

天然产物研究

高效液相色谱/电喷雾-离子阱/飞行时间质谱法分析鉴别人参中的皂苷类成分

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摘要

关键词

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Identification and Determination of Major Constituents in Chinese Herbal Medicine Panax Ginseng by HPLC/ESI-IT/TOFMS

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Abstract A facile method using high performance liquid chromatography/electrospray ionization ion trap/time-of-flight mass spectrometry(HPLC/ESI-IT/TOFMS) was established for the analysis of multiple constituents in Panax Ginseng. Chemical standards of ginsenoside Rg1 and Rb1 were studied systematically, and their fragmentation pathways were concluded. Methanol extracts of Panax Ginseng were separated and analyzed in negative mode by HPLC/ESI-IT/TOFMS. A total of 10 constituents are identified or tentatively characterized with supporting results on the fragmentation pathways of ginsenosides chemical standards and relative references. These constituents include ginsenoside Rg1, Re, Rb3, Rg2, Rb1, Rc, Rh1, Rb2, Rd and Rg3. Besides ginsenosides, several compounds with m/z 317 parent nucleus are also analyzed. Using the HPLC/ESI-IT/TOFMS is an extremely simple way to provide chemical information concerning the constituents in herbal medicines and makes the identification results more convinced.

Key words [ginsenoside](#) [fragmentation pathways](#) [constituents identification](#) [electrospray ionization ion trap/time-of-flight mass spectrometry\(ESI-IT/TOFMS\)](#)

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