

研究简报

液相色谱-质谱法检测肝脏中5种 β -受体激动剂

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摘要

建立了合理、可靠的液相色谱-质谱联用测定 β -受体激动剂的方法。样品经5%高氯酸溶液提取, 反相 C_{18} 小柱净化, 采用Agilent Zorbax Eclipse Plus C_{18} 柱分离, 以0.1%乙酸水溶液(A)-乙腈(B)为流动相进行等度洗脱。通过液相色谱-质谱以MRM方式检测, 测得5种 β -受体激动剂的检测限为0.4~1.2 $\mu\text{g}\cdot\text{kg}^{-1}$ 。对肝脏进行添标回收实验, 平均回收率为77.2%~95.6%。

关键词 [\$\beta\$ -受体激动剂](#) [液相色谱-质谱](#) [肝脏](#)

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Detection of Five β -Agonists in Liver by Liquid Chromatography-Mass Spectrometry

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Abstract

A reasonable and reproducible liquid chromatography-mass spectrometry (LC/MS) for detecting β -agonists was developed. The sample was extracted with 5% perchloric acid, centrifuged by a solid-phase extraction procedure with LC-8 cartridges. The products were separated on Agilent Zorbax Eclipse Plus C_{18} column with a isocratic elution of 0.1% acetate acid and acetonitrile. An electrospray ionization (ESI) source was operated in positive ion mode. The detection limits of five β -agonists are in the range of 0.4-1.2 $\mu\text{g}\cdot\text{kg}^{-1}$. The experimental results of spiked liver indicate that the average recoveries range from 77.2% to 95.6%.

Key words [\$\beta\$ -agonists](#) [LC/MS](#) [liver](#)

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