

A Study on Extraction Conditions of *Paeonia lactiflora* for High Immunostimulatory Activity

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Paeonia lactiflora roots (PLR) are a traditional medicinal plant used to treat inflammatory diseases. Recently, PLR has been reported to increase the secretion of immune regulatory factors and enhance phagocytic activity in macrophages. Therefore, in this study, we compared the macrophage activation induced by PLR under different extraction conditions. PLR extracts at temperatures ranging from 4°C to 60°C increased the secretion of immune regulatory factors, but the secretion slightly decreased at 80°C. Under time-based extraction conditions at 60°C, immune regulatory factor secretion by PLR extracts was similar from 1 to 24 hours. Therefore, considering the overall results of this study, extracting PLR at 60°C for 1 hour is considered the optimal condition for macrophage activation.

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