碧云天网站 微信公众号

碧云天生物技术/Beyotime Biotechnology
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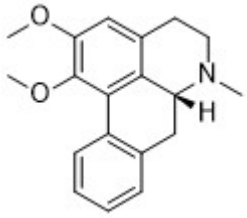
荷叶碱(98%, HPLC)

产品编号	产品名称	包装
SM4084-10mM	荷叶碱(98%, HPLC)	10mM×0.2ml
SM4084-5mg	荷叶碱(98%, HPLC)	5mg
SM4084-25mg	荷叶碱(98%, HPLC)	25mg
SM4084-100mg	荷叶碱(98%, HPLC)	100mg

产品简介:

- **化学信息:**

中文名	荷叶碱
英文名	Nuciferine
中文别名	-
英文别名	Sanjoinine E
来源	莲*Nelumbo nucifera* Gaertn.
化合物类型	生物碱(Alkaloids)>异喹啉类生物碱
化学式	$C_{19}H_{21}NO_2$
分子量	295.38
CAS号	475-83-2
纯度	98%, HPLC
溶剂/溶解度	Water: < 0.1 mg/ml (insoluble); DMSO: 11.11 mg/ml (37.61 mM)
溶液配制	5mg加入1.69ml DMSO，或者每2.95mg加入1ml DMSO，配制成10mM溶液。



- **生物信息**

产品描述	Nuciferine is an antagonist at 5-HT2A (IC50=478 nM), 5-HT2C (IC50=131 nM), and 5-HT2B (IC50=1 μM), an inverse agonist at 5-HT7 (IC50=150 nM), a partial agonist at D2 (EC50=64 nM), D5 (EC50=2.6 μM) and 5-HT6 (EC50=700 nM), an agonist at 5-HT1A (EC50=3.2 μM) and D4 (EC50=2 μM) receptor.				
信号通路	-				
靶点	5-HT_{2B} Receptor	D_4 Receptor	D_5 Receptor	5-HT_{1A} Receptor	D_2 Receptor
IC_{50}	1 μM	2 μM	2.6 μM	3.2 μM	64 nM
体外研究	Nuciferine is a partial agonist at DD2 receptor with an activity (Emax=67% of dopamine) similar to aripiprazole (Emax=50% of dopamine). In line with its partial agonist activity, Nuciferine inhibited dopamine-induced activation of Gi with a potency similar to clozapine (Nuciferine KB=62 nM; Clozapine KB=20 nM) as determined via Schild regression analysis. The natural product Nuciferine acts as an effective inhibitor of adult worm motility. Nuciferine is effective at inhibiting both basal and 5-HT evoked motility of adult schistosomes. Nuciferine inhibits Sm.5HTRL and schistosomule with 0.24±0.04 and 0.62±0.22 μM, respectively.				
体内研究	In rodent models relevant to antipsychotic drug action, Nuciferine blocks head-twitch responses and discriminative stimulus effects of a 5-HT2A agonist, substituted for clozapine discriminative stimulus, enhanced amphetamine induced locomotor activity, inhibited phencyclidine (PCP)-induced locomotor activity, and rescued PCP-induced disruption of prepulse inhibition without induction of catalepsy. In the presence of 1 or 3 mg/kg Nuciferine, cumulative PCP doses produce similar substitution to PCP alone. In the clozapine-trained animals, a dose-dependent substitution for 1.25 mg/kg clozapine is seen at 10 mg/kg Nuciferine (80.63% drug lever responding), with an ED50 value of 5.42 mg/kg (95% CI 3.09-9.48 mg/kg) while the lower doses tested (0.1 mg/kg-3 mg/kg) fails to produce substitution for clozapine’s discriminative cue. In				

	addition to a high percentage of responding on the clozapine-appropriate lever, 10 mg/kg Nuciferine also produces significant rate suppression as compared to vehicle control points ($p<0.001$).
临床实验	N/A

参考文献：

1. Farrell MS, et al. PLoS One. 2016,11(3):e0150602.
2. Chan JD, et al. Int J Parasitol Drugs Drug Resist. 2016,6(3):364-370.

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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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