratio is (13.3±3.0)%.
临床实验	NCT02556814: Immune Thrombocytopenia, Phase 4; NCT02351622: Immune Thrombocytopenia, Phase 3; NCT04648917: Esophagus Cancer, Stage III, Phase 3.

#### 参考文献:

1. Pradhananga S, et al. Eur J Pharmacol. 2015,762:313-21.
2. Liang G, et al. Behav Brain Funct. 2015,11:18.

#### 包装清单:

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SM1022-100mg	咖啡酸(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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