In nature, a lot of enzymes are produced by microorganisms. Among them, pectinases or pectic enzymes are industrially important enzymes. These enzymes are substantially produced by *Aspergillus niger*. Filamentous fungi are used at industrial and academic studies since they produce large variety of benefit products such as metabolites, enzymes and food [1].

From pectic enzymes; Endo-polygalacturonase (Endo-PG), catalyses hydrolysis of α-1,4glycosidic linkage between two non-methylated acid residues randomly. Exo-polygalacturonase (Exo-PG), are glycoproteins activating in a terminal end. They are of two types: exo-PG EC (3.2.1.67) and exo-PG EC (3.2.1.82), which cleave α-(1,4) glycosidic bonds of GalA residues [2]. Pectin lyases degrade polymer with β-elimination mechanism forming 4,5-unsaturated oligogalacturonides [1]. Pectin methyl esterases, catalyse the de-esterification of pectin and cause releasing of hydrogen ions and methanol [3]. Pectin lyases catalyze the trans-eliminative cleavage of the galacturonic acid polymer.

In this study, pectin lyase was secreted by *Aspergillus niger* in liquid culture. PL was sequentially purified with (NH$_4$)$_2$SO$_4$ precipitation, gel filtration and ion-exchange chromatography. pH stability of PL was performed with three different buffers: citrate-phosphate buffers, phosphate buffers and carbonate buffers. Thermal stability was also carried out at different temperatures. So, optimum temperature and pH were determined for industrial applications of pectin lyase.

**References**

