

REVERSED MICELLAR SYSTEM A POTENTIAL METHOD TO OBTAIN *CRATAEVA TAPIA* BARK LECTIN

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Lectins are ubiquitous proteins that specifically bind carbohydrate moieties including cells. The aim of this work was to evaluate the extraction and back-extraction of a *Crataeva tapia* bark lectin with the reversed micellar system of AOT in isooctane. Crude extract from powdered bark was obtained by agitation of 10 % (w/v) mixture in 150 mM NaCl overnight at 4 °C, followed by filtration and centrifugation at 4,000 g for 15 min. On protein extraction, agitation contact time, ionic strength, temperature, salt type and concentration, aqueous phase pH and surfactant concentration were investigated. On back-extraction, pH and ionic strength of aqueous phase with 5 % of butanol were also evaluated. Agitation speed and protein concentration maintained constant in all experiments. From extraction step was obtained 70% of protein content with 5 min of phase contact, 30 mM NaCl, citrate/phosphate buffer, pH 5.5, 27 °C and 5 mM surfactant. From back-extraction step a protein recovery of 80.65% (CE) with 50% of hemagglutinating activity was found under citrate/phosphate buffer, pH 5.5 added by 1000 mM KCl. PAGE for basic protein and SDS-PAGE revealed one single and two bands, respectively. These results showed the efficiency of reversed micellar system in lectin purification.

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