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摘要: 目的: 探讨利用HPLC-紫外检测器(UV)和HPLC-蒸发光散射检测器(Evaporative light scattering detector, ELSD)测定乳酸环丙沙星氯化钠注射液中环丙沙星含量, 比较两种检测方法的优劣。方法: 色谱条件为: 色谱柱: Kromasil C-18, 5 μ m 250 \times 4.6mm; 流动相: 三氟乙酸: 乙腈=80:20(V/V); 流速: 1mL/min; 柱温: 25 $^{\circ}$ C; 检测波长: 277nm; 蒸发光散射检测器条件: 雾化温度30 $^{\circ}$ C, 漂移管温度65 $^{\circ}$ C。结果: 环丙沙星注射液中的各种成分在上述色谱条件下能完全分离, 分析时间仅需20min; 两种测定方法结果一致。结论: 紫外检测器更加灵敏和稳定, 而蒸发光散射检测器则适用于更多的物质。

关键词:

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The comparison of determination of ciprofloxacin by HPLC-UV and HPLC-ELSD

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Abstract: Objective: To approach an assay of determination of ciprofloxacin in Ciprofloxacin Lactate and Sodium Chloride Injection by HPLC-UV and HPLC-ELSD methods. Make a comparison between the two different methods. Methods: The separation was performed on a Kromasil C-18 column(5 μ m 250 \times 4.6mm). The mobile phase consists of trifluoroacetic acid(0.1%)-acetonitrile (80:20) at a flow rate of 1.0 mL/min. Determination wavelength: 277nm. An evaporative light-scattering detector (ELSD) Model 200(SoftA, USA) was used, its parameters were set as follows: spray temperature at 30 $^{\circ}$ C, drift tube temperature at 65 $^{\circ}$ C. Results: Good separation of Ciprofloxacin and related substances can be achieved respectively under the two chromatographic system only in 20 minutes. The two methods could give the same determination. Conclusion: The UV detection is more sensitive and more steady, and ELSD detection could be used in determination of more substances.

Key words:

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