

## **Abstract**

A fast and simple method for the extraction and purification of Kunitz trypsin inhibitor from soybean seeds is described. The first step consisted in the heat treatment of whole soybean seeds in water at 60 °C for 90 min. It was found that 8.4% of total trypsin inhibitory activity of the seeds was secreted during heat treatment. The aqueous medium was loaded onto an affinity chromatography column with immobilized trypsin. The retained fraction, eluted with 0.01 N HCl, contained the purified Kunitz trypsin inhibitor, which was subsequently stabilized by freeze-drying without loss of activity. From 1 g soybean seeds, 0.7 mg inhibitor with a specific trypsin inhibitory (TI) activity of 11,430 TIU/mg was obtained. The yield was greater than that obtained with established procedures. Due to the ease of the procedure proposed, the method is readily scalable to pilot plant or industrial preparations.