

Supplementary data for article:

Prokopijevic, M.; Prodanovic, O.; Spasojevic, D.; Kovacevic, G.; Polovic, N.; Radotic, K.; Prodanovic, R. Tyramine-Modified Pectins via Periodate Oxidation for Soybean Hull Peroxidase Induced Hydrogel Formation and Immobilization. *Applied Microbiology and Biotechnology* **2017**, *101* (6), 2281–2290. <https://doi.org/10.1007/s00253-016-8002-x>

Applied Microbiology and Biotechnology

Tyramine Modified Pectins via Periodate Oxidation for Soybean Hull Peroxidase Induced Hydrogel Formation and Immobilization

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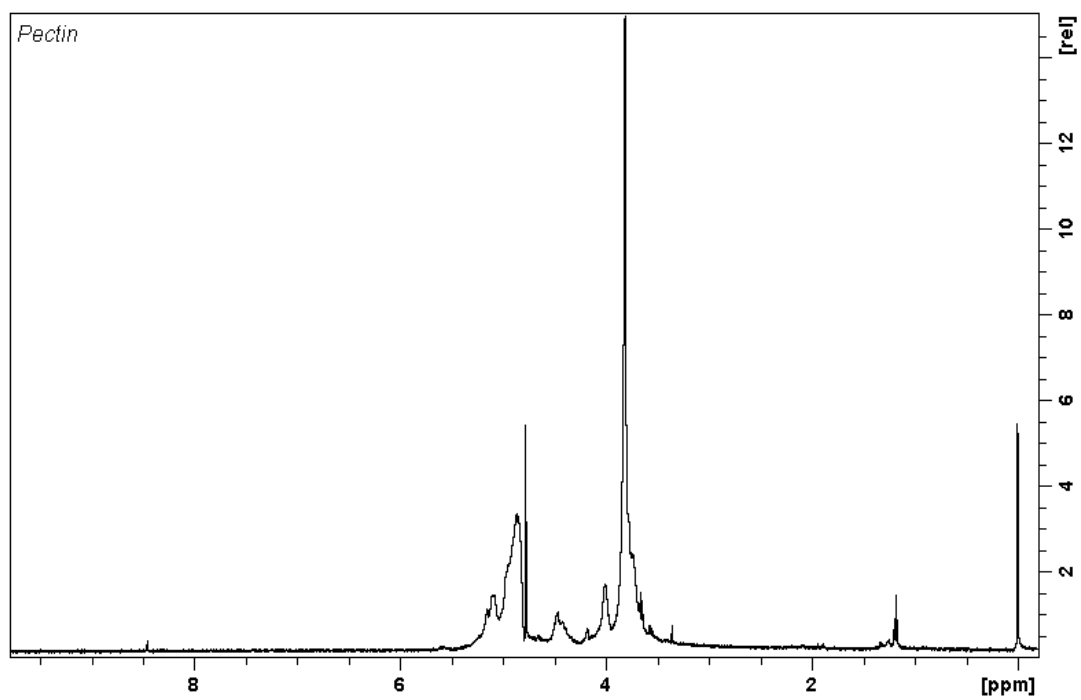


Fig. S1 ^1H NMR spectra of native pectin recorded in deuterium oxide (500 MHz).

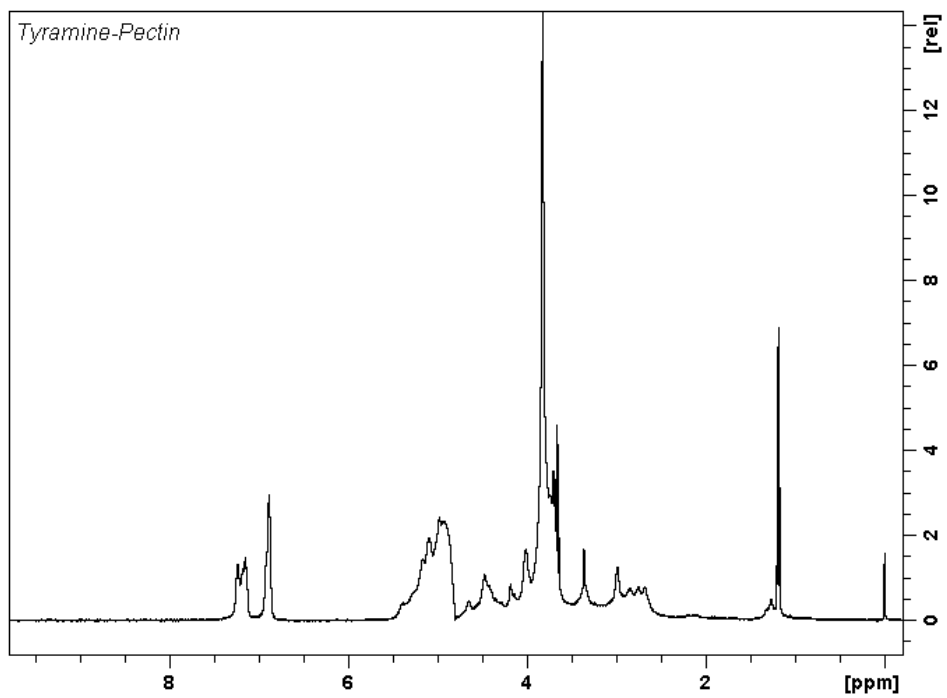


Fig. S2 ^1H NMR spectra of tyramine-pectin recorded in deuterium oxide (500 MHz).

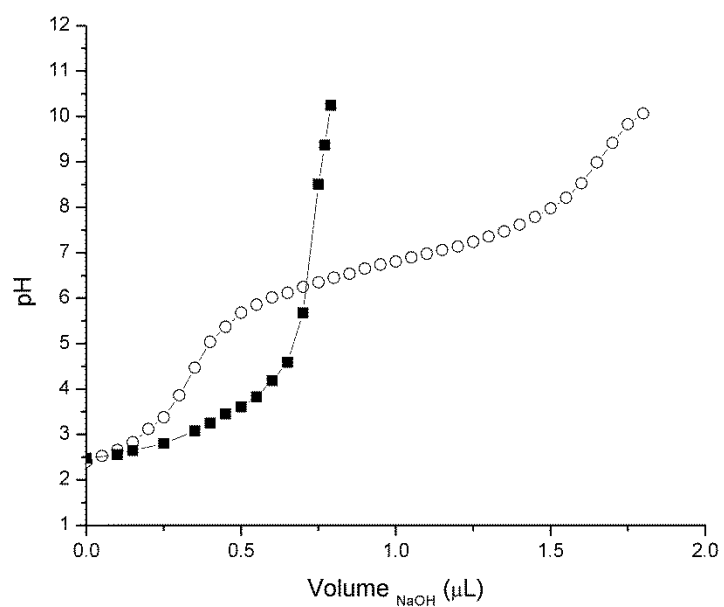


Fig. S3 Titration curves of 0.1 % (w/v) native pectin (■) and tyramine-pectin (○) obtained using 20 mol% of periodate for oxidation.

Table S1. Elemental analysis of pectin and tyramine-pectin.

%	N	C	H
Pectin	0.37	35.04	5.72
Tyramine-Pectin	0.96	21.05	4.81

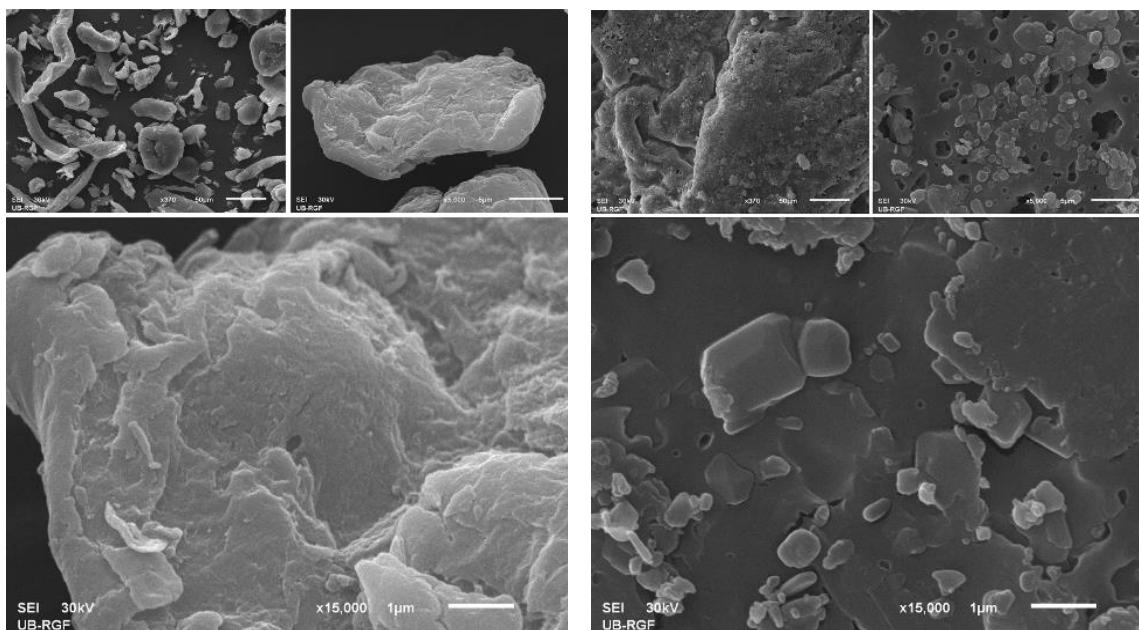


Fig. S4 Scanning electron microscope image of native pectin and tyramine-pectin obtained using 10 mol% periodate oxidation. Images are taken at magnifications of: A) x350 times; B) x5.000 times; C) x15.000 times.

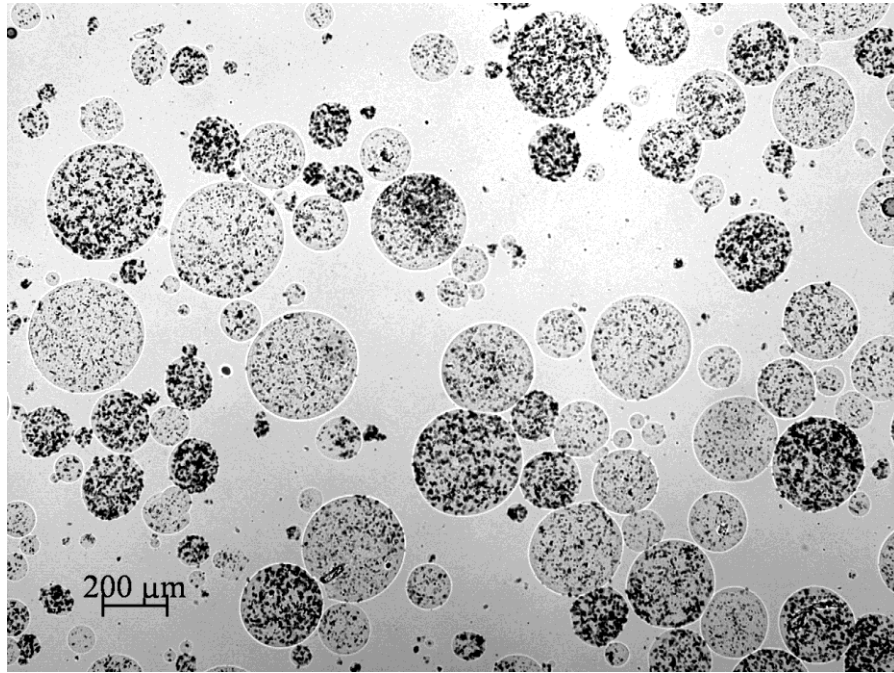


Fig. S5 Image of spherical pectin beads with immobilized SHP observed under an optical microscope.

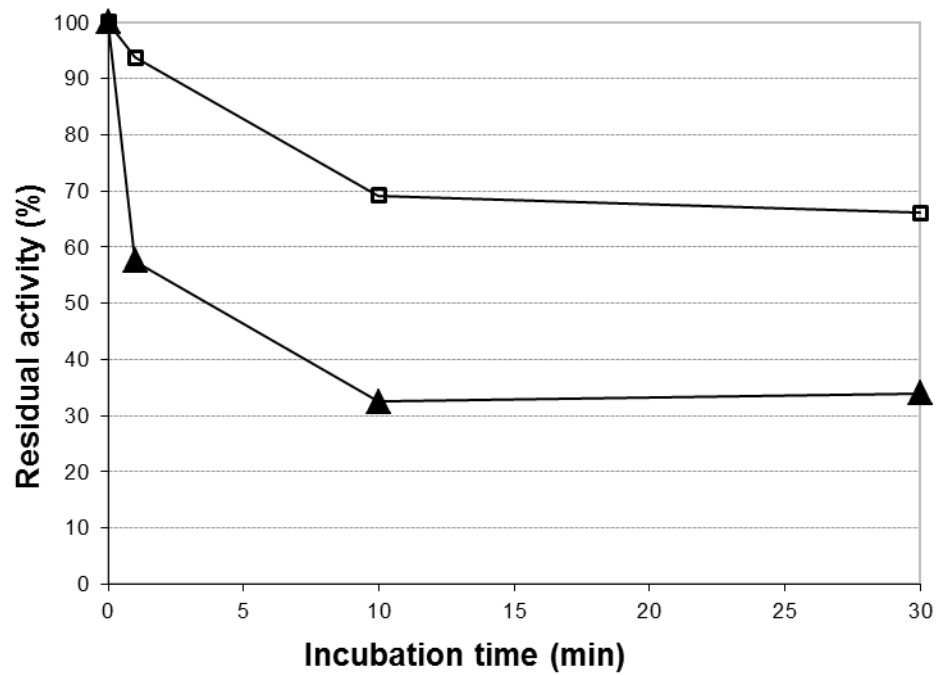


Fig. S6 Dependence of residual activity of immobilized and soluble SHP on the incubation time at 85°C in 50mM Tris buffer pH 7.0. Legend: -□- Immobilized SHP; -▲- Soluble SHP .

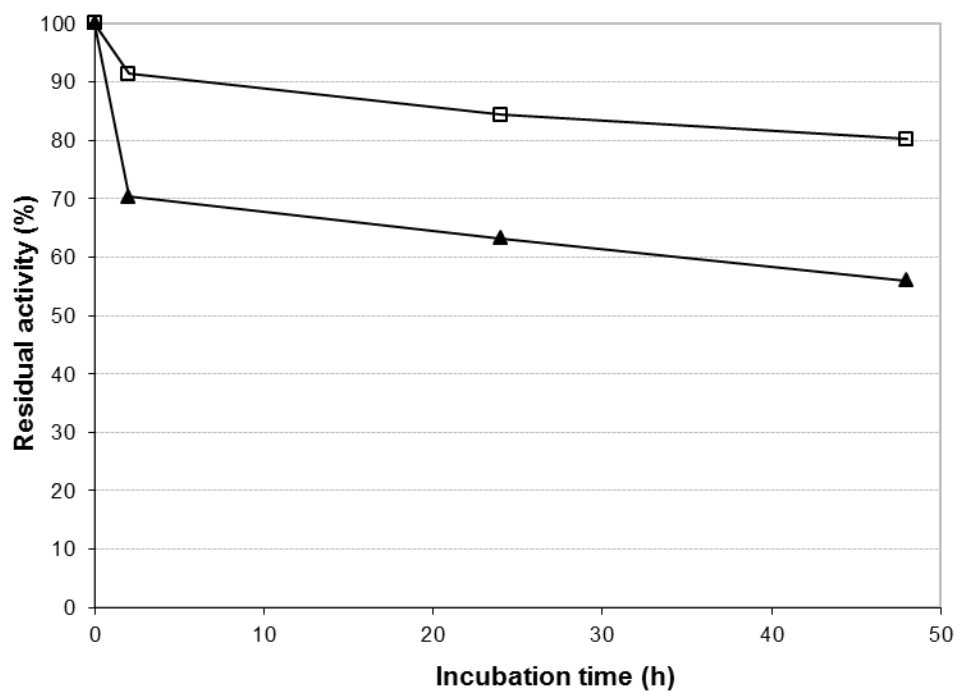


Fig. S7 Dependence of Residual activity of immobilized and soluble SHP on the Incubation time in 80% 1,4-dioxane solution (v/v) in a 0.1 Tris buffer pH 7.0. Legend: -□- Immobilized SHP; -▲- Soluble SHP.