

论文

没食子酸丙酯对大鼠肝线粒体肿胀和脂质过氧化物形成的作用

王继峰;张榕榕;路雪雅;陈文为

北京中医学院中心实验室生化组

摘要:

关键词: 没食子酸丙酯 线粒体肿胀 脂质过氧化物

PROTECTIVE EFFECT OF PROPYL GALLIC ACID ON SWELLING AND LIPID PEROXIDATION OF RAT LIVER MITOCHONDRIA

WANG Ji-Feng; ZHANG Xiao-Rong; Lu Xue-Ya and CHEN Wen-Wei

Abstract:

The extract of Radix Paeonia rubra, a common traditional Chinese drug was shown to inhibit platelet aggregation and oxidative phosphorylation while increasing fluidity of rat liver mitochondria. This paper reports the effects of propyl gallic acid, one component isolated from Radix Paeonia, on rat liver mitochondrial swelling and malondialdehyde (MDA) formation. Experiments on the formation MD and swelling of rat liver mitochondria induced by Fe²⁺ (5 μM) and vit C (0.1 mM) with or without the drug was carried out in vitro. In order to study the protective effects of drug against the damage of the mitochondria. The results show that propyl gallic acid inhibited the swelling of mitochondria and MDA formation. Fe²⁺ and vit C were also shown to reduce ANS fluorescence in mitochondrial suspension. It is inferred that the cross reaction of MDA with biological macromolecules and the decrease of surface potential of mitochondrial membrane are factors that induced damage to the function of mitochondria. This compound was shown to be unable to inhibit MDA damage to the mitochondria. However, the anti-oxidative and antismelling action of the drug on mitochondria may be associated with the Pharmacological effects of Radix Paeonia rubra.

Keywords: Mitochondria Swelling Lipid peroxidation Propyl gallic acid

收稿日期 1985-10-25 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. 路雪雅;陈文为.没食子酸丙酯对乙醇诱导鼠肝急性损伤的保护作用[J]. 药学报, 1987,22(8): 586-590
2. 郑关毅;陈晓春;杜建2;刘昌云;方芳;张静;黄天文;曾育琦.没食子酸丙酯对脑缺血大鼠神经元SAPK/JNK及p38MAPK激活的抑制作用[J]. 药学报, 2006,41(6): 548-554
3. 刘崇悌;张庆基;杨学锋.维生素D₂的增溶与稳定性的研究[J]. 药学报, 1983,18(12): 945-949
4. 刘崇悌.吐温80与抗氧化剂没食子酸丙酯间相互作用的研究[J]. 药学报, 1982,17(2): 154-157

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.)

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(283KB)
- ▶ [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

- ▶ 没食子酸丙酯
- ▶ 线粒体肿胀
- ▶ 脂质过氧化物

本文作者相关文章

- ▶ 王继峰
- ▶ 张榕榕
- ▶ 路雪雅
- ▶ 陈文为

PubMed

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

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="8105"/>