碧云天网站 微信公众号

碧云天生物技术/Beyotime Biotechnology
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网址: http://www.beyotime.com

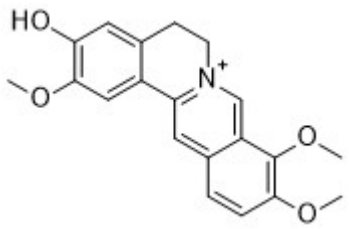
药根碱(98%, HPLC)

产品编号	产品名称	包装
SM4148-10mM	药根碱(98%, HPLC)	10mM×0.2ml
SM4148-5mg	药根碱(98%, HPLC)	5mg
SM4148-25mg	药根碱(98%, HPLC)	25mg
SM4148-100mg	药根碱(98%, HPLC)	100mg

产品简介:

- **化学信息:**

中文名	药根碱
英文名	Jatrorrhizine
中文别名	-
英文别名	Neprotine; Yatrorizine; Jateorhizine; Dehydrocorypalmine
来源	黄连*Coptis chinensis* Franch.；十大功劳*Mahonia fortunei* (Lindl.) Fedde
化合物类型	生物碱(Alkaloids)>异喹啉生物碱>小檗碱型生物碱
化学式	$C_{20}H_{20}NO4^+$
分子量	338.38
CAS号	3621-38-3
纯度	98%, HPLC
溶剂/溶解度	DMSO: 61 mg/mL (180.3 mM)
溶液配制	5mg加入1.48ml DMSO，或者每3.38mg加入1ml DMSO，配制成10mM溶液。



- **生物信息**

产品描述	Jatrorrhizine is an alkaloid isolated from Coptis chinensis with neuroprotective, antimicrobial, antiplasmodial and antioxidant activities. Jatrorrhizine is a potent and orally active inhibitor of AChE (IC50=872 nM) over >115-fold selectivity for BuChE. Jatrorrhizine reduces uptake of serotonin (5-HT) and norepinephrine (NE) via inhibition of uptake-2 transporters.				
信号通路	-				
靶点	AChE	5-HT	NE	-	-
IC_{50}	872 nM	-	-	-	-
体外研究	Jatrorrhizine has antiplasmodial and antiamoebic activity, it against Plasmodium falciparum and E. histolytica with IC50 values of 3.15 and 82.7 μM, respectively. The hOCT2 (organic cation transporter 2), hOCT3, and PMAT (plasma membrane monoamine transporter) are capable of transporting monoamine neurotransmitters in the brain. Jatrorrhizine has the inhibitory potency of jatrorrhizine on 5-HT and NE uptake in hOCT2-, hOCT3-, and PMAT-transfected cells. Jatrorrhizine strongly inhibits PMAT-mediated MPP+ uptake with an IC50 value of 1.05 μM and reduces 5-HT and NE uptake mediated by hOCT2, hOCT3, and hPMAT with IC50 values of 0.1-1 μM (for OCT2 and OCT3) and 1-10 μM (for PMAT). Clearance of neurotransmitters released into the synaptic cleft is defined by two distinct processes. Uptake-1, the common target of current applied antidepressants, is comprised of the serotonin transporter (SERT), the “SERT”, had a high affinity but low capacity to take up [3H]5-HT. Uptake-2 transporters are an important supplementary regulation system in monoamine clearancethought to be the “NET”, has low affinity but high capacity to take up [3H]5-HT into brain slices. Jatrorrhizine significantly inhibited 5-HT and NE uptake in synaptosomes at 25 μM and 50 μM.				

体内研究	Jatrorrhizine (intraperitoneal injection; 5, 10, 20 mg/kg) can significantly reduce the duration of immobility when compared with vehicle control group in tail suspension test (TST).
临床实验	N/A

参考文献：

1. Sun S, et al. Xenobiotica. 2019,49(10):1237-1243.
2. Xiaofei Jiang, et al. Journal of Chemistry. 2017:3261520.
3. C W Wright, et al. J Nat Prod. 2000,63(12):1638-40.

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SM4148-100mg	药根碱(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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