Isolation,Purification & Characterization of an α Amylase Inhibitor in Mungbean(*Vigna sp.*)grown in Sri Lanka.

ABSTRACT

α amylase inhibitor was found in Mungbean(*Vigna mungo*) T77 variety while it was not detected in MI5 variety & Cowpea(*Vigna unguiculata*)Bombay,IITA and MI35 varieties.Mungbean α amylase inhibitor was partially purified after extraction in phosphate buffer(1:5w/v) 0.02M,pH6.9, containing 0.15M NaCl,by heat treatment(60°C)Ammonium Sulphate fractionation(50-80% saturation) and chromatography on DEAE Cellulose and Sephadex G-100.The inhibitor had a molecular weight of 53,000±2,500(by gel fitration chromatography) & contained 12.2% carbohydrate,indicating it to be a glycoprotein.The inhibitor was active against human salivary & Porcine pancreaticαamylase while found to be inactive against *Bacillus subtilis* and *Aspergillus oryzae* α amylase.