CHAPTER V

CONCLUSION

Genomic DNA samples of the 100 *Streptomyces* strains isolated from soil in Thailand were identified for existing the polyketide P-450 genes by dot blot hybridization and PCR. The selected PCR products consisting of putative polyketide P-450 genes (800 bp) were cloned and sequenced. The sequence analysis of our putative P-450 genes (SMC 48, SMC 59 and SMC 78) exhibited the high sequence homology to members of a group of polyketide P-450 from *Streptomyces* origin, and showed strong conservation of the motifs of P-450: the oxygen-binding and the heme-binding motifs. The Phylogenetic analysis revealed the close relationships of our putative polyketide P-450s to the P-450s which catalyze the hydroxylation of macrolide compounds.

