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Standardization of extracts from roots *P. ginseng* and *P. quinciphola* by the use of HPLC/MS

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Ginseng (*Panax* genus) is currently used as a dietary supplement, adaptogen and fortifying agent, which increases the body's resistance to physical, chemical and biological stress [1]. Ginsenoside biomarkers belong to the class of triterpene glycosides. The quality control of phytochemicals is an actual task of modern health care, since they do not go through all the stages of the compliance of the composition, unlike drugs [2]. In our work an approach of triterpene glycosides detection in ginseng extracts was developed on the basis of HPLC-MS. Enhanced selectivity compared to commonly employed HPLC-UV techniques with the use of sorbent modified with octadecyl groups as stationary phase allowed simultaneous determination of 23 major and minor ginsenosides. For this purpose, specially adjusted chromatographic conditions for separation on a sorbent modified with pentafluorophenyl groups together with selective MS detection of ginsenoside sodium adducts and sapogenin fragment ions were employed. Separately the influences of column temperature and mobile phase composition on selectivity for determined glycosides were investigated. For all investigated compounds, linearity ranges and calibration equations were established, and metrological characteristics such as detection limit and reproducibility were determined. The developed approach was tested during standardization of reference extracts from the roots of *P. ginseng* and *P. quinquefolius.*

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References
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