

**Estimation of total antioxidant power in medicinal plants (adaptation of FRAP method)
antioxidant power in medicinal plants**

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The intake of antioxidants present in food is an important health-protecting factor. Herbal compounds known by ancient medicine are of growing interest in the domain of prevention of diseases. Medicinal plants have a lot of antioxidants, mostly polyphenols, flavonoids that exhibit high antioxidant activity. Total antioxidant activity values were determined from fresh plant samples by the FRAP method. FRAP assay depends upon the reduction of ferric tripyridyltriazine (Fe(III)-TPTZ) complex to the ferrous tripyridyltriazine (Fe(II)-TPTZ) by a reductant at low pH. Fe(II)-TPTZ has an intensive blue color and can be monitored at 593 nm. The aim of our work was to get answer for the question: is this method applicable for investigation of fresh plant samples and herbs? Several types of medicinal plants were involved in our investigations: from *Labiatae* family *Melissa officinalis* L., *Ocimum basilicum* L., and *Satureja hortensis* L., from *Urticaceae* family *Urtica dioica* L. and from *Papaveraceae* family *Cheli-donium majus* L. Our results show that FRAP method is sensitive in the measurement of total antioxidant power of fresh biological fluids, such as plant homogenates and pharmacological plant products.