

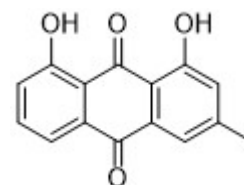
## 大黄酚(98%, HPLC)

产品编号	产品名称	包装
SM3017-10mM	大黄酚(98%, HPLC)	10mM×0.2ml
SM3017-25mg	大黄酚(98%, HPLC)	25mg
SM3017-100mg	大黄酚(98%, HPLC)	100mg

### 产品简介:

#### ➤ 化学信息:

中文名	大黄酚
英文名	Chrysophanol
中文别名	大黄根酸
英文别名	Chrysophanic acid; 1,8-Dihydroxy-3-methylantraquinone
来源	掌叶大黄 <i>Rheum palmatum</i> L.; 鸡爪大黄 <i>Rheum tanguticum</i> Maxim. ex Regel; 决明 <i>Cassia tora</i> Linn.
化合物类型	醌类(Quinones)>蒽醌>大黄素型蒽醌
化学式	C <sub>15</sub> H <sub>10</sub> O <sub>4</sub>
分子量	254.24
CAS号	481-74-3
纯度	98%, HPLC
溶剂/溶解度	DMSO: 5 mg/ml (19.66 mM), warmed; Water: <1 mg/ml
溶液配制	5mg加入1.97ml DMSO, 或者每2.54mg加入1ml DMSO, 配制成10mM溶液。



#### ➤ 生物信息

产品描述	Chrysophanol (Chrysophanic acid) is a natural anthraquinone, which inhibits EGF-induced phosphorylation of EGFR and suppresses activation of AKT and mTOR/p70S6K.				
信号通路	EGFR/mTOR				
靶点	Cell Proliferation	AKT	mTOR /p70S6K	ERK	-
IC <sub>50</sub>	80 and 120 μM	-	-	-	-
体外研究	Chrysophanol (Chrysophanic Acid) blocks proliferation of colon cancer cells by inhibiting EGFR/mTOR pathway. Chrysophanol, a natural anthraquinone, has anticancer activity in EGFR-overexpressing SNU-C5 human colon cancer cells. Chrysophanol treatment in SNU-C5 cells inhibits EGF-induced phosphorylation of EGFR and suppresses activation of downstream signaling molecules, such as AKT, extracellular signal-regulated kinase (ERK) and the mammalian target of Rapamycin (mTOR)/ribosomal protein S6 kinase (p70S6K). Chrysophanol (80 and 120 μM) significantly blocks cell proliferation when combined with the mTOR inhibitor, Rapamycin. Chrysophanol inhibits EGF-induced phosphorylation of EGFR and suppresses activation of AKT and mTOR/p70S6K, and significantly blocks cell proliferation. Chrysophanol dose dependently decreases CCK-8 and the viability of EGFR-overexpressing SNU-C5 cells. Chrysophanol treatment dose-dependently decreases EGF induced phosphorylation of EGFR at Tyr1068. Chrysophanol (80 and 120 μM) reduces the phosphorylation levels of mTOR at Ser2448. Chrysophanol (80 and 120 μM) also decreases the phosphorylation levels of p70S6K at Thr389. Chrysophanol inhibits EGF-induced EGFR activation and suppresses activation of the downstream signaling molecules, AKT and mTOR/p70S6K. Chrysophanol (CA) inhibits lipid accumulation in 3T3-L1 adipocytes. Chrysophanol down-regulates adipogenic factors in 3T3-L1 adipocytes. Chrysophanol induces thermogenic factors in primary cultured brown adipocytes. Chrysophanol suppresses adipogenesis				

	and induces thermogenesis via activation of AMPK pathway.
体内研究	Chrysophanol (CA) improves HFD-induced obesity in C57BL/6 Mice. The in vivo performance of Chrysophanol is performed in male C57BL/6J mice to determine the efficacy of administered Chrysophanol. Mice fed the HFD gained significantly more weight than those fed the standard diet mice. On the other hand, weight gain of Chrysophanol group is significantly less than with the untreated HFD. Mice in the HFD-group gained $23.92 \pm 1.74$ g of weight, while those in the Chrysophanol group gained $16.72 \pm 2$ g of weight after 16 weeks.
临床实验	N/A

#### 参考文献:

1. Lee MS, et al. Phytother Res. 2011,25(6):833-7.
2. Lim H, et al. Front Pharmacol. 2016,7:476.

#### 包装清单:

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SM3017-100mg	大黄酚(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:

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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