

## Table of Contents

[In Press](#)[Online First](#)[Article Archive](#)[PPS \(55\) 2019](#)[PPS \(54\) 2018](#)[PPS \(53\) 2017](#)[PPS \(52\) 2016](#)[PPS \(51\) 2015](#)[PPS \(50\) 2014](#)[PPS \(49\) 2013](#)[PPS \(48\) 2012](#)[PPS \(47\) 2011](#)[PPS \(46\) 2010](#)[PPS \(45\) 2009](#)[PPS \(44\) 2008](#)[PPS \(43\) 2007](#)[PPS \(42\) 2006](#)[PPS \(41\) 2005](#)[Issue No. 1 \(1-45\)](#)[Issue No. 2 \(47-94\)](#)[Issue No. 3 \(95-124\)](#)[Issue No. 4 \(125-170\)](#)[PPS \(40\) 2004](#)[PPS \(39\) 2003](#)[PPS \(38\) 2002](#)[PPS \(37\) 2001](#)[PPS \(36\) 2000](#)[PPS \(35\) 1999](#)[Editorial Board](#)[Ethical Standards](#)[Reviewers 2017](#)[For Authors](#)[Author Declaration](#)[Instruction for Authors](#)[Submission Templates](#)[Guide for Authors](#)[Copyright Statement](#)[Fees](#)[Submission/Login](#)[For Reviewers](#)

## Isolation of pathogenesis-related proteins from TMV-infected tobacco and their influence on infectivity of TMV

Milada Šindelářová, Luděk Šindelář

<https://doi.org/10.17221/2747-PPS>

Citation: Šindelářová M., Šindelář L. (2005): Isolation of pathogenesis-related proteins from TMV-infected tobacco and their influence on infectivity of TMV. *Plant Protect. Sci.*, 41: 52-57.

[download PDF](#)

The composition of pathogenesis-related proteins (PR-proteins) in the intercellular fluid (ICF) and leaf tissue of the hypersensitive tobacco cultivar Xanthi-nc inoculated with Tobacco mosaic virus (TMV), and their inhibitory influence on TMV multiplication were studied. The ICF PR-proteins of infected plants were separated after solubilisation by decreasing gradient of ammonium sulphate, the cell PR-proteins were separated after acidic homogenisation of leaf tissues. The ICF and cell PR-proteins were further purified by ion exchange chromatography on DEAE cellulose. Using discontinuous non-denaturing polyacrylamide gel electrophoresis of DEAE cellulose fractions the PR-proteins were detected. Their molecular weights were estimated by SDS-PAGE. The ICF and cell proteins of infected leaves included PR-proteins of the molecular weights 15–16 kDa (Group 1), 27–28 kDa (Group 3: chitinases) and 36–40 kDa (Group 2a: 1,3-β-glucanases). Fractions with different PR-proteins were tested for their effect on infectivity of TMV. Particularly the PR3 and PR2a proteins seem to decrease the infectivity of TMV.

**Keywords:**

PR-proteins; PAGE; Tobacco mosaic virus

[download PDF](#)

Impact factor (Web of Sc Thomson Reuters)

2017: 1.076

5-year Impact factor

SJR (SCImago Journal Rank SCOPUS):

2017: 0.348 – Q2 (Agronomy Crop Science)

[f](#) Share**New Issue Alert**Join the journal on [Facebook](#)**Similarity Check**All the submitted manuscripts checked by the [CrossRef Check](#).**Abstracted/Indexed in**

Agrindex of Agris/FAO da  
Bibliographie der  
Pflanzenschutzliteratur  
(Phytomed database)  
Biological Abstracts of Bi  
(BIOSIS Previews database)  
BIOSIS Previews  
CAB ABSTRACTS  
Cambridge Scientific Abs  
CNKI  
CrossRef  
Current Contents®/Agric  
Biology and Environmen  
Sciences  
Czech Agricultural and Fo  
Bibliography  
DOAJ (Directory of Open  
Journals),  
EBSCO – Academic Searc  
Ultimate  
Elsevier Bibliographic Dat  
Google Scholar  
ISI Web of Knowledge<sup>SM</sup>  
J-GATE  
Pest Directory database  
Review of Agricultural  
Entomology  
Review of Plant Patholog  
International Informatior  
(CAB Abstracts)  
SCOPUS  
Web of Science®

**Licence terms**

All content is made freely for non-commercial purposes. Users are allowed to copy, transform, and build upon material as long as they credit the source.

**Open Access Policy**

This journal provides immediate open access to its content on the principle that making research freely available to the public maximizes its utility, retention, and dissemination.

[Guide for Reviewers](#)

[Reviewers Login](#)

freely available to the public  
supports a greater global  
exchange of knowledge.

**Contact**

RNDr. Marcela Braunová  
Executive Editor  
e-mail: [pps@cazv.cz](mailto:pps@cazv.cz)

**Address**

Plant Protection Science  
Czech Academy of Agricultural  
Sciences  
Slezská 7, 120 00 Praha 2,  
Czech Republic

---

© 2018 Czech Academy of Agricultural Sciences