

三七不同药用部位中人参皂苷
Rg3 的含量测定^{*}

孙媛^{1,2,3**} 田秀秀^{1,2,3} 丁江生^{1,2,3}

(1. 云南省药物研究所, 云南 昆明 650111; 2. 云南白药集团创新研发中心, 云南 昆明 650111;
3. 云南省中药和民族药新药创制企业重点实验室, 云南 昆明 650111)

摘 要:目的 建立三七中 20(S) - 人参皂苷 Rg3 和 20(R) - 人参皂苷 Rg3 的含量测定方法, 评价不同药用部位及加工方式的三七提取物中, 两个型的人参皂苷 Rg3 的含量情况。方法 采用高效液相色谱法测定, 色谱条件: ECOSIL 120 - 5 - C18 - SH 色谱柱 (4.6 × 250mm, 5μm); 流动相为乙腈 - 异丙醇 - 水 (47:3:50); 流速: 1.0 ml · min⁻¹; 检测波长: 203nm; 进样量: 10μL; 柱温: 20℃; 测定不同药用部位及加工方式的三七提取物中 20(S) - 人参皂苷 Rg3 和 20(R) - 人参皂苷 Rg3 的含量。结果 20(S) - 人参皂苷 Rg3 的含量测定线性范围 14.0 ~ 279.6 μg · ml⁻¹, (r² = 1.0000), 平均加样回收率 100.56%, RSD 2.46%。20(R) - 人参皂苷 Rg3 的含量测定线性范围 14.1 ~ 282.0 μg · ml⁻¹, (R² = 0.9999), 平均加样回收率 101.51%, RSD 2.99%。结论 该测定方法简便、稳定、高效; 三七不同药用部位中根材优于其他药用部位; 熟三七中 20(S) - 人参皂苷 Rg3 含量明显升高。

关键词:三七; 含量测定; 20(S) - 人参皂苷 Rg3; 20(R) - 人参皂苷 Rg3
中图分类号: R282.6 文献标识码: A 文章编号: 1672 - 0571(2021)02 - 0029 - 06
DOI: 10.13424/j.cnki.mtcm.2021.02.006

Determination of Ginsenoside Rg3 in Different Parts of Panax Notoginseng

SUN Yuan^{1,2,3}, TIAN Xiu - xiu^{1,2,3}, DING Jiang - sheng^{1,2,3}

(1. Yunnan pharmaceutical research institute, Kunming 650111, China;
2. Innovation and R & D center of Yunnan Baiyao group, Kunming 650111, China;
3. Key laboratory of new drug creation enterprises of traditional Chinese medicine and ethnic medicine in Yunnan province, Kunming 650111, China)

Abstract: Objective To establish a method for the determination of 20 (s) - Ginsenoside Rg3 and 20 (R) - Ginsenoside Rg3 in Panax notoginseng, and to evaluate the content of two types of Ginsenoside Rg3 in Panax notoginseng extracts from different medicinal parts and processing methods. **Methods** HPLC was used to determine the content. The chromatographic conditions were as follows: ecosil 120 - 5 - c18 - sh column (4.6 × 250mm, 5μm); The mobile phase was acetonitrile - isopropanol - water (47:3:50); the flow rate was 1.0 ml · min⁻¹; the detection wavelength was 203nm; the injection volume was 10 μ L; the column temperature was 20 °C; the contents of 20 (s) - Ginsenoside Rg3 and 20 (R) - Ginsenoside Rg3 in different medicinal parts and processing methods of Panax notoginseng extract were determined. **Results** the linear range of 20 (s) - Ginsenoside Rg3 was 14.0 ~ 279.6 μ g · ml⁻¹ (r² = 1.0000). The average recovery was 100.56% , RSD 2.46% . The linear range of 20 (R) - Ginsenoside Rg3 was 14.1 ~ 282.0

* 基金项目: 云南省科技厅“重大科技专项(生物医药)”(2018ZF013)
** 作者简介: 孙媛, 高级工程师。E - mail: stary 1982@ 163. com