Preliminary study of an efficient secretory system of recombinant fusion protein in *Escherichia coli* using the PHB depolymerase signal sequence

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We constructed an efficient secretory system of the recombinant fusion protein in *Escherichia coli*. PHB extracellular depolymerase, which is a bacterial oligomer hydrolase comprised with signal peptide. The GFP gene fused to the PHB extracellular depolymerase signal sequence was expressed using an inducible tac promoter in various *E. coli* strains1-4 by induction with IPTG. In this report, a novel PHB extracellular depolymerase from *Alcaligenes faecalis* was employed for the efficient secretion of a model fusion protein.

Details of expression and secretion of fusion protein will be presented.

Acknowledgement

This work was supported by the National Research Laboratory Program (2000-N-NL-01-C-237) of the Korean Ministry of Science and Technology and by the Brain Korea 21 program.

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