

论文

新的非肽类内皮素拮抗剂:咖啡酸、阿魏酸

王峰;刘敏;杨连春;王京媛;吕敏;李菲

中国人民解放军空军总医院,北京100036

摘要:

目的:研究桂皮酸类化合物咖啡酸和阿魏酸对内皮素(endothelin 1,ET-1)生物效应的拮抗作用。方法:体内ET 1iv 致小鼠急性死亡、体外血管平滑肌细胞培养、主动脉条收缩试验和ET 受体结合试验。结果:咖啡酸和阿魏酸(ip)能剂量依赖性地显著延长ET-1 致小鼠急性死亡时间,在离体器官可观察到咖啡酸与阿魏酸能拮抗ET-1的缩血管效应;放射性受体 配体结合实验表明,咖啡酸和阿魏酸可竞争性地抑制ET-1 与其受体的结合。结论:咖啡酸和阿魏酸为新的非肽类ET 拮抗剂。

关键词: 内皮素 咖啡酸 阿魏酸 内皮素拮抗剂

A NEW KIND OF NON PEPTIDE ENDOTHELIN ANTAGONISTS: CAFFEIC ACID AND FERULIC ACID

Wang Feng; Liu Min Yang Lianchun; Wang Jingyuan Lü Min and Li Fei

Abstract:

AIM: To evaluate the effects of caffeic acid and ferulic acid on the biological responses induced by endothelin -1(ET-1) and study the mechanism of their antagonistic actions on endothelin-1. METHODS: Acute death of mouse induced by iv ET-1, isolated artery ring constrictions and rabbit aortic vascular smooth cells (RAVSMC) proliferation induced by ET-1 were used to observe the antagonistic effects of caffeic acid and ferulic acid on ET-1. Also, the ¹²⁵I-ET-1 binding with 3T3 cells were employed to measure the effects of caffeic acid and ferulic acid on binding potency. RESULTS: Caffeic acid and ferulic acid were shown to increase the mouse survival time induced by ET-1 iv administration and decrease the vasoconstrictions of isolated aortic rings. Both acids were found to bind competitively with ¹²⁵I-ET-1 on 3T3 cells. CONCLUSION: Caffeic acid and ferulic acid are a new kind of non peptide endothelin antagonists.

Keywords: caffeic acid ferulic acid enothelin-1 antagonists enothelin-1

收稿日期 1999-04-26 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者:

作者简介:

参考文献:

本刊中的类似文章

1. 朱海波;耿美玉;管华诗;张均田.海洋硫酸多糖DPS对大鼠血管平滑肌细胞增殖的影响及其机制的探讨[J]. 药学报, 2001,36(1): 19-24
2. 费改顺;山丽梅;刘淑红;梁远军;刘克良;汪海.新型肽类化合物对内皮素受体的拮抗作用及其心血管药理活性的评

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(158KB)
- ▶ [HTML全文]
- ▶ 参考文献

服务与反馈

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ 引用本文
- ▶ Email Alert
- ▶ 文章反馈
- ▶ 浏览反馈信息

本文关键词相关文章

- ▶ 内皮素
- ▶ 咖啡酸
- ▶ 阿魏酸
- ▶ 内皮素拮抗剂

本文作者相关文章

- ▶ 王峰
- ▶ 刘敏
- ▶ 杨连春
- ▶ 王京媛
- ▶ 吕敏
- ▶ 李菲

PubMed

- ▶ Article by
- ▶ Article by
- ▶ Article by
- ▶ Article by
- ▶ Article by
- ▶ Article by

价[J]. 药学学报, 2002,37(8): 593-597

3. 张世红;魏尔清;朱朝阳;陈忠;张松法.白三烯受体拮抗剂ONO-1078对内皮素-1诱导的大鼠局灶性脑缺血的保护作用[J]. 药学学报, 2004,39(1): 1-1

4. 樊再雯;张珍祥;徐永健.内皮素对大鼠肺动脉平滑肌细胞膜钾通道的影响[J]. 药学学报, 2004,39(1): 9-9

5. 张晓晖;张斌;龚培力;曾繁典.莲房原花青素对大鼠心肌缺血再灌注损伤的保护作用[J]. 药学学报, 2004,39(6): 401-405

6. 樊再雯;张珍祥;徐永健.内皮素对慢性低氧大鼠肺动脉平滑肌细胞膜钾通道活性的影响[J]. 药学学报, 2005,40(4): 327-331

7. 高美娟 刘 明 李 波 李明龙 卞丽香 于桂娜.羟苯磺酸钙对早期糖尿病肾病大鼠肾脏的保护作用[J]. 药学学报, 2009,44(2): 126-133

文章评论 (请注意:本站实行文责自负, 请不要发表与学术无关的内容!评论内容不代表本站观点.)

反馈人	<input type="text"/>	邮箱地址	<input type="text"/>
反馈标题	<input type="text"/>	验证码	<input type="text" value="1029"/>