Turkish Journal of Chemistry

Turkish Journal

of

Chemistry

Stabilization of Papain by Modification with Chitosan

Ali KILINÇ, Seçil ÖNAL and Azmi TELEFONCU
Department of Biochemistry, Faculty of Science, Ege University,
35100 Bornova, İzmir-TURKEY
e-mail:akilinc@sci.ege.edu.tr

Keywords
Authors

Abstract: Papain (EC 3.4.22.2) was immobilized on chitosan by adsorption and subsequent cross-linking with glutaraldehyde. The immobilized papain displayed a lower specific activity than did the native enzyme. The thermal stability of the immobilized papain, relative to that of the free enzyme, was markedly increased. The storage stability of the conjugated enzyme was enhanced such that more than 85% of the initial activity remained after a month storage at 45°C. The optimum pH of immobilized papain was shifted to the acidic region and enzyme stability was increased at pH levels below 3.5.

Key Words: Enzyme stabilization, immobilized papain, chitosan

chem@tubitak.gov.tr

Scientific Journals Home Page

Turk. J. Chem., **26**, (2002), 311-316.
Full text: pdf
Other articles published in the same issue: Turk. J. Chem.,vol.26,iss.3.