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## Purification and Characterization of Alkali-stable $\beta$ -Amylase from Chinese Yam (Nagaimo) Tuber

Yogo Chiba<sup>1)</sup> and Takahiro Kuwashima<sup>1)</sup>

1) Faculty of Human Development and Culture, Fukushima University

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An alkali-stable  $\beta$ -amylase was purified from Nagaimo, a cultivar of yam (*Dioscorea opposita* Thunb.) by hexadecyltrimethylammonium bromide treatment, ammonium sulfate fractionation, and two-step column chromatographic procedures on  $\alpha$ -CD-Sepharose CL-4B and DEAE-Sephacel. Analysis by SDS-PAGE revealed the enzyme to be a monomeric protein with a 56 kDa molecular mass. This enzyme was stable for pH 4.0-12.0 at 4°C for 24 h. During two months, its activity remained about 40% at pH 9.5, but it fell below 20% at pH 5.0. Other properties such as optimum pH (5.6), and molecular mass resembled those of previously reported  $\beta$ -amylases. Thermal stability of this enzyme was not very high, either. From these results, this enzyme appears to be a good model for studying  $\beta$ -amylase stability.

**Key words:**  $\beta$ -Amylase, Chinese yam, alkali-stable[\[PDF \(318K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

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