

## Abstract

Six plant samples, namely, roots of Chineseradish, Munkaew, potato, sweet potato, taro, and leaves of *Gynura pseudochina* were assayed for peroxidase activities. It was found that the Chineseradish contained the highest level of peroxidase at 1579 unit/mg protein. Polyacrylamide gel electrophoresis at pH 8.9 revealed that Chineseradish contained 1 band of peroxidase while Gynura pseudochina contained 2 isoperoxidases. Peroxidase from Chineseradish was purified 105 fold by ammonium sulfate precipitation, dialysis, DEAE-Sephadex A-50 anion exchange chromatography, and Sephadex G-200 gel filtration. The final peroxidase preparation has a specific activity of 79,333 unit/mg. protein. Peroxidase was successfully immobilized by covalently linked to Amberlite IRA-64 using glutaraldehyde as a linking agent. Furthermore, peroxidase was co-immobilized with glucose oxidase on cellulose by physical adsorption. With the presence of o-tolidine on the paper the immobilized enzymes was used successfully in a qualitative and semiquantitative determination glucose.