The aim of this study is to screen source of $\alpha$-amylase from some fruits. The selected samples were 89 fruit samples. The study found that 45 fruit samples were positive result in scale +, ++, ++++, and ++++ with total fruit types number of 2,19,17 and 7, respectively. The fruit sample Namdogmai mango ($Mangifera indica$ L.) and Ok-rong Mango ($Mangifera indica$ L.) were selected based on diameter of the blue zone in agar plate diffusion. Crude enzyme was isolated by 95% ethanol precipitation. The enzyme fraction was loaded onto a $\beta$ - cyclodextrin Sepharose 6B affinity column. $\alpha$-Amylase was eluted by 0.1 M KCl-HCl buffer pH 2.0. $\alpha$-Amylase solution was concentrated by Ultramembrane filtration molecular weight cut off 3 kDa. The enzyme were purified 6.89, 9.25 fold to homogeneity with an overall recovery of 10, 4 % and specific activity of 125, 33.33 U/mg found that in Namdogmai mango and Ok-rong Mango, respectively. The protein bands showed a molecular weight in the range of 42-51 kDa by sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE). The purified $\alpha$-amylase enzyme had a maximum activity at pH 5 and temperature in the range of 45-65 degrees celsius.

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