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Comparative stability of minor acid proteinase of *Nepenthes distillatoria* L. at different temperatures and pH level s

Isolation, purification procedure, and some enzymatic properties of the minor acid proteinase from the pitcher of *Nepenthes distillatoria* were reported previously. In this study the stability of the minor acid proteinase (NMP) was investigated at different temperatures and pHs.

The NMP was purified from crude juice of Nepenthes pitcher by elution through successive chromatographic of DEAE cellulose, sephacryl S200, pepstatin-sepaharose and mono Q to a homogenous form or a single band at the SDS PAGE. The purified NMP and porcine pepsin in pH 3.0 buffer were incubated at different temperatures 4 to 70 ^{o} C NMP and porcine pepsin in buffers at different pH 3-10 were incubated separately at 40 ^{o}C and 37 ^{o} C for 7 and 30 days in PH 5.0 were 95 and 89, in pH 9.0 were 92 and 80 and in pH 10 were 86 and 60 respectively.

These results clearly demonstrate the comparable stability of NMP at higher and lower temperatures 40-37 ^{o}C as reported for nepenthes major acid proteinase. Higher stability of NMP was observed at PH 3.0 (optimum pH) compared to porcine pepsin suggesting the absence of autodigestion of the purified enzyme at optimum pH. The high thermal stability and the absence of autocatalytic digestion of the minor proteinase show wide applicability in medicine, agriculture, and industry.