

IN PLANTA PRODUCTION OF *DERMATOPHAGOIDES PTERONYSSINUS* Der p 10 ALLERGEN

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In the last years a remarkable increase in allergic and inflammatory diseases was highlighted. In industrialized countries about 20-25% of living people suffer for IgE mediated allergic diseases.

Today allergy immunotherapy is usually performed with natural allergen extracts composed of complex mixtures of several proteins, difficult to standardize and causing cross reactivity.

Recombinant allergens allow determining the exact sensitization profile of certain individual and this is a prerequisite to select those allergens against which a patient is sensitized for setting up the specific immunotherapy.

House dust mites of *Dermatophagoides* species (e.g. *D. pteronyssinus*) are associated with various allergic diseases. One of the most important allergens is Der p 10 which shows a high cross-reactivity with allergens found in a variety of seafood.

We have transiently expressed Der p 10. To do so, a modified version of the potato virus X (PVX) was used for agroinfiltrating *Nicotiana benthamiana* plants. In particular, FLAG-6His tag was fused to either the N or C-terminus region of the Der p 10 cDNA. RT-PCR analysis carried out on cDNAs retrotranscribed from mRNAs extracted from infected plants, Western blotting with monoclonal anti-Flag and anti-6his antibodies, and rDer p 10 immunological characterization is reported and discussed.