Feeding pregnant and lactating mice 
*Rhodiola kirilowii* extracts helps to preserve thymus function of their adult progeny

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**Abstract**

Plants belonging to *Rhodiola kirilowii* species, members of *Rhodiola* genus and *Crassulaceae* family, grow wildly in Tibet, Mongolia and China mountains and are traditionally used as adaptogens, antidepressants and anti-inflammatory remedies. Nowadays, *R. kirilowii* is cultivated in some countries, also in Poland. In our previous papers we reported immuno- and angio-modulatory effects of aqueous and hydro-alcoholic extracts of radix and rhizome of this plant in non-pregnant and pregnant mice. The aim of the present study was to evaluate the effect of feeding pregnant and further lactating mice these extracts on selected thymus function parameters in adult progeny. The counts of M-30+ apoptotic cells, in the thymuses obtained from progeny of mice fed during pregnancy and lactation water or 50% water-alcoholic extract of *Rhodiola kirilowii*, were significantly lower (p < 0.05) than apoptotic cells counts observed in the control mice. No significant differences in the counts of IL-7-positive cells in the thymuses obtained from progeny of the control mice and mothers treated with water or hydro-alcohol extracts of *Rhodiola kirilowii* were observed.

**Key words**: mice, pregnancy, *Rhodiola kirilowii*, progeny, thymus, apoptosis, IL-7

**Introduction**

Herbal remedies with immunotropic activity provide an alternative or complementation to conventional therapy of infections during pregnancy. However, some of these remedies may show a negative influence on fetal organ development and function, because they contain various potentially antian giogenic substances (Skopińska-Różewska et al. 2008 a,b,c, Zdanowski et al. 2012). The aim of the present study was to evaluate the effect of feeding pregnant and further lactating mice extracts of *Rhodiola*