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## RP-HPLC测定大黄中4个苯丁酮类化合物

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**中文摘要:**目的: 建立大黄中4-4'-羟基苯基-2-丁酮、莲花长苷、异莲花长苷及 4'-羟基苯基-2-丁酮-4'-O-β-D-(2"-O-桂皮酰基-6"-O-没食子酰基)-葡萄糖苷的含量测定方法。方法: Agilent Zorbax SB-C<sub>18</sub> 色谱柱(4.6 mm×250 mm, 5 μm), 乙腈-0.05%磷酸溶液梯度洗脱, 流速1 mL·min<sup>-1</sup>, 检测波长268 nm。结果: 4个成分的分离度良好, 标准曲线在检测范围内均呈良好线性(r>0.999 9), 其检测限均低于1.76 ng, 定量限均低于4.98 ng, 高、中、低3个水平日内和日间精密度的RSD均小于2.3%, 加样回收率分别均高于91.8%。结论: 该方法简便、快速、灵敏、准确, 可为大黄的全面质量评价提供参考。

**中文关键词:** 大黄 4-4'-羟基苯基-2-丁酮 莲花长苷 异莲花长苷 4'-羟基苯基-2-丁酮-4'-O-β-D-(2"-O-桂皮酰基-6"-O-没食子酰基)-葡萄糖苷

### Determination of four *n*-butyrophenone compounds contained in rhubarb using RP-HPLC

**Abstract: Objective:** To establish the method for determining the contents of 4-(4'-hydroxyphenyl)-2-butanone, lindleyin, isolindleyin, and 4-(4'-hydroxyphenyl)-2-butanone-4'-O-β-D-(2"-O-galloyl-6"-O-cinnamoyl)glucopyranoside contained in rhubarb. **Method:** Agilent Zorbax SB-C<sub>18</sub> analytical column (4.6 mm×250 mm, 5 μm) was adopted as the chromatographic column, with acetonitrile-0.05% phosphoric acid as mobile phase for gradient elute. The flow rate was 1 mL·min<sup>-1</sup>, and detection wavelength was set at 268 nm. **Result:** 4-(4'-hydroxyphenyl)-2-butanone, lindleyin, isolindleyin, and 4-(4'-hydroxyphenyl)-2-butanone-4'-O-β-D-(2"-O-galloyl-6"-O-cinnamoyl)glucopyranoside showed good resolutions. The four standard curves displayed good linear relationship within the detection rate (r>0.999 9), with their detection limit of less than 1.76 ng and quantitation limit of less than 4.98 ng. At the high, medium and low levels, their RSDs of inter- and intra-day precision were less than 2.3%, with recovery of more than 91.8%. **Conclusion:** The method is so simple, rapid, accurate and reliable that it can provide reference for comprehensive quality evaluation on rhubarb.

**Keywords:** rhubarb 4-(4'-hydroxyphenyl)-2-butanone lindleyin isolindleyin 4-(4'-hydroxyphenyl)-2-butanone-4'-O-β-D-(2"-O-galloyl-6"-O-cinnamoyl)glucopyranoside

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