CHAPTER V

CONCLUSIONS

1. Cassava SBE activity was detected in the extract of parenchyma of cassava tuber.

2. The cassava SBE was purified by polyethyleneglycol precipitation, followed by chromatography on DEAE-cellulose column, Q-Sepharose column and gel filtration on Sephadex G-200 column. By this procedure, the cassava SBE was purified 148.5 folds with 2.0 % recovery.

3. The native molecular weight of the cassava SBE was estimated by gel filtration to be 160 kD and the relative molecular weight estimated SDS-PAGE was 80 kD. Therefore the cassava SBE probably consisted of two identical subunits with molecular weight of 80 kD.

4. The optimum pH for the cassava SBE activity was 7.0, optimum temperature was 37 ^{o}C. and its isoelectric point (pI) was estimated by polyacrylamide isoelectrofocusing to be 5.4.

5. Starch, glycogen, amylopectin and dextrin can enhance SBE activity by 5.7, 2.4, 2.0 and 1.9 folds when added to the reaction mixture, while pentose and maltose showed no effect.

6. The enzyme was stable at temperature up to 45 ^{o}C. Enzyme stored at -20 ^{o}C was found to be stable up to 4 weeks with more than 50 % activity retained.