UPPSALA UNIVERSITET

Molecular Biotechnology Programme

Uppsala University School of Engineering

UPTEC X 07 026	**Date of issue 2007-04**

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Title (English)

Affected protein synthesis in barley upon pathogen attack

Title (Swedish)

Abstract

Powdery mildew is a wide-spread and economically important plant disease. The aim of this work was to validate a protein synthesis feature seen in infected barley cells. Promoter sequences of candidate genes were isolated with the intention to identify potential regulatory elements and expression profiles for the same genes were determined. Generality of the protein synthesis feature was investigated in *Arabidopsis*. Results showed extensive upregulation of protein synthesis genes probably related to the formation of the fungal feeding organ inside barley cells. Only one promoter sequence was isolated, and no significant conclusions could be drawn. The upregulation of protein synthesis genes was also observed in *Arabidopsis*, which indicate that this might be a general plant response to powdery mildew infection.

Keywords

powdery mildew, plant-pathogen interaction, promoter sequencing, expression profile, quantitative reverse transcription PCR, protein synthesis

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Project name	Sponsors
Language **English**	Security
ISSN 1401-2138	Classification
Supplementary bibliographical information	Pages **47**

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