CHAPTER V
CONCLUSIONS

The extracted Thai rice bran performs a high specific activity and is comparable to those of the reported lipases, which are known to be a catalyst in polyesterification. The esterification of adipic acid and 1,4-butanediol under rice bran lipase catalytic system gives the degree of polymerization at 2-5, which is effected by the reaction time. To achieve the high molecular weight of the polyester by using rice bran lipase, the purification of rice bran lipase is one of the factors that should be concerned to induce higher specific activity. The polymerization conditions are also concerned to be the important role to achieve the polymer such as solvents, temperature, and pressure. Considering the mass amount and the low cost, the Thai rice bran lipase is expected to be a novel source catalyst in practical polyesterification.