



ABSTRACT

Dextrin, a product of starch hydrolysis, has numerous industrial applications ranging from food to pharmaceuticals. It can be produced by either acid hydrolysis or enzyme (amylase) hydrolysis. However, the thermostable enzymes for the production of dextrin are more preferred. Alpha amylases can partially hydrolyze starch to produce dextrin. The present research is focused on the production of dextrin by using previously cloned thermostable alpha-amylase. IPTG (Isopropyl β -D-1-thiogalactopyranoside) is an expensive and toxic inducer. It cannot be used for industrial processes in bulk. Therefore, inexpensive and non-toxic alternative inducer lactose was selected in the present study for the production of amylase in the LB medium. The process parameters for the production of dextrin such as Ca^{+2} ions concentration (0.5Mm), pH (7.5), temperature (85°C), and starch concentration (3%) were optimized. The dextrin produced was successfully purified and identified as beta dextrin.