

## **Abstract**

Author: Anna Bacílková

Title: Metabolic profiles of bioactive components of *Panax ginseng* C. A. Meyer from different herbal sources

Diploma thesis

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The field of study - pharmacy

In this diploma thesis, I was concerned with the determination and quantification of 12 ginsenosides in 11 commercial ginseng preparations from the species *Panax ginseng* C. A. Meyer available in the Czech Republic. Ginsenosides are triterpenes saponins considered to be main bioactive principles of ginseng. The two-dimensional thin layer chromatography and high performance liquid chromatography with UV detection was used for the identification and quantitative determination of these compounds. The methods applied are based on comparison of the retention times and retention factors of samples and a mixture of standards. The content of ginsenoside R<sub>f</sub> was used as a marker to differentiate *Panax ginseng* C. A. Meyer from other species. Ginsenosides were detected only in 8 from 11 preparations. There was also significant product-to-product variability in concentrations and proportions of ginsenosides. The content of ginsenosides was also compared with available data from manufacturer and the measured concentrations of marker compounds differed significantly from labeled amounts.