

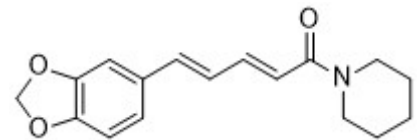
胡椒碱(98%, HPLC)

产品编号	产品名称	包装
SM4064-10mM	胡椒碱(98%, HPLC)	10mM×0.2ml
SM4064-25mg	胡椒碱(98%, HPLC)	25mg
SM4064-100mg	胡椒碱(98%, HPLC)	100mg

产品简介:

➤ 化学信息:

中文名	胡椒碱
英文名	Piperine
中文别名	胡椒酰胺
英文别名	-
来源	卡瓦胡椒 <i>Piper methysticum</i> Forst
化合物类型	生物碱(Alkaloids)>哌啶类生物碱
化学式	C ₁₇ H ₁₉ NO ₃
分子量	285.34
CAS号	94-62-2
纯度	98%, HPLC
溶剂/溶解度	DMSO: 50 mg/ml (175.23 mM)
溶液配制	5mg加入1.75ml DMSO, 或者每2.85mg加入1ml DMSO, 配制成10mM溶液。



➤ 生物信息

产品描述	Piperine, a natural alkaloid isolated from <i>Piper nigrum</i> L, inhibits P-glycoprotein and CYP3A4 activities with an IC ₅₀ value of 61.94±0.054 μg/ml in HeLa cell.				
信号通路	-				
靶点	P-glycoprotein	CYP3A4	-	-	-
IC ₅₀	61.94±0.054 μg/ml	61.94±0.054 μg/ml	-	-	-
体外研究	Piperine has shown to possess in vitro cytotoxic activity and in silico studies. The IC ₅₀ value is found to be 61.94±0.054 μg/ml and in silico studies, it has more number of hydrogen bonds with minimum binding and docking energy and may be considered as inhibitor of EGFR tyrosine kinase. Piperine has been found to have immunomodulatory, anti-oxidant, anti-asthmatic, anti-carcinogenic, anti-inflammatory, anti-ulcer, and anti-amoebic properties. Piperine could enhance the bioavailabilities of other drugs including rosuvastatin, peurarin and docetaxel (DOX) via inhibition of CYP3A and P-glycoprotein activity.				
体内研究	At the dose of 3.5 mg/kg, the bioavailability of piperine is calculated to be 25.36%. Its AUC _{0→t} is unproportionally increased with doses, indicating a potential non-linear pharmacokinetics profile of piperine. It is found that the AUC _{0→t} and C ₀ of docetaxel and t _{1/2} of piperine are significantly increased after their combination use, suggesting potential enhanced bioavailability of not only docetaxel but also piperine, which may lead to the overall enhanced pharmacological effects. The phosphorylation of I-κB, p65, p38, ERK, and JNK is inhibited by piperine in a dose-dependent manner, indicating that piperine may be a potential anti-inflammatory drug both in endometritis and in other <i>S. aureus</i> -induced diseases.				
临床实验	NCT01383694: Deglutition Disorders, Phase 1 Phase 2; NCT02598726: Bladder Spasm Malignant Neoplasm Pain Urinary Urgency, Phase 1.				

参考文献:

- Paarakh PM, et al. In Silico Pharmacol. 2015,3(1):9.

- Meghwali M, et al. Phytother Res. 2013,27(8):1121-30.
- Li C, et al. J Pharm Biomed Anal. 2016,128:286-93.
- Zhai WJ, et al. Evid Based Complement Alternat Med. 2016:8597208.

包装清单:

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SM4064-100mg	胡椒碱(98%, HPLC)	100mg
-	说明书	1份

保存条件:

-20°C保存, 至少一年有效。固体粉末4°C保存, 至少一个月有效。如果溶于非DMSO溶剂, 建议分装后-80°C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:

- 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。
- 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。
- 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。
- 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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