

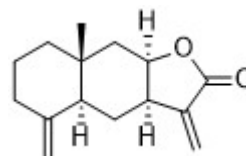
异土木香内酯(98%, HPLC)

产品编号	产品名称	包装
SM9020-10mM	异土木香内酯(98%, HPLC)	10mM×0.2ml
SM9020-5mg	异土木香内酯(98%, HPLC)	5mg
SM9020-25mg	异土木香内酯(98%, HPLC)	25mg
SM9020-100mg	异土木香内酯(98%, HPLC)	100mg

产品简介:

➤ 化学信息:

中文名	异土木香内酯
英文名	Isoalantolactone
中文别名	异阿兰内酯
英文别名	Isohelenin; (+)-Isoalantolactone
来源	土木香 <i>Inula helenium</i> L.
化合物类型	内酯(Lactones)
化学式	C ₁₅ H ₂₀ O ₂
分子量	232.32
CAS号	470-17-7
纯度	98%, HPLC
溶剂/溶解度	DMSO: 50 mg/ml (215.22 mM)
溶液配制	3mg加入1.29ml DMSO, 或者每2.32mg加入1ml DMSO, 配制成10mM溶液。



➤ 生物信息

产品描述	Isoalantolactone is an apoptosis inducer, which also acts as an alkylating agent.				
信号通路	Apoptosis				
靶点	K562	Growth Inhibition	-	-	-
IC ₅₀	1.2 μM	40 μM	-	-	-
体外研究	Isoalantolactone exhibits good cytotoxic activity against the K562 human leukaemia cell line (IC ₅₀ =1.2 μM). The cytotoxic effect of Isoalantolactone on pancreatic carcinoma is evaluated using PANC-1, BxPC3 and HPAC cell lines. Treatment with Isoalantolactone for 24 h inhibits PANC-1 cell growth in a dose-dependent manner. The inhibition rate is above 90% at 80 μM and the concentration to achieve 50% growth inhibition (IC ₅₀) is 40 μM. A similar trend in loss of cell viability is observed in BxPC3 and HPAC cells on Isoalantolactone treatment with IC ₅₀ values 43 and 48 μM respectively. Pretreatment with 3 mM N-Acetyl Cysteine (NAC), a specific ROS scavenger, restores the viability of cells indicating that Isoalantolactone exerts cytotoxic effect on cell viability through ROS generation.				
体内研究	The acute and chronic toxic effects of Isoalantolactone in CD1 mice are assessed by measuring the changes in body weight, blood biochemistry and histopathology of liver and kidneys in comparison with control groups. Isoalantolactone is well tolerated by mice and no mortality or any sign of pharmacotoxicity are found at a dose of 100 mg/kg during both experimental periods (7 & 30 days). Body weight gains and food consumption are comparable for control and treated mice during both experimental periods and there were no drug-related changes in histopathological and blood biochemistry parameters. The histopathological changes in liver and kidneys are assessed using hematoxylin and eosin staining and correlated with liver and renal function biomarkers. No obvious morphological changes are observed in liver and kidney structures of				

	control and treatment groups. There is a slight increase in serum alanine aminotransferase (ALT) and aspartate aminotransferase (AST) level of treatment group at dose day 7 but this increase is not significantly different ($P<0.05$) from control group. A significant increase in total bilirubin (TBIL) concentration is found in treatment group (1.43 ± 0.26 vs 0.76 ± 0.12 in control, $P<0.05$) at dose day 7. Similarly the changes in renal function biomarkers are not significantly different ($P<0.05$) in the serum of control and treatment groups at dose day 7. The concentration of creatinine (Cr) slightly increases whereas concentration of blood urea nitrogen (BUN) slightly decreases in treatment group. The serum level of AST, ALT, TBIL and BUN slightly decreases when mice are injected with Isoalantolactone at a dose of 100 mg/kg for 30 days.
临床实验	N/A

参考文献:

1. Lawrence NJ, et al. Bioorg Med Chem Lett. 2001,11(3):429-31.
2. Khan M, et al. Int J Biol Sci. 2012,8(4):533-47.

包装清单:

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-	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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