



UPPSALA  
UNIVERSITET

## Molecular Biotechnology Programme

Uppsala University School of Engineering

<b>UPTEC X 06 040</b>	<b>Date of issue 2006-10</b>
Author <b>Sara Lyckman</b>	
Title (English) <b>Localisation of clustered genes induced by nitrogen starvation in <i>Schizosaccharomyces pombe</i></b>	
Title (Swedish)	
Abstract Genes are regulated in different ways e.g. via transcription factors, regulatory sequences and epigenetic mechanisms. One of the epigenetic mechanisms is the change in localisation of genes in the cell nucleus during regulation. In this study the <i>lacO/LacR-GFP</i> recognition system was successfully used to visualise clustered nitrogen starvation genes in <i>Schizosaccharomyces pombe</i> . As a reference point Pom152-YFP was crossed into the strains. The upregulation of selected genes during nitrogen starvation was verified by RT-PCR. By this, conditions to study the localisation of genes induced by nitrogen starvation in <i>Schizosaccharomyces pombe</i> were created.	
Keywords Nitrogen starvation genes, clustered genes, gene localisation, <i>Schizosaccharomyces pombe</i> , <i>lacO/LacR-GFP</i> recognition system	
Supervisors <b>Pernilla Bjerling</b> <b>Department of Medical Biochemistry and Microbiology, Uppsala University</b>	
Scientific reviewer <b>Catharina Svensson</b> <b>Department of Medical Biochemistry and Microbiology, Uppsala University</b>	
Project name	Sponsors
Language <b>English</b>	Security
<b>ISSN 1401-2138</b>	Classification
Supplementary bibliographical information	Pages <b>39</b>
<b>Biology Education Centre</b> Biomedical Center Husargatan 3 Uppsala Box 592 S-75124 Uppsala Tel +46 (0)18 4710000 Fax +46 (0)18 555217	