

论文

固相萃取—反相HPLC法测定血浆中二氟尼柳的浓度

高立勤;邢久东;刘文英

中国药科大学药物分析教研室,南京210009

摘要:

采用固相萃取方法,以大孔网格树脂小柱净化样本,建立了快速、灵敏的反相HPLC法。方法在0.5~100μg·ml⁻¹浓度范围内线性关系良好,最低检出限0.02μg·ml⁻¹(S/N=2),萃取回收率和方法回收率分别为91.65%及97.25%,日内、日间精密度均小于10%。用此方法测定了人血浆中二氟尼柳的浓度,并对单剂量口服给药后的药代动力学作了初步探讨。

关键词: 固相萃取 反相HPLC 二氟尼柳

DETERMINATION OF DIFLUNISAL IN PLASMA BY RP-HPLC AFTER SOLID-LIQUID EXTRACTION

Gao Liqin; Xing Jiudong and Liu Wenying

Abstract:

A RP-HPLC method was developed with solid-liquid extraction technique. Plasma sample was extracted on a macroreticular resin cartridge with methanol—glacial acetic acid (99:1) as elution solvent. After extraction, the assay was carried out on a Spherisorb C₁₈ column with *p*-phenylphenol as internal standard. The mobile phase is a mixture of methanol—water—glacial acetic acid (66:30:4). UV detection was performed at 250 nm. The flow rate was 1.0 ml·min⁻¹. A good linearity was found at the concentration range from 0.5 to 100 μg·ml⁻¹, with the lowest detection limit 0.02 μg·ml⁻¹ (S/N=2). The extraction and method recoveries were 91.65% and 97.25% respectively, while the RSD for the within day and between day precision were all less than 10%. The above method was applied to determine the plasma concentration of diflunisal in three human volunteers after a single oral dosage of 300 mg. Two hours after administration, the plasma concentration of diflunisal reached maximum level. A two compartment method was used to study the pharmacokinetic parameters. The $T_{1/2\alpha}$ and $T_{1/2\beta}$ were 1.40 h and 17.85 h, respectively.

Keywords: RP-HPLC Diflunisal Solid-liquid extraction

收稿日期 1996-11-10 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. 潘颖瑜;俞英;赖谷仙;朱立才.高效液相色谱-电喷雾质谱法研究人尿中 α -生育酚的主要代谢产物[J]. 药学报, 2008,43(6): 634-639
2. 马辰;段宏瑾;张宏桂;徐妍青;周同惠.尿中10种滥用药物的HPLC分析方法研究[J]. 药学报, 1998,33(10): 764-767
3. 司伊康;杨春;孔漫;徐瑞明;张守仁;贺文义.固相萃取—核磁氢谱法研究曲美布汀的代谢产物[J]. 药学报, 1999,34(5): 376-378
4. 杨春;孔漫;徐瑞明;张守仁;贺文义;司伊康.固相萃取-核磁共振氢谱法研究乙哌立松的代谢产物[J]. 药学报, 2000,35(5): 374-377

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(137KB)
- ▶ [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

- ▶ 固相萃取
- ▶ 反相HPLC
- ▶ 二氟尼柳

本文作者相关文章

- ▶ 高立勤
- ▶ 邢久东
- ▶ 刘文英

PubMed

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

5. 李莉;周永新;罗毅.固相萃取结合GC-MS系统分离分析生物体液中常见毒物药物[J]. 药学报, 2000,35(7): 521-525
6. 杨春;贺文义;孔漫;徐瑞明;张守仁;司伊康.用固相萃取-核磁共振氢谱法研究大鼠尿液中R-(-)-布洛芬光活代谢产物[J]. 药学报, 2000,35(11): 843-846
7. 刘奕明;林爱华;陈汇;曾繁典.灯盏乙素在兔体内药代动力学[J]. 药学报, 2003,38(10): 775-778
8. 丁劲松;彭文兴;张祖华;李焕德;蒋学华.固相萃取结合HPLC-MS测定人血浆中奥曲肽的浓度及相对生物利用度固相萃取结合HPLC-MS测定人血浆中奥曲肽的浓度及相对生物利用度[J]. 药学报, 2004,39(7): 542-545
9. 邱丰和;刘力;罗毅;刘峰;卢涌泉.固相萃取GC-FID和GC-MS分析血浆中碱性药物[J]. 药学报, 1996,31(4): 296-299
10. 谭力;袁倚盛;张昕;赵飞浪.固相萃取高效液相色谱法测定人血浆中依那普利浓度[J]. 药学报, 1997,32(11): 857-860
11. 邱丰和;刘力;罗毅;卢涌泉.双柱双pH固相萃取和毛细管气相色谱法同时快速测定血浆中酸性和碱性药物[J]. 药学报, 1996,31(3): 205-208
12. 邱丰和;刘力;郭励;罗毅;卢涌泉.固相萃取结合GC-FID和GC-MS快速分析血浆中巴比妥类药物[J]. 药学报, 1995,30(5): 372-377

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 style="width: 95%;" type="text"/>	邮箱地址	<input style="width: 95%;" type="text"/>
反馈标题	<input style="width: 95%;" type="text"/>	验证码	<input style="width: 40%;" type="text"/> 6219