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Isolation of a Mutation for the Subsidiary Transcription Factor Which Interacts with LIM-Homeodomain (LH-2) Protein in *Saccharomyces cerevisiae.*

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To determine whether LIM domains interact with each other, yeast two hybrid system was applied. Fusion proteins were created by linking LIM domain or mutated LIM domain (mutLIM) to a GAL4 DNA-binding domain (BD) or transcription activation domain (AD). Protein-protein interactions were determined by the expression of a chromosomal lacZ gene. We found that each combination of (LIM-BD + AD), (LIM-BD + LIM-AD), and (LIM-BD + mutLIM-AD) stimulated expression of the lacZ gene. Comparison of the activities of the lacZ gene in each combination, however, suggested that LIM domain could interact with other subsidiary transcription factor in yeast. EMS mutagenesis was carried out to mutate a gene for this transcription factor. In the procedure of the mutant isolation, false positive clones caused by mutations in LIM domain, BD or chromosomal lacZ gene were selected out and a candidate clone was finally identified. By complementing this mutant strain with a yeast genomic library, we will attempt to clone a gene for this transcription factor.

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Characterization and Purification of Lysozyme in Haemolymph of The Larvae of *Lucilia illustris*

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Lysozyme is one component of the humoral defense system of the insects. Lysozyme in haemolymph of injured larvae of *Lucilia illustris* was identified and characterized with acdic electrophoresis and inhibition zone assay. Lytic activity against cell walls of Gram positive bacteria shows simillar effect in *Bacillus megaterium* and *Micrococcus luteus*. Lysozyme activity from injured haemolymph was higer than that of naive haemolymph. This enzyme was comparatively stable for pH and heat treatment, but heat stability was decreased drastically over 60°C. Lysozyme has been purified from injured haemolymph by reverse-phased FPLC. We will discuss this lysozyme.