

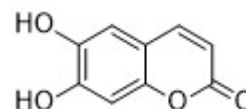
## 秦皮乙素(98%, HPLC)

产品编号	产品名称	包装
SM1150-10mM	秦皮乙素(98%, HPLC)	10mM×0.2ml
SM1150-25mg	秦皮乙素(98%, HPLC)	25mg
SM1150-100mg	秦皮乙素(98%, HPLC)	100mg

### 产品简介:

#### ➤ 化学信息:

中文名	秦皮乙素
英文名	Esculetin
中文别名	-
英文别名	6,7-Dihydroxycoumarin; Aesculetin; Cichorigenin; Esculetol
来源	白蜡树 <i>Fraxinus chinensis</i> Roxb; 续随子 <i>Euphorbia lathyris</i> L.
化合物类型	苯丙素类(Phenylpropanoids) > 香豆素类(Coumarins)
化学式	C <sub>9</sub> H <sub>6</sub> O <sub>4</sub>
分子量	178.14
CAS号	305-01-1
纯度	98%, HPLC
溶剂/溶解度	DMSO: 33 mg/ml (185.2 mM) Ethanol: <1 mg/ml Water: <1 mg/ml
溶液配制	2mg加入1.12ml DMSO, 或者每1.78mg加入1ml DMSO, 配制成10mM溶液。



#### ➤ 生物信息

产品描述	Esculetin is an active ingredient extracted mainly from the bark of <i>Fraxinus rhynchophylla</i> . Esculetin inhibits platelet-derived growth factor (PDGF)-induced airway smooth muscle cells (ASMCs) phenotype switching through inhibition of PI3K/Akt pathway. Esculetin has antioxidant, antiinflammatory, and antitumor activities.				
信号通路	PI3K/Akt; Cell cycle; Apoptosis				
靶点	Caspase-3	Caspase-9	-	-	-
IC <sub>50</sub>	-	-	-	-	-
体外研究	Esculetin decreases cell proliferation by inducing G1 phase cell cycle arrest, which is associated with the down-regulation of cyclin D1/CDK4 and cyclin E/CDK2 complexes by the activation of p27KIP. Esculetin significantly inhibits proliferation of HCC cells in a concentration- and time-dependent manner and with an IC <sub>50</sub> value of 2.24 mM. It blocks the cell cycle at S phase and induces apoptosis in SMMC-7721 cells with significant elevation of caspase-3 and caspase-9 activity, but does not affect caspase-8 activity. Esculetin treatment results in the collapse of mitochondrial membrane potential in vitro and in vivo accompanied by increased Bax expression and decreased Bcl-2 expression at both transcriptional and translational levels. Esculetin exerts in vitro and in vivo antiproliferative activity in hepatocellular carcinoma, and its mechanisms involved initiation of a mitochondrial-mediated, caspase-dependent apoptosis pathway.				
体内研究	Esculetin significantly decreases tumor growth in mice bearing Hepa1-6 cells. Tumor weight is decreased by 20.33, 40.37, and 55.42% with increasing doses of esculetin. Of note, esculetin has no obvious toxicity in this animal study. In a rat experimental model of inflammatory bowel disease induced by trinitrobenzenesulfonic acid, esculetin at the dose of 5 mg/kg displays intestinal anti-inflammatory activity.				

临床实验	N/A
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### 参考文献:

1. Xie C, et al. Phytother Res. 2019,33(11):3008-3015.
2. Park SS, et al. Oncol Rep. 2011,25(1):223-30.
3. Wang J, et al. Braz J Med Biol Res. 2015,48(3):245-53.
4. A. Witaičenis, et al. European Journal of Inflammation. 2013,11(2):433-446.

### 包装清单:

产品编号	产品名称	包装
SM1150-10mM	秦皮乙素(98%, HPLC)	10mM×0.2ml
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SM1150-100mg	秦皮乙素(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于管底后再开盖使用。
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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