

兴奋剂检测专栏

LC-MS/MS法定性检测保健品中非法添加的降糖药

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收稿日期 2009-8-30 修回日期 2009-9-11 网络版发布日期:

摘要 建立了同时检测保健品中非法添加的10种化学降糖药的分析方法。用甲醇直接提取, 以 $10\text{ mmol}\cdot\text{L}^{-1}$ 甲酸铵 (pH 3.5) 和乙腈为流动相, 采用Agilent Zorbax SB C₁₈ (100 mm × 2.1 mm × 3.5 μm) 色谱柱进行分离, 电喷雾离子源, 正离子多反应监测扫描方式分析检测。除阿卡波糖和二甲双胍的检测限为 $20\text{ mg}\cdot\text{kg}^{-1}$ 外, 其他降糖药的检测限均不高于 $1\text{ mg}\cdot\text{kg}^{-1}$, 10种降糖药的回收率为75.2%~116.9%。

关键词 [保健品](#) [降糖药](#) [LC-MS/MS](#)

分类号 [O 657.63](#)

Detection of Antidiabetics in Health Products by LC-MS/MS

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Abstract Total of 10 antidiabetics illegally mixed into health products were simultaneously detected by LC-MS/MS. Methanol was used as the extraction solution. Mobile phase was included $10\text{ mmol}\cdot\text{L}^{-1}$ ammonium formate (pH 3.5) and acetonitrile. Agilent Zorbax SB C₁₈ (100 mm × 2.1 mm × 3.5 μm) column was used to separate the compounds, and mass data were acquired with the ESI(+) MRM mode. The LODs of acarbose and metformin are $20\text{ mg}\cdot\text{kg}^{-1}$, and the LODs of the other antidiabetics are no more than $1\text{ mg}\cdot\text{kg}^{-1}$. Recoveries of 10 drugs are 75.2%-116.9%.

Key words [health products](#) [antidiabetics](#) [LC-MS/MS](#)

DOI

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