

论文

肝靶向抗病毒药NGA-ACV的制备及其趋肝性

范举正;李铜铃;庞其捷;管昌田;何勇;粟宽源

华西医科大学药学院, 成都610041;***空军广州医院肝病研究室

摘要:

以无唾液酸糖蛋白受体(asialoglycoprotein receptor,ASGP-R)的特异性配体——半乳糖基拟糖白蛋白(neoglycoalbumin,NGA)为载体,通过丁二酰基桥将抗病毒药无环鸟苷(acyclovir,ACV)与NGA偶联,得到肝靶向抗病毒药NGA-ACV。差热分析和高效液相色谱分析结果表明,NGA-ACV是共价键偶联物,且在血液中稳定性很好。将偶联物用¹³¹I标记后进行家兔放射性显像比较研究。结果,高、低药密度NGA-ACV的肝脏放射性分别是全身放射性的81.6%和86.6%,其趋肝性无明显差别。研究小鼠体内高药密度¹³¹I-NGA-ACV的分布,在5min时肝脏放射性达到峰值,为注入量的81.7±10.4%。受体竞争抑制实验表明NGA-ACV的肝靶向机理为受体介导的主动靶向过程。初步体外抗乙肝病毒比较研究表明,NGA-ACV较ACV的抗病毒剂量有明显降低。

关键词: 无唾液酸糖蛋白受体 半乳糖基拟糖白蛋白 无环鸟苷 肝靶向性 抗肝炎病毒

PREPARATION OF HEPATIC TARGETING ANTIVIRUS AGENT NGA-ACV AND ITS TARGETING PROPERTY

JZ Fan;TL Li;QJ Pang;CT Guan;Y He and KY Su

Abstract:

Neoglycoalbumin (NGA), a special ligend of asialoglycoprotein receptor on the hepatocyte, was linked via a butanediacyl bridge to acyclovir to form a conjugate NGA-ACV. By using DTA (Differential thermoanalysis) and HPLC analysis, ACV was shown to be connected with NGA by covalent bonds and stable in blood. The radio biodistribution of ¹³¹I-NGA-ACV with high drug density *in vivo* was carried out in mice. The maximum absorption of ¹³¹I-NGA-ACV in liver was 81.7±10.4% at 5 min. The radio image of ¹³¹I-NGA-ACV with high or low drug density in rabbit showed no significant difference in liver targeting property. The competitive connection tests indicated that ¹³¹I-NGA-ACV was concentrated in liver through receptor mediated mechanism. A tentative test of antihepatitis B of NGA ACV and ACV *in vitro* showed that the effective dose of the former was significantly lower than that of the latter.

Keywords: Neoglycoalbumin Acyclovir Hepatic targeting Anti-heptitis virus Asialoglycoprotein Receptor

收稿日期 1994-12-12 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者: 庞其捷

作者简介:

参考文献:

本刊中的类似文章

1. 侯新朴;王黎;王向涛;李沙.脂质体肝实质细胞靶向性研究[J]. 药学报, 2003,38(2): 143-146

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(685KB)
- ▶ [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

- ▶ 无唾液酸糖蛋白受体
- ▶ 半乳糖基拟糖白蛋白
- ▶ 无环鸟苷
- ▶ 肝靶向性
- ▶ 抗肝炎病毒

本文作者相关文章

- ▶ 范举正
- ▶ 李铜铃
- ▶ 庞其捷
- ▶ 管昌田
- ▶ 何勇
- ▶ 粟宽源

PubMed

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

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"/> 5718

Copyright 2008 by 药学报