

## Abstract

The goal of this thesis was to demonstrate the antioxidant activity of the genus *Epimedium* extract and collect information on the main content substances and biological activity species of the genus *Epimedium* as well. *Epimedium herba* (Yinyanghuo, Horny Goat Weed or Barrenwort) is one of the best known and most frequently used plants in Chinese medicine for its tonic, anti-rheumatic and aphrodisiac effects. The main content substances are flavonoids, alkaloids, lignans and terpenic compounds. Flavonoids, icariin, epimedin A, epimedin B, epimedin C and ikaritin, have diverse effects such as antioxidant, estrogenic, osteogenic, antidepressant-like, antianginal and anticarcinogenic. To demonstrate the antioxidant activities of methanolic extract and dry aqueous extract from *Epimedium x rubrum*, I used two methods, the method of measuring antioxidant activity against the stable radical DPPH (diphenylhydrazyl) and method of measuring antioxidant activity against superoxide. From measurement I observed that the dry aqueous extract from herba has a higher antioxidant activity against DPPH than the methanolic extract. I measured an antioxidant activity against superoxide radical of the dry aqueous extract of drug and solutions of rutin, trolox and ascorbic acid. From measurements I observed that the dry aqueous extract of the drug has a much higher antioxidant activity against superoxide than solutions of rutin, trolox and ascorbic acid. Antioxidant activity against superoxide decreased in the order: extract *Epimedium herba*, rutin, ascorbic acid and trolox. In methanolic extract from herba using thin-layer chromatography (TLC) proved the presence of flavonoids.