

Proteomic Analysis of Major and Minor Allergens from Isolated Pollen Cytoplasmic Granules

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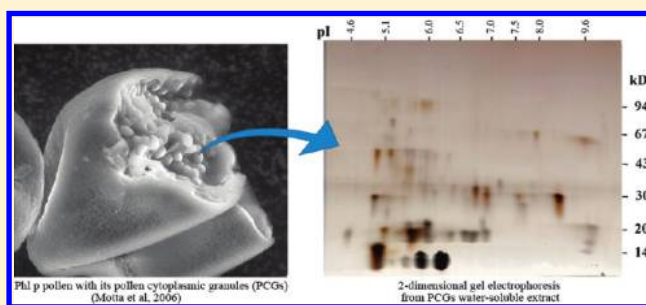
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S Supporting Information

ABSTRACT: Grass pollen is one of the most important vectors of aeroallergens. Under atmospheric conditions, pollen grains can release pollen cytoplasmic granules (PCGs). The allergens associated with these intrinsic subfractions induce, in laboratory animals as well as in asthmatic patients, allergic and inflammatory responses. The objectives of this study were to characterize the PCGs' intrinsic allergens and to compare them with those of pollen grains. The water-soluble proteins were extracted from pollen grains and their PCGs. IgE-binding proteins were analyzed and characterized through an allergomic strategy: 1- and 2-dimensional gel electrophoresis (1-DE and 2-DE), immunoblotting, using grass-pollen-sensitized patient sera, mass spectrometry (MS) analysis, and database searching. Several of the allergens listed in the IUIS nomenclature, Phl p 1, 4, 5, 6, and 12, were detected in pollen and PCG extracts, whereas Phl p 11 was found only in PCGs, and Phl p 2 as well as Phl p 13 were found only in pollen extract. Some other allergens not listed in the IUIS nomenclature were also characterized in both pollen and PCG extracts. Since the major grass pollen allergens were found in PCGs and because of their small size, these submicronic particles should be considered as very potent sensitizing and challenging respirable vectors of allergens.

KEYWORDS: pollen cytoplasmic granules, IgE-binding proteins, allergens, 2-DE-immunoblotting, mass spectrometry



1. INTRODUCTION

In the last 40 years, the frequency of symptoms of allergic diseases, including rhinitis and asthma, has dramatically increased, especially for children and people living in urban areas. Atopic diseases are complex inflammatory disorders influenced by both genetic and environmental factors, including pollen grains, the main contributors to a massive diffusion of allergens in the atmosphere. However, although the symptoms associated with these affections coincide, most often, with the pollination season, it is now well-established that a simple and direct relationship does not exist between these two phenomena and that many other factors, for instance, airborne pollutants¹ and westernized lifestyles² must be taken into account.

Among these other factors, pollen cytoplasmic granules (PCGs) released by pollen grains also play a major role in allergic symptoms.^{3,4} It has been shown that the presence in the atmosphere of hundreds of these small particles is quite significant in triggering asthma crises.⁵ When compared to pollen grains, because of their small size, PCGs could penetrate deeper in the humans' airways and increase allergic responses.

In an animal model of allergy (Brown-Norway rat), Motta et al.⁶ found that *Phleum pratense* PCGs induced specific IgE antibodies and lymph node cell responses similar to those obtained with intact grass pollen. We previously reported, in the same kind of rat model, that these two aeroallergenic sources (pollen and PCGs) have interactive effects on both humoral and cellular allergic responses⁷ and that PCGs induced asthma-related local and strong allergic as well as inflammatory responses.^{8,9}

Airborne PCGs are present in high concentrations on days following rainfall^{4,10,11} and are associated with thunderstorm asthma.^{12,13} Under polluted conditions, modifications have been reported in the shape and tectum morphologies of airborne pollen grains^{14,15} and on their allergen content.¹⁶ Undamaged pollen grains (non respirable-size particles) as well as fragmented pollen, PCGs (respirable-size particles),¹⁷ and proteins from different organic sources account for a significant part of atmospheric aerosols.^{18,19} Furthermore, it has been

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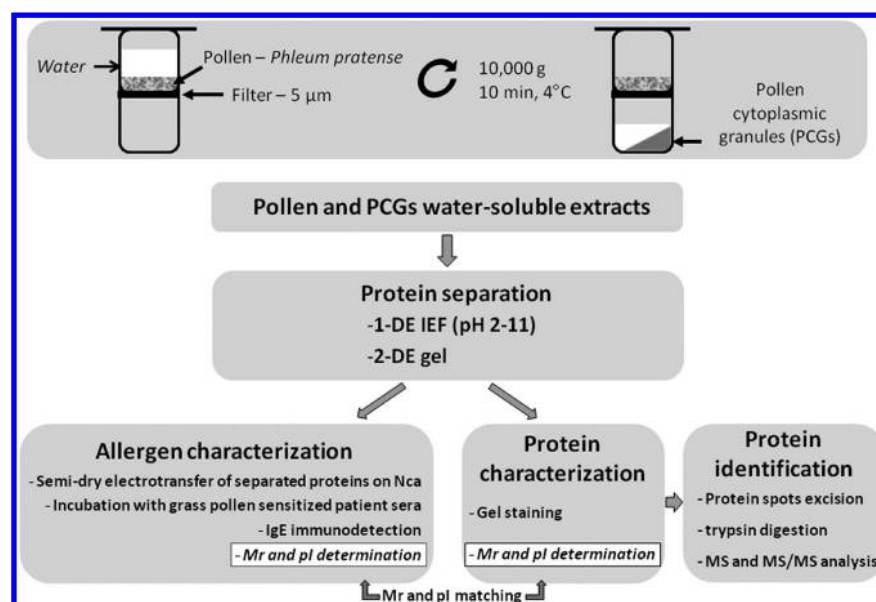


Figure 1. Schematic allergomic strategy used to obtain PCGs from *P. pratense* pollen grains and their water-soluble extracts. Protein separation by 1- and 2-dimensional gel electrophoresis (1-DE and 2-DE) and characterization of IgE-binding proteins by immunoblots and mass spectrometry (MS) analysis.

shown that experimental gaseous pollution on grass pollen induces the release of PCGs from the grains.²⁰ Therefore, the current increase of outdoor pollution may lead to an increased release of PCGs in urban environments.

Allergens of many grass pollen grains have already been studied and classified into 11 groups.^{21,22} Among them, *P. pratense* is one of the prototypic grass species.^{23,24} Nine allergens from *P. pratense* pollen (Phl p 1, 2, 4, 5, 6, 7, 11, 12, and 13) have been cloned, sequenced, and officially named according to IUIS nomenclature (<http://www.allergen.org>). Some others have been described but not yet classified as, for instance, Phl p 3.^{16,25} However, very few contradictory studies are currently available on PCGs allergens. The aim of the present study was precisely to clarify the situation by identifying and comparing the water-soluble allergen repertoire of both grass pollen and its isolated PCG content using *P. pratense* pollen as the allergen source in a proteomic approach. The allergens from pollen grains and their PCGs were characterized through an allergomic strategy: 1- and 2-dimensional gel electrophoresis (1-DE and 2-DE), immunoblotting with grass-pollen-sensitized patient sera, mass spectrometry (MS) analysis, and database searching (Figure 1).

2. MATERIALS AND METHODS

2.1. Chemicals and Biologicals

Pollen grains from Timothy grass (*Phleum pratense*) were obtained immediately after the harvest, without conservative treatment and provided by Allerbio AB (Varennnes-en-Argonne, France). Pollen grains were stored at 4 °C. Ultrafree-MC filter devices (Millipore Corp., Bedford, MA) and Immobilon, a PVDF blotting membrane (pore size 0.2 µm), were from Millipore (Bedford, MA). Sodium dodecyl sulfate (SDS), dithiothreitol (DTT), iodoacetamide, alkaline phosphatase-conjugated goat antihuman IgE, the AP-substrates, 5-bromo-4-chloro-3-indolyl phosphate (BCIP), and nitroblue tetrazolium (NBT) were purchased from Sigma-Aldrich (St Louis, MO). Polyacrylamide gels CleanGel IEF, ExcelGel SDS-PAGE (gradient 8–18%), molecular masses standard protein mixture

(MMr), and Whatman 1MM and 3MM paper were from GE Healthcare (Uppsala, Sweden). Carrier ampholytes (Servalyt) pH 2–11 were purchased from Serva (Heidelberg, Germany) and isoelectric point standards from BioRad (Hercules, CA). Protein samples were digested by trypsin from Roche (Applied Sciences, Meylan, France), and the standard peptide mix was purchased from LaserBioLabs (Sophia Antipolis, France). All other chemicals were from Sigma-Aldrich and were of analytical grade.

2.2. Pollen and PCGs Protein Extractions

PCGs (0.6–5 µm, average diameter 1.1 µm) used in this study were isolated from 400 mg of *P. pratense* pollen by osmotic shock in pure water. PCGs were then filtrated on a 5 µm Ultra-Free filters, centrifuged, and washed in distilled water.⁸

Water-soluble protein extraction from pollen grains was performed according to Rogerieux et al.¹⁶ Proteins of PCGs, prepared from 400 mg of pollen, were extracted in 4 mL of distilled water by rotation for 1 h at room temperature. This suspension was then centrifuged for 10 min at 10000g, and supernatants were kept at –20 °C.⁷

2.3. Patient Sera

Nine out of 26 grass-sensitized patient sera were selected on the basis of previous ELISA and immunoblotting results showing IgE-specific binding to numerous grass pollen allergens from *Dactylis glomerata*.²⁶ A serum from a nonatopic donor was used as control. All the sera were drawn after obtaining an informed consent from individuals (blood donors) suffering from grass pollen allergy. They were provided by biological analysis laboratories and represented residues of IgE titer evaluations.

2.4. One-Dimensional (1-DE) and Two-Dimensional Electrophoresis Separations (2-DE)

Pollen and PCG proteins were separated according to their isoelectric point (pI) in native conditions by isoelectrofocusing (IEF) on a flat bed electrophoretic chamber, Multiphor II from GE Healthcare (Uppsala, Sweden). The IEF separation was performed in a polyacrylamide gel 4% T, 3% C (CleanGel),

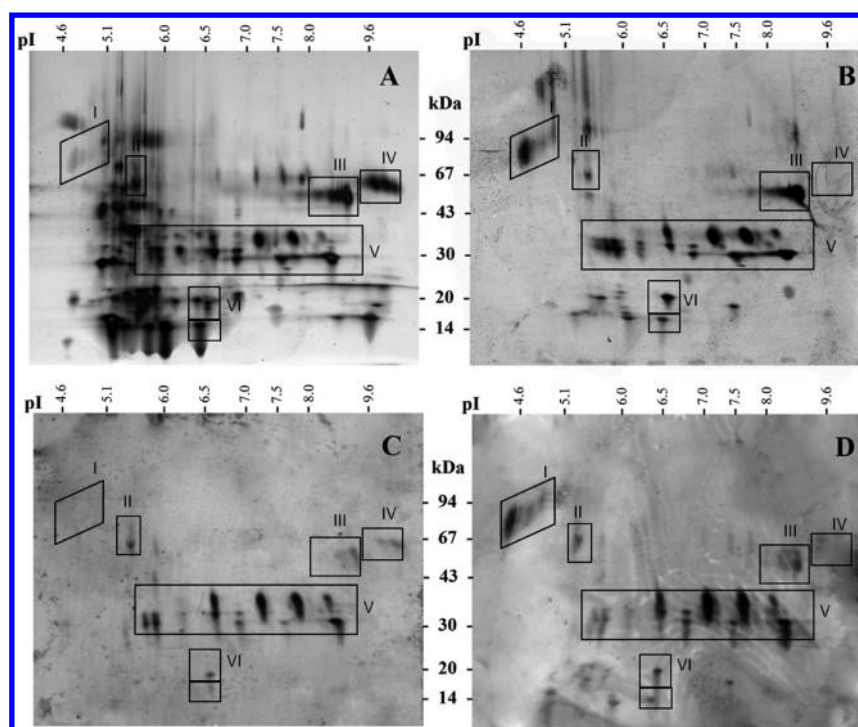


Figure 2. 2-DE analysis of the water-soluble proteins from *P. pratense* pollen. Water-soluble pollen extract from *P. pratense* was submitted to IEF initial separation followed by SDS-PAGE separations. One of the four gels was silver stained (A). The others were transferred on PVDF sheets and revealed by IgE from grass-pollen-sensitive patient sera: serum n°6 (B) diluted at 1:20; serum n°1 (C) and serum n°8 (D) diluted at 1:10. The serum numbers correspond to the IEF immunoblotting ones. pI (at the top) and M_r (in the middle) are indicated for each gel.

hydrated in a solution containing 5% v/v Servalyt pH 2–11, on a flat bed electrophoretic chamber cooled at 15 °C.²⁷ The extracts (50–75 μ g of proteins) were loaded on 10-cm-long and 0.5-cm-wide strips of a dry Whatman 1MM paper placed on the top of the gel (anode side). After the protein separation, a part of the gel was stained with Coomassie Blue. Isoelectric point (pI) standards from 4.45 to 9.6 were used as references. Five-millimeter-width IEF strips were cut for subsequent 2-DE electrophoresis and stored at –20 °C.²⁸

After equilibration, for 30 min in 114 mmol L^{–1} Tris-acetate buffer (pH 6.8) containing 12% SDS (w/v) and 250 mmol L^{–1} iodoacetamide, IEF strips were submitted to SDS-PAGE separations on 8–18% gradient gels (ExcelGel) on a flat bed electrophoretic chamber cooled at 12 °C. The gels were then either stained (Coomassie or silver²⁹) or blotted.

2.5. Immunoblotting

The 1-DE-immunoblotting was performed according to Guérin-Marchand et al.²⁵ with slight modifications. Briefly, after an IEF separation, proteins of each extract were blotted by pressure (for 1 h at 22 °C) onto a PVDF sheet, covered by several dry sheets of Whatman 1MM and 3MM filter paper, a glass plate, and a 1 kg weight. PVDF sheets were then cut into strips (2.5 mm width) to be used for the immunodetection. PVDF strips were saturated in defatted milk powder solution (5% w/v in PBS–Tween 0.1%) for 1 h at room temperature and then incubated 1 h with grass-pollen-sensitized patient sera (dilution 1:10) in the same solution. At the next step, strips were incubated for 2 h with alkaline phosphatase (AP)-conjugated goat antihuman IgE at a dilution of 1:700. Finally, strips were revealed with BCIP and NBT. Three 5 min washes were performed with PBS–Tween 20 (PBS–Tw) between each incubation step.

After 2-DE gel electrophoresis, proteins were electroblotted onto PVDF sheets. The transfer was performed with a Novablot semidry apparatus (GE Healthcare) according to the manufacturer's instructions (1 h 15 min, 1 mA/cm²). Sheets were blocked for 1 h with PBS–Tw (0.3% w/v) and incubated with 1:10 diluted grass-pollen-allergic patient sera (except for 1:20 diluted serum n°6 with pollen extract blot). After extensive washing, sheets were incubated for 2 h with AP-conjugated goat antihuman IgE (1:700) and revealed as described above.

2.6. Mass Spectrometry Analysis

4800 Proteomics Analyzer MALDI-TOF/TOF mass spectrometer from Applied Biosystems ABI (Framingham, MA) was used for all analyses.

After a matching phase of the coordinates (M_r and pI) between IgE-binding proteins revealed by immunoblotting and gel proteins (Figure 1), the spots were manually excised from Coomassie-blue- and/or silver-stained 2-DE gels. Some non-IgE-binding supplementary protein spots were also collected.

Two pieces of each gel that do not contain visible protein were MS analyzed as controls. Proteins were then reduced by dithiothreitol (10 mmol L^{–1} in 100 mM NH₄HCO₃), alkylated by iodoacetamide (55 mmol L^{–1} in 100 mM NH₄HCO₃), and in-gel digested by trypsin (9 to 12 ng/ μ L in 50 mM NH₄HCO₃, 5 mM CaCl₂) according to Shevchenko et al.³⁰ MS analysis was performed in positive ion reflectron mode, and MS/MS data were obtained using mode CID off at 2 keV collision energy. External plate model calibration was achieved with a standard peptide mix on 500–3400 Da and autoprolysis products of trypsin were used for internal calibration (MW 906.50, 1153.57, 2163.06, and 2290.16). The top seven most intense peptides per spot were selected automatically for the MS/MS analysis.

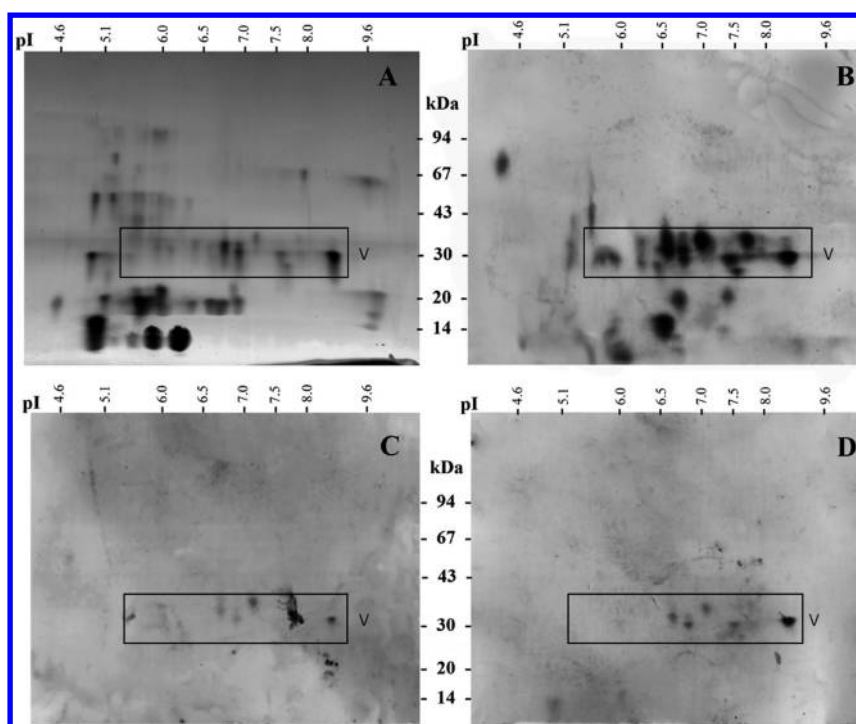


Figure 3. 2-DE analysis of the water-soluble proteins from *P. pratense* PCGs. Water-soluble PCG extract from *P. pratense* was submitted to IEF initial separation followed by SDS-PAGE separations. One of the four gels was silver stained (A). The others were blotted on PVDF sheets and revealed by IgE from grass-pollen-sensitive patient sera: serum n°6 (B); serum n°1 (C) and serum n°8 (D) diluted at 1:10. The serum numbers correspond to the IEF immunoblotting ones. pI (at the top) and M_r (in the middle) are indicated for each gel.

Each gel spot was analyzed twice on separate MALDI spots. Major peptides were selected for MS/MS sequencing from the most intense to least intense. Abundant proteins could be detected in MS along different pI and/or different M_r . Even if matured forms of proteins are organized along M_r range and modified isoforms along pI, protein candidates for identification were considered here just as precursor forms.

2.7. Database Search

GPS Explorer software version 3.6 (Applied Biosystems ABI) was used to create search files and interpreted MS and MS/MS spectra. The search engine Mascot Server 2.1 used either NCBI nr (340 021 sequences), SwissProt (SProt) (28 902 sequences), or TrEMBL (507 833 sequences) databases (version release May, 2010), selecting *Viridiplantae* taxonomy. The database search was performed for tryptic peptides only, with cysteine carbamidomethylation, methionine oxidation, and N-terminal acetylation as variable modifications. Precursor and fragment error tolerances were set respectively to 50 ppm and 0.3 Da. Up to two missed cleavages were accepted. MS and MS/MS data were combined for the database search. Protein identification was validated if the peptide mass fingerprinting (PMF) search gave an identification score associated to a significance level better than 95% and if at least two peptides were sequenced with an ion score above a threshold of 30. No protein identifications were validated with only one peptide sequenced or with PMF data alone.

3. RESULTS

3.1. Two-DE Analysis of Pollen and PCG Extracts

Allergens were located on 2-DE protein maps by incubating PVDF blotted proteins with grass-pollen-sensitized patient sera in order to visualize IgE-binding ones. For this purpose, three

different sera (sera n°1, 6, and 8) were selected from a screening of nine sera studied by 1-DE IEF IgE immunoblot. The results of the screening are depicted in the Supporting Information (Figure S1A,B).

Silver staining of 2-DE resolved proteins from the gel of pollen extract (Figure 2A) revealed about 100 proteins with a large spectrum of M_r (10–>94 kDa) and pI (<4.5–10.0). For the three studied sera (Figure 2B–D), a common main pattern of IgE recognition was observed: (i) a protein at M_r 67 kDa and pI 5.3 (box II), (ii) a group of proteins around 50 kDa and pI 8.6 (box III), (iii) a series of proteins from 30 to 40 kDa, with pI from 5.5 to 8.6 (box V), and finally, (iv) a 20 kDa protein, with a pI 6.5 (box VI). For the sera n°6 and 8 (Figure 2B,D), acidic allergens (between pI of 4.5 and 5.0) were also detected from 67 to 94 kDa (box I), as previously described.¹⁶ The serum n°1 showed the most restricted spectrum of allergens (Figure 2C), in agreement with the low binding observed in 1-DE. For this serum and serum n°8, a weak signal was detected in a very basic zone (pI 9.6–10) around 67 kDa (box IV). This signal was not observed with serum n°6.

With PCG extract, about 40 proteins were detected by silver staining (Figure 3A). Most of these proteins presented M_r ranging from 14 to 94 kDa and pI ranges from 4.5 to 10.0. The three patient sera showed positive IgE reactivity against this extract. For these three sera, a series of proteins from 30 to 40 kDa and with pI from 5.5 to 8.6 (box V) was similar to what was observed in pollen extract (Figure 2). Serum n°6 (Figure 3B) presented the highest IgE-binding heterogeneity (~25 spots) and intensity. For this serum, a very acidic allergen in the range of M_r 67–90 kDa has been detected like in pollen extract (Figure 2B, box I). For the two other sera, the IgE reactivity was low and weakly heterogeneous (Figure 3C,D).

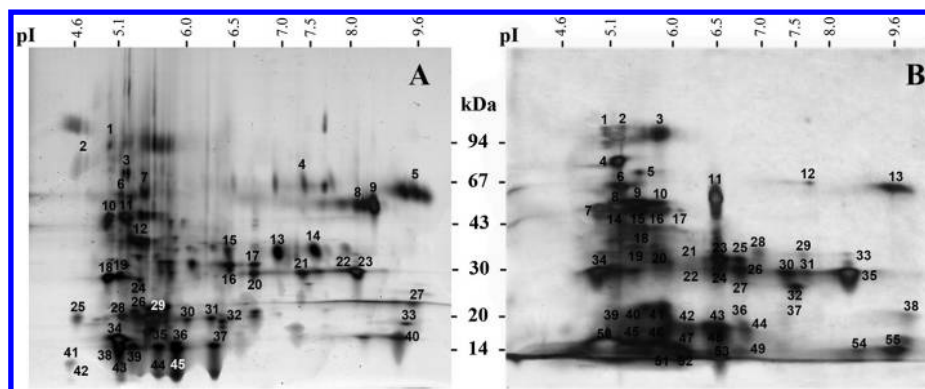


Figure 4. 2-DE of the water-soluble proteins from *P. pratense* pollen and PCGs for MS analysis. Water-soluble pollen (A) and PCG (B) extracts from *P. pratense* were submitted to IEF initial separation followed by SDS-PAGE separations. The gels were silver stained. The numbers correspond to the spotting for the mass spectrometry analysis (see Table 1). pI (at the top) and M_r (in the middle) are indicated for both gels.

Table 1. Synthetic List of Allergens Studied by 2-DE Immunoblotting and Characterized by Mass Spectrometry Analysis in Pollen and PCG Extracts^a

protein	pollen ^b	PCGs ^b	allergenic molecules or sources	spot number	
				pollen (Figure 4A)	PCGs (Figure 4B)
Already Described as Allergen in <i>P. pratense</i>					
<i>β</i> -expansin	●	●	Phl p 1 ^c a and b	15, 16, 17, 20, 21, 22, 23	23, 24, 26, 27, 30, 32, 35
<i>β</i> -expansin (fragment)	●		Phl p 2 ^c	39	
<i>β</i> -expansin (fragment)	●	●	Phl p 3		
berberin-bridge enzyme-like protein	●	●	Phl p 4 ^c	5	13 ^d
ribonuclease	●	●	Phl p 5 ^c a and b	13, 14, 19 ^d , 24 ^d , 35	20, 29, 36, 37, 47, 48
isoflavone reductase	●	●	Phl p 6 ^c	34, 36, 43 ^d , 44, 45 ^d	51, 52, 53
Ca-binding protein			Phl p 7 ^c		
Cytochrome C			Phl p 10 ^c		
trypsin inhibitor		●	Phl p 11 ^c		40 ^d , 41, 45 ^d , 46 ^d
profilin	●	●	Phl p 12 ^c	38	50
polygalacturonase	●		Phl p 13 ^c	8, 9	
Newly Described as Allergen in <i>P. pratense</i>					
ascorbate reductase (cytosolic monodehydro-)	●	●		10	7
<i>β</i> -glucosidase 38	●		latex, mold, plant food	4	
cinnamyl alcohol dehydrogenase 2		●	mold, yeast		28
Potentially Allergenic in <i>P. pratense</i>					
enolase	●	●	grass pollen, mold, yeast, cockroach, seafood, latex	11 ^d	8 ^d , 9 ^d
triosephosphate isomerase	●	●	wheat, oriental planetree, lychee, watermelon, seafood, cockroach, biting insects	18 ^d	34 ^d
legumin-like protein (11S globulin)		●	almond, cashew, soja, buckwheat, coconut		14 ^d
UDP-glucose pyrophosphorylase		●	latex		6 ^d
Not Reported as Allergen					
phosphoglucumutase		●			4 ^d

^aMore information is available in the Supporting Information. ^bA bullet (●) indicates that the protein is present in pollen or PCGs. ^cIUIS nomenclature code (<http://allergen.org>). ^dSpotted protein not recognized by IgE from the 3 patients' sera.

3.2. Mass Spectrometry Analysis of Pollen and PCG Extracts

Forty five pollen- and 55 PCG-protein spots were submitted to MS analysis (Figure 4A,B) in order to identify IgE-binding proteins. Most of the excised protein spots were recognized by IgE from at least one of the three patient sera studied (Figures 2 and 3). The exhaustive list of proteins identified in the *Viridiplantae* data bank is presented in Tables S1 and S2 of the Supporting Information, together with supplemental data related to peptide numbers, scores and sequences, used databases (NCBIInr, SwissProt, TrEMBL). Protein names and

the plant species in which the optimal homology was found, accession numbers, and also coordinates (M_r , pI) are also available in the Supporting Information.

Among the already known 11 *P. pratense* pollen allergens (PPPA) listed in different data banks (<http://www.allergen.org> and <http://www.meduniwien.ac.at/allergens/allfam>), eight were identified in the pollen extract: Phl p 1, 2, 3, 4, 5, 6, 12, and 13 and seven in the PCG extract, Phl p 1, 3, 4, 5, 6, 11, and 12 (Table 1). The Ca-binding protein Phl p 7 and the cytochrome C Phl p 10 were not found either in pollen or in PCGs, whereas Phl p 11 was found only in PCGs but not in

pollen, and Phl p 2 and 13 were absent in PCGs but readily detected in pollen (Table 1).

Numerous isoforms or variants of the same allergen can be found, for instance, for Phl p 1, 5, 6, and 11. Interestingly, a single isoform (spot n°41) of Phl p 11 was bound by IgE in PCGs.

Besides PPPA, three other IgE-reactive proteins were characterized by MS in pollen and/or PCG extract: an ascorbate reductase in pollen and PCGs, a β -glucosidase in pollen only, and an alcohol dehydrogenase in PCGs only. Finally, five proteins that were not recognized as allergens by IgE from the three patient sera were found. Two in both timothy grass PCGs and pollen grains, an enolase and a triose phosphate isomerase, and three in PCGs only, a legumin-like protein (11S globulin), a UDP glucose pyrophosphorylase, and a phosphoglucomutase. Most of them were already described as allergens in other plant parts than pollen grains and also in microorganisms (Table 1).

4. DISCUSSION

Several studies of our team already showed that pollen grains and PCGs could, in vivo, induce allergic responses in different animal models of allergy, among which were Brown Norway rats^{7,31} and BALB/c mice.^{32,33} We also could show that similar patterns of IgE reactivity exist between rats and humans against pollen and PCG proteins.⁹ Moreover, PCGs were also reported to increase the in vitro inflammatory responses of bronchial epithelial human cells³⁴ and rat macrophages³⁵ and to be involved in bronchial constriction in patients suffering from rainfall-associated asthma.¹³ These results strongly suggest that, in non-experimental conditions, PCGs may be causative agents of symptoms observed in sensitized patients. Their sensitizing and challenging allergenic properties are likely to be due not only to their small size that allows the PCGs to go deeper in the bronchial airways, but also to their allergenic content. However, no studies comparing allergen repertoires of both pollen and PCGs were available until now.

The aim of our present study was precisely to answer these questions by characterizing and identifying water-soluble allergens of these particles (PCGs) and comparing them with those of pollen grains using grass-pollen-sensitized patient sera.

As expected, 2-DE analysis showed more proteins as well as more allergens in pollen than in PCGs. MS analysis revealed that well-known allergens, such as Phl p 1, Phl p 4, Phl p 5, and Phl p 6 were found in both extracts, pollen and PCGs, with a heterogeneity of pI and M_r in agreement with what was already reported, at least for groups 5 and 6 of grass pollen allergens.^{23,36} Isoforms and variants of the same protein is a common trait of plant proteins. Among other PPPA, Phl p 11 was present only in PCG extract and Phl p 2 and Phl p 13 only in pollen extract. Phl p 4, a berberin-bridge enzyme-like protein, was poorly recognized by the three patient sera used on 2-DE immunoblots from pollen extract. However, this allergen was readily detected by MS on both extracts, confirming the results of Rogerieux et al.¹⁶ reporting the presence of Phl p 4 in pollen extract by using a specific monoclonal antibody.

Using immunogold labeling, PCGs were shown to carry allergens from group 5, 6, and 13 in *P. pratense*^{37–40} and from groups 1 and 5 in *Lolium perenne*.⁴¹ In contrast, in our study, Phl p 13 was not observed in PCG extract, whereas it was present in pollen extract. The only two PPPA absent from pollen and PCG extracts were the low prevalence (10%) allergens Ca-binding protein, Phl p 7, and cytochrome C, Phl p

10.^{23,24} In two different studies,^{42,43} group 5 allergens could not be detected, which may be due, as the authors said, to the fact that group 5 allergens were dissolved from the granules during hydration. Preferential localizations for specific allergens were also reported; for example, Phl p 6³⁸ and Phl p 13³⁹ were shown to be localized on the surface of the P-particles in cytoplasmic content.

These apparent contradictory results might be attributed either to the quality of pollen grains (location, maturation, age, and storage) or to the different types of techniques used to analyze the allergen repertoire of PCGs. This applies first to the preparation of the sample to be analyzed and second to the techniques of identification of allergens (in situ immunogold labeling, Western blotting, use of polyclonal human IgE or mouse monoclonal antibodies, MS). The original point of our approach is that only intrinsic proteins of PCGs have been studied since PCGs were isolated from the pollen grains, a situation close to what happens in natural conditions where rainfall or thunderstorms are responsible of the release of PCGs in the atmosphere.

Already described PPPA (Phl p series, according to the IUIS nomenclature) have been widely studied at biochemical, structural, and allergenic levels. They not only are IgE-binding proteins but also were demonstrated to be also responsible for clinical symptoms through their ability to induce mediator release from basophiles or mast cells. Besides these established allergens, three further proteins were shown in this study to be IgE-binding proteins and thus could be considered as allergens: (i) an ascorbate reductase, detected both in pollen and PCGs, never reported to be allergenic; (ii) a β -glucosidase found in pollen and described as an allergen in latex,⁴⁴ in mold like *Aspergillus fumigatus* (Asp f 4 and 7)⁴⁵ and in plant food;⁴⁶ and (iii) an alcohol dehydrogenase found in PCGs and reported to be also allergenic in mold⁴⁷ and yeast like *Candida albicans* (Can a 1).⁴⁵

Some spots that did not correspond to IgE-binding proteins were also excised from the gels for MS/MS characterization. The analysis resulted in the characterization of five additional proteins, all found in PCGs and two of them also present in pollen grains. Four of them were reported to be allergenic in various sources and are thus considered as potentially allergenic in *P. pratense* pollen since only three sera from allergic patients were used: (i) an enolase (metalloenzyme) described as allergenic in *Cynodon dactylon* pollen (Cyn d 22w),⁴⁸ mold,^{49,50} yeast,⁵¹ cockroach,⁵² seafood,⁵³ and latex (Hev b 9);⁵⁴ (ii) a triosephosphate isomerase, which was also reported as an allergen in a lot of sources, among which were wheat,⁵⁵ oriental planetree (<http://www.allergome.org>), lychee,⁵⁶ watermelon,⁵⁷ seafood,⁵⁸ cockroaches,⁵² and a biting insect;⁵⁹ (iii) a legumin-like protein corresponding to a 11S globulin described as an allergen in different seeds such as almond, cashew, soja, and buckwheat^{60–64} as well as coconut;⁶⁵ and finally, (iv) a UDP-glucose pyrophosphorylase shown to be allergenic in latex.^{66,67} The phosphoglucomutase detected here was never reported allergenic. The three last proteins were found only in PCGs.

In conclusion, by purifying subparticles from *P. pratense* pollen grains, namely pollen cytoplasmic granules (PCGs), we demonstrated that they are genuine vectors of not only major allergens, whose prevalence is more than 50% such as Phl p 1, 4, 5, and 6, but also minor allergens already described (Phl p 3, 11, 12) and some newly described throughout this study. Such results may apply to other grass (as in our unpublished

preliminary data on *Dactylis glomerata*) and nongrass pollen such as birch,^{12,68} where subparticles have also been described. They allow us to assert that respirable small-sized particles such as PCGs are at least as dangerous as pollen grains with regard to a sensitizing and challenging antigen collection. Some IgE-reactive proteins were found only in PCGs, suggesting that specific markers of a grass sensitization to PCGs might exist. A correlation between such IgE specificities and clinical symptoms might help to refine the diagnosis, prevention, and treatment by understanding the mechanism of sensitization.

■ ASSOCIATED CONTENT

■ Supporting Information

Figure S1, Tables S1 and S2, and supplementary data. This material is available free of charge via the Internet at <http://pubs.acs.org>

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Gel Idx/Pos	303/M5		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 4	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Beta-glucosidase 38 OS=Oryza sativa subsp. japonica GN=BGLU38 PE=2 SV=2	BGL38_ORYSJ	56967.4	7.31	5	92	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
882.4468	882.442	-0.0048	-5	103	109 FSISWSR					Mascot
968.52	968.5232	0.0032	3	463	470 FGIVYVDR					Mascot
1176.5797	1176.5861	0.0064	5	186	194 NWFTINEPR					Mascot
1176.5797	1176.5861	0.0064	5	186	194 NWFTINEPR	49	99.846			Mascot
2003.9651	2003.9792	0.0141	7	441	456 VTGYFAWSLLDNFEWR					Mascot
2003.9651	2003.9792	0.0141	7	441	456 VTGYFAWSLLDNFEWR	27	78.781			Mascot
3136.5051	3136.4402	-0.0649	-21	211	240 CTGCQPGGNSATEPYIA AHNLLLSHAAAVR			Carbamidomethyl (C)[1,4]		Mascot

Gel Idx/Pos	303/M5		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 4	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Beta-glucosidase 38 OS=Oryza sativa subsp. japonica GN=BGLU38 PE=2 SV=2	BGL38_ORYSJ	56967.4	7.31	5	92	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
882.4468	882.442	-0.0048	-5	103	109 FSISWSR					Mascot
968.52	968.5232	0.0032	3	463	470 FGIVYVDR					Mascot
1176.5797	1176.5861	0.0064	5	186	194 NWFTINEPR					Mascot
1176.5797	1176.5861	0.0064	5	186	194 NWFTINEPR	49	99.846			Mascot
2003.9651	2003.9792	0.0141	7	441	456 VTGYFAWSLLDNFEWR					Mascot
2003.9651	2003.9792	0.0141	7	441	456 VTGYFAWSLLDNFEWR	27	78.781			Mascot
3136.5051	3136.4402	-0.0649	-21	211	240 CTGCQPGGNSATEPYIA AHNLLLSHAAAVR			Carbamidomethyl (C)[1,4]		Mascot

Gel Idx/Pos	253/K5		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 4	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pectinesterase OS=Oryza sativa subsp. japonica GN=OsJ_012656 PE=3 SV=1	A3APD4_ORYSJ	25838.8	8.2	5	111	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1201.6001	1201.6049	0.0048	4	85	95	GSVDFIFGFGR					Mascot
1201.6001	1201.6049	0.0048	4	85	95	GSVDFIFGFGR	80	99.997			Mascot
2612.2703	2612.2124	-0.0579	-22	85	108	GSVDFIFGFGRSLYADCTIESVTK					Mascot
3012.4041	3012.4998	0.0957	32	12	39	DGQPMGTMLSATVAVEADYFMASSIIFK			Oxidation (M)[5,8]		Mascot
3136.5151	3136.4719	-0.0432	-14	12	40	DGQPMGTMLSATVAVEADYFMASSIIFKR					Mascot
3211.5916	3211.4751	-0.1165	-36	80	108	NCLIRGSVDFIFGFGRSLYADCTIESVTK					Mascot
3211.5916	3211.4751	-0.1165	-36	80	108	NCLIRGSVDFIFGFGRSLYADCTIESVTK					Mascot

2	Pectinesterase OS=Oryza sativa subsp. japonica GN=Os12g0563700 PE=2 SV=1	Q2QNI9_ORYSJ	44285.5	9.13	4	96	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1201.6001	1201.6049	0.0048	4	264	274	GSVDFIFGFGR					Mascot
1201.6001	1201.6049	0.0048	4	264	274	GSVDFIFGFGR	80	99.997			Mascot
2612.2703	2612.2124	-0.0579	-22	264	287	GSVDFIFGFGRSLYADCTIESVTK					Mascot
3012.4041	3012.4998	0.0957	32	182	209	DGQPMGTMLSATVAVEADYFMASSIIFK			Oxidation (M)[5,8]		Mascot
3211.5916	3211.4751	-0.1165	-36	259	287	NCLIRGSVDFIFGFGRSLYADCTIESVTK					Mascot
3211.5916	3211.4751	-0.1165	-36	259	287	NCLIRGSVDFIFGFGRSLYADCTIESVTK					Mascot

Gel Idx/Pos	255/K7		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 5	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 4 (Fragment) OS=Phleum pratense GN=phlp4 PE=3 SV=1	Q5ZQK4_PHLPR	56398.9	9.16	12	110	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1197.59	1197.5895	-0.0005	0	487	496 GKVDPTDYFR					Mascot
1243.5994	1243.5857	-0.0137	-11	349	358 SDYVYQPFPK					Mascot
1336.574	1336.5752	0.0012	1	203	213 SMGDDHFWAVR			Oxidation (M)[2]		Mascot
1340.5867	1340.6487	0.062	46	91	102 SGGHDIYEGLSYR					Mascot
1521.693	1521.6892	-0.0038	-2	427	438 DIYNYPEYVSK					Mascot
1560.8268	1560.8269	0.0001	0	103	116 SLQPETFAVVDLNK					Mascot
1590.8275	1590.8252	-0.0023	-1	214	229 GGGGESFGIVVAWQVK					Mascot
1736.9517	1736.9564	0.0047	3	257	271 WQVVAPQLPADLMIR					Mascot
1736.9517	1736.9564	0.0047	3	257	271 WQVVAPQLPADLMIR	48	96.549			Mascot
2148.0647	2148.075	0.0103	5	128	146 TAWVDSGAQLGELYAIY K					Mascot
2152.0518	2152.0625	0.0107	5	449	468 DIDLGRNEVVNDVSTYAS GK					Mascot
2375.2031	2375.1829	-0.0202	-9	126	146 ARTAWVDSGAQLGELY AIYK					Mascot
2746.3254	2746.4124	0.087	32	1	25 SSCQVAFSYFPPPAAKE DFLGCLVK			Acetyl (Protein N-term)[0]		Mascot

2	Pollen allergen Phl p 4.0203 (Fragment) OS=Phleum pratense GN=phlp4 PE=4 SV=1	B2ZWF0_PHLPR	55631.6	9.19	11	102	
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Protein Group

Pollen allergen Phl p 4.0202 (Fragment) OS=Phleum pratense GN=phlp4 PE=4 SV=1	B2ZWE9_PHLPR	55603.5	9.1899
			995803
			833
Pollen allergen Phl p 4.0204 (Fragment) OS=Phleum pratense GN=phlp4 PE=4 SV=1	B2ZWF1_PHLPR	55645.6	9.1899
			995803
			833

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1197.59	1197.5895	-0.0005	0	479	488 GKVDPTDYFR					Mascot

	1243.5994	1243.5857	-0.0137	-11	341	350	SDYVYQPFPK						Mascot
	1336.574	1336.5752	0.0012	1	195	205	SMGDDHFWAVR				Oxidation (M)[2]		Mascot
	1340.5867	1340.6487	0.062	46	83	94	SGGHDYEGLSYR						Mascot
	1521.693	1521.6892	-0.0038	-2	419	430	DIYNYMEPYVSK						Mascot
	1560.8268	1560.8269	0.0001	0	95	108	SLQPETFAVVDLNK						Mascot
	1590.8275	1590.8252	-0.0023	-1	206	221	GGGGESFGIVVAWQVK						Mascot
	1736.9517	1736.9564	0.0047	3	249	263	WQVVAPQLPADLMIR						Mascot
	1736.9517	1736.9564	0.0047	3	249	263	WQVVAPQLPADLMIR		48	96.549			Mascot
	2148.0647	2148.075	0.0103	5	120	138	TAWVDSGAQLGELYAIY K						Mascot
	2152.0518	2152.0625	0.0107	5	441	460	DIDLGRNEVVNDVSTYAS GK						Mascot
	2375.2031	2375.1829	-0.0202	-9	118	138	ARTAWVDSGAQLGELY AIYK						Mascot
3	Major pollen allergen Phl p 4 OS=Phleum pratense PE=2 SV=1						Q2I6V7_PHLPR	58190.8	9.18	11	100		

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result	Type
1197.59	1197.5895	-0.0005	0	504	513	GKVDPTDYFR					Mascot	
1243.5994	1243.5857	-0.0137	-11	366	375	SDYVYQPFPK					Mascot	
1336.574	1336.5752	0.0012	1	220	230	SMGDDHFWAVR			Oxidation (M)[2]		Mascot	
1340.5867	1340.6487	0.062	46	108	119	SGGHDYEGLSYR					Mascot	
1521.693	1521.6892	-0.0038	-2	444	455	DIYNYMEPYVSK					Mascot	
1560.8268	1560.8269	0.0001	0	120	133	SLQPETFAVVDLNK					Mascot	
1590.8275	1590.8252	-0.0023	-1	231	246	GGGGESFGIVVAWQVK					Mascot	
1736.9517	1736.9564	0.0047	3	274	288	WQVVAPQLPADLMIR					Mascot	
1736.9517	1736.9564	0.0047	3	274	288	WQVVAPQLPADLMIR		48	96.549		Mascot	
2148.0647	2148.075	0.0103	5	145	163	TAWVDSGAQLGELYAIY K					Mascot	
2152.0518	2152.0625	0.0107	5	466	485	DIDLGRNEVVNDVSTYAS GK					Mascot	
2375.2031	2375.1829	-0.0202	-9	143	163	ARTAWVDSGAQLGELY AIYK					Mascot	

Gel Idx/Pos	304/M6		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 8	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
1	Polygalacturonase (Fragment) OS=Phleum pratense PE=2 SV=1	Q9XG86_PHLPR	41666.9	7.83	8	210

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1048.5244	1048.5074	-0.017	-16	101	108 ANWIEIMR			Oxidation (M)[7]		Mascot
1048.5244	1048.5074	-0.017	-16	101	108 ANWIEIMR	21	0	Oxidation (M)[7]		Mascot
1404.6075	1404.5859	-0.0216	-15	166	175 FFHMNIYECK			Carbamidomethyl (C)[9], Oxidation (M)[4]		Mascot
1404.6075	1404.5859	-0.0216	-15	166	175 FFHMNIYECK	45	91.549	Carbamidomethyl (C)[9], Oxidation (M)[4]		Mascot
1536.7615	1536.7408	-0.0207	-13	295	307 MEDVGYPPIIDQK			Oxidation (M)[1]		Mascot
1536.7615	1536.7408	-0.0207	-13	295	307 MEDVGYPPIIDQK	60	99.762	Oxidation (M)[1]		Mascot
1553.8058	1553.7875	-0.0183	-12	248	260 YKDEKDVTDITVK					Mascot
2297.0894	2297.0972	0.0078	3	181	203 DVTITAPGDSPNTDGIHIG DSSK					Mascot
2297.0894	2297.0972	0.0078	3	181	203 DVTITAPGDSPNTDGIHIG DSSK	21	0			Mascot
2317.1494	2317.1384	-0.011	-5	42	63 EVEEAWASACGGTGKNT IVIPK			Carbamidomethyl (C)[10]		Mascot
2384.2053	2384.2158	0.0105	4	288	307 LTYENVKMEDVGYPPIIDQ K			Oxidation (M)[8]		Mascot
2384.2053	2384.2158	0.0105	4	288	307 LTYENVKMEDVGYPPIIDQ K	23	0	Oxidation (M)[8]		Mascot
2771.49	2771.5281	0.0381	14	141	165 ILPNTLVLD FCD DALIEGIT LLNAK			Carbamidomethyl (C)[11]		Mascot

Analysis Information

Report Type	Protein-Peptide Summary by Spot	Analysis Type	Combined (MS+MS/MS)
Sample Set Name	T100602_0111_SH	Database	Trembl
Analysis Name	50 0.3 trem run8	Creation Date	06/03/2010 13:44:21
Reported By	06/03/2010 16:10:08 - admin	Last Modified	06/03/2010 13:58:07

MS Acq. : Proc. Methods (Unspecified) : (Unspecified)
 Interpretation Method (Unspecified)

Gel Idx/Pos	30/C1		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 9	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	Polygalacturonase (Fragment) OS=Phleum pratense PE=2 SV=1	Q9XG86_PHLPR	41666.9	7.83	10	315
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1032.5295	1032.5315	0.002	2	101	108 ANWIEIMR					Mascot
1032.5295	1032.5315	0.002	2	101	108 ANWIEIMR	62	99.845			Mascot
1048.5244	1048.5233	-0.0011	-1	101	108 ANWIEIMR			Oxidation (M)[7]		Mascot
1048.5244	1048.5233	-0.0011	-1	101	108 ANWIEIMR	12	0	Oxidation (M)[7]		Mascot
1339.6827	1339.6631	-0.0196	-15	99	108 YKANWIEIMR			Oxidation (M)[9]		Mascot
1359.7114	1359.7086	-0.0028	-2	86	98 LDGNLLSSNDLAK					Mascot
1388.6127	1388.6078	-0.0049	-4	166	175 FFHMNIYECK			Carbamidomethyl (C)[9]		Mascot
1388.6127	1388.6078	-0.0049	-4	166	175 FFHMNIYECK	69	99.974	Carbamidomethyl (C)[9]		Mascot
1404.6075	1404.6001	-0.0074	-5	166	175 FFHMNIYECK			Carbamidomethyl (C)[9], Oxidation (M)[4]		Mascot
1520.7665	1520.7505	-0.016	-11	295	307 MEDVGYPPIIDQK					Mascot
1520.7665	1520.7505	-0.016	-11	295	307 MEDVGYPPIIDQK	49	96.94			Mascot
1536.7615	1536.7469	-0.0146	-10	295	307 MEDVGYPPIIDQK			Oxidation (M)[1]		Mascot
1551.6744	1551.6617	-0.0127	-8	42	56 EVEEAWASACGGTGK			Carbamidomethyl (C)[10]		Mascot
1553.8058	1553.751	-0.0548	-35	248	260 YKDEKDVTDITVK					Mascot
1642.7676	1642.7407	-0.0269	-16	308	322 YCPNKICTSKGDSAR					Mascot
2297.0894	2297.0837	-0.0057	-2	181	203 DVTITAPGDSPTDGIHIG DSSK					Mascot
2297.0894	2297.0837	-0.0057	-2	181	203 DVTITAPGDSPTDGIHIG DSSK	88	100			Mascot

2368.2104 2368.2061 -0.0043 -2 288 307 LTYENVKMEDVGYPPIIDQ
K

Mascot

Gel Idx/Pos	310/M12		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 10	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Monodehydroascorbate reductase, seedling isozyme OS=Cucumis sativus PE=2 SV=1	MDARS_CUCSA	47386.6	5.29	4	66	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
978.4752	978.5071	0.0319	33	312	319	VEHVDHSR					Mascot
1437.7849	1437.7821	-0.0028	-2	8	22	YVILGGGVAAGYAAR					Mascot
1437.7849	1437.7821	-0.0028	-2	8	22	YVILGGGVAAGYAAR	50	99.865			Mascot
2138.2544	2138.2761	0.0217	10	406	425	AIAKVARIQPSVESSDLLL K					Mascot
2138.2544	2138.2761	0.0217	10	406	425	AIAKVARIQPSVESSDLLL K					Mascot
2318.1487	2318.1631	0.0144	6	1	22	MADETFKYVILGGGVAA GYAAR			Acetyl (Protein N-term)[0], Oxidation (M)[1]		Mascot

Gel Idx/Pos	310/M12	SPOT 10	Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726		Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	Cytosolic monodehydroascorbate reductase OS=Oryza sativa subsp. japonica PE=2 SV=1	Q9XFZ3_ORYSJ	46602.1	5.53	3	118
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Protein Group

Os09g0567300 protein OS=Oryza sativa subsp. japonica GN=OJ1155_H10.27 PE=4 SV=1	Q652L6_ORYSJ	46644.1	5.53000020980835
Putative uncharacterized protein OS=Oryza sativa subsp. indica GN=Osl_031361 PE=4 SV=1	A2Z468_ORYSI	47862.9	5.53000020980835
Putative uncharacterized protein OS=Oryza sativa subsp. japonica GN=OsJ_029194 PE=4 SV=1	A3C1M2_ORYSJ	47862.9	5.53000020980835

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1136.5847	1136.5868	0.0021	2	54	63 GYLFPQNAAR					Mascot
1136.5847	1136.5868	0.0021	2	54	63 GYLFPQNAAR	45	91.102			Mascot
1437.7849	1437.7821	-0.0028	-2	9	23 YVILGGGVAAGYAAR					Mascot
1437.7849	1437.7821	-0.0028	-2	9	23 YVILGGGVAAGYAAR	50	97.416			Mascot
2388.103	2388.1011	-0.0019	-1	332	351 GKESGESVVEYDYLPHY YSR					Mascot
2388.103	2388.1011	-0.0019	-1	332	351 GKESGESVVEYDYLPHY YSR	13	0			Mascot

2	Os08g0557600 protein OS=Oryza sativa subsp. japonica GN=OJ1150_A11.25 PE=2 SV=1	Q6ZJ08_ORYSJ	46656	5.3	4	61
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Protein Group

Putative uncharacterized protein OS=Oryza sativa subsp. indica GN=Osl_029216 PE=4 SV=1	A2YY23_ORYSI	46656	5.30000019073486
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
978.5255	978.5071	-0.0184	-19	426	434 KEGLDFAAK					Mascot
1136.5847	1136.5868	0.0021	2	54	63 GYLFPQNAAR					Mascot
1136.5847	1136.5868	0.0021	2	54	63 GYLFPQNAAR	45	91.102			Mascot
1446.7588	1446.7474	-0.0114	-8	41	53 ESVAPYERPALSK					Mascot

2518.4141 2518.302 -0.1121 -45 247 270 NGNVLEADIVIVGVGGRP LTHLFK Mascot

4 Monodehydroascorbate reductase OS=Rheum australe Q0GA76_RHEAU 47295.7 5.63 3 60
GN=MDAR PE=2 SV=1

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
978.4752	978.5071	0.0319	33	312	319	VEHVDHSR					Mascot
1437.7849	1437.7821	-0.0028	-2	8	22	YVILGGGVAAGYAAR					Mascot
1437.7849	1437.7821	-0.0028	-2	8	22	YVILGGGVAAGYAAR	50	97.416			Mascot
1904.9601	1904.9718	0.0117	6	388	405	DGKVVGVFLESGTPEEN K					Mascot

5 Monodehydroascorbate reductase (Fragment) Q9SXX0_ORYSJ 42929 5.36 3 56
OS=Oryza sativa subsp. japonica PE=2 SV=1

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1136.5847	1136.5868	0.0021	2	54	63	GYLFPQNAAR					Mascot
1136.5847	1136.5868	0.0021	2	54	63	GYLFPQNAAR	45	91.102			Mascot
1446.7588	1446.7474	-0.0114	-8	41	53	ESVAPYERPALSK					Mascot
2518.4141	2518.302	-0.1121	-45	247	270	NGNVLEADIVIVGVGGRP LTHLFK					Mascot

Gel Idx/Pos	309/M11		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 11	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
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1

Enolase 2 OS=Zea mays GN=ENO2 PE=2 SV=1

ENO2_MAIZE

48132.5

5.7

15

272

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.4526	0.0007	1	418	423 YNQLLR					Mascot
978.5043	978.5039	-0.0004	0	439	446 FRAPVEPY					Mascot
978.5043	978.5039	-0.0004	0	439	446 FRAPVEPY	37	97.835			Mascot
1533.8159	1533.8042	-0.0117	-8	424	438 IEEELGAIYVYAGAK					Mascot
1551.8643	1551.854	-0.0103	-7	134	147 IPLYQHIANLAGNK					Mascot
1573.8433	1573.8319	-0.0114	-7	355	369 VNQIGSVTESIEAVK					Mascot
1730.8306	1730.8289	-0.0017	-1	246	261 VVIGMDVAASEFYSDK					Mascot
1886.9391	1886.9274	-0.0117	-6	169	185 LAMQEFMILPTGAASFK			Oxidation (M)[3,7]		Mascot
2115.1089	2115.1323	0.0234	11	186	203 EAMKMGVEVYHHLKSVI K			Oxidation (M)[3]		Mascot
2132.1611	2132.1279	-0.0332	-16	148	168 QLVLPVPAFNVINGGSHA GNK					Mascot
2252.1294	2252.1216	-0.0078	-3	384	405 SGETEDTFIADLAVGLST GQIK					Mascot
2252.1294	2252.1216	-0.0078	-3	384	405 SGETEDTFIADLAVGLST GQIK	66	99.997			Mascot
2324.0425	2324.0349	-0.0076	-3	206	227 YGQDATNVGDEGGFAPN IQENK					Mascot
2324.0425	2324.0349	-0.0076	-3	206	227 YGQDATNVGDEGGFAPN IQENK	45	99.614			Mascot
2452.1375	2452.1682	0.0307	13	205	227 KYGQDATNVGDEGGFAP NIQENK					Mascot
2557.2815	2557.2659	-0.0156	-6	316	338 MTEEIGEQQVQIVGDDLLV TNPTR					Mascot
2573.2764	2573.2839	0.0075	3	316	338 MTEEIGEQQVQIVGDDLLV TNPTR			Oxidation (M)[1]		Mascot
2573.2764	2573.2839	0.0075	3	316	338 MTEEIGEQQVQIVGDDLLV TNPTR	21	6.769	Oxidation (M)[1]		Mascot
2986.3782	2986.4019	0.0237	8	291	315 SFVSEYPIVSIEDPFDQD DWVHYAK					Mascot
3227.4409	3227.5144	0.0735	23	83	109 DPTAQTEIDNFMVQQLD GTKNEWGWCK			Carbamidomethyl (C)[26], Oxidation (M)[12]		Mascot

2

Enolase 1 OS=Zea mays GN=ENO1 PE=2 SV=1

ENO1_MAIZE

48033.4

5.2

10

224

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start	End Sequence	Ion	C. I. %	Modification	Rank	Result Type
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			Seq.	Seq.	Score		
806.4519	806.4526	0.0007	1	418	423	YNQLLR	Mascot
978.5043	978.5039	-0.0004	0	439	446	FRAPVEPY	Mascot
978.5043	978.5039	-0.0004	0	439	446	FRAPVEPY	Mascot
1551.8643	1551.854	-0.0103	-7	134	147	IPLYQHIANLAGNK	Mascot
1573.7838	1573.8319	0.0481	31	370	383	MSKRAGWGVMSHR	Mascot
1679.9591	1679.9442	-0.0149	-9	133	147	KIPLYQHIANLAGNK	Mascot
1679.9591	1679.9442	-0.0149	-9	133	147	KIPLYQHIANLAGNK	Mascot
1886.9391	1886.9274	-0.0117	-6	169	185	LAMQEFMILPTGASSFK	Mascot
1902.9341	1902.9213	-0.0128	-7	169	185	LAMQEFMILPTGASSFK	Mascot
1902.9341	1902.9213	-0.0128	-7	169	185	LAMQEFMILPTGASSFK	Mascot
2064.106	2064.1394	0.0334	16	1	17	MAVTITWVKARQIFDSR	Mascot
2324.0425	2324.0349	-0.0076	-3	206	227	YGQDATNVGDEGGFAPN IQENK	Mascot
2324.0425	2324.0349	-0.0076	-3	206	227	YGQDATNVGDEGGFAPN IQENK	Mascot
2452.1375	2452.1682	0.0307	13	205	227	KYGQDATNVGDEGGFAP NIQENK	Mascot
2582.2483	2582.2161	-0.0322	-12	12	35	QIFDSRGNPTVEVDVGLS DGSYAR	Mascot

Gel Idx/Pos	309/M11		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 11	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
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1	Enolase OS=Oryza sativa subsp. japonica GN=Os03g0248600 PE=2 SV=1	Q10P35_ORYSJ	47942.4	5.32	14	331	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.4526	0.0007	1	417	422 YNQLLR					Mascot
978.5043	978.5039	-0.0004	0	438	445 FRAPVEPY					Mascot
978.5043	978.5039	-0.0004	0	438	445 FRAPVEPY	37	59.422			Mascot
1491.7689	1491.7389	-0.03	-20	423	437 IEEELGAAAVYAGAK					Mascot
1513.8771	1513.8619	-0.0152	-10	112	126 LGANAILAVSLALCK			Carbamidomethyl (C)[14]		Mascot
1551.8643	1551.854	-0.0103	-7	134	147 IPLYQHIANLAGNK					Mascot
1573.8433	1573.8319	-0.0114	-7	354	368 VNQIGSVTESIEAVK					Mascot
1679.9591	1679.9442	-0.0149	-9	133	147 KIPLYQHIANLAGNK					Mascot
1679.9591	1679.9442	-0.0149	-9	133	147 KIPLYQHIANLAGNK	71	99.983			Mascot
1886.9391	1886.9274	-0.0117	-6	169	185 LAMQEFMILPTGASSFK			Oxidation (M)[3]		Mascot
1902.9341	1902.9213	-0.0128	-7	169	185 LAMQEFMILPTGASSFK			Oxidation (M)[3,7]		Mascot
1902.9341	1902.9213	-0.0128	-7	169	185 LAMQEFMILPTGASSFK	18	0	Oxidation (M)[3,7]		Mascot
2132.1611	2132.1279	-0.0332	-16	148	168 QLVLPVPAFNVINGGSHA GNK					Mascot
2252.1294	2252.1216	-0.0078	-3	383	404 SGETEDTFIADLAVGLST GQIK					Mascot
2252.1294	2252.1216	-0.0078	-3	383	404 SGETEDTFIADLAVGLST GQIK	66	99.949			Mascot
2324.0425	2324.0349	-0.0076	-3	206	227 YGQDATNVGDEGGFAPN IQENK					Mascot
2324.0425	2324.0349	-0.0076	-3	206	227 YGQDATNVGDEGGFAPN IQENK	45	92.767			Mascot
2452.1375	2452.1682	0.0307	13	205	227 KYGQDATNVGDEGGFAP NIQENK					Mascot
2746.4841	2746.4141	-0.07	-25	346	371 ACNALLLKVNQIGSVTESI EAVKMSK					Mascot
2986.3782	2986.4019	0.0237	8	290	314 SFVSEYPIVSIEDPFDQD DWVHYAK					Mascot

2	Enolase OS=Cynodon dactylon PE=2 SV=2	Q7XAS6_CYNDA	48132.5	5.7	15	272	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start	End Sequence	Ion	C. I. %	Modification	Rank	Result Type
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			Seq.	Seq.	Score		
806.4519	806.4526	0.0007	1	418	423	YNQLLR	Mascot
978.5043	978.5039	-0.0004	0	439	446	FRAPVEPY	Mascot
978.5043	978.5039	-0.0004	0	439	446	FRAPVEPY	Mascot
1533.8159	1533.8042	-0.0117	-8	424	438	IEEELGAIYAGAK	Mascot
1551.8643	1551.854	-0.0103	-7	134	147	IPLYQHIANLAGNK	Mascot
1573.8433	1573.8319	-0.0114	-7	355	369	VNQIGSVTESIEAVK	Mascot
1730.8306	1730.8289	-0.0017	-1	246	261	VVIGMDVAASEFYSDK	Mascot
1886.9391	1886.9274	-0.0117	-6	169	185	LAMQEFMILPTGAASFK	Mascot
2115.1089	2115.1323	0.0234	11	186	203	EAMKMGVEVYHHLKSVI K	Mascot
2132.1611	2132.1279	-0.0332	-16	148	168	QLVLPVPAPFNVINGGSHA GNK	Mascot
2252.1294	2252.1216	-0.0078	-3	384	405	SGETEDTFIADLAVGLST GQIK	Mascot
2252.1294	2252.1216	-0.0078	-3	384	405	SGETEDTFIADLAVGLST GQIK	Mascot
2324.0425	2324.0349	-0.0076	-3	206	227	YGQDATNVGDEGGFAPN IQENK	Mascot
2324.0425	2324.0349	-0.0076	-3	206	227	YGQDATNVGDEGGFAPN IQENK	Mascot
2452.1375	2452.1682	0.0307	13	205	227	KYGQDATNVGDEGGFAP NIQENK	Mascot
2557.2815	2557.2659	-0.0156	-6	316	338	MTEEIGEQQVIGD DLLV TNPTR	Mascot
2573.2764	2573.2839	0.0075	3	316	338	MTEEIGEQQVIGD DLLV TNPTR	Mascot
2573.2764	2573.2839	0.0075	3	316	338	MTEEIGEQQVIGD DLLV TNPTR	Mascot
2986.3782	2986.4019	0.0237	8	291	315	SFVSEYPIVSIEDPFDQD DWVHYAK	Mascot
3227.4409	3227.5144	0.0735	23	83	109	DPTAQTEIDNFMVQQLD GTKNEWGWCK	Mascot

Gel Idx/Pos	262/K14		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 12	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species	Score
1	Putative uncharacterized protein OS=Zea mays PE=2 SV=1	B4FMP8_MAIZE	32235.8	6.43	5	81	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1028.5735	1028.5691	-0.0044	-4	225	234	EVGLGADLVR					Mascot
1187.6783	1187.6702	-0.0081	-7	278	288	IEGGSLFIVPR					Mascot
1187.6783	1187.6702	-0.0081	-7	278	288	IEGGSLFIVPR	59	99.714			Mascot
1210.6791	1210.6246	-0.0545	-45	2	12	AAVDLTPRTPK			Acetyl (Protein N-term)[0]		Mascot
1407.8683	1407.8795	0.0112	8	212	224	VVLNTANLPLVR					Mascot
1439.7827	1439.7964	0.0137	10	259	272	GSGRVQVVGPDGRR					Mascot

Gel Idx/Pos	58/E2		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 13	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	Pollen allergen Phl p 5a (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5A_PHLPR	28512.8	6.06	10	588
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6036	-0.0209	-20	211	220 FIPALEAAVK					Mascot
1058.6245	1058.6036	-0.0209	-20	211	220 FIPALEAAVK	47	99.727			Mascot
1071.5721	1071.5525	-0.0196	-18	235	243 YTVFETALK					Mascot
1105.5525	1105.5367	-0.0158	-14	78	88 AFAEGLSGEPK					Mascot
1105.5525	1105.5367	-0.0158	-14	78	88 AFAEGLSGEPK	84	100			Mascot
1133.511	1133.528	0.017	15	200	210 ASTGGAYESYK					Mascot
1199.6671	1199.6395	-0.0276	-23	235	244 YTVFETALKK					Mascot
1199.6671	1199.6395	-0.0276	-23	235	244 YTVFETALKK	53	99.94			Mascot
1295.757	1295.7217	-0.0353	-27	155	166 VIPAGELQVIEK					Mascot
1295.757	1295.7217	-0.0353	-27	155	166 VIPAGELQVIEK	61	99.989			Mascot
1419.7478	1419.7119	-0.0359	-25	221	234 QAYAATVATAPEVK					Mascot
1471.7428	1471.7131	-0.0297	-20	123	135 YDAYVATLSEALR					Mascot
1471.7428	1471.7131	-0.0297	-20	123	135 YDAYVATLSEALR	126	100			Mascot
1927.09	1927.0417	-0.0483	-25	155	172 VIPAGELQVIEKVDAAFK					Mascot
1975.1223	1975.073	-0.0493	-25	136	154 IIAGTLEVHAVKPAAEVK					Mascot
1975.1223	1975.073	-0.0493	-25	136	154 IIAGTLEVHAVKPAAEVK	147	100			Mascot

2	Pollen allergen KBG 31 OS=Poa pratensis PE=1 SV=1	MPA91_POAPR	37798.1	9.45	6	303
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6036	-0.0209	-20	298	307 FIPALEAAVK					Mascot
1058.6245	1058.6036	-0.0209	-20	298	307 FIPALEAAVK	47	99.727			Mascot
1071.5721	1071.5525	-0.0196	-18	322	330 YTVFETALK					Mascot
1199.6671	1199.6395	-0.0276	-23	322	331 YTVFETALKK					Mascot

1199.6671	1199.6395	-0.0276	-23	322	331	YTVFETALKK	53	99.94	Mascot
1213.6212	1213.5959	-0.0253	-21	153	164	TFVATFGAASNK			Mascot
1471.7428	1471.7131	-0.0297	-20	210	222	YDAYVATLSEALR			Mascot
1471.7428	1471.7131	-0.0297	-20	210	222	YDAYVATLSEALR	126	100	Mascot
2738.3784	2738.3538	-0.0246	-9	260	286	VAATAANAAPANDKFTVF EAAFNDIAIK			Mascot
2738.3784	2738.3538	-0.0246	-9	260	286	VAATAANAAPANDKFTVF EAAFNDIAIK	51	99.902	Mascot
3	Pollen allergen KBG 41 OS=Poa pratensis PE=1 SV=1 MPA92_POAPR					32641.1	9.02	5	299

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6036	-0.0209	-20	239	248	FIPALEAAVK					Mascot
1058.6245	1058.6036	-0.0209	-20	239	248	FIPALEAAVK	47	99.727			Mascot
1071.5721	1071.5525	-0.0196	-18	263	271	YTVFETALK					Mascot
1199.6671	1199.6395	-0.0276	-23	263	272	YTVFETALKK					Mascot
1199.6671	1199.6395	-0.0276	-23	263	272	YTVFETALKK	53	99.94			Mascot
1471.7428	1471.7131	-0.0297	-20	151	163	YDAYVATLSEALR					Mascot
1471.7428	1471.7131	-0.0297	-20	151	163	YDAYVATLSEALR	126	100			Mascot
2738.3784	2738.3538	-0.0246	-9	201	227	VAATAANAAPANDKFTVF EAAFNDIAIK					Mascot
2738.3784	2738.3538	-0.0246	-9	201	227	VAATAANAAPANDKFTVF EAAFNDIAIK	51	99.902			Mascot

4 Pollen allergen KBG 60 OS=Poa pratensis PE=1 SV=1 MPA93_POAPR 30510.9 9.02 5 174

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6036	-0.0209	-20	232	241	FIPALEAAVK					Mascot
1058.6245	1058.6036	-0.0209	-20	232	241	FIPALEAAVK	47	99.727			Mascot
1071.5721	1071.5525	-0.0196	-18	256	264	YTVFETALK					Mascot
1199.6671	1199.6395	-0.0276	-23	256	265	YTVFETALKK					Mascot
1199.6671	1199.6395	-0.0276	-23	256	265	YTVFETALKK	53	99.94			Mascot
1213.6212	1213.5959	-0.0253	-21	87	98	TFVATFGAASNK					Mascot
2738.3784	2738.3538	-0.0246	-9	194	220	VAATAANAAPANDKFTVF EAAFNDIAIK					Mascot
2738.3784	2738.3538	-0.0246	-9	194	220	VAATAANAAPANDKFTVF EAAFNDIAIK	51	99.902			Mascot

Gel Idx/Pos	31/C2		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 13	Instrument Sample Name		Spectra	9

Rank
Protein Name
Accession No.
Protein MW
Protein PI
Pep. Count
Protein Species Score

1
Phl p5a allergen (Fragment) OS=Phleum pratense PE=2 SV=1
Q84UI2_PHLPR
28268.7
7.94
14
746

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6163	-0.0082	-8	209	218 FIPALEAAVK					Mascot
1058.6245	1058.6163	-0.0082	-8	209	218 FIPALEAAVK	54	99.045			Mascot
1071.5721	1071.5647	-0.0074	-7	233	241 YTVFETALK					Mascot
1105.5525	1105.5471	-0.0054	-5	76	86 AFAEGLSGEPK					Mascot
1105.5525	1105.5471	-0.0054	-5	76	86 AFAEGLSGEPK	52	98.329			Mascot
1133.511	1133.54	0.029	26	198	208 ASTGGAYESYK					Mascot
1199.6671	1199.6559	-0.0112	-9	233	242 YTVFETALKK					Mascot
1199.6671	1199.6559	-0.0112	-9	233	242 YTVFETALKK	53	98.849			Mascot
1213.6212	1213.6095	-0.0117	-10	64	75 TFVATFGAASNK					Mascot
1295.757	1295.7406	-0.0164	-13	153	164 VIPAGELQVIEK					Mascot
1295.757	1295.7406	-0.0164	-13	153	164 VIPAGELQVIEK	62	99.836			Mascot
1307.6802	1307.6704	-0.0098	-7	87	100 GAAESSSKAALTSK					Mascot
1419.7478	1419.7238	-0.024	-17	219	232 QAYAATVATAPEVK					Mascot
1471.7428	1471.7327	-0.0101	-7	121	133 YDAYVATLSEALR					Mascot
1471.7428	1471.7327	-0.0101	-7	121	133 YDAYVATLSEALR	130	100			Mascot
1541.8435	1541.8293	-0.0142	-9	48	63 AALAAAAGVPPADKYR					Mascot
1541.8435	1541.8293	-0.0142	-9	48	63 AALAAAAGVPPADKYR	139	100			Mascot
1927.09	1927.064	-0.026	-13	153	170 VIPAGELQVIEKVDAAFK					Mascot
1975.1223	1975.0988	-0.0235	-12	134	152 IIAGTLEVHAVKPAEEVK					Mascot
1975.1223	1975.0988	-0.0235	-12	134	152 IIAGTLEVHAVKPAEEVK	138	100			Mascot
2737.3945	2737.387	-0.0075	-3	171	197 VAATAANAAPANDKFTVF EAAFNNAIK					Mascot

2
Phlp5 OS=Phleum pratense PE=3 SV=1
Q40960_PHLPR
31083.2
6.77
14
674

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
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1058.6245	1058.6163	-0.0082	-8	237	246	FIPALEAAVK				Mascot
1058.6245	1058.6163	-0.0082	-8	237	246	FIPALEAAVK	54	99.045		Mascot
1071.5721	1071.5647	-0.0074	-7	261	269	YTVFETALK				Mascot
1105.5525	1105.5471	-0.0054	-5	104	114	AFAEGLSGEPK				Mascot
1105.5525	1105.5471	-0.0054	-5	104	114	AFAEGLSGEPK	52	98.329		Mascot
1133.511	1133.54	0.029	26	226	236	ASTGGAYESYK				Mascot
1199.6671	1199.6559	-0.0112	-9	261	270	YTVFETALKK				Mascot
1199.6671	1199.6559	-0.0112	-9	261	270	YTVFETALKK	53	98.849		Mascot
1213.6212	1213.6095	-0.0117	-10	92	103	TFVATFGAASNK				Mascot
1295.757	1295.7406	-0.0164	-13	181	192	VIPAGELQVIEK				Mascot
1295.757	1295.7406	-0.0164	-13	181	192	VIPAGELQVIEK	62	99.836		Mascot
1307.6802	1307.6704	-0.0098	-7	115	128	GAAESSKAALTSK				Mascot
1419.7478	1419.7238	-0.024	-17	247	260	QAYAATVATAPEVK				Mascot
1471.7428	1471.7327	-0.0101	-7	149	161	YDAYVATLSEALR				Mascot
1471.7428	1471.7327	-0.0101	-7	149	161	YDAYVATLSEALR	130	100		Mascot
1572.8492	1572.8293	-0.0199	-13	76	91	AALAAAAGVQPADKYR				Mascot
1927.09	1927.064	-0.026	-13	181	198	VIPAGELQVIEKVDAAFK				Mascot
1975.1223	1975.0988	-0.0235	-12	162	180	IIAGTLEVHAVKPAEEVK				Mascot
1975.1223	1975.0988	-0.0235	-12	162	180	IIAGTLEVHAVKPAEEVK	138	100		Mascot
2738.3784	2738.375	-0.0034	-1	199	225	VAATAANAAPANDKFTVF EAAFNDAIK				Mascot
2738.3784	2738.375	-0.0034	-1	199	225	VAATAANAAPANDKFTVF EAAFNDAIK	71	99.982		Mascot
3	Group V allergen Phl p 5.0103 OS=Phleum pratense PE=2 SV=1				O81341_PHLPR	31010.2	6.77	13	671	

Peptide Information										
Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6163	-0.0082	-8	237	246 FIPALEAAVK					Mascot
1058.6245	1058.6163	-0.0082	-8	237	246 FIPALEAAVK	54	99.045			Mascot
1071.5721	1071.5647	-0.0074	-7	261	269 YTVFETALK					Mascot
1105.5525	1105.5471	-0.0054	-5	104	114 AFAEGLSGEPK					Mascot
1105.5525	1105.5471	-0.0054	-5	104	114 AFAEGLSGEPK	52	98.329			Mascot
1133.511	1133.54	0.029	26	226	236 ASTGGAYESYK					Mascot
1199.6671	1199.6559	-0.0112	-9	261	270 YTVFETALKK					Mascot
1199.6671	1199.6559	-0.0112	-9	261	270 YTVFETALKK	53	98.849			Mascot

1213.6212	1213.6095	-0.0117	-10	92	103	TFVATFGAASNK			Mascot
1295.757	1295.7406	-0.0164	-13	181	192	VIPAGELQVIEK			Mascot
1295.757	1295.7406	-0.0164	-13	181	192	VIPAGELQVIEK	62	99.649	Mascot
1307.6802	1307.6704	-0.0098	-7	115	128	GAAESSSKAALTSK			Mascot
1419.7478	1419.7238	-0.024	-17	247	260	QAYAATVATAPEVK			Mascot
1541.8435	1541.8293	-0.0142	-9	76	91	AALAAAAGVPPADKYR			Mascot
1541.8435	1541.8293	-0.0142	-9	76	91	AALAAAAGVPPADKYR	139	100	Mascot
1927.09	1927.064	-0.026	-13	181	198	VIPAGELQVIEKVDAAFK			Mascot
1975.1223	1975.0988	-0.0235	-12	162	180	IIAGTLEVHAVKPAAEEVK			Mascot
1975.1223	1975.0988	-0.0235	-12	162	180	IIAGTLEVHAVKPAAEEVK	138	100	Mascot
2738.3784	2738.375	-0.0034	-1	199	225	VAATAANAAPANDKFTVF EAAFNDAIK			Mascot
2738.3784	2738.375	-0.0034	-1	199	225	VAATAANAAPANDKFTVF EAAFNDAIK	71	99.961	Mascot

Gel Idx/Pos	263/K15	SPOT 14	Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726		Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 5a (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5A_PHLPR	28512.8	6.06	11	452	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6226	-0.0019	-2	211	220 FIPALEAAVK					Mascot
1058.6245	1058.6226	-0.0019	-2	211	220 FIPALEAAVK	49	99.884			Mascot
1071.5721	1071.568	-0.0041	-4	235	243 YTVFETALK					Mascot
1105.5525	1105.5566	0.0041	4	78	88 AFAEGLSGEPK					Mascot
1199.6671	1199.6649	-0.0022	-2	235	244 YTVFETALKK					Mascot
1295.757	1295.7509	-0.0061	-5	155	166 VIPAGELQVIEK					Mascot
1419.7478	1419.7373	-0.0105	-7	221	234 QAYAATVATAPEVK					Mascot
1471.7428	1471.7404	-0.0024	-2	123	135 YDAYVATLSEALR					Mascot
1471.7428	1471.7404	-0.0024	-2	123	135 YDAYVATLSEALR	134	100			Mascot
1487.7965	1487.7343	-0.0622	-42	51	65 AALAGAGVQPADKYR					Mascot
1927.09	1927.0776	-0.0124	-6	155	172 VIPAGELQVIEKVDAAFK					Mascot
1927.09	1927.0776	-0.0124	-6	155	172 VIPAGELQVIEKVDAAFK	91	100			Mascot
1975.1223	1975.1105	-0.0118	-6	136	154 IIAGTLEVHAVKPAAEVK					Mascot
1975.1223	1975.1105	-0.0118	-6	136	154 IIAGTLEVHAVKPAAEVK	97	100			Mascot
2902.4832	2902.3887	-0.0945	-33	109	135 LAYKTAEGATPEAKYDAY VATLSEALR					Mascot

Gel Idx/Pos	263/K15		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 14	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Phl p5a allergen (Fragment) OS=Phleum pratense PE=2 SV=1	Q84UI2_PHLPR	28268.7	7.94	14	622	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6226	-0.0019	-2	209	218 FIPALEAAVK					Mascot
1058.6245	1058.6226	-0.0019	-2	209	218 FIPALEAAVK	49	97.775			Mascot
1071.5721	1071.568	-0.0041	-4	233	241 YTVFETALK					Mascot
1105.5525	1105.5566	0.0041	4	76	86 AFAEGLSGEPK					Mascot
1199.6671	1199.6649	-0.0022	-2	233	242 YTVFETALKK					Mascot
1213.6212	1213.6143	-0.0069	-6	64	75 TFVATFGAASNK					Mascot
1295.757	1295.7509	-0.0061	-5	153	164 VIPAGELQVIEK					Mascot
1419.7478	1419.7373	-0.0105	-7	219	232 QAYAATVATAPEVK					Mascot
1471.7428	1471.7404	-0.0024	-2	121	133 YDAYVATLSEALR					Mascot
1471.7428	1471.7404	-0.0024	-2	121	133 YDAYVATLSEALR	134	100			Mascot
1541.8435	1541.8361	-0.0074	-5	48	63 AALAAAAGVPPADKYR					Mascot
1541.8435	1541.8361	-0.0074	-5	48	63 AALAAAAGVPPADKYR	92	100			Mascot
1927.09	1927.0776	-0.0124	-6	153	170 VIPAGELQVIEKVDAAFK					Mascot
1927.09	1927.0776	-0.0124	-6	153	170 VIPAGELQVIEKVDAAFK	91	100			Mascot
1975.1223	1975.1105	-0.0118	-6	134	152 IIAGTLEVHAVKPAAEVVK					Mascot
1975.1223	1975.1105	-0.0118	-6	134	152 IIAGTLEVHAVKPAAEVVK	97	100			Mascot
2720.4214	2720.4609	0.0395	15	253	284 AAKPAAAATATATSAVGA ATGAATAATGGYKV					Mascot
2737.3945	2737.3943	-0.0002	0	171	197 VAATAANAAPANDKFTVF EAAFNNAIK					Mascot
2737.3945	2737.3943	-0.0002	0	171	197 VAATAANAAPANDKFTVF EAAFNNAIK	40	81.954			Mascot
2902.4832	2902.3887	-0.0945	-33	107	133 LAYKTAEGATPEAKYDAY VATLSEALR					Mascot

Gel Idx/Pos	269/K21		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 15	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	8	300	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
890.5095	890.5046	-0.0049	-6	228	235 LTGPFTVR					Mascot
1004.4948	1004.4908	-0.004	-4	214	221 ESWGAIWR					Mascot
1004.4948	1004.4908	-0.004	-4	214	221 ESWGAIWR	81	100			Mascot
1149.5898	1149.5892	-0.0006	-1	149	158 SAGELELQFR					Mascot
1149.5898	1149.5892	-0.0006	-1	149	158 SAGELELQFR	73	100			Mascot
1288.726	1288.7209	-0.0051	-4	177	188 GSNPNYLALLVK					Mascot
1559.8429	1559.8451	0.0022	1	222	235 IDTPDKLTGPFTVR					Mascot
1559.8429	1559.8451	0.0022	1	222	235 IDTPDKLTGPFTVR	79	100			Mascot
2211.0452	2211.0317	-0.0135	-6	236	255 YTTEGGTKTEAEDVIPEG WK					Mascot
2211.0452	2211.0317	-0.0135	-6	236	255 YTTEGGTKTEAEDVIPEG WK	15	0			Mascot
2272.0452	2272.0979	0.0527	23	46	67 STWYGKPTGAGPKDNG GACGYK			Carbamidomethyl (C)[19]		Mascot
3092.4219	3092.4473	0.0254	8	236	263 YTTEGGTKTEAEDVIPEG WKADTSYESK					Mascot

Gel Idx/Pos	269/K21		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 15	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Group 1 allergen Dac g 1.02 OS=Dactylis glomerata PE=2 SV=1	Q7XAX7_DACGL	28450.1	6.01	7	194	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
890.5095	890.5046	-0.0049	-6	229	236	LTGPFTVR					Mascot
1004.4948	1004.4908	-0.004	-4	215	222	ESWGAIWR					Mascot
1004.4948	1004.4908	-0.004	-4	215	222	ESWGAIWR	81	99.998			Mascot
1058.6357	1058.5959	-0.0398	-38	206	214	GKDKWIALK					Mascot
1149.5898	1149.5892	-0.0006	-1	150	159	SAGELELQFR					Mascot
1149.5898	1149.5892	-0.0006	-1	150	159	SAGELELQFR	73	99.988			Mascot
1288.726	1288.7209	-0.0051	-4	178	189	GSNPNYLALLVK					Mascot
2272.0452	2272.0979	0.0527	23	47	68	STWYGKPTGAGPKDNG GACGYK			Carbamidomethyl (C)[19]		Mascot
2746.4849	2746.4045	-0.0804	-29	1	27	MASSSSSVLLVVALFAVF LGSAHGIPK			Acetyl (Protein N-term)[0], Oxidation (M)[1]		Mascot

7	Pollen allergen Phl pl OS=Phleum pratense GN=phlpl.p4 PE=2 SV=2	Q40967_PHLPR	28185.2	7.53	3	92	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1004.4948	1004.4908	-0.004	-4	214	221	ESWGAIWR					Mascot
1004.4948	1004.4908	-0.004	-4	214	221	ESWGAIWR	81	99.998			Mascot
1058.6357	1058.5959	-0.0398	-38	205	213	GKDKWIALK					Mascot
1288.726	1288.7209	-0.0051	-4	177	188	GSNPNYLALLVK					Mascot

Gel Idx/Pos	59/E3		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 16	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	11	554	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
890.5095	890.4955	-0.014	-16	228	235 LTGPFTVR					Mascot
1004.4948	1004.4806	-0.0142	-14	214	221 ESWGAIWR					Mascot
1004.4948	1004.4806	-0.0142	-14	214	221 ESWGAIWR	72	100			Mascot
1057.4442	1057.428	-0.0162	-15	91	99 GCGSCFEIK			Carbamidomethyl (C)[2,5]		Mascot
1149.5898	1149.5696	-0.0202	-18	149	158 SAGELELQFR					Mascot
1149.5898	1149.5696	-0.0202	-18	149	158 SAGELELQFR	92	100			Mascot
1288.726	1288.6941	-0.0319	-25	177	188 GSNPNYLALLVK					Mascot
1288.726	1288.6941	-0.0319	-25	177	188 GSNPNYLALLVK	63	99.994			Mascot
1349.6848	1349.6538	-0.031	-23	46	58 STWYGKPTGAGPK					Mascot
1349.6848	1349.6538	-0.031	-23	46	58 STWYGKPTGAGPK	86	100			Mascot
1373.6583	1373.6259	-0.0324	-24	244	255 TEAEDVIPEGWK					Mascot
1463.7377	1463.698	-0.0397	-27	189	202 YVNGDGDVVAVDIK					Mascot
1559.8429	1559.8044	-0.0385	-25	222	235 IDTPDKLTGPFTVR					Mascot
1559.8429	1559.8044	-0.0385	-25	222	235 IDTPDKLTGPFTVR	127	100			Mascot
2168.0151	2167.9712	-0.0439	-20	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13]		Mascot
2168.0151	2167.9712	-0.0439	-20	68	87 DVDKPPFSGMTGCGNTP IFK	29	82.456	Carbamidomethyl (C)[13]		Mascot
2184.01	2183.9773	-0.0327	-15	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13], Oxidation (M)[10]		Mascot
2211.0452	2210.9832	-0.062	-28	236	255 YTTEGGTKTEAEDVIPEG WK					Mascot

Gel Idx/Pos	59/E3		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 16	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1

Group 1 allergen Dac g 1.02 OS=Dactylis glomerata
PE=2 SV=1

Q7XAX7_DACGL

28450.1

6.01

7

353

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
890.5095	890.4955	-0.014	-16	229	236	LTGPFTVR					Mascot
1004.4948	1004.4806	-0.0142	-14	215	222	ESWGAIWR					Mascot
1004.4948	1004.4806	-0.0142	-14	215	222	ESWGAIWR	72	99.985			Mascot
1057.4442	1057.428	-0.0162	-15	92	100	GCGSCFEIK			Carbamidomethyl (C)[2,5]		Mascot
1149.5898	1149.5696	-0.0202	-18	150	159	SAGELELQFR					Mascot
1149.5898	1149.5696	-0.0202	-18	150	159	SAGELELQFR	92	100			Mascot
1288.726	1288.6941	-0.0319	-25	178	189	GSNPNYLALLVK					Mascot
1288.726	1288.6941	-0.0319	-25	178	189	GSNPNYLALLVK	63	99.893			Mascot
1349.6848	1349.6538	-0.031	-23	47	59	STWYGKPTGAGPK					Mascot
1349.6848	1349.6538	-0.031	-23	47	59	STWYGKPTGAGPK	86	100			Mascot
1464.7218	1464.6921	-0.0297	-20	190	203	YVDGDDVVAVDIK					Mascot

4

Major group I allergen Hol I 1 OS=Holcus lanatus
GN=hol I 1 PE=2 SV=1

Q9ZP13_HOLLA

28329.3

6.46

7

309

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
890.5095	890.4955	-0.014	-16	228	235	LTGPFTVR					Mascot
1057.4442	1057.428	-0.0162	-15	91	99	GCGSCFEIK			Carbamidomethyl (C)[2,5]		Mascot
1149.6262	1149.5696	-0.0566	-49	149	158	SAGELELKFR					Mascot
1149.6262	1149.5696	-0.0566	-49	149	158	SAGELELKFR	92	100			Mascot
1288.726	1288.6941	-0.0319	-25	177	188	GSNPNYLALLVK					Mascot
1288.726	1288.6941	-0.0319	-25	177	188	GSNPNYLALLVK	63	99.893			Mascot
1349.6848	1349.6538	-0.031	-23	46	58	STWYGKPTGAGPK					Mascot
1349.6848	1349.6538	-0.031	-23	46	58	STWYGKPTGAGPK	86	100			Mascot
1464.7218	1464.6921	-0.0297	-20	189	202	YVDGDDVVAVDIK					Mascot

2168.0151	2167.9712	-0.0439	-20	68	87	DVDKPPFSGMTGCGNTP IFK		Carbamidomethyl (C)[13]	Mascot
2168.0151	2167.9712	-0.0439	-20	68	87	DVDKPPFSGMTGCGNTP IFK	29	0 Carbamidomethyl (C)[13]	Mascot
2184.01	2183.9773	-0.0327	-15	68	87	DVDKPPFSGMTGCGNTP IFK		Carbamidomethyl (C)[13], Oxidation (M)[10]	Mascot

Gel Idx/Pos	317/M19		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 17	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	5	123	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1004.4948	1004.4939	-0.0009	-1	214	221 ESWGAIWR					Mascot
1004.4948	1004.4939	-0.0009	-1	214	221 ESWGAIWR	49	99.896			Mascot
1149.5898	1149.5917	0.0019	2	149	158 SAGELELQFR					Mascot
1149.5898	1149.5917	0.0019	2	149	158 SAGELELQFR	50	99.909			Mascot
1288.726	1288.7239	-0.0021	-2	177	188 GSNPNYLALLVK					Mascot
1373.6583	1373.6558	-0.0025	-2	244	255 TEAEDVIPEGWK					Mascot
2211.0452	2211.0308	-0.0144	-7	236	255 YTTEGGTKTEAEDVIPEGWK					Mascot

Gel Idx/Pos	267/K19	SPOT 17	Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726		Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Group 1 allergen Dac g 1.02 OS=Dactylis glomerata PE=2 SV=1	Q7XAX7_DACGL	28450.1	6.01	5	139	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1004.4948	1004.4933	-0.0015	-1	215	222 ESWGAIWR					Mascot
1004.4948	1004.4933	-0.0015	-1	215	222 ESWGAIWR	65	99.949			Mascot
1149.5898	1149.5881	-0.0017	-1	150	159 SAGELELQFR					Mascot
1149.5898	1149.5881	-0.0017	-1	150	159 SAGELELQFR	50	98.346			Mascot
1288.726	1288.7219	-0.0041	-3	178	189 GSNPNYLALLVK					Mascot
2169.0105	2169.0261	0.0156	7	69	88 DVDKAPFNGMTGCGNTP IFK			Carbamidomethyl (C)[13]		Mascot
2225.0608	2225.1318	0.071	32	237	256 YTTEGGTKSEVEDVIPEG WK					Mascot

8	Pollen allergen Phl pl OS=Phleum pratense GN=phlpl.p4 PE=2 SV=2	Q40967_PHLPR	28185.2	7.53	2	72	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1004.4948	1004.4933	-0.0015	-1	214	221 ESWGAIWR					Mascot
1004.4948	1004.4933	-0.0015	-1	214	221 ESWGAIWR	65	99.949			Mascot
1288.726	1288.7219	-0.0041	-3	177	188 GSNPNYLALLVK					Mascot

Gel Idx/Pos	34/C5		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 18	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Triosephosphate isomerase, cytosolic OS=Hordeum vulgare PE=1 SV=3	TPIS_HORVU	26719.9	5.39	7	573	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
954.4832	954.4716	-0.0116	-12	5	12 FFVGGNWK					Mascot
954.4832	954.4716	-0.0116	-12	5	12 FFVGGNWK	58	99.98			Mascot
1082.5782	1082.5612	-0.017	-16	4	12 KFFVGGNWK					Mascot
1317.6831	1317.6613	-0.0218	-17	124	135 VIACVGETLEQR					Mascot
1374.7046	1374.6853	-0.0193	-14	124	135 VIACVGETLEQR			Carbamidomethyl (C)[4]		Mascot
1374.7046	1374.6853	-0.0193	-14	124	135 VIACVGETLEQR	120	100	Carbamidomethyl (C)[4]		Mascot
1604.8503	1604.8234	-0.0269	-17	176	190 VATPAQAQEVHANLR					Mascot
1604.8503	1604.8234	-0.0269	-17	176	190 VATPAQAQEVHANLR	147	100			Mascot
1811.9585	1811.9283	-0.0302	-17	56	70 LRPEIQVAAQNCWVK			Carbamidomethyl (C)[12]		Mascot
1811.9585	1811.9283	-0.0302	-17	56	70 LRPEIQVAAQNCWVK	99	100	Carbamidomethyl (C)[12]		Mascot
1940.0535	1940.0195	-0.034	-18	56	71 LRPEIQVAAQNCWVKK			Carbamidomethyl (C)[12]		Mascot
1940.0535	1940.0195	-0.034	-18	56	71 LRPEIQVAAQNCWVKK	29	81.651	Carbamidomethyl (C)[12]		Mascot
2147.1357	2147.104	-0.0317	-15	176	194 VATPAQAQEVHANLRDW LK					Mascot
2147.1357	2147.104	-0.0317	-15	176	194 VATPAQAQEVHANLRDW LK	76	100			Mascot

Gel Idx/Pos	34/C5		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 18	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	Triosephosphate isomerase OS=Triticum aestivum GN=tpis PE=2 SV=1	Q9FS79_WHEAT	26785.8	5.38	5	330

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
954.4832	954.4716	-0.0116	-12	5	12 FFVGGNWK					Mascot
954.4832	954.4716	-0.0116	-12	5	12 FFVGGNWK	58	99.642			Mascot
1082.5782	1082.5612	-0.017	-16	4	12 KFFVGGNWK					Mascot
1317.6831	1317.6613	-0.0218	-17	124	135 VIACVGETLEQR					Mascot
1374.7046	1374.6853	-0.0193	-14	124	135 VIACVGETLEQR			Carbamidomethyl (C)[4]		Mascot
1374.7046	1374.6853	-0.0193	-14	124	135 VIACVGETLEQR	120	100	Carbamidomethyl (C)[4]		Mascot
1811.9585	1811.9283	-0.0302	-17	56	70 LRPEIQVAAQNCWVK			Carbamidomethyl (C)[12]		Mascot
1811.9585	1811.9283	-0.0302	-17	56	70 LRPEIQVAAQNCWVK	99	100	Carbamidomethyl (C)[12]		Mascot
1940.0535	1940.0195	-0.034	-18	56	71 LRPEIQVAAQNCWVKK			Carbamidomethyl (C)[12]		Mascot
1940.0535	1940.0195	-0.034	-18	56	71 LRPEIQVAAQNCWVKK	29	0	Carbamidomethyl (C)[12]		Mascot

Gel Idx/Pos	320/M22		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 19	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 5b (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5B_PHLPR	27984.6	8.75	5	203	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1112.5986	1112.5674	-0.0312	-28	229	238 YAVFEAALTK					Mascot
1455.7479	1455.7438	-0.0041	-3	115	127 FDSFVASLTEALR					Mascot
1455.7479	1455.7438	-0.0041	-3	115	127 FDSFVASLTEALR	61	99.993			Mascot
1842.0371	1842.0264	-0.0107	-6	150	166 IPAGELQIIDKIDAAFK					Mascot
1842.0371	1842.0264	-0.0107	-6	150	166 IPAGELQIIDKIDAAFK	86	100			Mascot
2246.2214	2246.2241	0.0027	1	128	149 VIAGALEVHAVKPVTEEP GMAK					Mascot
2262.2163	2262.199	-0.0173	-8	128	149 VIAGALEVHAVKPVTEEP GMAK			Oxidation (M)[20]		Mascot
2427.219	2427.2173	-0.0017	-1	167	190 VAATAAATAPADDKFTVF EAAFNK					Mascot
2427.219	2427.2173	-0.0017	-1	167	190 VAATAAATAPADDKFTVF EAAFNK	31	92.955			Mascot

Gel Idx/Pos	320/M22		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 19	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
1	Group V allergen Phl p 5.0204 (Fragment) OS=Phleum pratense PE=2 SV=1	Q9SBE0_PHLPR	26194.6	5.61	5	204

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1112.5986	1112.5674	-0.0312	-28	210	219 YAVFEAALTK					Mascot
1455.7479	1455.7438	-0.0041	-3	96	108 FDSFVASLTEALR					Mascot
1455.7479	1455.7438	-0.0041	-3	96	108 FDSFVASLTEALR	61	99.849			Mascot
1842.0371	1842.0264	-0.0107	-6	131	147 IPAGELQIIDKIDAAFK					Mascot
1842.0371	1842.0264	-0.0107	-6	131	147 IPAGELQIIDKIDAAFK	86	100			Mascot
2246.2214	2246.2241	0.0027	1	109	130 VIAGALEVHAVKPVTEEP GMAK					Mascot
2262.2163	2262.199	-0.0173	-8	109	130 VIAGALEVHAVKPVTEEP GMAK			Oxidation (M)[20]		Mascot
2427.219	2427.2173	-0.0017	-1	148	171 VAATAAATAPADDKFTVF EAAFNK					Mascot
2427.219	2427.2173	-0.0017	-1	148	171 VAATAAATAPADDKFTVF EAAFNK	31	0			Mascot

2	Major allergen Phl p 5 (Fragment) OS=Phleum pratense PE=2 SV=1	P93466_PHLPR	27845.5	8.46	5	203
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1112.5986	1112.5674	-0.0312	-28	226	235 YAVFEAALTK					Mascot
1455.7479	1455.7438	-0.0041	-3	112	124 FDSFVASLTEALR					Mascot
1455.7479	1455.7438	-0.0041	-3	112	124 FDSFVASLTEALR	61	99.849			Mascot
1842.0371	1842.0264	-0.0107	-6	147	163 IPAGELQIIDKIDAAFK					Mascot
1842.0371	1842.0264	-0.0107	-6	147	163 IPAGELQIIDKIDAAFK	86	100			Mascot
2246.2214	2246.2241	0.0027	1	125	146 VIAGALEVHAVKPVTEEP GMAK					Mascot
2262.2163	2262.199	-0.0173	-8	125	146 VIAGALEVHAVKPVTEEP GMAK			Oxidation (M)[20]		Mascot
2427.219	2427.2173	-0.0017	-1	164	187 VAATAAATAPADDKFTVF EAAFNK					Mascot
2427.219	2427.2173	-0.0017	-1	164	187 VAATAAATAPADDKFTVF EAAFNK	31	0			Mascot

Gel Idx/Pos	318/M20		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 20	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	3	83	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1149.5898	1149.5863	-0.0035	-3	149	158 SAGELELQFR					Mascot
1149.5898	1149.5863	-0.0035	-3	149	158 SAGELELQFR	29	74.585			Mascot
1288.726	1288.7119	-0.0141	-11	177	188 GSNPNYLALLVK					Mascot
1288.726	1288.7119	-0.0141	-11	177	188 GSNPNYLALLVK	38	96.852			Mascot
1559.8429	1559.8379	-0.005	-3	222	235 IDTPDKLTGPFTVR					Mascot

Gel Idx/Pos	318/M20		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 20	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl pl OS=Phleum pratense GN=phlpl.p4 PE=2 SV=2	Q40967_PHLPR	28185.2	7.53	4	92	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1135.5742	1135.5779	0.0037	3	149	158 SAGEVEIQFR					Mascot
1135.5742	1135.5779	0.0037	3	149	158 SAGEVEIQFR	30	0			Mascot
1288.726	1288.7119	-0.0141	-11	177	188 GSNPNYLALLVK					Mascot
1288.726	1288.7119	-0.0141	-11	177	188 GSNPNYLALLVK	38	42.522			Mascot
1404.7369	1404.7401	0.0032	2	189	202 FVAGDGDVVAVDIK					Mascot
1571.8793	1571.8627	-0.0166	-11	222	235 IDTPEVLKGPFTVR					Mascot

Gel Idx/Pos	316/M18		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 21	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	4	142	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1004.4948	1004.494	-0.0008	-1	214	221 ESWGAIWR					Mascot
1004.4948	1004.494	-0.0008	-1	214	221 ESWGAIWR	81	100			Mascot
1288.726	1288.7201	-0.0059	-5	177	188 GSNPNYLALLVK					Mascot
1288.726	1288.7201	-0.0059	-5	177	188 GSNPNYLALLVK	44	99.626			Mascot
2168.0151	2168.0312	0.0161	7	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13]		Mascot
2168.0151	2168.0312	0.0161	7	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13]		Mascot
2255.0352	2255.0977	0.0625	28	244	263 TEAEDVIPEGWKADTSYE SK					Mascot

Gel Idx/Pos	266/K18		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 21	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl pl OS=Phleum pratense GN=phlpl.p4 PE=2 SV=2	Q40967_PHLPR	28185.2	7.53	10	278	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
943.4883	943.4918	0.0035	4	248	255 DVIPEGWK					Mascot
1004.4948	1004.4936	-0.0012	-1	214	221 ESWGAIWR					Mascot
1004.4948	1004.4936	-0.0012	-1	214	221 ESWGAIWR	81	99.998			Mascot
1135.5742	1135.576	0.0018	2	149	158 SAGEVEIQFR					Mascot
1135.5742	1135.576	0.0018	2	149	158 SAGEVEIQFR	60	99.818			Mascot
1288.726	1288.7245	-0.0015	-1	177	188 GSNPNYLALLVK					Mascot
1288.726	1288.7245	-0.0015	-1	177	188 GSNPNYLALLVK	40	81.305			Mascot
1363.7006	1363.7122	0.0116	9	46	58 STWYGKPTAAGPK					Mascot
1404.7369	1404.7325	-0.0044	-3	189	202 FVAGDGDVVAVDIK					Mascot
1571.8793	1571.8739	-0.0054	-3	222	235 IDTPEVLKGPFTVR					Mascot
1571.8793	1571.8739	-0.0054	-3	222	235 IDTPEVLKGPFTVR	26	0			Mascot
1661.8745	1661.8481	-0.0264	-16	189	204 FVAGDGDVVAVDIKEK					Mascot
2168.0151	2168.0359	0.0208	10	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13]		Mascot
2168.0151	2168.0359	0.0208	10	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13]		Mascot
2194.0662	2194.0029	-0.0633	-29	244	263 GEAKDVIPEGWKADTAY ESK					Mascot

Gel Idx/Pos	315/M17		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 22	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	3	112	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1004.4948	1004.5021	0.0073	7	214	221	ESWGAIWR					Mascot
1004.4948	1004.5021	0.0073	7	214	221	ESWGAIWR	44	99.514			Mascot
1288.726	1288.7212	-0.0048	-4	177	188	GSNPNYLALLVK					Mascot
1288.726	1288.7212	-0.0048	-4	177	188	GSNPNYLALLVK	54	99.955			Mascot
2129.1753	2129.1658	-0.0095	-4	170	188	VTFHVEKGSNPNYLALLV K					Mascot

Gel Idx/Pos	315/M17		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 22	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl pl OS=Phleum pratense GN=phlpl.p4 PE=2 SV=2	Q40967_PHLPR	28185.2	7.53	5	238	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1004.4948	1004.5021	0.0073	7	214	221 ESWGAIWR					Mascot
1004.4948	1004.5021	0.0073	7	214	221 ESWGAIWR	44	91.174			Mascot
1135.5742	1135.5822	0.008	7	149	158 SAGEVEIQFR					Mascot
1135.5742	1135.5822	0.008	7	149	158 SAGEVEIQFR	48	96.192			Mascot
1288.726	1288.7212	-0.0048	-4	177	188 GSNPNYLALLVK					Mascot
1288.726	1288.7212	-0.0048	-4	177	188 GSNPNYLALLVK	54	99.191			Mascot
1571.8793	1571.8795	0.0002	0	222	235 IDTPEVLKGPFTVR					Mascot
1571.8793	1571.8795	0.0002	0	222	235 IDTPEVLKGPFTVR	64	99.908			Mascot
2129.1753	2129.1658	-0.0095	-4	170	188 VTFHVEKGSNPNYLALLV K					Mascot

Gel Idx/Pos	33/C4		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 23	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	7	266	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
941.3781	941.3844	0.0063	7	59	67 DNGGACGYK			Carbamidomethyl (C)[6]		Mascot
1004.4948	1004.4871	-0.0077	-8	214	221 ESWGAIWR					Mascot
1004.4948	1004.4871	-0.0077	-8	214	221 ESWGAIWR	64	99.995			Mascot
1057.4442	1057.4346	-0.0096	-9	91	99 GCGSCFEIK			Carbamidomethyl (C)[2,5]		Mascot
1149.5898	1149.5375	-0.0523	-45	149	158 SAGELELQFR					Mascot
1288.726	1288.7061	-0.0199	-15	177	188 GSNPNYLALLVK					Mascot
1288.726	1288.7061	-0.0199	-15	177	188 GSNPNYLALLVK	69	99.998			Mascot
2168.0151	2167.9824	-0.0327	-15	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13]		Mascot
2168.0151	2167.9824	-0.0327	-15	68	87 DVDKPPFSGMTGCGNTP IFK	90	100	Carbamidomethyl (C)[13]		Mascot
2184.01	2183.9729	-0.0371	-17	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13], Oxidation (M)[10]		Mascot
3090.3755	3090.3574	-0.0181	-6	59	87 DNGGACGYKDVDKPPFS GMTGCGNTPIFK			Carbamidomethyl (C)[6,22]		Mascot

Gel Idx/Pos	33/C4		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 23	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl pl OS=Phleum pratense GN=phlpl.p4 PE=2 SV=2	Q40967_PHLPR	28185.2	7.53	13	729	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
914.5193	914.5139	-0.0054	-6	222	229 IDTPEVLK					Mascot
941.3781	941.3844	0.0063	7	59	67 DNGGACGYK			Carbamidomethyl (C)[6]		Mascot
943.4883	943.4823	-0.006	-6	248	255 DVIPEGWK					Mascot
1004.4948	1004.4871	-0.0077	-8	214	221 ESWGAIWR					Mascot
1004.4948	1004.4871	-0.0077	-8	214	221 ESWGAIWR	64	99.902			Mascot
1057.4442	1057.4346	-0.0096	-9	91	99 GCGSCFEIK			Carbamidomethyl (C)[2,5]		Mascot
1135.5742	1135.5645	-0.0097	-9	149	158 SAGEVEIQFR					Mascot
1135.5742	1135.5645	-0.0097	-9	149	158 SAGEVEIQFR	92	100			Mascot
1288.726	1288.7061	-0.0199	-15	177	188 GSNPNYLALLVK					Mascot
1288.726	1288.7061	-0.0199	-15	177	188 GSNPNYLALLVK	69	99.969			Mascot
1363.7006	1363.6836	-0.017	-12	46	58 STWYGKPTAAGPK					Mascot
1363.7006	1363.6836	-0.017	-12	46	58 STWYGKPTAAGPK	106	100			Mascot
1404.7369	1404.715	-0.0219	-16	189	202 FVAGDGDVVAVDIK					Mascot
1404.7369	1404.715	-0.0219	-16	189	202 FVAGDGDVVAVDIK	110	100			Mascot
1571.8793	1571.8582	-0.0211	-13	222	235 IDTPEVLKGPFTVR					Mascot
1571.8793	1571.8582	-0.0211	-13	222	235 IDTPEVLKGPFTVR	91	100			Mascot
1661.8745	1661.8435	-0.031	-19	189	204 FVAGDGDVVAVDIKEK					Mascot
2168.0151	2167.9824	-0.0327	-15	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13]		Mascot
2168.0151	2167.9824	-0.0327	-15	68	87 DVDKPPFSGMTGCGNTP IFK	90	100	Carbamidomethyl (C)[13]		Mascot
2184.01	2183.9729	-0.0371	-17	68	87 DVDKPPFSGMTGCGNTP IFK			Carbamidomethyl (C)[13], Oxidation (M)[10]		Mascot
3090.3755	3090.3574	-0.0181	-6	59	87 DNGGACGYKDVDKPPFS GMTGCGNTPIFK			Carbamidomethyl (C)[6,22]		Mascot

Gel Idx/Pos	321/M23		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 24	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 5b (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5B_PHLPR	27984.6	8.75	7	234	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1112.5986	1112.5936	-0.005	-4	229	238 YAVFEAALTK					Mascot
1147.6357	1147.6224	-0.0133	-12	46	55 LIEDINVGFK					Mascot
1173.594	1173.5872	-0.0068	-6	181	190 FTVFEAAFNK					Mascot
1455.7479	1455.7574	0.0095	7	115	127 FDSFVASLTEALR					Mascot
1455.7479	1455.7574	0.0095	7	115	127 FDSFVASLTEALR	87	100			Mascot
1842.0371	1842.0349	-0.0022	-1	150	166 IPAGELQIIDKIDAAFK					Mascot
1842.0371	1842.0349	-0.0022	-1	150	166 IPAGELQIIDKIDAAFK	80	100			Mascot
2246.2214	2246.2175	-0.0039	-2	128	149 VIAGALEVHAVKPVTEEP GMAK					Mascot
2262.2163	2262.1963	-0.02	-9	128	149 VIAGALEVHAVKPVTEEP GMAK			Oxidation (M)[20]		Mascot
2427.219	2427.2202	0.0012	0	167	190 VAATAAATAPADDKFTVF EAAFNK					Mascot
2427.219	2427.2202	0.0012	0	167	190 VAATAAATAPADDKFTVF EAAFNK	26	74.971			Mascot

Gel Idx/Pos	321/M23		Instr./Gel Origin	ESTHER/T100624_0130_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100624_0130_0726	SPOT 24	Instrument Sample Name		Spectra	8

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Group V allergen Phl p 5.0204 (Fragment) OS=Phleum pratense PE=2 SV=1	Q9SBE0_PHLPR	26194.6	5.61	7	235	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1112.5986	1112.5936	-0.005	-4	210	219 YAVFEAALTK					Mascot
1147.6357	1147.6224	-0.0133	-12	27	36 LIEDINVGFK					Mascot
1173.594	1173.5872	-0.0068	-6	162	171 FTVFEAAFNK					Mascot
1455.7479	1455.7574	0.0095	7	96	108 FDSFVASLTEALR					Mascot
1455.7479	1455.7574	0.0095	7	96	108 FDSFVASLTEALR	87	100			Mascot
1842.0371	1842.0349	-0.0022	-1	131	147 IPAGELQIIDKIDAAFK					Mascot
1842.0371	1842.0349	-0.0022	-1	131	147 IPAGELQIIDKIDAAFK	80	99.998			Mascot
2246.2214	2246.2175	-0.0039	-2	109	130 VIAGALEVHAVKPVTEEP GMAK					Mascot
2262.2163	2262.1963	-0.02	-9	109	130 VIAGALEVHAVKPVTEEP GMAK			Oxidation (M)[20]		Mascot
2427.219	2427.2202	0.0012	0	148	171 VAATAAATAPADDKFTVF EAAFNK					Mascot
2427.219	2427.2202	0.0012	0	148	171 VAATAAATAPADDKFTVF EAAFNK	26	0			Mascot

2	Major allergen Phl p 5 (Fragment) OS=Phleum pratense PE=2 SV=1	P93466_PHLPR	27845.5	8.46	7	234	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1112.5986	1112.5936	-0.005	-4	226	235 YAVFEAALTK					Mascot
1147.6357	1147.6224	-0.0133	-12	43	52 LIEDINVGFK					Mascot
1173.594	1173.5872	-0.0068	-6	178	187 FTVFEAAFNK					Mascot
1455.7479	1455.7574	0.0095	7	112	124 FDSFVASLTEALR					Mascot
1455.7479	1455.7574	0.0095	7	112	124 FDSFVASLTEALR	87	100			Mascot
1842.0371	1842.0349	-0.0022	-1	147	163 IPAGELQIIDKIDAAFK					Mascot
1842.0371	1842.0349	-0.0022	-1	147	163 IPAGELQIIDKIDAAFK	80	99.998			Mascot
2246.2214	2246.2175	-0.0039	-2	125	146 VIAGALEVHAVKPVTEEP					Mascot

2262.2163	2262.1963	-0.02	-9	125	146	GMAK VIAGALEVHAVKPVTEEP	Oxidation (M)[20]	Mascot
2427.219	2427.2202	0.0012	0	164	187	GMAK VAATAAATAPADDKFTVF		Mascot
2427.219	2427.2202	0.0012	0	164	187	EAAFNK VAATAAATAPADDKFTVF	26 0	Mascot
						EAAFNK		

Gel Idx/Pos	40/C11		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 34	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 6 OS=Phleum pratense GN=PHLPVI PE=1 SV=1	MPAP6_PHLPR	13912.1	5.31	9	321	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4559	-0.0106	-14	78	84 APQLVPK					Mascot
1163.6056	1163.5891	-0.0165	-14	32	41 LIEDVNASFR					Mascot
1163.6056	1163.5891	-0.0165	-14	32	41 LIEDVNASFR	84	100			Mascot
1187.5944	1187.5729	-0.0215	-18	58	68 TFEEAFTVSSK					Mascot
1187.5944	1187.5729	-0.0215	-18	58	68 TFEEAFTVSSK	28	85.119			Mascot
1343.6954	1343.7089	0.0135	10	58	69 TFEEAFTVSSKR					Mascot
1459.8268	1459.783	-0.0438	-30	118	132 IIAGTPEVHAVKPGA					Mascot
1581.806	1581.7784	-0.0276	-17	105	117 YEAFVLHFSEALR					Mascot
1581.806	1581.7784	-0.0276	-17	105	117 YEAFVLHFSEALR	77	100			Mascot
1648.8363	1648.7952	-0.0411	-25	42	57 AAMATTANVPPADKYK					Mascot
1664.8313	1664.793	-0.0383	-23	42	57 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
2176.9783	2176.938	-0.0403	-19	85	104 LDEVYNAAYNAADHAAP EDK					Mascot
3739.7664	3739.7969	0.0305	8	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.7969	0.0305	8	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	44	99.584			Mascot

Gel Idx/Pos	40/C11		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 34	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 SV=1	Q6LAG9_PHLPR	14597.5	5.77	9	319	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4559	-0.0106	-14	84	90 APQLVPK					Mascot
1163.6056	1163.5891	-0.0165	-14	38	47 LIEDVNASFR					Mascot
1163.6056	1163.5891	-0.0165	-14	38	47 LIEDVNASFR	84	100			Mascot
1187.5944	1187.5729	-0.0215	-18	64	74 TFEEAFTVSSK					Mascot
1187.5944	1187.5729	-0.0215	-18	64	74 TFEEAFTVSSK	28	0			Mascot
1343.6954	1343.7089	0.0135	10	64	75 TFEEAFTVSSKR					Mascot
1459.8268	1459.783	-0.0438	-30	124	138 IIAGTPEVHAVKPGA					Mascot
1581.806	1581.7784	-0.0276	-17	111	123 YEAFVLHFSEALR					Mascot
1581.806	1581.7784	-0.0276	-17	111	123 YEAFVLHFSEALR	77	99.995			Mascot
1648.8363	1648.7952	-0.0411	-25	48	63 AAMATTANVPPADKYK					Mascot
1664.8313	1664.793	-0.0383	-23	48	63 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
2176.9783	2176.938	-0.0403	-19	91	110 LDEVYNAAYNAADHAAP EDK					Mascot
3739.7664	3739.7969	0.0305	8	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.7969	0.0305	8	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	44	91.508			Mascot

3	Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 SV=1	O65868_PHLPR	14592.5	5.68	6	150	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4559	-0.0106	-14	84	90 APQLVPK					Mascot
1177.6212	1177.6035	-0.0177	-15	38	47 LIEDINASFR					Mascot
1177.6212	1177.6035	-0.0177	-15	38	47 LIEDINASFR	75	99.993			Mascot
1187.5944	1187.5729	-0.0215	-18	64	74 TFEEAFTVSSK					Mascot
1187.5944	1187.5729	-0.0215	-18	64	74 TFEEAFTVSSK	28	0			Mascot

1343.6954	1343.7089	0.0135	10	64	75	TFEAAFTVSSKR		Mascot
1648.8363	1648.7952	-0.0411	-25	48	63	AAMATTANVPPADKYK		Mascot
1664.8313	1664.793	-0.0383	-23	48	63	AAMATTANVPPADKYK	Oxidation (M)[3]	Mascot
2176.9783	2176.938	-0.0403	-19	91	110	LDEVYNAAYNAADHAAP EDK		Mascot

Gel Idx/Pos	43/D2		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 35	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
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1	Pollen allergen Phl p 5b (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5B_PHLPR	27984.6	8.75	8	319	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1087.5817	1087.5518	-0.0299	-27	205	214	CIPSLEAAVK			Carbamidomethyl (C)[1]		Mascot
1112.5986	1112.5774	-0.0212	-19	229	238	YAVFEAALK					Mascot
1112.5986	1112.5774	-0.0212	-19	229	238	YAVFEAALK	64	99.996			Mascot
1173.594	1173.5559	-0.0381	-32	181	190	FTVFEEAFNK					Mascot
1191.5165	1191.557	0.0405	34	194	204	ESTGGAYDTYK					Mascot
1388.7533	1388.7255	-0.0278	-20	215	228	QAYAATVAAAPQVK					Mascot
1455.7479	1455.7155	-0.0324	-22	115	127	FDSFVASLTEALR					Mascot
1455.7479	1455.7155	-0.0324	-22	115	127	FDSFVASLTEALR	16	0			Mascot
1842.0371	1841.991	-0.0461	-25	150	166	IPAGELQIIDKIDAAFK					Mascot
1842.0371	1841.991	-0.0461	-25	150	166	IPAGELQIIDKIDAAFK	126	100			Mascot
2427.219	2427.1748	-0.0442	-18	167	190	VAATAAATAPADDKFTVF EAAFNK					Mascot
2427.219	2427.1748	-0.0442	-18	167	190	VAATAAATAPADDKFTVF EAAFNK	63	99.995			Mascot

2	Pollen allergen Lol p 2-A OS=Lolium perenne PE=1 SV=1	MPAL2_LOLPR	10873.5	5.25	4	65	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
737.3729	737.3718	-0.0011	-1	64	69	GPFNFR					Mascot
1132.5885	1132.5989	0.0104	9	1	10	AAPVEFTVEK			Acetyl (Protein N-term)[0]		Mascot
1365.6686	1365.6378	-0.0308	-23	78	89	NVFDDVVPADFK					Mascot
1405.7587	1405.729	-0.0297	-21	58	69	SDKPLKGPFNFR					Mascot
1405.7587	1405.729	-0.0297	-21	58	69	SDKPLKGPFNFR	37	97.734			Mascot

Gel Idx/Pos	43/D2		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 35	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
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1

Group V allergen Phl p 5.0204 (Fragment) OS=Phleum pratense PE=2 SV=1

Q9SBE0_PHLPR

26194.6

5.61

8

321

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1087.5817	1087.5518	-0.0299	-27	186	195 CIPSLEAAVK			Carbamidomethyl (C)[1]		Mascot
1112.5986	1112.5774	-0.0212	-19	210	219 YAVFEAALTK					Mascot
1112.5986	1112.5774	-0.0212	-19	210	219 YAVFEAALTK	64	99.918			Mascot
1173.594	1173.5559	-0.0381	-32	162	171 FTVFEAAFNK					Mascot
1191.5165	1191.557	0.0405	34	175	185 ESTGGAYDTYK					Mascot
1388.7533	1388.7255	-0.0278	-20	196	209 QAYAATVAAAPQVK					Mascot
1455.7479	1455.7155	-0.0324	-22	96	108 FDSFVASLTEALR					Mascot
1455.7479	1455.7155	-0.0324	-22	96	108 FDSFVASLTEALR	16	0			Mascot
1842.0371	1841.991	-0.0461	-25	131	147 IPAGELQIIDKIDAAFK					Mascot
1842.0371	1841.991	-0.0461	-25	131	147 IPAGELQIIDKIDAAFK	126	100			Mascot
2427.219	2427.1748	-0.0442	-18	148	171 VAATAAATAPADDKFTVF EAAFNK					Mascot
2427.219	2427.1748	-0.0442	-18	148	171 VAATAAATAPADDKFTVF EAAFNK	63	99.898			Mascot

2

Major allergen Phl p 5 (Fragment) OS=Phleum pratense PE=2 SV=1

P93466_PHLPR

27845.5

8.46

8

320

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1087.5817	1087.5518	-0.0299	-27	202	211 CIPSLEAAVK			Carbamidomethyl (C)[1]		Mascot
1112.5986	1112.5774	-0.0212	-19	226	235 YAVFEAALTK					Mascot
1112.5986	1112.5774	-0.0212	-19	226	235 YAVFEAALTK	64	99.918			Mascot
1173.594	1173.5559	-0.0381	-32	178	187 FTVFEAAFNK					Mascot
1191.5165	1191.557	0.0405	34	191	201 ESTGGAYDTYK					Mascot
1388.7533	1388.7255	-0.0278	-20	212	225 QAYAATVAAAPQVK					Mascot
1455.7479	1455.7155	-0.0324	-22	112	124 FDSFVASLTEALR					Mascot

	1455.7479	1455.7155	-0.0324	-22	112	124	FDSFVASLTEALR	16	0		Mascot
	1842.0371	1841.991	-0.0461	-25	147	163	IPAGELQIIDKIDAAFK				Mascot
	1842.0371	1841.991	-0.0461	-25	147	163	IPAGELQIIDKIDAAFK	126	100		Mascot
	2427.219	2427.1748	-0.0442	-18	164	187	VAATAAATAPADDKFTVF EAAFNK				Mascot
	2427.219	2427.1748	-0.0442	-18	164	187	VAATAAATAPADDKFTVF EAAFNK	63	99.898		Mascot
3	Group V allergen Phl p 5.0206 OS=Phleum pratense PE=2 SV=1					O81343_PHLPR	28812	5.96	8	319	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1087.5817	1087.5518	-0.0299	-27	211	220	CIPSLEAAVK			Carbamidomethyl (C)[1]		Mascot
1112.5986	1112.5774	-0.0212	-19	235	244	YAVFEAALTK					Mascot
1112.5986	1112.5774	-0.0212	-19	235	244	YAVFEAALTK	64	99.918			Mascot
1173.594	1173.5559	-0.0381	-32	187	196	FTVFEEAFNK					Mascot
1191.5165	1191.557	0.0405	34	200	210	ESTGGAYDTYK					Mascot
1388.7533	1388.7255	-0.0278	-20	221	234	QAYAATVAAAPQVK					Mascot
1455.7479	1455.7155	-0.0324	-22	121	133	FDSFVASLTEALR					Mascot
1455.7479	1455.7155	-0.0324	-22	121	133	FDSFVASLTEALR	16	0			Mascot
1842.0371	1841.991	-0.0461	-25	156	172	IPAGELQIIDKIDAAFK					Mascot
1842.0371	1841.991	-0.0461	-25	156	172	IPAGELQIIDKIDAAFK	126	100			Mascot
2427.219	2427.1748	-0.0442	-18	173	196	VAATAAATAPADDKFTVF EAAFNK					Mascot
2427.219	2427.1748	-0.0442	-18	173	196	VAATAAATAPADDKFTVF EAAFNK	63	99.898			Mascot

Gel Idx/Pos	69/F1		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 36	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	Pollen allergen Phl p 6 OS=Phleum pratense GN=PHLPVI PE=1 SV=1	MPAP6_PHLPR	13912.1	5.31	4	100
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.6024	-0.0032	-3	32	41 LIEDVNASFR					Mascot
1163.6056	1163.6024	-0.0032	-3	32	41 LIEDVNASFR	46	99.498			Mascot
1343.6954	1343.6865	-0.0089	-7	58	69 TFEAAFTVSSKR					Mascot
1648.8363	1648.8207	-0.0156	-9	42	57 AAMATTANVPPADKYK					Mascot
3739.7664	3739.7825	0.0161	4	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.7825	0.0161	4	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	15	0			Mascot

2	Pollen allergen Phl p 11 OS=Phleum pratense PE=1 SV=1	PHLB_PHLPR	15768.7	4.96	4	79
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
969.3917	969.3954	0.0037	4	12	18 VYCDPCR			Carbamidomethyl (C)[3,6]		Mascot
1098.5731	1098.5721	-0.001	-1	112	120 YANPIAFFR					Mascot
1098.5731	1098.5721	-0.001	-1	112	120 YANPIAFFR	34	91.402			Mascot
1132.611	1132.6011	-0.0099	-9	1	11 DKGPGFVVTGR					Mascot
1132.611	1132.6011	-0.0099	-9	1	11 DKGPGFVVTGR	2	0			Mascot
1570.6691	1570.6699	0.0008	1	80	92 SPDTTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1570.6691	1570.6699	0.0008	1	80	92 SPDTTCSEIEEFR	8	0	Carbamidomethyl (C)[6]		Mascot

Gel Idx/Pos	69/F1		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 36	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 SV=1	Q6LAG9_PHLPR	14597.5	5.77	4	99	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.6024	-0.0032	-3	38	47 LIEDVNASFR					Mascot
1163.6056	1163.6024	-0.0032	-3	38	47 LIEDVNASFR	46	90.281			Mascot
1343.6954	1343.6865	-0.0089	-7	64	75 TFEAAFTVSSKR					Mascot
1648.8363	1648.8207	-0.0156	-9	48	63 AAMATTANVPPADKYK					Mascot
3739.7664	3739.7825	0.0161	4	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.7825	0.0161	4	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	15	0			Mascot

3	Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 SV=1	O65868_PHLPR	14592.5	5.68	3	76	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1177.6212	1177.613	-0.0082	-7	38	47 LIEDINASFR					Mascot
1177.6212	1177.613	-0.0082	-7	38	47 LIEDINASFR	52	97.636			Mascot
1343.6954	1343.6865	-0.0089	-7	64	75 TFEAAFTVSSKR					Mascot
1648.8363	1648.8207	-0.0156	-9	48	63 AAMATTANVPPADKYK					Mascot

Gel Idx/Pos	71/F3		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 38	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	Profilin-2/4 OS=Phleum pratense GN=PRO2 PE=1 SV=1	PROF2_PHLPR	14140.9	4.92	5	284
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1140.5242	1140.5023	-0.0219	-19	122	131	LG DYLV EQGM			Oxidation (M)[10]		Mascot
1432.7617	1432.7397	-0.022	-15	72	84	YMVIQGE PGAVIR					Mascot
1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGE PGAVIR			Oxidation (M)[2]		Mascot
1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGE PGAVIR	79	100	Oxidation (M)[2]		Mascot
1959.927	1959.9	-0.027	-14	53	71	DFDEPGHLAPTGMFVAG AK					Mascot
1975.9219	1975.8837	-0.0382	-19	53	71	DFDEPGHLAPTGMFVAG AK			Oxidation (M)[13]		Mascot
1975.9219	1975.8837	-0.0382	-19	53	71	DFDEPGHLAPTGMFVAG AK	87	100	Oxidation (M)[13]		Mascot
2780.3052	2780.2969	-0.0083	-3	97	121	TGQALVVG IYDEPMT PG QCNM VVER			Carbamidomethyl (C)[19], Oxidation (M)[14]		Mascot
2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVG IYDEPMT PG QCNM VVER			Carbamidomethyl (C)[19], Oxidation (M)[14,21]		Mascot
2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVG IYDEPMT PG QCNM VVER	32	91.944	Carbamidomethyl (C)[19], Oxidation (M)[14,21]		Mascot
2908.4001	2908.395	-0.0051	-2	96	121	KTGQALVVG IYDEPMT PG QCNM VVER			Carbamidomethyl (C)[20], Oxidation (M)[15]		Mascot
2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVG IYDEPMT PG QCNM VVER			Carbamidomethyl (C)[20], Oxidation (M)[15,22]		Mascot
2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVG IYDEPMT PG QCNM VVER	46	99.66	Carbamidomethyl (C)[20], Oxidation (M)[15,22]		Mascot

2	Profilin-1 OS=Phleum pratense GN=PRO1 PE=1 SV=1	PROF1_PHLPR	14226	5.07	4	194
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1140.5242	1140.5023	-0.0219	-19	122	131	LG DYLV EQGM			Oxidation (M)[10]		Mascot
1959.927	1959.9	-0.027	-14	53	71	DFDEPGHLAPTGMFVAG AK					Mascot
1975.9219	1975.8837	-0.0382	-19	53	71	DFDEPGHLAPTGMFVAG AK			Oxidation (M)[13]		Mascot
1975.9219	1975.8837	-0.0382	-19	53	71	DFDEPGHLAPTGMFVAG AK	87	100	Oxidation (M)[13]		Mascot
2780.3052	2780.2969	-0.0083	-3	97	121	TGQALVVG IYDEPMT PG			Carbamidomethyl (C)[19], Oxidation (M)[14]		Mascot

	2796.3003	2796.2905	-0.0098	-4	97	121	QCNMVVER TGQALVVGIDEPMTPG QCNMVVER				Carbamidomethyl (C)[19], Oxidation (M)[14,21]	Mascot
	2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVGIDEPMTPG QCNMVVER	32	91.944		Carbamidomethyl (C)[19], Oxidation (M)[14,21]	Mascot
	2908.4001	2908.395	-0.0051	-2	96	121	KTGQALVVGIDEPMTP GQCNMVVER				Carbamidomethyl (C)[20], Oxidation (M)[15]	Mascot
	2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVGIDEPMTP GQCNMVVER				Carbamidomethyl (C)[20], Oxidation (M)[15,22]	Mascot
	2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVGIDEPMTP GQCNMVVER	46	99.66		Carbamidomethyl (C)[20], Oxidation (M)[15,22]	Mascot
4	Profilin-3 OS=Phleum pratense GN=PRO3 PE=1 SV=1 PROF3_PHLPR 14154.9 4.92 4 185											

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1140.5242	1140.5023	-0.0219	-19	122	131	LG DYLV EQGM			Oxidation (M)[10]		Mascot
1432.7617	1432.7397	-0.022	-15	72	84	YMVIQGE PGAVIR					Mascot
1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGE PGAVIR			Oxidation (M)[2]		Mascot
1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGE PGAVIR	79	100	Oxidation (M)[2]		Mascot
2780.3052	2780.2969	-0.0083	-3	97	121	TGQALVVGIDEPMTPG QCNMVVER			Carbamidomethyl (C)[19], Oxidation (M)[14]		Mascot
2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVGIDEPMTPG QCNMVVER			Carbamidomethyl (C)[19], Oxidation (M)[14,21]		Mascot
2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVGIDEPMTPG QCNMVVER	32	91.944	Carbamidomethyl (C)[19], Oxidation (M)[14,21]		Mascot
2908.4001	2908.395	-0.0051	-2	96	121	KTGQALVVGIDEPMTP GQCNMVVER			Carbamidomethyl (C)[20], Oxidation (M)[15]		Mascot
2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVGIDEPMTP GQCNMVVER			Carbamidomethyl (C)[20], Oxidation (M)[15,22]		Mascot
2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVGIDEPMTP GQCNMVVER	46	99.66	Carbamidomethyl (C)[20], Oxidation (M)[15,22]		Mascot

6 Profilin-3 OS=Arabidopsis thaliana GN=PRO3 PE=2 SV=1 PROF3_ARATH 14408.9 5.02 2 133

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1432.7617	1432.7397	-0.022	-15	75	87	YMVIQGE PGAVIR					Mascot
1448.7567	1448.733	-0.0237	-16	75	87	YMVIQGE PGAVIR			Oxidation (M)[2]		Mascot
1448.7567	1448.733	-0.0237	-16	75	87	YMVIQGE PGAVIR	79	100	Oxidation (M)[2]		Mascot
1989.9375	1989.9011	-0.0364	-18	56	74	DFDEPGHLAPTGLFMAG AK			Oxidation (M)[15]		Mascot
1989.9375	1989.9011	-0.0364	-18	56	74	DFDEPGHLAPTGLFMAG AK	44	99.5	Oxidation (M)[15]		Mascot

Gel Idx/Pos	71/F3		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 38	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	Profilin OS=Olea europaea PE=2 SV=1	A4GFC3_OLEEU	14202	5.23	4	273
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Protein Group

Profilin OS=Olea europaea PE=2 SV=1	A4GFC0_OLEEU	14085	5.0599 999427 7954
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1432.7617	1432.7397	-0.022	-15	72	84	YMVIQGEPGA VIR					Mascot
1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGEPGA VIR			Oxidation (M)[2]		Mascot
1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGEPGA VIR	79	99.997	Oxidation (M)[2]		Mascot
1959.927	1959.9	-0.027	-14	53	71	DFDEPGHLAPTGMFVAG AK					Mascot
1975.9219	1975.8837	-0.0382	-19	53	71	DFDEPGHLAPTGMFVAG AK			Oxidation (M)[13]		Mascot
1975.9219	1975.8837	-0.0382	-19	53	71	DFDEPGHLAPTGMFVAG AK	87	100	Oxidation (M)[13]		Mascot
2780.3052	2780.2969	-0.0083	-3	97	121	TGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[19], Oxidation (M)[14]		Mascot
2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[19], Oxidation (M)[14,21]		Mascot
2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVG IYDEPMT PG QCNMVVER	32	0	Carbamidomethyl (C)[19], Oxidation (M)[14,21]		Mascot
2908.4001	2908.395	-0.0051	-2	96	121	KTGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[20], Oxidation (M)[15]		Mascot
2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[20], Oxidation (M)[15,22]		Mascot
2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVG IYDEPMT PG QCNMVVER	46	93.596	Carbamidomethyl (C)[20], Oxidation (M)[15,22]		Mascot

2	Profilin OS=Phleum pratense PE=2 SV=1	A4KA33_PHLPR	14150	5.22	4	238
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Protein Group

Profilin OS=Phleum pratense PE=2 SV=1	A4KA36_PHLPR	14120	5.2199 997901 9165
Profilin OS=Phleum pratense PE=2 SV=1	A4KA32_PHLPR	14106	5.2199 997901 9165

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
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	1432.7617	1432.7397	-0.022	-15	72	84	YMVIQGEPGA VIR											Mascot
	1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGEPGA VIR						Oxidation (M)[2]					Mascot
	1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGEPGA VIR		79	99.997			Oxidation (M)[2]					Mascot
	1989.9375	1989.9011	-0.0364	-18	53	71	DFDEPGHLAPTGMFVAA AK						Oxidation (M)[13]					Mascot
	1989.9375	1989.9011	-0.0364	-18	53	71	DFDEPGHLAPTGMFVAA AK		53	98.734			Oxidation (M)[13]					Mascot
	2780.3052	2780.2969	-0.0083	-3	97	121	TGQALVVG IYDEPMT PG QCNMVVER						Carbamidomethyl (C)[19], Oxidation (M)[14]					Mascot
	2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVG IYDEPMT PG QCNMVVER						Carbamidomethyl (C)[19], Oxidation (M)[14,21]					Mascot
	2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVG IYDEPMT PG QCNMVVER		32	0			Carbamidomethyl (C)[19], Oxidation (M)[14,21]					Mascot
	2908.4001	2908.395	-0.0051	-2	96	121	KTGQALVVG IYDEPMT P GQC NMVVER						Carbamidomethyl (C)[20], Oxidation (M)[15]					Mascot
	2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVG IYDEPMT P GQC NMVVER						Carbamidomethyl (C)[20], Oxidation (M)[15,22]					Mascot
	2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVG IYDEPMT P GQC NMVVER		46	93.596			Carbamidomethyl (C)[20], Oxidation (M)[15,22]					Mascot
3	Profilin OS=Phleum pratense PE=2 SV=1				A4KA34_PHLPR			14180	5.22	4	186							
Protein Group																		
	Profilin OS=Olea europaea PE=2 SV=1				A4KA49_OLEEU			14150	5.2199 997901 9165									
	Profilin OS=Olea europaea PE=2 SV=1				A4KA50_OLEEU			14185.9	5.2199 997901 9165									
	Profilin OS=Olea europaea PE=2 SV=1				A4KA52_OLEEU			14168	5.2199 997901 9165									
	Profilin OS=Olea europaea PE=2 SV=1				A4KA53_OLEEU			14136	5.2199 997901 9165									
	Profilin OS=Phleum pratense PE=2 SV=1				A4KA31_PHLPR			14150	5.2199 997901 9165									
Peptide Information																		
	Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence		Ion Score	C. I. %	Modification						Rank	Result Type
	1432.7617	1432.7397	-0.022	-15	72	84	YMVIQGEPGA VIR											Mascot
	1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGEPGA VIR						Oxidation (M)[2]					Mascot
	1448.7567	1448.733	-0.0237	-16	72	84	YMVIQGEPGA VIR		79	99.997			Oxidation (M)[2]					Mascot
	2003.9532	2003.8887	-0.0645	-32	53	71	DFDEPGHLAPTGMFVAT AK											Mascot
	2019.9481	2019.9093	-0.0388	-19	53	71	DFDEPGHLAPTGMFVAT AK						Oxidation (M)[13]					Mascot
	2780.3052	2780.2969	-0.0083	-3	97	121	TGQALVVG IYDEPMT PG						Carbamidomethyl (C)[19], Oxidation (M)[14]					Mascot

2796.3003	2796.2905	-0.0098	-4	97	121	QCNMVVER TGQALVVGIDPMTPG QCNMVVER		Carbamidomethyl (C)[19], Oxidation (M)[14,21]	Mascot
2796.3003	2796.2905	-0.0098	-4	97	121	TGQALVVGIDPMTPG QCNMVVER	32	0 Carbamidomethyl (C)[19], Oxidation (M)[14,21]	Mascot
2908.4001	2908.395	-0.0051	-2	96	121	KTGQALVVGIDPMTP GQCNMVVER		Carbamidomethyl (C)[20], Oxidation (M)[15]	Mascot
2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVGIDPMTP GQCNMVVER		Carbamidomethyl (C)[20], Oxidation (M)[15,22]	Mascot
2924.395	2924.3738	-0.0212	-7	96	121	KTGQALVVGIDPMTP GQCNMVVER	46	93.596 Carbamidomethyl (C)[20], Oxidation (M)[15,22]	Mascot

Gel Idx/Pos	45/D4		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 39	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 2 OS=Phleum pratense GN=PHLP1I PE=1 SV=1	MPAP2_PHLPR	13353.5	4.64	4	57	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1428.6311	1428.6273	-0.0038	-3	49	60 YEGDTMAEVELR			Oxidation (M)[6]		Mascot
1493.7305	1493.6952	-0.0353	-24	99	111 GMKNVFDVVPEK			Oxidation (M)[2]		Mascot
2189.1272	2189.0562	-0.071	-32	42	60 HLAVLVKYEGDTMAEVELR			Oxidation (M)[13]		Mascot
2369.0835	2369.1008	0.0173	7	73	93 GEGGVWTFDSEEPLQGP FNFR					Mascot
2369.0835	2369.1008	0.0173	7	73	93 GEGGVWTFDSEEPLQGP FNFR	29	85.257			Mascot

10	Profilin-2/4 OS=Phleum pratense GN=PRO2 PE=1 SV=1	PROF2_PHLPR	14140.9	4.92	2	29	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1448.7567	1448.7155	-0.0412	-28	72	84 YMVIQGEPGA VIR			Oxidation (M)[2]		Mascot
1448.7567	1448.7155	-0.0412	-28	72	84 YMVIQGEPGA VIR	18	0	Oxidation (M)[2]		Mascot
1975.9219	1975.8584	-0.0635	-32	53	71 DFDEPGHLAPTGMFVAG AK			Oxidation (M)[13]		Mascot

Gel Idx/Pos	37/C8	SPOT 40	Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219		Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Dac g 3 (Fragment) OS=Dactylis glomerata PE=1 SV=1	MPAG3_DACGL	10925.7	8.9	4	185	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1379.7206	1379.6895	-0.0311	-23	76	87 NVFDEVIPTAFK					Mascot
1379.7206	1379.6895	-0.0311	-23	76	87 NVFDEVIPTAFK	47	99.766			Mascot
1440.6754	1440.6466	-0.0288	-20	36	47 QHGSEEWELTK					Mascot
1440.6754	1440.6466	-0.0288	-20	36	47 QHGSEEWELTK	66	99.997			Mascot
1568.7704	1568.7466	-0.0238	-15	36	48 QHGSEEWELTKK					Mascot
1619.8387	1619.8125	-0.0262	-16	22	35 YTRPGDTLAEVELR					Mascot
1619.8387	1619.8125	-0.0262	-16	22	35 YTRPGDTLAEVELR	45	99.613			Mascot

2	Pollen allergen Lol p 3 OS=Lolium perenne PE=1 SV=1	MPAL3_LOLPR	10900.6	7.88	2	101	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1619.8387	1619.8125	-0.0262	-16	22	35 YTRPGDTLAEVELR					Mascot
1619.8387	1619.8125	-0.0262	-16	22	35 YTRPGDTLAEVELR	45	99.613			Mascot
1636.8582	1636.8165	-0.0417	-25	76	90 NVFDEVIPTAFTVGK					Mascot
1636.8582	1636.8165	-0.0417	-25	76	90 NVFDEVIPTAFTVGK	44	99.553			Mascot

Gel Idx/Pos	37/C8		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 40	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
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1	Phl p 3 allergen (Fragment) OS=Phleum pratense PE=4 SV=1	Q69B42_PHLPR	10951.7	8.94	6	330	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1120.6361	1120.621	-0.0151	-13	1	10 AVQVTFTVQK					Mascot
1348.7372	1348.7192	-0.018	-13	57	68 SSKPLVGPFNFR					Mascot
1348.7372	1348.7192	-0.018	-13	57	68 SSKPLVGPFNFR	103	100			Mascot
1440.6754	1440.6466	-0.0288	-20	37	48 QHGSEEWELTK					Mascot
1440.6754	1440.6466	-0.0288	-20	37	48 QHGSEEWELTK	66	99.948			Mascot
1568.7704	1568.7466	-0.0238	-15	37	49 QHGSEEWELTKK					Mascot
1605.8231	1605.7976	-0.0255	-16	23	36 YTRPGDSLAEVELR					Mascot
1605.8231	1605.7976	-0.0255	-16	23	36 YTRPGDSLAEVELR	72	99.986			Mascot
1636.8582	1636.8165	-0.0417	-25	77	91 NVFDEVIPTAFSIGK					Mascot
1636.8582	1636.8165	-0.0417	-25	77	91 NVFDEVIPTAFSIGK	34	24.53			Mascot

2	Grass pollen allergen Lol p 3 (Fragment) OS=Lolium perenne PE=4 SV=1	Q540P9_LOLPR	10900.6	7.88	2	101	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1619.8387	1619.8125	-0.0262	-16	22	35 YTRPGDTLAEVELR					Mascot
1619.8387	1619.8125	-0.0262	-16	22	35 YTRPGDTLAEVELR	45	92.659			Mascot
1636.8582	1636.8165	-0.0417	-25	76	90 NVFDEVIPTAFTVGK					Mascot
1636.8582	1636.8165	-0.0417	-25	76	90 NVFDEVIPTAFTVGK	44	91.513			Mascot

Gel Idx/Pos	41/C12		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 43	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 6 OS=Phleum pratense GN=PHLPVI PE=1 SV=1	MPAP6_PHLPR	13912.1	5.31	7	201	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.5975	-0.0081	-7	32	41 LIEDVNASFR					Mascot
1163.6056	1163.5975	-0.0081	-7	32	41 LIEDVNASFR	76	100			Mascot
1187.5944	1187.5862	-0.0082	-7	58	68 TFEAAFTVSSK					Mascot
1357.6781	1357.7024	0.0243	18	42	55 AAMATTANVPPADK					Mascot
1373.673	1373.6425	-0.0305	-22	42	55 AAMATTANVPPADK			Oxidation (M)[3]		Mascot
1581.806	1581.7808	-0.0252	-16	105	117 YEAFVLHFSEALR					Mascot
1648.8363	1648.8083	-0.028	-17	42	57 AAMATTANVPPADKYK					Mascot
2176.9783	2176.9775	-0.0008	0	85	104 LDEVYNAAYNAADHAAP EDK					Mascot
3739.7664	3739.8115	0.0451	12	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.8115	0.0451	12	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	64	99.994			Mascot

Gel Idx/Pos	41/C12		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 43	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 SV=1	Q6LAG9_PHLPR	14597.5	5.77	7	199

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.5975	-0.0081	-7	38	47 LIEDVNASFR					Mascot
1163.6056	1163.5975	-0.0081	-7	38	47 LIEDVNASFR	76	99.993			Mascot
1187.5944	1187.5862	-0.0082	-7	64	74 TFEAAFTVSSK					Mascot
1357.6781	1357.7024	0.0243	18	48	61 AAMATTANVPPADK					Mascot
1373.673	1373.6425	-0.0305	-22	48	61 AAMATTANVPPADK			Oxidation (M)[3]		Mascot
1581.806	1581.7808	-0.0252	-16	111	123 YEAFVLHFSEALR					Mascot
1648.8363	1648.8083	-0.028	-17	48	63 AAMATTANVPPADKYK					Mascot
2176.9783	2176.9775	-0.0008	0	91	110 LDEVYNAAYNAADHAAP EDK					Mascot
3739.7664	3739.8115	0.0451	12	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.8115	0.0451	12	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	64	99.88			Mascot

Gel Idx/Pos	39/C10		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 44	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 6 OS=Phleum pratense GN=PHLPVI PE=1 SV=1	MPAP6_PHLPR	13912.1	5.31	10	287	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4564	-0.0101	-13	78	84 APQLVPK					Mascot
1163.6056	1163.5918	-0.0138	-12	32	41 LIEDVNASFR					Mascot
1163.6056	1163.5918	-0.0138	-12	32	41 LIEDVNASFR	76	100			Mascot
1187.5944	1187.5752	-0.0192	-16	58	68 TFEEAFTVSSK					Mascot
1187.5944	1187.5752	-0.0192	-16	58	68 TFEEAFTVSSK	27	72.17			Mascot
1343.6954	1343.6847	-0.0107	-8	58	69 TFEEAFTVSSKR					Mascot
1459.8268	1459.7921	-0.0347	-24	118	132 IIAGTPEVHAVKPGA					Mascot
1581.806	1581.7814	-0.0246	-16	105	117 YEAFVLHFSEALR					Mascot
1648.8363	1648.7916	-0.0447	-27	42	57 AAMATTANVPPADKYK					Mascot
1664.8313	1664.7911	-0.0402	-24	42	57 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1664.8313	1664.7911	-0.0402	-24	42	57 AAMATTANVPPADKYK	58	99.981	Oxidation (M)[3]		Mascot
2176.9783	2176.9429	-0.0354	-16	85	104 LDEVYNAAYNAADHAAP EDK					Mascot
2365.2507	2365.1653	-0.0854	-36	1	24 MVAMFLAVAVVLGLATSP TAEGGK			Oxidation (M)[1,4]		Mascot
3739.7664	3739.7874	0.021	6	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.7874	0.021	6	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	25	59.958			Mascot

Gel Idx/Pos	39/C10		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 44	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
1	Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 SV=1	Q6LAG9_PHLPR	14597.5	5.77	9	272

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4564	-0.0101	-13	84	90 APQLVPK					Mascot
1163.6056	1163.5918	-0.0138	-12	38	47 LIEDVNASFR					Mascot
1163.6056	1163.5918	-0.0138	-12	38	47 LIEDVNASFR	76	99.993			Mascot
1187.5944	1187.5752	-0.0192	-16	64	74 TFEEAFTVSSK					Mascot
1187.5944	1187.5752	-0.0192	-16	64	74 TFEEAFTVSSK	27	0			Mascot
1343.6954	1343.6847	-0.0107	-8	64	75 TFEEAFTVSSKR					Mascot
1459.8268	1459.7921	-0.0347	-24	124	138 IIAGTPEVHAVKPGA					Mascot
1581.806	1581.7814	-0.0246	-16	111	123 YEAFVLHFSEALR					Mascot
1648.8363	1648.7916	-0.0447	-27	48	63 AAMATTANVPPADKYK					Mascot
1664.8313	1664.7911	-0.0402	-24	48	63 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1664.8313	1664.7911	-0.0402	-24	48	63 AAMATTANVPPADKYK	58	99.643	Oxidation (M)[3]		Mascot
2176.9783	2176.9429	-0.0354	-16	91	110 LDEVYNAAYNAADHAAP EDK					Mascot
3739.7664	3739.7874	0.021	6	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.7874	0.021	6	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	25	0			Mascot

3	Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 SV=1	O65868_PHLPR	14592.5	5.68	6	214
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4564	-0.0101	-13	84	90 APQLVPK					Mascot
1177.6212	1177.6066	-0.0146	-12	38	47 LIEDINASFR					Mascot
1177.6212	1177.6066	-0.0146	-12	38	47 LIEDINASFR	81	99.998			Mascot
1187.5944	1187.5752	-0.0192	-16	64	74 TFEEAFTVSSK					Mascot
1187.5944	1187.5752	-0.0192	-16	64	74 TFEEAFTVSSK	27	0			Mascot

1343.6954	1343.6847	-0.0107	-8	64	75	TFEAAFTVSSKR			Mascot
1648.8363	1648.7916	-0.0447	-27	48	63	AAMATTANVPPADKYK			Mascot
1664.8313	1664.7911	-0.0402	-24	48	63	AAMATTANVPPADKYK		Oxidation (M)[3]	Mascot
1664.8313	1664.7911	-0.0402	-24	48	63	AAMATTANVPPADKYK	58	99.69 Oxidation (M)[3]	Mascot
2176.9783	2176.9429	-0.0354	-16	91	110	LDEVYNAAYNAADHAAP EDK			Mascot

Gel Idx/Pos	38/C9		Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219	SPOT 45	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
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1	Pollen allergen Phl p 6 OS=Phleum pratense GN=PHLPVI PE=1 SV=1	MPAP6_PHLPR	13912.1	5.31	9	309	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4575	-0.009	-12	78	84 APQLVPK					Mascot
1163.6056	1163.5952	-0.0104	-9	32	41 LIEDVNASFR					Mascot
1163.6056	1163.5952	-0.0104	-9	32	41 LIEDVNASFR	76	100			Mascot
1187.5944	1187.5765	-0.0179	-15	58	68 TFEEAFTVSSK					Mascot
1187.5944	1187.5765	-0.0179	-15	58	68 TFEEAFTVSSK	25	60.468			Mascot
1343.6954	1343.7273	0.0319	24	58	69 TFEEAFTVSSKR					Mascot
1343.6954	1343.7273	0.0319	24	58	69 TFEEAFTVSSKR	19	0			Mascot
1459.8268	1459.7749	-0.0519	-36	118	132 IIAGTPEVHAVKPGA					Mascot
1581.806	1581.7863	-0.0197	-12	105	117 YEAFVLHFSEALR					Mascot
1648.8363	1648.8014	-0.0349	-21	42	57 AAMATTANVPPADKYK					Mascot
1664.8313	1664.7949	-0.0364	-22	42	57 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1664.8313	1664.7949	-0.0364	-22	42	57 AAMATTANVPPADKYK	66	99.996	Oxidation (M)[3]		Mascot
2176.9783	2176.9514	-0.0269	-12	85	104 LDEVYNAAYNAADHAAP EDK					Mascot
3739.7664	3739.8008	0.0344	9	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.8008	0.0344	9	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	35	95.88			Mascot

2	Pollen allergen Phl p 5b (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5B_PHLPR	27984.6	8.75	4	134	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1147.6357	1147.6169	-0.0188	-16	46	55 LIEDINVGFK					Mascot
1388.7533	1388.7628	0.0095	7	215	228 QAYAATVAAAPQVK					Mascot
1388.7533	1388.7628	0.0095	7	215	228 QAYAATVAAAPQVK					Mascot
1455.7479	1455.7301	-0.0178	-12	115	127 FDSFVASLTEALR					Mascot

1455.7479	1455.7301	-0.0178	-12	115	127	FDSFVASLTEALR	117	100	Mascot
1487.8217	1487.7937	-0.028	-19	56	71	AAVAAAASVPAADKFK			Mascot

Gel Idx/Pos	38/C9	SPOT 45	Instr./Gel Origin	ESTHER/T100602_0111_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T100602_0111_0219		Instrument Sample Name		Spectra	9

Rank
Protein Name
Accession No.
Protein MW
Protein PI
Pep. Count
Protein Species
Score

1
Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 Q6LAG9_PHLPR
14597.5
5.77
9
308

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4575	-0.009	-12	84	90 APQLVPK					Mascot
1163.6056	1163.5952	-0.0104	-9	38	47 LIEDVNASFR					Mascot
1163.6056	1163.5952	-0.0104	-9	38	47 LIEDVNASFR	76	99.993			Mascot
1187.5944	1187.5765	-0.0179	-15	64	74 TFEEAFTVSSK					Mascot
1187.5944	1187.5765	-0.0179	-15	64	74 TFEEAFTVSSK	25	0			Mascot
1343.6954	1343.7273	0.0319	24	64	75 TFEEAFTVSSKR					Mascot
1343.6954	1343.7273	0.0319	24	64	75 TFEEAFTVSSKR	19	0			Mascot
1459.8268	1459.7749	-0.0519	-36	124	138 IIAGTPEVHAVKPGA					Mascot
1581.806	1581.7863	-0.0197	-12	111	123 YEAFVLHFSEALR					Mascot
1648.8363	1648.8014	-0.0349	-21	48	63 AAMATTANVPPADKYK					Mascot
1664.8313	1664.7949	-0.0364	-22	48	63 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1664.8313	1664.7949	-0.0364	-22	48	63 AAMATTANVPPADKYK	66	99.931	Oxidation (M)[3]		Mascot
2176.9783	2176.9514	-0.0269	-12	91	110 LDEVYNAAYNAADHAAP EDK					Mascot
3739.7664	3739.8008	0.0344	9	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3739.7664	3739.8008	0.0344	9	91	123 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	35	21.146			Mascot

3
Phl p6 allergen OS=Phleum pratense GN=Phl p6 PE=2 O65868_PHLPR
14592.5
5.68
6
242

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
752.4665	752.4575	-0.009	-12	84	90 APQLVPK					Mascot
1177.6212	1177.6102	-0.011	-9	38	47 LIEDINASFR					Mascot
1177.6212	1177.6102	-0.011	-9	38	47 LIEDINASFR	84	100			Mascot
1187.5944	1187.5765	-0.0179	-15	64	74 TFEEAFTVSSK					Mascot

	1187.5944	1187.5765	-0.0179	-15	64	74	TFEAAFTVSSK	25	0		Mascot
	1343.6954	1343.7273	0.0319	24	64	75	TFEAAFTVSSKR				Mascot
	1343.6954	1343.7273	0.0319	24	64	75	TFEAAFTVSSKR	19	0		Mascot
	1648.8363	1648.8014	-0.0349	-21	48	63	AAMATTANVPPADKYK				Mascot
	1664.8313	1664.7949	-0.0364	-22	48	63	AAMATTANVPPADKYK			Oxidation (M)[3]	Mascot
	1664.8313	1664.7949	-0.0364	-22	48	63	AAMATTANVPPADKYK	66	99.931	Oxidation (M)[3]	Mascot
	2176.9783	2176.9514	-0.0269	-12	91	110	LDEVYNAAYNAADHAAP EDK				Mascot
4	Group V allergen Phl p 5.0204 (Fragment) OS=Phleum pratense PE=2 SV=1					Q9SBE0_PHLPR	26194.6	5.61	4	134	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1147.6357	1147.6169	-0.0188	-16	27	36	LIEDINVGFK					Mascot
1388.7533	1388.7628	0.0095	7	196	209	QAYAATVAAAPQVK					Mascot
1388.7533	1388.7628	0.0095	7	196	209	QAYAATVAAAPQVK					Mascot
1455.7479	1455.7301	-0.0178	-12	96	108	FDSFVASLTEALR					Mascot
1455.7479	1455.7301	-0.0178	-12	96	108	FDSFVASLTEALR	117	100			Mascot
1487.8217	1487.7937	-0.028	-19	37	52	AAVAAAASVPAADKFK					Mascot

5	Group V allergen Phl p 5.0206 OS=Phleum pratense PE=2 SV=1					O81343_PHLPR	28812	5.96	4	133	
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Protein Group

Group V allergen Phl p 5.0203 (Fragment) OS=Phleum pratense PE=2 SV=1	O81342_PHLPR	29294.2	8.9200 000762 9395
Group V allergen Phl p 5.0207 OS=Phleum pratense PE=2 SV=1	O81344_PHLPR	28326.8	5.9699 997901 9165

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1147.6357	1147.6169	-0.0188	-16	52	61	LIEDINVGFK					Mascot
1388.7533	1388.7628	0.0095	7	221	234	QAYAATVAAAPQVK					Mascot
1388.7533	1388.7628	0.0095	7	221	234	QAYAATVAAAPQVK					Mascot
1455.7479	1455.7301	-0.0178	-12	121	133	FDSFVASLTEALR					Mascot
1455.7479	1455.7301	-0.0178	-12	121	133	FDSFVASLTEALR	117	100			Mascot
1487.8217	1487.7937	-0.028	-19	62	77	AAVAAAASVPAADKFK					Mascot

6 Major allergen Phl p 5 (Fragment) OS=Phleum pratense P93466_PHLPR 27845.5 8.46 3 128
PE=2 SV=1

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1147.6357	1147.6169	-0.0188	-16	43	52	LIEDINVGFK					Mascot
1388.7533	1388.7628	0.0095	7	212	225	QAYAATVAAAPQVK					Mascot
1388.7533	1388.7628	0.0095	7	212	225	QAYAATVAAAPQVK					Mascot
1455.7479	1455.7301	-0.0178	-12	112	124	FDSFVASLTEALR					Mascot
1455.7479	1455.7301	-0.0178	-12	112	124	FDSFVASLTEALR	117	100			Mascot

Gel Idx/Pos	61/E5		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 4	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	phosphoglucumutase [Triticum aestivum]	gi 18076790	62749.8	5.66	16	174

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
739.3522	739.3594	0.0072	10	441	445	HY YTR					Mascot
805.3985	805.4172	0.0187	23	77	84	MAAANGVR			Oxidation (M)[1]		Mascot
866.473	866.4642	-0.0088	-10	568	574	IKEYTGR					Mascot
914.4366	914.4307	-0.0059	-6	511	518	YLFGDGSR					Mascot
914.4366	914.4307	-0.0059	-6	511	518	YLFGDGSR	20	0			Mascot
1031.5481	1031.5448	-0.0033	-3	54	64	GATIVVSGDGR					Mascot
1085.5514	1085.5505	-0.0009	-1	535	542	IYIEQYEK					Mascot
1099.567	1099.5607	-0.0063	-6	206	214	TIFDFESIK					Mascot
1110.5619	1110.5526	-0.0093	-8	361	369	FFEVP TGWK					Mascot
1110.5619	1110.5526	-0.0093	-8	361	369	FFEVP TGWK	4	0			Mascot
1118.6165	1118.6014	-0.0151	-13	523	534	LSGTGSVGATIR					Mascot
1118.6165	1118.6014	-0.0151	-13	523	534	LSGTGSVGATIR	4	0			Mascot
1227.662	1227.6482	-0.0138	-11	206	215	TIFDFESIKK					Mascot
1227.662	1227.6482	-0.0138	-11	206	215	TIFDFESIKK	4	0			Mascot
1502.7373	1502.7296	-0.0077	-5	535	546	IYIEQY EK DSSK					Mascot
1717.7817	1717.7936	0.0119	7	259	274	EDFGGGHPDPNLTYAK					Mascot
1846.8582	1846.855	-0.0032	-2	222	238	FSFCFDGLHGVAGAYAK			Carbamidomethyl (C)[4]		Mascot
1846.8582	1846.855	-0.0032	-2	222	238	FSFCFDGLHGVAGAYAK	24	0	Carbamidomethyl (C)[4]		Mascot
2012.1176	2012.1038	-0.0138	-7	86	104	VWVGQDSLSTPAVSAII R					Mascot
2012.1176	2012.1038	-0.0138	-7	86	104	VWVGQDSLSTPAVSAII R	18	0			Mascot
2107.9355	2107.938	0.0025	1	441	457	HY YTRYDYENVDAEAAK					Mascot
2168.2188	2168.2043	-0.0145	-7	85	104	RVWVGQDSLSTPAVSAI IR					Mascot
2168.2188	2168.2043	-0.0145	-7	85	104	RVWVGQDSLSTPAVSAI IR	4	0			Mascot

Gel Idx/Pos	5/A5		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 4	Instrument Sample Name		Spectra	16

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Phosphoglucumutase, cytoplasmic OS=Bromus inermis GN=PGM1 PE=2 SV=1	PGMC_BROIN	62633.7	5.34	10	135	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
739.3522	739.3585	0.0063	9	441	445 HYYTR					Mascot
914.4366	914.4354	-0.0012	-1	511	518 YLFGDGSR	36	88.337			Mascot
914.4366	914.4354	-0.0012	-1	511	518 YLFGDGSR					Mascot
1031.5481	1031.5494	0.0013	1	54	64 GATIVVSGDGR	15	0			Mascot
1031.5481	1031.5494	0.0013	1	54	64 GATIVVSGDGR					Mascot
1085.5514	1085.5634	0.012	11	535	542 IYIEQYEK					Mascot
1099.567	1099.5635	-0.0035	-3	206	214 TIFDFESIK					Mascot
1110.5619	1110.5565	-0.0054	-5	361	369 FFEVPTGWK	3	0			Mascot
1110.5619	1110.5565	-0.0054	-5	361	369 FFEVPTGWK					Mascot
1118.6165	1118.6075	-0.009	-8	523	534 LSGTGSGVATIR					Mascot
1118.6165	1118.6075	-0.009	-8	523	534 LSGTGSGVATIR					Mascot
1227.662	1227.6547	-0.0073	-6	206	215 TIFDFESIKK	18	0			Mascot
1227.662	1227.6547	-0.0073	-6	206	215 TIFDFESIKK					Mascot
1502.7373	1502.7378	0.0005	0	535	546 IYIEQYEKDKSSK					Mascot
1717.7817	1717.7972	0.0155	9	259	274 EDFGGGHPDPNLTYAK	4	0			Mascot
1717.7817	1717.7972	0.0155	9	259	274 EDFGGGHPDPNLTYAK					Mascot

Gel Idx/Pos	5/A5		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 4	Instrument Sample Name		Spectra	16

Rank
Protein Name
Accession No.
Protein MW
Protein PI
Pep. Count
Protein Species Score

1
Phosphoglucumutase (Fragment) OS=Triticum aestivum GN=PGM PE=2 SV=1
Q8VX48_WHEAT
62749.8
5.66
14
206

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
739.3522	739.3585	0.0063	9	441	445 HYYTR					Mascot
866.473	866.4668	-0.0062	-7	568	574 IKEYTGR					Mascot
914.4366	914.4354	-0.0012	-1	511	518 YLFGDGSR	36	0			Mascot
914.4366	914.4354	-0.0012	-1	511	518 YLFGDGSR					Mascot
1031.5481	1031.5494	0.0013	1	54	64 GATIVVSGDGR	15	0			Mascot
1031.5481	1031.5494	0.0013	1	54	64 GATIVVSGDGR					Mascot
1085.5514	1085.5634	0.012	11	535	542 IYIEQYEK					Mascot
1099.567	1099.5635	-0.0035	-3	206	214 TIFDFESIK					Mascot
1110.5619	1110.5565	-0.0054	-5	361	369 FFEVPTGWK	3	0			Mascot
1110.5619	1110.5565	-0.0054	-5	361	369 FFEVPTGWK					Mascot
1118.6165	1118.6075	-0.009	-8	523	534 LSGTGSGVATIR					Mascot
1118.6165	1118.6075	-0.009	-8	523	534 LSGTGSGVATIR					Mascot
1227.662	1227.6547	-0.0073	-6	206	215 TIFDFESIKK	18	0			Mascot
1227.662	1227.6547	-0.0073	-6	206	215 TIFDFESIKK					Mascot
1502.7373	1502.7378	0.0005	0	535	546 IYIEQYEKDSK					Mascot
1717.7817	1717.7972	0.0155	9	259	274 EDFGGGHPDPNLTYAK	4	0			Mascot
1717.7817	1717.7972	0.0155	9	259	274 EDFGGGHPDPNLTYAK					Mascot
1846.8582	1846.8528	-0.0054	-3	222	238 FSFCFDGLHGVAGAYAK	23	0	Carbamidomethyl (C)[4]		Mascot
1846.8582	1846.8528	-0.0054	-3	222	238 FSFCFDGLHGVAGAYAK			Carbamidomethyl (C)[4]		Mascot
2012.1176	2012.111	-0.0066	-3	86	104 VWVGQDSLSTPAVSAII R	0	0			Mascot
2012.1176	2012.111	-0.0066	-3	86	104 VWVGQDSLSTPAVSAII R					Mascot
2168.2188	2168.2144	-0.0044	-2	85	104 RVWVGQDSLSTPAVSAI IR					Mascot
2168.2188	2168.2144	-0.0044	-2	85	104 RVWVGQDSLSTPAVSAI IR					Mascot

Gel Idx/Pos	7/A7		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 6	Instrument Sample Name		Spectra	10

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	UDP-glucose pyrophosphorylase [Dendrocalamus sinicus]	gi 158705664	51794.2	5.34	7	213

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
790.457	790.4648	0.0078	10	407	413 VANFLAR	9	0			Mascot
790.457	790.4648	0.0078	10	407	413 VANFLAR					Mascot
918.5519	918.5547	0.0028	3	406	413 KVANFLAR					Mascot
918.5519	918.5547	0.0028	3	406	413 KVANFLAR					Mascot
1052.5371	1052.5342	-0.0029	-3	261	270 GGTLISYEGR	19	0			Mascot
1052.5371	1052.5342	-0.0029	-3	261	270 GGTLISYEGR					Mascot
1312.7583	1312.7484	-0.0099	-8	333	345 VLQLETAAGAAIR	33	0			Mascot
1312.7583	1312.7484	-0.0099	-8	333	345 VLQLETAAGAAIR					Mascot
1475.741	1475.7572	0.0162	11	1	14 MAAAVAAADEKLEK			Acetyl (Protein N-term)[0], Oxidation (M)[1]		Mascot
1475.8005	1475.7572	-0.0433	-29	295	306 IFNTNNLWVNLK	28	0			Mascot
2108.1023	2108.0962	-0.0061	-3	271	288 VQLLEIAQVPDEHVNEFK	52	89.267			Mascot

Gel Idx/Pos	7/A7		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 6	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	UTP--glucose-1-phosphate uridylyltransferase OS=Hordeum vulgare PE=2 SV=1	UGPA_HORVU	51612.2	5.2	5	163

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
790.457	790.4695	0.0125	16	407	413 VANFLAR	21	0			Mascot
790.457	790.4695	0.0125	16	407	413 VANFLAR					Mascot
918.5519	918.5562	0.0043	5	406	413 KVANFLAR	4	0			Mascot
918.5519	918.5562	0.0043	5	406	413 KVANFLAR					Mascot
1052.5371	1052.5374	0.0003	0	261	270 GGT LISYEGR	42	95.019			Mascot
1052.5371	1052.5374	0.0003	0	261	270 GGT LISYEGR					Mascot
1312.7583	1312.7399	-0.0184	-14	333	345 VLQLETAAGAAIR	61	99.938			Mascot
1312.7583	1312.7399	-0.0184	-14	333	345 VLQLETAAGAAIR					Mascot
1475.8005	1475.7637	-0.0368	-25	295	306 IFNTNNLWVNLK					Mascot
1475.8005	1475.7637	-0.0368	-25	295	306 IFNTNNLWVNLK					Mascot

Gel Idx/Pos	63/E7		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 6	Instrument Sample Name		Spectra	15

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	UDP-glucose pyrophosphorylase OS=Dendrocalamus sinicus GN=ugp PE=2 SV=1	A8W710_9POAL	51794.2	5.34	10	183	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
790.457	790.451	-0.006	-8	407	413 VANFLAR	15	0			Mascot
790.457	790.451	-0.006	-8	407	413 VANFLAR					Mascot
846.5196	846.516	-0.0036	-4	358	364 SRFLPVK					Mascot
918.5519	918.5479	-0.004	-4	406	413 KVANFLAR					Mascot
918.5519	918.5479	-0.004	-4	406	413 KVANFLAR					Mascot
1052.5371	1052.5353	-0.0018	-2	261	270 GGTLSYEGR	19	0			Mascot
1052.5371	1052.5353	-0.0018	-2	261	270 GGTLSYEGR					Mascot
1312.7583	1312.754	-0.0043	-3	333	345 VLQLETAAGAAIR	18	0			Mascot
1312.7583	1312.754	-0.0043	-3	333	345 VLQLETAAGAAIR					Mascot
1376.7686	1376.7339	-0.0347	-25	346	357 FFDKAIGINVPR					Mascot
1376.7686	1376.7339	-0.0347	-25	346	357 FFDKAIGINVPR					Mascot
1475.741	1475.7789	0.0379	26	1	14 MAAAVAAADEKLEK			Acetyl (Protein N-term)[0], Oxidation (M)[1]		Mascot
1475.8005	1475.7789	-0.0216	-15	295	306 IFNTNNLWVNLK					Mascot
1539.7325	1539.7197	-0.0128	-8	40	52 YLSGEAEQIEWSK	14	0			Mascot
1539.7325	1539.7197	-0.0128	-8	40	52 YLSGEAEQIEWSK					Mascot
2108.1023	2108.0942	-0.0081	-4	271	288 VQLLEIAQVPDEHVNEFK	31	0			Mascot
2108.1023	2108.0942	-0.0081	-4	271	288 VQLLEIAQVPDEHVNEFK					Mascot

Analysis Information

Report Type	Protein-Peptide Summary by Spot	Analysis Type	Combined (MS+MS/MS)
Sample Set Name	T091217_0062_efd_SH	Database	Trembl
Analysis Name	MS MSMS viridi 2 trembl	Creation Date	12/17/2009 16:56:10
Reported By	12/23/2009 11:03:02 - admin	Last Modified	12/17/2009 16:59:47
MS Acq. : Proc. Methods	(Unspecified) : (Unspecified)		
Interpretation Method	(Unspecified)		

Gel Idx/Pos	57/E1	SPOT 7	Instr./Gel Origin	ESTHER/T091217_0062_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062		Instrument Sample Name		Spectra	16

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
1	Cytosolic monodehydroascorbate reductase OS=Oryza sativa subsp. japonica PE=2 SV=1	Q9XFZ3_ORYSJ	46602.1	5.53	7	153

Protein Group

Os09g0567300 protein OS=Oryza sativa subsp. japonica GN=OJ1155_H10.27 PE=4 SV=1	Q652L6_ORYSJ	46644.1	5.53000020980835
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
791.3417	791.3777	0.036	45	148	154	EVDDADK					Mascot
791.3417	791.3777	0.036	45	148	154	EVDDADK					Mascot
1090.5752	1090.5143	-0.0609	-56	313	321	VEHVDHARK					Mascot
1118.5814	1118.5531	-0.0283	-25	312	320	RVEHVDHAR	18	0			Mascot
1118.5814	1118.5531	-0.0283	-25	312	320	RVEHVDHAR					Mascot
1136.5847	1136.5565	-0.0282	-25	54	63	GYLFPQNAAR	42	31.503			Mascot
1136.5847	1136.5565	-0.0282	-25	54	63	GYLFPQNAAR					Mascot
1200.6049	1200.5863	-0.0186	-15	382	391	FGSYWIKDGK					Mascot
1437.7849	1437.766	-0.0189	-13	9	23	YVILGGGVAAGYAAR	22	0			Mascot
1437.7849	1437.766	-0.0189	-13	9	23	YVILGGGVAAGYAAR					Mascot
2388.103	2388.1057	0.0027	1	332	351	GKESGESVVEYDYLPHYR	24	0			Mascot

Gel Idx/Pos	65/E9		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 8	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	enolase [Zea mays]	gi 195619804	48100.4	5.59	5	112
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Protein Group

enolase 2 [Zea mays]	gi 162460735	48132.5	5.6999 998092 6514
unknown [Zea mays]	gi 223944349	48084.5	5.5900 001525 8789

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.4272	-0.0247	-31	418	423 YNQLLR					Mascot
806.4519	806.4272	-0.0247	-31	418	423 YNQLLR	12	0			Mascot
978.5043	978.476	-0.0283	-29	439	446 FRAPVEPY					Mascot
978.5043	978.476	-0.0283	-29	439	446 FRAPVEPY	16	0			Mascot
1101.5259	1101.4999	-0.026	-24	374	383 AGWGVMTSHR					Mascot
1101.5259	1101.4999	-0.026	-24	374	383 AGWGVMTSHR	35	0			Mascot
1938.0226	1937.9325	-0.0901	-46	1	17 MAATIQSVKARQIFDSR			Oxidation (M)[1]		Mascot
1938.0226	1937.9325	-0.0901	-46	1	17 MAATIQSVKARQIFDSR			Oxidation (M)[1]		Mascot
2557.2815	2557.2739	-0.0076	-3	316	338 MTEEIGEQQIVGDDLLV TNPTR					Mascot
2557.2815	2557.2739	-0.0076	-3	316	338 MTEEIGEQQIVGDDLLV TNPTR	20	0			Mascot

Gel Idx/Pos	65/E9		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 8	Instrument Sample Name		Spectra	16

Rank
Protein Name
Accession No.
Protein MW
Protein PI
Pep. Count
Protein Species
Score

1
Enolase 2 OS=Zea mays GN=ENO2 PE=2 SV=1
ENO2_MAIZE
48132.5
5.7
8
93

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.446	-0.0059	-7	418	423 YNQLLR	16	0			Mascot
806.4519	806.446	-0.0059	-7	418	423 YNQLLR					Mascot
978.5043	978.5016	-0.0027	-3	439	446 FRAPVEPY	8	0			Mascot
978.5043	978.5016	-0.0027	-3	439	446 FRAPVEPY					Mascot
1101.5259	1101.5242	-0.0017	-2	374	383 AGWGVMTSHR					Mascot
1101.5259	1101.5242	-0.0017	-2	374	383 AGWGVMTSHR					Mascot
1117.5208	1117.5293	0.0085	8	374	383 AGWGVMTSHR			Oxidation (M)[6]		Mascot
1118.6238	1118.5629	-0.0609	-54	345	354 EKSCNALLK					Mascot
1178.5411	1178.5975	0.0564	48	103	111 NEWGWCKQK					Mascot
1273.6219	1273.6272	0.0053	4	373	383 RAGWGVMTSHR			Oxidation (M)[7]		Mascot
1938.0226	1937.9336	-0.089	-46	1	17 MAATIQSVKARQIFDSR			Oxidation (M)[1]		Mascot
1938.0226	1937.9336	-0.089	-46	1	17 MAATIQSVKARQIFDSR			Oxidation (M)[1]		Mascot
2557.2815	2557.262	-0.0195	-8	316	338 MTEEIGEQQIVGDDLLV TNPTR	19	0			Mascot
2557.2815	2557.262	-0.0195	-8	316	338 MTEEIGEQQIVGDDLLV TNPTR					Mascot

Gel Idx/Pos	65/E9		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 8	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Enolase 2 OS=Zea mays GN=ENO2 PE=2 SV=1	ENO2_MAIZE	48132.5	5.7	5	112	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.4272	-0.0247	-31	418	423 YNQLLR					Mascot
806.4519	806.4272	-0.0247	-31	418	423 YNQLLR	12	0			Mascot
978.5043	978.476	-0.0283	-29	439	446 FRAPVEPY					Mascot
978.5043	978.476	-0.0283	-29	439	446 FRAPVEPY	16	0			Mascot
1101.5259	1101.4999	-0.026	-24	374	383 AGWGVMTSHR					Mascot
1101.5259	1101.4999	-0.026	-24	374	383 AGWGVMTSHR	35	87.665			Mascot
1938.0226	1937.9325	-0.0901	-46	1	17 MAATIQSVKARQIFDSR			Oxidation (M)[1]		Mascot
1938.0226	1937.9325	-0.0901	-46	1	17 MAATIQSVKARQIFDSR			Oxidation (M)[1]		Mascot
2557.2815	2557.2739	-0.0076	-3	316	338 MTEEIGEQQIVGDDLLV TNPTR					Mascot
2557.2815	2557.2739	-0.0076	-3	316	338 MTEEIGEQQIVGDDLLV TNPTR	20	0			Mascot

Gel Idx/Pos	10/A10		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 9	Instrument Sample Name		Spectra	16

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species	
1	enolase [Elaeis guineensis]	gi 192910834	47728.3	5.98	8	126	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.4601	0.0082	10	417	422 YNQLLR					Mascot
806.4519	806.4601	0.0082	10	417	422 YNQLLR					Mascot
978.5043	978.5101	0.0058	6	438	445 FRAPVEPY					Mascot
978.5043	978.5101	0.0058	6	438	445 FRAPVEPY					Mascot
1045.6187	1045.5791	-0.0396	-38	2	10 ATIKCIKAR			Acetyl (Protein N-term)[0]		Mascot
1045.6187	1045.5791	-0.0396	-38	2	10 ATIKCIKAR			Acetyl (Protein N-term)[0]		Mascot
1101.5259	1101.5291	0.0032	3	373	382 AGWGVMTSHR					Mascot
1101.5259	1101.5291	0.0032	3	373	382 AGWGVMTSHR					Mascot
1117.5208	1117.5223	0.0015	1	373	382 AGWGVMTSHR			Oxidation (M)[6]		Mascot
1117.5208	1117.5223	0.0015	1	373	382 AGWGVMTSHR			Oxidation (M)[6]		Mascot
1189.6609	1189.5928	-0.0681	-57	344	353 EKTCNALLK			Carbamidomethyl (C)[4]		Mascot
1189.6609	1189.5928	-0.0681	-57	344	353 EKTCNALLK			Carbamidomethyl (C)[4]		Mascot
1308.6794	1308.662	-0.0174	-13	53	65 DGGSDYLGKGVLK					Mascot
1679.9591	1679.9418	-0.0173	-10	132	146 KIPLYQHIANLAGNK	20	0			Mascot
1679.9591	1679.9418	-0.0173	-10	132	146 KIPLYQHIANLAGNK					Mascot
2557.2815	2557.2925	0.011	4	315	337 MTEEIGEQQIVGDDLLV TNPTR	34	0			Mascot
2557.2815	2557.2925	0.011	4	315	337 MTEEIGEQQIVGDDLLV TNPTR					Mascot

2	hypothetical protein Osl_10758 [Oryza sativa Indica Group]	gi 218192440	47956.4	5.33	6	99	
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Protein Group

Os03g0248600 [Oryza sativa (japonica cultivar-group)]	gi 115451911	47942.4	5.3200 001716 6138
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
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806.4519	806.4601	0.0082	10	417	422	YNQLLR			Mascot
806.4519	806.4601	0.0082	10	417	422	YNQLLR			Mascot
978.5043	978.5101	0.0058	6	438	445	FRAPVEPY			Mascot
978.5043	978.5101	0.0058	6	438	445	FRAPVEPY			Mascot
1101.5259	1101.5291	0.0032	3	373	382	AGWGVMTSHR			Mascot
1101.5259	1101.5291	0.0032	3	373	382	AGWGVMTSHR			Mascot
1117.5208	1117.5223	0.0015	1	373	382	AGWGVMTSHR		Oxidation (M)[6]	Mascot
1117.5208	1117.5223	0.0015	1	373	382	AGWGVMTSHR		Oxidation (M)[6]	Mascot
1189.6034	1189.5928	-0.0106	-9	190	199	MGVEVYHNLK	32	0	Mascot
1189.6034	1189.5928	-0.0106	-9	190	199	MGVEVYHNLK			Mascot
1308.6794	1308.662	-0.0174	-13	54	66	DGGSDYLKGVLK			Mascot
1679.9591	1679.9418	-0.0173	-10	133	147	KIPLYQHIANLAGNK	20	0	Mascot
1679.9591	1679.9418	-0.0173	-10	133	147	KIPLYQHIANLAGNK			Mascot

Gel Idx/Pos	10/A10		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 9	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	Enolase OS=Oryza sativa subsp. japonica GN=ENO1 PE=1 SV=2	ENO_ORYSJ	47942.4	5.41	7	128

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.4537	0.0018	2	418	423 YNQLLR	10	0			Mascot
806.4519	806.4537	0.0018	2	418	423 YNQLLR					Mascot
978.5043	978.5051	0.0008	1	439	446 FRAPVEPY	12	0			Mascot
978.5043	978.5051	0.0008	1	439	446 FRAPVEPY					Mascot
1101.5259	1101.5278	0.0019	2	374	383 AGWGVMTSHR					Mascot
1101.5259	1101.5278	0.0019	2	374	383 AGWGVMTSHR					Mascot
1117.5208	1117.5275	0.0067	6	374	383 AGWGVMTSHR			Oxidation (M)[6]		Mascot
1117.5208	1117.5275	0.0067	6	374	383 AGWGVMTSHR			Oxidation (M)[6]		Mascot
1189.6034	1189.5989	-0.0045	-4	190	199 MGVEVYHNLK	25	0			Mascot
1189.6034	1189.5989	-0.0045	-4	190	199 MGVEVYHNLK					Mascot
1533.7795	1533.8076	0.0281	18	424	438 IEEELGAAAVYAGAK			Acetyl (K)[15]		Mascot
1679.9591	1679.947	-0.0121	-7	133	147 KIPLYQHIANLAGNK	43	95.123			Mascot
1679.9591	1679.947	-0.0121	-7	133	147 KIPLYQHIANLAGNK					Mascot
2557.3542	2557.2737	-0.0805	-31	347	369 SCNALLLKVNQIGSVTESI EAVK			Acetyl (K)[8,23], Carbamidomethyl (C)[2]		Mascot

Gel Idx/Pos	10/A10		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 9	Instrument Sample Name		Spectra	16

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	Enolase OS=Elaeis guineensis var. tenera PE=2 SV=1	B3TLU4_ELAGV	47728.3	5.98	8	126

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.4601	0.0082	10	417	422	YNQLLR					Mascot
806.4519	806.4601	0.0082	10	417	422	YNQLLR					Mascot
978.5043	978.5101	0.0058	6	438	445	FRAPVEPY					Mascot
978.5043	978.5101	0.0058	6	438	445	FRAPVEPY					Mascot
1045.6187	1045.5791	-0.0396	-38	2	10	ATIKCIKAR			Acetyl (Protein N-term)[0]		Mascot
1045.6187	1045.5791	-0.0396	-38	2	10	ATIKCIKAR			Acetyl (Protein N-term)[0]		Mascot
1101.5259	1101.5291	0.0032	3	373	382	AGWGVMTSHR					Mascot
1101.5259	1101.5291	0.0032	3	373	382	AGWGVMTSHR					Mascot
1117.5208	1117.5223	0.0015	1	373	382	AGWGVMTSHR			Oxidation (M)[6]		Mascot
1117.5208	1117.5223	0.0015	1	373	382	AGWGVMTSHR			Oxidation (M)[6]		Mascot
1189.6609	1189.5928	-0.0681	-57	344	353	EKTCNALLK			Carbamidomethyl (C)[4]		Mascot
1189.6609	1189.5928	-0.0681	-57	344	353	EKTCNALLK			Carbamidomethyl (C)[4]		Mascot
1308.6794	1308.662	-0.0174	-13	53	65	DGGS DYLGKGV LK					Mascot
1679.9591	1679.9418	-0.0173	-10	132	146	KIPLYQHIANLAGNK	20	0			Mascot
1679.9591	1679.9418	-0.0173	-10	132	146	KIPLYQHIANLAGNK					Mascot
2557.2815	2557.2925	0.011	4	315	337	MTEEIGE QVQIVGDDL LV	34	0			Mascot
2557.2815	2557.2925	0.011	4	315	337	MTEEIGE QVQIVGDDL LV					Mascot

2	Enolase OS=Oryza sativa subsp. japonica GN=Os03g0248600 PE=2 SV=1	Q10P35_ORYSJ	47942.4	5.32	6	99
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
806.4519	806.4601	0.0082	10	417	422	YNQLLR					Mascot
806.4519	806.4601	0.0082	10	417	422	YNQLLR					Mascot
978.5043	978.5101	0.0058	6	438	445	FRAPVEPY					Mascot

978.5043	978.5101	0.0058	6	438	445	FRAPVEPY			Mascot
1101.5259	1101.5291	0.0032	3	373	382	AGWGVMTSHR			Mascot
1101.5259	1101.5291	0.0032	3	373	382	AGWGVMTSHR			Mascot
1117.5208	1117.5223	0.0015	1	373	382	AGWGVMTSHR		Oxidation (M)[6]	Mascot
1117.5208	1117.5223	0.0015	1	373	382	AGWGVMTSHR		Oxidation (M)[6]	Mascot
1189.6034	1189.5928	-0.0106	-9	190	199	MGVEVYHNLK	32	0	Mascot
1189.6034	1189.5928	-0.0106	-9	190	199	MGVEVYHNLK			Mascot
1308.6794	1308.662	-0.0174	-13	54	66	DGGSDYLGKGVLK			Mascot
1679.9591	1679.9418	-0.0173	-10	133	147	KIPLYQHIANLAGNK	20	0	Mascot
1679.9591	1679.9418	-0.0173	-10	133	147	KIPLYQHIANLAGNK			Mascot

Analysis Information

Report Type	Protein-Peptide Summary by Spot	Analysis Type	Combined (MS+MS/MS)
Sample Set Name	T091217_0062_efd_SH	Database	Trembl
Analysis Name	MS MSMS viridi 3 trembl	Creation Date	12/18/2009 10:46:15
Reported By	12/23/2009 11:04:01 - admin	Last Modified	12/18/2009 10:49:07
MS Acq. : Proc. Methods	(Unspecified) : (Unspecified)		
Interpretation Method	(Unspecified)		

Gel Idx/Pos	84/G2	Instr./Gel Origin	ESTHER/T091217_0062_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
3	Major pollen allergen Phl p 4 OS=Phleum pratense PE=2 SV=1	Q2I6V7_PHLPR	58190.8	9.18	3	92

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1197.59	1197.6417	0.0517	43	504	513 GKVDPTDYFR	31	0			Mascot
1197.59	1197.6417	0.0517	43	504	513 GKVDPTDYFR					Mascot
1320.579	1320.6368	0.0578	44	220	230 SMGDDHFWAVR	16	0			Mascot
1320.579	1320.6368	0.0578	44	220	230 SMGDDHFWAVR					Mascot
1336.574	1336.6244	0.0504	38	220	230 SMGDDHFWAVR	13	0	Oxidation (M)[2]		Mascot
1475.7853	1475.8203	0.035	24	53	66 SSPAYPSVLGQTIR	24	0			Mascot
1475.7853	1475.8203	0.035	24	53	66 SSPAYPSVLGQTIR					Mascot

Gel Idx/Pos	59/E3		Instr./Gel Origin	ESTHER/T091217_0062_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 14	Instrument Sample Name		Spectra	4

Rank
Protein Name
Accession No.
Protein MW
Protein PI
Pep. Count
Protein Species Score

2
Legumin-like protein OS=Zea mays GN=cl2-2 PE=2 SV=1
Q84TL6_MAIZE
38054.7
6.23
2
92

Protein Group

Legumin-like protein OS=Zea mays PE=2 SV=1
B6TFX9_MAIZE
38042.6
6.23000001907349

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1028.5735	1028.5925	0.019	18	225	234	EVGLGADLVR	30	0			Mascot
1028.5735	1028.5925	0.019	18	225	234	EVGLGADLVR					Mascot
1187.6783	1187.699	0.0207	17	278	288	IEGGSFLFIVPR	43	64.1			Mascot
1187.6783	1187.699	0.0207	17	278	288	IEGGSFLFIVPR					Mascot

5
Alcohol dehydrogenase D (Fragment) OS=Gossypium rotundifolium GN=AdhD PE=3 SV=1
O65925_9ROSI
24145.1
7.21
1
54

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1054.5641	1054.6184	0.0543	51	180	189	IXGVDLNPNR	45	77.453			Mascot

Gel Idx/Pos	3/A3		Instr./Gel Origin	ESTHER/T091203_0060_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091203_0060	SPOT 20	Instrument Sample Name		Spectra	7

Rank
Protein Name
Accession No.
Protein MW
Protein PI
Pep. Count
Total Ion Score
Total Ion C. I. %

1
Pollen allergen Phl p 5b (Fragment) OS=Phleum pratense PE=1 SV=2
MPA5B_PHLPR
27984.6
8.75
4
231
100

Peptide Information

Calc. Mass	Obsrv. Mass	$\pm$ da	$\pm$ ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1112.5986	1112.58	-0.0186	-17	229	238	YAVFEAALTK	29	91.517		1	Mascot
1455.7479	1455.75	0.0021	1	115	127	FDSFVASLTEALR	135	100		1	Mascot
1842.0371	1842.04	0.0029	2	150	166	IPAGELQIIDKIDAAFK	63	99.997		1	Mascot
2427.219	2427.21	-0.009	-4	167	190	VAATAAATAPADDKFTVF EAAFNK	4	0		1	Mascot

Gel Idx/Pos	62/E6	SP0T 23	Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621		Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Score	Species
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2	Pollen allergen Phl p 1 precursor (Phl p I)	gi 1171008	28439.2	6.14	10	228
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4438	-0.0234	-27	170	176	VTFHVEK					Mascot
890.5095	890.4931	-0.0164	-18	228	235	LTGPFTVR	10	0			Mascot
890.5095	890.4931	-0.0164	-18	228	235	LTGPFTVR					Mascot
1004.4948	1004.4855	-0.0093	-9	214	221	ESWGAIWR	39	74.05			Mascot
1004.4948	1004.4855	-0.0093	-9	214	221	ESWGAIWR					Mascot
1116.6412	1116.6196	-0.0216	-19	205	213	GKDKWIELK					Mascot
1149.5898	1149.5845	-0.0053	-5	149	158	SAGELELQFR	50	98.059			Mascot
1149.5898	1149.5845	-0.0053	-5	149	158	SAGELELQFR					Mascot
1288.726	1288.709	-0.017	-13	177	188	GSNPNYLALLVK					Mascot
1305.691	1305.6821	-0.0089	-7	149	159	SAGELELQFRR					Mascot
1305.691	1305.6821	-0.0089	-7	149	159	SAGELELQFRR					Mascot
1349.6848	1349.6796	-0.0052	-4	46	58	STWYGKPTGAGPK					Mascot
1463.7377	1463.7131	-0.0246	-17	189	202	YVNGDGDVVAVDIK					Mascot
1559.8429	1559.8411	-0.0018	-1	222	235	IDTPDKLTGPFTVR	79	99.997			Mascot
1559.8429	1559.8411	-0.0018	-1	222	235	IDTPDKLTGPFTVR					Mascot

Gel Idx/Pos	62/E6		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 23	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	10	227	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4438	-0.0234	-27	170	176 VTFHVEK					Mascot
890.5095	890.4931	-0.0164	-18	228	235 LTGPFTVR	10	0			Mascot
890.5095	890.4931	-0.0164	-18	228	235 LTGPFTVR					Mascot
1004.4948	1004.4855	-0.0093	-9	214	221 ESWGAIWR	39	97.744			Mascot
1004.4948	1004.4855	-0.0093	-9	214	221 ESWGAIWR					Mascot
1116.6412	1116.6196	-0.0216	-19	205	213 GKDKWIELK					Mascot
1149.5898	1149.5845	-0.0053	-5	149	158 SAGELELQFR	50	99.831			Mascot
1149.5898	1149.5845	-0.0053	-5	149	158 SAGELELQFR					Mascot
1288.726	1288.709	-0.017	-13	177	188 GSNPNYLALLVK					Mascot
1305.691	1305.6821	-0.0089	-7	149	159 SAGELELQFRR					Mascot
1305.691	1305.6821	-0.0089	-7	149	159 SAGELELQFRR					Mascot
1349.6848	1349.6796	-0.0052	-4	46	58 STWYGKPTGAGPK					Mascot
1463.7377	1463.7131	-0.0246	-17	189	202 YVNGDGDVVAVDIK					Mascot
1559.8429	1559.8411	-0.0018	-1	222	235 IDTPDKLTGPFTVR	79	100			Mascot
1559.8429	1559.8411	-0.0018	-1	222	235 IDTPDKLTGPFTVR					Mascot

Gel Idx/Pos	63/E7		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 24	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
2	Pollen allergen Phl p 1 precursor (Phl p I)	gi 1171008	28439.2	6.14	6	64	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
890.5095	890.4937	-0.0158	-18	228	235	LTGPFTVR					Mascot
973.5425	973.5164	-0.0261	-27	141	148	KGDEQKLR					Mascot
1004.4948	1004.4966	0.0018	2	214	221	ESWGAIWR	24	0			Mascot
1004.4948	1004.4966	0.0018	2	214	221	ESWGAIWR					Mascot
1149.5898	1149.5845	-0.0053	-5	149	158	SAGELELQFR	20	0			Mascot
1149.5898	1149.5845	-0.0053	-5	149	158	SAGELELQFR					Mascot
1288.726	1288.7006	-0.0254	-20	177	188	GSNPNYLALLVK					Mascot
1559.8429	1559.8372	-0.0057	-4	222	235	IDTPDKLTGPFTVR					Mascot

Gel Idx/Pos	7/A7		Instr./Gel Origin	ESTHER/T091203_0060_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091203_0060	SPOT 24	Instrument Sample Name		Spectra	10

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species	Score
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	6	257	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
890.5095	890.5115	0.002	2	228	235 LTGPFTVR					Mascot
890.5095	890.5115	0.002	2	228	235 LTGPFTVR					Mascot
1004.4948	1004.5005	0.0057	6	214	221 ESWGAIWR	72	99.996			Mascot
1004.4948	1004.5005	0.0057	6	214	221 ESWGAIWR					Mascot
1149.5898	1149.5983	0.0085	7	149	158 SAGELELQFR	44	97.441			Mascot
1149.5898	1149.5983	0.0085	7	149	158 SAGELELQFR					Mascot
1288.726	1288.7212	-0.0048	-4	177	188 GSNPNYLALLVK	24	0			Mascot
1288.726	1288.7212	-0.0048	-4	177	188 GSNPNYLALLVK					Mascot
1349.6848	1349.6899	0.0051	4	46	58 STWYGKPTGAGPK	8	0			Mascot
1349.6848	1349.6899	0.0051	4	46	58 STWYGKPTGAGPK					Mascot
1559.8429	1559.8533	0.0104	7	222	235 IDTPDKLTGPFTVR	51	99.518			Mascot
1559.8429	1559.8533	0.0104	7	222	235 IDTPDKLTGPFTVR					Mascot

Gel Idx/Pos	9/A9		Instr./Gel Origin	ESTHER/T091203_0060_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091203_0060	SPOT 26	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	6	205	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1004.4948	1004.4952	0.0004	0	214	221 ESWGAIWR	53	99.792			Mascot
1004.4948	1004.4952	0.0004	0	214	221 ESWGAIWR					Mascot
1149.5898	1149.5848	-0.005	-4	149	158 SAGELELQFR	47	99.024			Mascot
1149.5898	1149.5848	-0.005	-4	149	158 SAGELELQFR					Mascot
1288.726	1288.7085	-0.0175	-14	177	188 GSNPNYLALLVK	23	0			Mascot
1288.726	1288.7085	-0.0175	-14	177	188 GSNPNYLALLVK					Mascot
1305.691	1305.6824	-0.0086	-7	149	159 SAGELELQFRR	1	0			Mascot
1305.691	1305.6824	-0.0086	-7	149	159 SAGELELQFRR					Mascot
1349.6848	1349.6764	-0.0084	-6	46	58 STWYGKPTGAGPK	3	0			Mascot
1349.6848	1349.6764	-0.0084	-6	46	58 STWYGKPTGAGPK					Mascot
1559.8429	1559.8344	-0.0085	-5	222	235 IDTPDKLTGPFTVR	33	75.37			Mascot
1559.8429	1559.8344	-0.0085	-5	222	235 IDTPDKLTGPFTVR					Mascot

Gel Idx/Pos	66/E10		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 27	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	pollen allergen Phl pl [Phleum pratense]	gi 3901094	28185.2	7.53	5	86	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4523	-0.0149	-17	170	176 VTFHVEK					Mascot
1004.4948	1004.4935	-0.0013	-1	214	221 ESWGAIWR	34	31.455			Mascot
1004.4948	1004.4935	-0.0013	-1	214	221 ESWGAIWR					Mascot
1135.5742	1135.5673	-0.0069	-6	149	158 SAGEVEIQFR	38	70.961			Mascot
1135.5742	1135.5673	-0.0069	-6	149	158 SAGEVEIQFR					Mascot
1288.726	1288.7097	-0.0163	-13	177	188 GSNPNYLALLVK					Mascot
1571.8793	1571.8674	-0.0119	-8	222	235 IDTPEVLKGPFTVR					Mascot

2	allergen Phl p I	gi 1582250	28143.2	8.35	5	85	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4523	-0.0149	-17	170	176 VTFHVEK					Mascot
1004.4948	1004.4935	-0.0013	-1	213	220 ESWGAIWR	34	31.455			Mascot
1004.4948	1004.4935	-0.0013	-1	213	220 ESWGAIWR					Mascot
1135.5742	1135.5673	-0.0069	-6	149	158 SAGEVEIQFR	38	70.961			Mascot
1135.5742	1135.5673	-0.0069	-6	149	158 SAGEVEIQFR					Mascot
1288.726	1288.7097	-0.0163	-13	177	188 GSNPNYLALLVK					Mascot
1571.8793	1571.8674	-0.0119	-8	221	234 IDTPEVLKGPFTVR					Mascot

Gel Idx/Pos	67/E11		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 28	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
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1

Cinnamyl alcohol dehydrogenase 2 (CAD 2)

gi|10719915

38808.4

5.8

10

69

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
749.3676	749.3716	0.004	5	2	8	GSLESEK					Mascot
1471.7145	1471.744	0.0295	20	87	101	VGEHVGVCIVGSCR	17	0			Mascot
1471.7145	1471.744	0.0295	20	87	101	VGEHVGVCIVGSCR					Mascot
1541.8291	1541.8385	0.0094	6	183	198	KCGILGLGGVGHMGVK			Oxidation (M)[13]		Mascot
1838.9032	1838.9253	0.0221	12	17	32	DSSGHLSPYTYTLRNK					Mascot
2150.0864	2150.0723	-0.0141	-7	218	237	EEALEVLGADAYLVSKDAEK					Mascot
2542.2727	2542.2781	0.0054	2	174	198	HFGMTEPGKKCGILGLG GVGHMGVK			Oxidation (M)[4,22]		Mascot
2550.1375	2550.2217	0.0842	33	294	316	SIAGSFIGSMEETQETLDFCAEK			Carbamidomethyl (C)[20]		Mascot
2566.1323	2566.249	0.1167	45	294	316	SIAGSFIGSMEETQETLDFCAEK			Carbamidomethyl (C)[20], Oxidation (M)[10]		Mascot
2611.3833	2611.2825	-0.1008	-39	317	339	KVSSMIEVVGLDYINTAMERLVK			Oxidation (M)[5]		Mascot
2670.3882	2670.3184	-0.0698	-26	149	173	IPENLPLEQAAPLLCAGVTVYSPMK			Oxidation (M)[24]		Mascot
2694.2273	2694.2639	0.0366	14	294	317	SIAGSFIGSMEETQETLDFCAEKK			Carbamidomethyl (C)[20], Oxidation (M)[10]		Mascot

2

cinnamyl-alcohol dehydrogenase [Picea abies]

gi|56605370

38840.4

5.8

10

68

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
749.3676	749.3716	0.004	5	2	8	GSLESEK					Mascot
1471.7145	1471.744	0.0295	20	87	101	VGEHVGVCIVGSCR	17	0			Mascot
1471.7145	1471.744	0.0295	20	87	101	VGEHVGVCIVGSCR					Mascot
1541.8291	1541.8385	0.0094	6	183	198	KCGILGLGGVGHMGVK			Oxidation (M)[13]		Mascot
1838.9032	1838.9253	0.0221	12	17	32	DSSGHLSPYTYTLRNK					Mascot
2150.0864	2150.0723	-0.0141	-7	218	237	EEALEVLGADAYLVSKDAEK					Mascot
2542.2727	2542.2781	0.0054	2	174	198	HFGMTEPGKKCGILGLG GVGHMGVK			Oxidation (M)[4,22]		Mascot

2550.1375	2550.2217	0.0842	33	294	316	SIAGSFIGSMEETQETLD FCAEK	Carbamidomethyl (C)[20]	Mascot
2566.1323	2566.249	0.1167	45	294	316	SIAGSFIGSMEETQETLD FCAEK	Carbamidomethyl (C)[20], Oxidation (M)[10]	Mascot
2611.3833	2611.2825	-0.1008	-39	317	339	KVSSMIEVVGLDYINTAM ERLVK	Oxidation (M)[5]	Mascot
2670.3882	2670.3184	-0.0698	-26	149	173	IPENLPLEQAAPLLCAGV TVYSPMK	Oxidation (M)[24]	Mascot
2694.2273	2694.2639	0.0366	14	294	317	SIAGSFIGSMEETQETLD FCAEKK	Carbamidomethyl (C)[20], Oxidation (M)[10]	Mascot

Gel Idx/Pos	67/E11		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 28	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Cinnamyl alcohol dehydrogenase 2 OS=Picea abies GN=CAD2 PE=3 SV=1	CADH2_PICAB	38808.4	5.8	10	66	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
749.3676	749.3716	0.004	5	2	8 GSLESEK					Mascot
1471.7145	1471.744	0.0295	20	87	101 VGEHVGVCIVGSCR	17	0			Mascot
1471.7145	1471.744	0.0295	20	87	101 VGEHVGVCIVGSCR					Mascot
1541.8291	1541.8385	0.0094	6	183	198 KCGILGLGGVGHMGVK			Oxidation (M)[13]		Mascot
1838.9032	1838.9253	0.0221	12	17	32 DSSGHLSPYTYTLRNK					Mascot
2150.0864	2150.0723	-0.0141	-7	218	237 EEALEVLGADAYLVSKDAEK					Mascot
2542.2727	2542.2781	0.0054	2	174	198 HFGMTEPGKKCGILGLG GVGHMGVK			Oxidation (M)[4,22]		Mascot
2550.1375	2550.2217	0.0842	33	294	316 SIAGSFIGSMEETQETLDFCAEK			Carbamidomethyl (C)[20]		Mascot
2566.1323	2566.249	0.1167	45	294	316 SIAGSFIGSMEETQETLDFCAEK			Carbamidomethyl (C)[20], Oxidation (M)[10]		Mascot
2611.3833	2611.2825	-0.1008	-39	317	339 KVSSMIEVVGLDYINTAMERLVK			Oxidation (M)[5]		Mascot
2670.3882	2670.3184	-0.0698	-26	149	173 IPENLPLEQAAPLLCAGVTVYSPMK			Oxidation (M)[24]		Mascot
2694.2273	2694.2639	0.0366	14	294	317 SIAGSFIGSMEETQETLDFCAEKK			Carbamidomethyl (C)[20], Oxidation (M)[10]		Mascot

Gel Idx/Pos	68/E12		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT29	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	pHl p5a allergen precursor [Phleum pratense]	gi 29500897	28268.7	7.94	6	106	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6005	-0.024	-23	209	218	FIPALEAAVK					Mascot
1199.6671	1199.6481	-0.019	-16	233	242	YTVFETALKK					Mascot
1471.7428	1471.736	-0.0068	-5	121	133	YDAYVATLSEALR	30	0			Mascot
1471.7428	1471.736	-0.0068	-5	121	133	YDAYVATLSEALR					Mascot
1541.8435	1541.8317	-0.0118	-8	48	63	AALAAAAGVPPADKYR	48	97.6			Mascot
1541.8435	1541.8317	-0.0118	-8	48	63	AALAAAAGVPPADKYR					Mascot
1927.09	1927.0685	-0.0215	-11	153	170	VIPAGELQVIEKVDAAFK					Mascot
1975.1223	1975.1003	-0.022	-11	134	152	IIAGTLEVHAVKPAAEVK					Mascot

Gel Idx/Pos	68/E12		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 29	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Score	Species
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1	Pollen allergen Phl p 5a (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5A_PHLPR	28512.8	6.06	5	51
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1058.6245	1058.6005	-0.024	-23	211	220	FIPALEAAVK				Mascot
1199.6671	1199.6481	-0.019	-16	235	244	YTVFETALKK				Mascot
1471.7428	1471.736	-0.0068	-5	123	135	YDAYVATLSEALR	30	86.339		Mascot
1471.7428	1471.736	-0.0068	-5	123	135	YDAYVATLSEALR				Mascot
1927.09	1927.0685	-0.0215	-11	155	172	VIPAGELQVIEKVDAAFK				Mascot
1975.1223	1975.1003	-0.022	-11	136	154	IIAGTLEVHAVKPAAEVVK				Mascot

2	Pollen allergen KBG 31 OS=Poa pratensis PE=1 SV=1	MPA91_POAPR	37798.1	9.45	4	43
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
723.3858	723.3683	-0.0175	-24	84	90 FMAGAVK					Mascot
739.3807	739.4009	0.0202	27	84	90 FMAGAVK			Oxidation (M)[2]		Mascot
1058.6245	1058.6005	-0.024	-23	298	307 FIPALEAAVK					Mascot
1199.6671	1199.6481	-0.019	-16	322	331 YTVFETALKK					Mascot
1471.7428	1471.736	-0.0068	-5	210	222 YDAYVATLSEALR	30	86.339			Mascot
1471.7428	1471.736	-0.0068	-5	210	222 YDAYVATLSEALR					Mascot

Gel Idx/Pos	69/F1		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 30	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Score	Species
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1	pollen allergen Phl p1 [Phleum pratense]	gi 3901094	28185.2	7.53	6	77
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4509	-0.0163	-19	170	176 VTFHVEK					Mascot
1004.4948	1004.488	-0.0068	-7	214	221 ESWGAIWR	25	0			Mascot
1004.4948	1004.488	-0.0068	-7	214	221 ESWGAIWR					Mascot
1058.6357	1058.5902	-0.0455	-43	205	213 GKDKWIALK					Mascot
1135.5742	1135.5667	-0.0075	-7	149	158 SAGEVEIQFR	33	27.538			Mascot
1135.5742	1135.5667	-0.0075	-7	149	158 SAGEVEIQFR					Mascot
1288.726	1288.709	-0.017	-13	177	188 GSNPNYLALLVK					Mascot
1571.8793	1571.8734	-0.0059	-4	222	235 IDTPEVLKGPFTVR					Mascot

2	allergen Phl p I	gil1582250	28143.2	8.35	6	76
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4509	-0.0163	-19	170	176 VTFHVEK					Mascot
1004.4948	1004.488	-0.0068	-7	213	220 ESWGAIWR	25	0			Mascot
1004.4948	1004.488	-0.0068	-7	213	220 ESWGAIWR					Mascot
1058.6357	1058.5902	-0.0455	-43	204	212 GKDKWIALK					Mascot
1135.5742	1135.5667	-0.0075	-7	149	158 SAGEVEIQFR	33	27.538			Mascot
1135.5742	1135.5667	-0.0075	-7	149	158 SAGEVEIQFR					Mascot
1288.726	1288.709	-0.017	-13	177	188 GSNPNYLALLVK					Mascot
1571.8793	1571.8734	-0.0059	-4	221	234 IDTPEVLKGPFTVR					Mascot

Gel Idx/Pos	71/F3		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 32	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	pollen allergen Phl pl [Phleum pratense]	gi 3901094	28185.2	7.53	5	66	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4643	-0.0029	-3	170	176	VTFHVEK					Mascot
1004.4948	1004.501	0.0062	6	214	221	ESWGAIWR	23	0			Mascot
1004.4948	1004.501	0.0062	6	214	221	ESWGAIWR					Mascot
1135.5742	1135.5803	0.0061	5	149	158	SAGEVEIQFR	17	0			Mascot
1135.5742	1135.5803	0.0061	5	149	158	SAGEVEIQFR					Mascot
1288.726	1288.7115	-0.0145	-11	177	188	GSNPNYLALLVK					Mascot
1571.8793	1571.8767	-0.0026	-2	222	235	IDTPEVLKGPFTVR	12	0			Mascot
1571.8793	1571.8767	-0.0026	-2	222	235	IDTPEVLKGPFTVR					Mascot

2	allergen Phl p I	gi 1582250	28143.2	8.35	5	65	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4643	-0.0029	-3	170	176	VTFHVEK					Mascot
1004.4948	1004.501	0.0062	6	213	220	ESWGAIWR	23	0			Mascot
1004.4948	1004.501	0.0062	6	213	220	ESWGAIWR					Mascot
1135.5742	1135.5803	0.0061	5	149	158	SAGEVEIQFR	17	0			Mascot
1135.5742	1135.5803	0.0061	5	149	158	SAGEVEIQFR					Mascot
1288.726	1288.7115	-0.0145	-11	177	188	GSNPNYLALLVK					Mascot
1571.8793	1571.8767	-0.0026	-2	221	234	IDTPEVLKGPFTVR	12	0			Mascot
1571.8793	1571.8767	-0.0026	-2	221	234	IDTPEVLKGPFTVR					Mascot

Gel Idx/Pos	77/F9		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 34	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	RecName: Full=Triosephosphate isomerase, cytosolic; Short=TIM; Short=Triose-phosphate isomerase	gi 2507469	26719.9	5.39	5	195

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1033.6041	1033.5894	-0.0147	-14	114	123 VAYALAQGLK					Mascot
1374.7046	1374.691	-0.0136	-10	124	135 VIACVGETLEQR			Carbamidomethyl (C)[4]		Mascot
1374.7046	1374.691	-0.0136	-10	124	135 VIACVGETLEQR	85	99.999	Carbamidomethyl (C)[4]		Mascot
1604.8503	1604.832	-0.0183	-11	176	190 VATPAQAQEVHANLR					Mascot
1604.8503	1604.832	-0.0183	-11	176	190 VATPAQAQEVHANLR	67	99.911			Mascot
1811.9585	1811.941	-0.0175	-10	56	70 LRPEIQVAAQNCWVK			Carbamidomethyl (C)[12]		Mascot
1811.9585	1811.941	-0.0175	-10	56	70 LRPEIQVAAQNCWVK	11	0	Carbamidomethyl (C)[12]		Mascot
2147.1357	2147.1213	-0.0144	-7	176	194 VATPAQAQEVHANLRDW LK					Mascot
2147.1357	2147.1213	-0.0144	-7	176	194 VATPAQAQEVHANLRDW LK					Mascot

Gel Idx/Pos	24/B9		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 34	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	Triosephosphate isomerase, cytosolic OS=Hordeum vulgare PE=1 SV=3	TPIS_HORVU	26719.9	5.39	7	364

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
954.4832	954.4805	-0.0027	-3	5	12 FFVGGNWK	55	99.636			Mascot
954.4832	954.4805	-0.0027	-3	5	12 FFVGGNWK					Mascot
1033.6041	1033.5896	-0.0145	-14	114	123 VAYALAQGLK	32	17.343			Mascot
1033.6041	1033.5896	-0.0145	-14	114	123 VAYALAQGLK					Mascot
1082.5782	1082.5696	-0.0086	-8	4	12 KFFVGGNWK	21	0			Mascot
1082.5782	1082.5696	-0.0086	-8	4	12 KFFVGGNWK					Mascot
1374.7046	1374.6738	-0.0308	-22	124	135 VIACVGETLEQR	67	99.977	Carbamidomethyl (C)[4]		Mascot
1374.7046	1374.6738	-0.0308	-22	124	135 VIACVGETLEQR			Carbamidomethyl (C)[4]		Mascot
1604.8503	1604.8136	-0.0367	-23	176	190 VATPAQAQEVHANLR	89	100			Mascot
1604.8503	1604.8136	-0.0367	-23	176	190 VATPAQAQEVHANLR					Mascot
1811.9585	1811.9235	-0.035	-19	56	70 LRPEIQVAAQNCWVK	37	77.701	Carbamidomethyl (C)[12]		Mascot
1811.9585	1811.9235	-0.035	-19	56	70 LRPEIQVAAQNCWVK			Carbamidomethyl (C)[12]		Mascot
2147.1357	2147.123	-0.0127	-6	176	194 VATPAQAQEVHANLRDW LK					Mascot
2147.1357	2147.123	-0.0127	-6	176	194 VATPAQAQEVHANLRDW LK					Mascot

Gel Idx/Pos	77/F9		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 34	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	Triosephosphate isomerase, cytosolic OS=Hordeum vulgare PE=1 SV=3	TPIS_HORVU	26719.9	5.39	5	195

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1033.6041	1033.5894	-0.0147	-14	114	123 VAYALAQGLK					Mascot
1374.7046	1374.691	-0.0136	-10	124	135 VIACVGETLEQR			Carbamidomethyl (C)[4]		Mascot
1374.7046	1374.691	-0.0136	-10	124	135 VIACVGETLEQR	85	100	Carbamidomethyl (C)[4]		Mascot
1604.8503	1604.832	-0.0183	-11	176	190 VATPAQAQEVHANLR					Mascot
1604.8503	1604.832	-0.0183	-11	176	190 VATPAQAQEVHANLR	67	99.997			Mascot
1811.9585	1811.941	-0.0175	-10	56	70 LRPEIQVAAQNCWVK			Carbamidomethyl (C)[12]		Mascot
1811.9585	1811.941	-0.0175	-10	56	70 LRPEIQVAAQNCWVK	11	0	Carbamidomethyl (C)[12]		Mascot
2147.1357	2147.1213	-0.0144	-7	176	194 VATPAQAQEVHANLRDW LK					Mascot
2147.1357	2147.1213	-0.0144	-7	176	194 VATPAQAQEVHANLRDW LK					Mascot

Gel Idx/Pos	73/F5	SPOT 35	Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621		Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Score	Species
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1	pollen allergen Phl p1 [Phleum pratense]	gi 3901094	28185.2	7.53	12	312
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I.	% Modification	Rank	Result Type
859.4672	859.4446	-0.0226	-26	170	176	VTFHVEK					Mascot
943.4883	943.4697	-0.0186	-20	248	255	DVIPEGWK					Mascot
1004.4948	1004.4885	-0.0063	-6	214	221	ESWGAIWR	60	99.841			Mascot
1004.4948	1004.4885	-0.0063	-6	214	221	ESWGAIWR					Mascot
1058.6357	1058.6123	-0.0234	-22	205	213	GKDKWIALK					Mascot
1135.5742	1135.5693	-0.0049	-4	149	158	SAGEVEIQFR	74	99.993			Mascot
1135.5742	1135.5693	-0.0049	-4	149	158	SAGEVEIQFR					Mascot
1288.726	1288.7068	-0.0192	-15	177	188	GSNPNYLALLVK	48	96.969			Mascot
1288.726	1288.7068	-0.0192	-15	177	188	GSNPNYLALLVK					Mascot
1363.7006	1363.6869	-0.0137	-10	46	58	STWYGKPTAAGPK					Mascot
1404.7369	1404.731	-0.0059	-4	189	202	FVAGDGDVVAVDIK					Mascot
1571.8793	1571.8789	-0.0004	0	222	235	IDTPEVLKGPFTVR	65	99.94			Mascot
1571.8793	1571.8789	-0.0004	0	222	235	IDTPEVLKGPFTVR					Mascot
1615.8744	1615.8727	-0.0017	-1	209	221	WIALKESWGAIWR					Mascot
1661.8745	1661.8569	-0.0176	-11	189	204	FVAGDGDVVAVDIKEK					Mascot
2129.1753	2129.1677	-0.0076	-4	170	188	VTFHVEKGSNPNYLALLV K					Mascot

2	allergen Phl p I	gil1582250	28143.2	8.35	11	301
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I.	% Modification	Rank	Result Type
859.4672	859.4446	-0.0226	-26	170	176	VTFHVEK					Mascot
943.4883	943.4697	-0.0186	-20	247	254	DVIPEGWK					Mascot
1004.4948	1004.4885	-0.0063	-6	213	220	ESWGAIWR	60	99.841			Mascot
1004.4948	1004.4885	-0.0063	-6	213	220	ESWGAIWR					Mascot
1058.6357	1058.6123	-0.0234	-22	204	212	GKDKWIALK					Mascot

1135.5742	1135.5693	-0.0049	-4	149	158	SAGEVEIQFR	74	99.992	Mascot
1135.5742	1135.5693	-0.0049	-4	149	158	SAGEVEIQFR			Mascot
1288.726	1288.7068	-0.0192	-15	177	188	GSNPNYLALLVK	48	96.433	Mascot
1288.726	1288.7068	-0.0192	-15	177	188	GSNPNYLALLVK			Mascot
1363.7006	1363.6869	-0.0137	-10	46	58	STWYGKPTAAGPK			Mascot
1404.7594	1404.731	-0.0284	-20	147	158	LRSAGEVEIQFR			Mascot
1571.8793	1571.8789	-0.0004	0	221	234	IDTPEVLKGPFTVR	65	99.929	Mascot
1571.8793	1571.8789	-0.0004	0	221	234	IDTPEVLKGPFTVR			Mascot
1615.8744	1615.8727	-0.0017	-1	208	220	WIALKESWGAIWR			Mascot
2129.1753	2129.1677	-0.0076	-4	170	188	VTFHVEKGSNPNYLALLV K			Mascot

Gel Idx/Pos	73/F5		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 35	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	Major pollen allergen Pha a 1 OS=Phalaris aquatica PE=1 SV=1	MPAP1_PHAHQ	28992.2	5.5	6	137
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
943.4012	943.4697	0.0685	73	97	105 GCGSCFELK					Mascot
960.4745	960.5027	0.0282	29	147	154 KGEENVR					Mascot
1004.4948	1004.4885	-0.0063	-6	220	227 ESWGAIWR	60	99.985			Mascot
1004.4948	1004.4885	-0.0063	-6	220	227 ESWGAIWR					Mascot
1288.726	1288.7068	-0.0192	-15	183	194 GSNPNYLALLVK	48	99.713			Mascot
1288.726	1288.7068	-0.0192	-15	183	194 GSNPNYLALLVK					Mascot
2169.0105	2169.0217	0.0112	5	74	93 DVDKAPFNGMTGCGNTPIFK			Carbamidomethyl (C)[13]		Mascot
3153.6721	3153.4536	-0.2185	-69	2	32 MKMVCSSSSSLLLVAA LLAVFVGSAQGIK			Acetyl (Protein N-term)[0], Carbamidomethyl (C)[5]		Mascot
3153.6721	3153.4536	-0.2185	-69	2	32 MKMVCSSSSSLLLVAA LLAVFVGSAQGIK			Acetyl (Protein N-term)[0], Carbamidomethyl (C)[5]		Mascot

2	Pollen allergen Phl p 1 OS=Phleum pratense GN=PHLPI PE=1 SV=1	MPAP1_PHLPR	28439.2	6.14	5	126
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
859.4672	859.4446	-0.0226	-26	170	176 VTFHVEK					Mascot
943.4012	943.4697	0.0685	73	91	99 GCGSCFEIK					Mascot
1004.4948	1004.4885	-0.0063	-6	214	221 ESWGAIWR	60	99.985			Mascot
1004.4948	1004.4885	-0.0063	-6	214	221 ESWGAIWR					Mascot
1288.726	1288.7068	-0.0192	-15	177	188 GSNPNYLALLVK	48	99.713			Mascot
1288.726	1288.7068	-0.0192	-15	177	188 GSNPNYLALLVK					Mascot
2129.1753	2129.1677	-0.0076	-4	170	188 VTFHVEKGSNPNYLALLVK					Mascot

Gel Idx/Pos	74/F6		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 36	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	phl p5a allergen precursor [Phleum pratense]	gi 29500897	28268.7	7.94	3	72	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1471.7428	1471.7385	-0.0043	-3	121	133 YDAYVATLSEALR	19	0			Mascot
1471.7428	1471.7385	-0.0043	-3	121	133 YDAYVATLSEALR					Mascot
1541.8435	1541.8344	-0.0091	-6	48	63 AALAAAAGVPPADKYR	43	90.177			Mascot
1541.8435	1541.8344	-0.0091	-6	48	63 AALAAAAGVPPADKYR					Mascot
2427.2039	2427.2009	-0.003	-1	111	133 TAEGATPEAKYDAYVATLSEALR					Mascot

Gel Idx/Pos	74/F6		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 36	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	Cinnamyl alcohol dehydrogenase 2 OS=Picea abies GN=CAD2 PE=3 SV=1	CADH2_PICAB	38808.4	5.8	9	61

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
749.3676	749.3723	0.0047	6	2	8 GSLESEK					Mascot
1362.7377	1362.6617	-0.076	-56	346	357 FVVDVARSNLDK					Mascot
1362.7377	1362.6617	-0.076	-56	346	357 FVVDVARSNLDK					Mascot
1471.7145	1471.7385	0.024	16	87	101 VGEHVGVCIVGSCR	16	0			Mascot
1471.7145	1471.7385	0.024	16	87	101 VGEHVGVCIVGSCR					Mascot
1541.8291	1541.8344	0.0053	3	183	198 KCGILGLGGVGHMGVK			Oxidation (M)[13]		Mascot
1541.8291	1541.8344	0.0053	3	183	198 KCGILGLGGVGHMGVK			Oxidation (M)[13]		Mascot
1699.832	1699.8208	-0.0112	-7	1	16 MGSLESEKTVGYAAR					Mascot
1838.9032	1838.9163	0.0131	7	17	32 DSSGHLSPYTYTLRNK					Mascot
2150.0864	2150.0774	-0.009	-4	218	237 EEALEVLGADAYLVSKDAEK					Mascot
2550.1375	2550.2351	0.0976	38	294	316 SIAGSFIGSMEETQETLDFCAEK			Carbamidomethyl (C)[20]		Mascot
2566.1323	2566.2656	0.1333	52	294	316 SIAGSFIGSMEETQETLDFCAEK			Carbamidomethyl (C)[20], Oxidation (M)[10]		Mascot
2637.2058	2637.2673	0.0615	23	294	317 SIAGSFIGSMEETQETLDFCAEKK			Oxidation (M)[10]		Mascot
2694.2273	2694.2913	0.064	24	294	317 SIAGSFIGSMEETQETLDFCAEKK			Carbamidomethyl (C)[20], Oxidation (M)[10]		Mascot

Gel Idx/Pos	75/F7		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 37	Instrument Sample Name		Spectra	4

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	phl p5a allergen precursor [Phleum pratense]	gi 29500897	28268.7	7.94	4	76	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1449.7584	1449.7544	-0.004	-3	107	120 LAYKTAEGATPEAK					Mascot
1471.7428	1471.7755	0.0327	22	121	133 YDAYVATLSEALR	24	0			Mascot
1471.7581	1471.7755	0.0174	12	185	197 FTVFEAAFNNAIK					Mascot
1541.8435	1541.8772	0.0337	22	48	63 AALAAAAGVPPADKYR	8	0			Mascot
1541.8435	1541.8772	0.0337	22	48	63 AALAAAAGVPPADKYR					Mascot

Gel Idx/Pos	75/F7		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 37	Instrument Sample Name		Spectra	4

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 5a (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5A_PHLPR	28512.8	6.06	2	41	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1449.7584	1449.7544	-0.004	-3	109	122 LAYKTAEGATPEAK					Mascot
1471.7428	1471.7755	0.0327	22	123	135 YDAYVATLSEALR	24	0			Mascot
1471.7428	1471.7755	0.0327	22	123	135 YDAYVATLSEALR					Mascot

Gel Idx/Pos	26/B11		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 40	Instrument Sample Name		Spectra	16

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
1	RecName: Full=Pollen allergen Phl p 11; AltName: Allergen=Phl p 11	gi 47606039	15768.7	4.96	8	279

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
969.3917	969.3901	-0.0016	-2	12	18 VYCDPCR	19	0	Carbamidomethyl (C)[3,6]		Mascot
969.3917	969.3901	-0.0016	-2	12	18 VYCDPCR			Carbamidomethyl (C)[3,6]		Mascot
1098.5731	1098.5734	0.0003	0	112	120 YANPIAFFR	58	98.167			Mascot
1098.5731	1098.5734	0.0003	0	112	120 YANPIAFFR					Mascot
1132.611	1132.6115	0.0005	0	1	11 DKGPGFVVTGR	64	99.565			Mascot
1132.611	1132.6115	0.0005	0	1	11 DKGPGFVVTGR					Mascot
1269.7274	1269.729	0.0016	1	95	106 ARVPLTSNNGIK					Mascot
1269.7274	1269.729	0.0016	1	95	106 ARVPLTSNNGIK					Mascot
1552.8007	1552.7941	-0.0066	-4	48	61 LKAEATTDGLGWYK					Mascot
1552.8007	1552.7941	-0.0066	-4	48	61 LKAEATTDGLGWYK					Mascot
1570.6691	1570.6887	0.0196	12	80	92 SPDTTCSEIEEFR	49	84.541	Carbamidomethyl (C)[6]		Mascot
1570.6691	1570.6887	0.0196	12	80	92 SPDTTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1808.9918	1808.9017	-0.0901	-50	107	121 QQGIRYANPIAFFRK					Mascot
1808.9918	1808.9017	-0.0901	-50	107	121 QQGIRYANPIAFFRK					Mascot
1841.7971	1841.806	0.0089	5	80	94 SPDTTCSEIEEFRDR	2	0	Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.806	0.0089	5	80	94 SPDTTCSEIEEFRDR			Carbamidomethyl (C)[6]		Mascot

Gel Idx/Pos	79/F11		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 40	Instrument Sample Name		Spectra	9

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 11 OS=Phleum pratense PE=1 SV=1	PHLB_PHLPR	15768.7	4.96	6	339	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
969.3917	969.3912	-0.0005	-1	12	18 VYCDPCR			Carbamidomethyl (C)[3,6]		Mascot
969.3917	969.3912	-0.0005	-1	12	18 VYCDPCR	12	0	Carbamidomethyl (C)[3,6]		Mascot
1098.5731	1098.5721	-0.001	-1	112	120 YANPIAFFR					Mascot
1098.5731	1098.5721	-0.001	-1	112	120 YANPIAFFR	78	100			Mascot
1132.611	1132.6005	-0.0105	-9	1	11 DKGPGFVVTGR					Mascot
1132.611	1132.6005	-0.0105	-9	1	11 DKGPGFVVTGR	71	99.997			Mascot
1269.7274	1269.7188	-0.0086	-7	95	106 ARVPLTSNNGIK					Mascot
1269.7274	1269.7188	-0.0086	-7	95	106 ARVPLTSNNGIK	13	0			Mascot
1570.6691	1570.6656	-0.0035	-2	80	92 SPDTTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1570.6691	1570.6656	-0.0035	-2	80	92 SPDTTCSEIEEFR	53	99.818	Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.7119	-0.0852	-46	80	94 SPDTTCSEIEEFRDR	26	4.163	Carbamidomethyl (C)[6]		Mascot

Gel Idx/Pos	27/B12		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 41	Instrument Sample Name		Spectra	16

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
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1	RecName: Full=Pollen allergen Phl p 11; AltName: Allergen=Phl p 11	gi 47606039	15768.7	4.96	8	339
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
969.3917	969.3868	-0.0049	-5	12	18 VYCDPCR	15	0	Carbamidomethyl (C)[3,6]		Mascot
969.3917	969.3868	-0.0049	-5	12	18 VYCDPCR			Carbamidomethyl (C)[3,6]		Mascot
1098.5731	1098.5696	-0.0035	-3	112	120 YANPIAFFR	78	99.982			Mascot
1098.5731	1098.5696	-0.0035	-3	112	120 YANPIAFFR					Mascot
1132.611	1132.5999	-0.0111	-10	1	11 DKGPGFVVTGR	72	99.936			Mascot
1132.611	1132.5999	-0.0111	-10	1	11 DKGPGFVVTGR					Mascot
1226.6681	1226.6608	-0.0073	-6	112	121 YANPIAFFRK					Mascot
1269.7274	1269.7157	-0.0117	-9	95	106 ARVPLTSNNGIK	15	0			Mascot
1269.7274	1269.7157	-0.0117	-9	95	106 ARVPLTSNNGIK					Mascot
1570.6691	1570.6689	-0.0002	0	80	92 SPDTTCSEIEEFR	44	52.347	Carbamidomethyl (C)[6]		Mascot
1570.6691	1570.6689	-0.0002	0	80	92 SPDTTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.7943	-0.0028	-2	80	94 SPDTTCSEIEEFRDR	22	0	Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.7943	-0.0028	-2	80	94 SPDTTCSEIEEFRDR			Carbamidomethyl (C)[6]		Mascot
2168.054	2168.0513	-0.0027	-1	62	79 IEIDQDHQEEICEVLAK	9	0	Carbamidomethyl (C)[12]		Mascot
2168.054	2168.0513	-0.0027	-1	62	79 IEIDQDHQEEICEVLAK			Carbamidomethyl (C)[12]		Mascot

Gel Idx/Pos	80/F12		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 41	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 11 OS=Phleum pratense PE=1 SV=1	PHLB_PHLPR	15768.7	4.96	8	455	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
889.489	889.4833	-0.0057	-6	3	11 GPGFVVTGR					Mascot
1098.5731	1098.5653	-0.0078	-7	112	120 YANPIAFFR					Mascot
1098.5731	1098.5653	-0.0078	-7	112	120 YANPIAFFR	76	100			Mascot
1132.611	1132.6002	-0.0108	-10	1	11 DKGPGFVVTGR					Mascot
1132.611	1132.6002	-0.0108	-10	1	11 DKGPGFVVTGR	88	100			Mascot
1226.6681	1226.6583	-0.0098	-8	112	121 YANPIAFFRK					Mascot
1269.7274	1269.709	-0.0184	-14	95	106 ARVPLTSNNGIK					Mascot
1269.7274	1269.709	-0.0184	-14	95	106 ARVPLTSNNGIK	33	85.948			Mascot
1570.6691	1570.655	-0.0141	-9	80	92 SPDTTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1570.6691	1570.655	-0.0141	-9	80	92 SPDTTCSEIEEFR	70	99.997	Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.7861	-0.011	-6	80	94 SPDTTCSEIEEFRDR			Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.7861	-0.011	-6	80	94 SPDTTCSEIEEFRDR	63	99.984	Carbamidomethyl (C)[6]		Mascot
2168.054	2168.0525	-0.0015	-1	62	79 IEIDQDHQEEICEVVLAK			Carbamidomethyl (C)[12]		Mascot
2168.054	2168.0525	-0.0015	-1	62	79 IEIDQDHQEEICEVVLAK	44	98.724	Carbamidomethyl (C)[12]		Mascot

Gel Idx/Pos	61/E5		Instr./Gel Origin	ESTHER/T091217_0062_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 45	Instrument Sample Name		Spectra	16

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
1	Pollen allergen Phl p 11 OS=Phleum pratense PE=1 SV=1	PHLB_PHLPR	15768.7	4.96	2	90

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. % Modification	Rank Result Type
1098.5731	1098.5343	-0.0388	-35	112	120 YANPIAFFR	46	99.193	Mascot
1098.5731	1098.5343	-0.0388	-35	112	120 YANPIAFFR			Mascot
1132.611	1132.5795	-0.0315	-28	1	11 DKGPGFVVTGR	30	65.332	Mascot
1132.611	1132.5795	-0.0315	-28	1	11 DKGPGFVVTGR			Mascot

Gel Idx/Pos	31/C2		Instr./Gel Origin	ESTHER/T091222_0064_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091217_0062	SPOT 46	Instrument Sample Name		Spectra	16

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species
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1	RecName: Full=Pollen allergen Phl p 11; AltName: Allergen=Phl p 11	gi 47606039	15768.7	4.96	8	251
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
969.3917	969.3955	0.0038	4	12	18 VYCDPCR	18	0	Carbamidomethyl (C)[3,6]		Mascot
969.3917	969.3955	0.0038	4	12	18 VYCDPCR			Carbamidomethyl (C)[3,6]		Mascot
1098.5731	1098.5787	0.0056	5	112	120 YANPIAFFR	61	99.05			Mascot
1098.5731	1098.5787	0.0056	5	112	120 YANPIAFFR					Mascot
1132.611	1132.6117	0.0007	1	1	11 DKGPGFVVTGR	26	0			Mascot
1132.611	1132.6117	0.0007	1	1	11 DKGPGFVVTGR					Mascot
1269.7274	1269.7317	0.0043	3	95	106 ARVPLTSNNGIK					Mascot
1269.7274	1269.7317	0.0043	3	95	106 ARVPLTSNNGIK					Mascot
1552.8007	1552.8022	0.0015	1	48	61 LKAEATTDGLGWYK					Mascot
1552.8007	1552.8022	0.0015	1	48	61 LKAEATTDGLGWYK					Mascot
1570.6691	1570.6757	0.0066	4	80	92 SPDTTCSEIEEFR	48	81.426	Carbamidomethyl (C)[6]		Mascot
1570.6691	1570.6757	0.0066	4	80	92 SPDTTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.8019	0.0048	3	80	94 SPDTTCSEIEEFRDR			Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.8019	0.0048	3	80	94 SPDTTCSEIEEFRDR			Carbamidomethyl (C)[6]		Mascot
2168.054	2168.0659	0.0119	5	62	79 IEIDQDHQEEICEVVLAK	3	0	Carbamidomethyl (C)[12]		Mascot
2168.054	2168.0659	0.0119	5	62	79 IEIDQDHQEEICEVVLAK			Carbamidomethyl (C)[12]		Mascot

Gel Idx/Pos	84/G2		Instr./Gel Origin	ESTHER/T091223_0065_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091222_0065	SPOT 46	Instrument Sample Name		Spectra	13

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
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1	Pollen allergen Phl p 11 OS=Phleum pratense PE=1 SV=1	PHLB_PHLPR	15768.7	4.96	7	295	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1098.5731	1098.5626	-0.0105	-10	112	120 YANPIAFFR					Mascot
1098.5731	1098.5626	-0.0105	-10	112	120 YANPIAFFR	76	100			Mascot
1132.611	1132.5944	-0.0166	-15	1	11 DKGPGFVVTGR					Mascot
1132.611	1132.5944	-0.0166	-15	1	11 DKGPGFVVTGR	66	99.993			Mascot
1269.7274	1269.7112	-0.0162	-13	95	106 ARVPLTSNNGIK					Mascot
1269.7274	1269.7112	-0.0162	-13	95	106 ARVPLTSNNGIK	9	0			Mascot
1552.8007	1552.7809	-0.0198	-13	48	61 LKAEATTDGLGWYK					Mascot
1570.6691	1570.6553	-0.0138	-9	80	92 SPD TTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1570.6691	1570.6553	-0.0138	-9	80	92 SPD TTCSEIEEFR	48	99.568	Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.7878	-0.0093	-5	80	94 SPD TTCSEIEEFRDR			Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.7878	-0.0093	-5	80	94 SPD TTCSEIEEFRDR	36	93.642	Carbamidomethyl (C)[6]		Mascot
2168.054	2168.0559	0.0019	1	62	79 IEIDQDHQEEICEVVLAK			Carbamidomethyl (C)[12]		Mascot

3	Pollen allergen Phl p 5b (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5B_PHLPR	27984.6	8.75	3	113	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1147.6357	1147.6188	-0.0169	-15	46	55 LIEDINVGFK					Mascot
1147.6357	1147.6188	-0.0169	-15	46	55 LIEDINVGFK	10	0			Mascot
1455.7479	1455.7329	-0.015	-10	115	127 FDSFVASLTEALR					Mascot
1455.7479	1455.7329	-0.015	-10	115	127 FDSFVASLTEALR	91	100			Mascot
1487.8217	1487.7981	-0.0236	-16	56	71 AAVAAAASVPAADKFK					Mascot

Gel Idx/Pos	78/F10		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 47	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	group V allergen Phl p 5.0204 [Phleum pratense]	gi 3309043	26194.6	5.61	5	134
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1147.6357	1147.6115	-0.0242	-21	27	36	LIEDINVGFK					Mascot
1175.558	1175.5612	0.0032	3	53	63	TFEAAFTSSSK					Mascot
1455.7479	1455.7435	-0.0044	-3	96	108	FDSFVASLTEALR	111	100			Mascot
1455.7479	1455.7435	-0.0044	-3	96	108	FDSFVASLTEALR					Mascot
1487.8217	1487.8	-0.0217	-15	37	52	AAVAAAASVPAADKFK					Mascot
1935.007	1934.996	-0.011	-6	20	36	ATTEEQKLIEDINVGFK					Mascot

2	group V allergen Phl p 5.0207 precursor [Phleum pratense]	gi 3309047	28326.8	5.97	5	133
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Protein Group

Pollen allergen Phl p 5b precursor (Phl p Vb)	gi 2851457	27984.6	8.75
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1147.6357	1147.6115	-0.0242	-21	52	61	LIEDINVGFK					Mascot
1175.558	1175.5612	0.0032	3	78	88	TFEAAFTSSSK					Mascot
1455.7479	1455.7435	-0.0044	-3	121	133	FDSFVASLTEALR	111	100			Mascot
1455.7479	1455.7435	-0.0044	-3	121	133	FDSFVASLTEALR					Mascot
1487.8217	1487.8	-0.0217	-15	62	77	AAVAAAASVPAADKFK					Mascot
1935.007	1934.996	-0.011	-6	45	61	ATTEEQKLIEDINVGFK					Mascot

3	group V allergen Phl p 5.0203 precursor [Phleum pratense]	gi 3309041	29294.2	8.92	5	132
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Protein Group

group V allergen Phl p 5.0206 precursor [Phleum pratense]	gi 3309045	28812	5.9600 000381 4697
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start	End	Sequence	Ion	C. I. %	Modification	Rank	Result Type
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		Seq.		Seq.		Score			
	1147.6357	1147.6115	-0.0242	-21	57	66	LIEDINVGFK		Mascot
	1175.558	1175.5612	0.0032	3	83	93	TFEAAFTSSSK		Mascot
	1455.7479	1455.7435	-0.0044	-3	126	138	FDSFVASLTEALR	111	100
	1455.7479	1455.7435	-0.0044	-3	126	138	FDSFVASLTEALR		Mascot
	1487.8217	1487.8	-0.0217	-15	67	82	AAVAAAASVPAADKFK		Mascot
	1935.007	1934.996	-0.011	-6	50	66	ATTEEKLIEDINVGFK		Mascot
4	Pollen allergen Phl p 11				gi 47606039	15768.7	4.96	6	127

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1098.5731	1098.5634	-0.0097	-9	112	120	YANPIAFFR	50	98.433			Mascot
1098.5731	1098.5634	-0.0097	-9	112	120	YANPIAFFR					Mascot
1132.611	1132.5985	-0.0125	-11	1	11	DKGPGFVVTGR	29	0			Mascot
1132.611	1132.5985	-0.0125	-11	1	11	DKGPGFVVTGR					Mascot
1226.6681	1226.655	-0.0131	-11	112	121	YANPIAFFRK					Mascot
1269.7274	1269.7155	-0.0119	-9	95	106	ARVPLTSNNGIK	7	0			Mascot
1269.7274	1269.7155	-0.0119	-9	95	106	ARVPLTSNNGIK					Mascot
1570.6691	1570.6755	0.0064	4	80	92	SPDTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.8129	0.0158	9	80	94	SPDTCSEIEEFRDR			Carbamidomethyl (C)[6]		Mascot

Gel Idx/Pos	78/F10		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 47	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score
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1	Pollen allergen Phl p 5b (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5B_PHLPR	27984.6	8.75	6	139
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1147.6357	1147.6115	-0.0242	-21	46	55 LIEDINVGFK					Mascot
1163.6757	1163.5945	-0.0812	-70	1	11 AAAAVPRRGPR			Acetyl (Protein N-term)[0]		Mascot
1175.558	1175.5612	0.0032	3	72	82 TFEAAFTSSSK					Mascot
1455.7479	1455.7435	-0.0044	-3	115	127 FDSFVASLTEALR	111	100			Mascot
1455.7479	1455.7435	-0.0044	-3	115	127 FDSFVASLTEALR					Mascot
1487.8217	1487.8	-0.0217	-15	56	71 AAVAAAASVPAADKFK					Mascot
1935.007	1934.996	-0.011	-6	39	55 ATTEEQKLIEDINVGFK					Mascot

2	Pollen allergen Phl p 11 OS=Phleum pratense PE=1 SV=1	PHLB_PHLPR	15768.7	4.96	6	127
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1098.5731	1098.5634	-0.0097	-9	112	120 YANPIAFFR	50	99.855			Mascot
1098.5731	1098.5634	-0.0097	-9	112	120 YANPIAFFR					Mascot
1132.611	1132.5985	-0.0125	-11	1	11 DKGPGFVVTGR	29	81.963			Mascot
1132.611	1132.5985	-0.0125	-11	1	11 DKGPGFVVTGR					Mascot
1226.6681	1226.655	-0.0131	-11	112	121 YANPIAFFRK					Mascot
1269.7274	1269.7155	-0.0119	-9	95	106 ARVPLTSNNGIK	7	0			Mascot
1269.7274	1269.7155	-0.0119	-9	95	106 ARVPLTSNNGIK					Mascot
1570.6691	1570.6755	0.0064	4	80	92 SPDTTCSEIEEFR			Carbamidomethyl (C)[6]		Mascot
1841.7971	1841.8129	0.0158	9	80	94 SPDTTCSEIEEFRDR			Carbamidomethyl (C)[6]		Mascot

3	Major pollen allergen Lol p 11 OS=Lolium perenne PE=1 SV=1	LOLB_LOLPR	14859.2	5.1	4	106
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start	End Sequence	Ion	C. I. %	Modification	Rank	Result Type
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				Seq.	Seq.	Score		
1098.5731	1098.5634	-0.0097	-9	112	120 YANPIAFFR	50	99.852	Mascot
1098.5731	1098.5634	-0.0097	-9	112	120 YANPIAFFR			Mascot
1132.611	1132.5985	-0.0125	-11	1	11 DKGPGEFVVTGR	29	81.6	Mascot
1132.611	1132.5985	-0.0125	-11	1	11 DKGPGEFVVTGR			Mascot
1226.6681	1226.655	-0.0131	-11	112	121 YANPIAFFRK			Mascot
1269.7274	1269.7155	-0.0119	-9	95	106 ARVPLTSNXGIK	7	0	Mascot

Gel Idx/Pos	79/F11		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 48	Instrument Sample Name		Spectra	11

Rank
Protein Name
Accession No.
Protein MW
Protein PI
Pep. Count
Protein Species

1
major allergen Phl p 5 [Phleum pratense]
gi|1684718
27845.5
8.46
2
69

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1455.7479	1455.7419	-0.006	-4	112	124	FDSFVASLTEALR	62	99.896			Mascot
1455.7479	1455.7419	-0.006	-4	112	124	FDSFVASLTEALR					Mascot
3114.6318	3114.4817	-0.1501	-48	36	66	ATTEEQKLIEDINVGFKAA VAAAASVPAGDK					Mascot

2
Pollen allergen Phl p 5b precursor (Phl p Vb)
gi|2851457
27984.6
8.75
2
68

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1455.7479	1455.7419	-0.006	-4	115	127	FDSFVASLTEALR	62	99.896			Mascot
1455.7479	1455.7419	-0.006	-4	115	127	FDSFVASLTEALR					Mascot
1587.8013	1587.7234	-0.0779	-49	72	87	TFEAAFTSSSKAAAAK					Mascot

Gel Idx/Pos	79/F11		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 48	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species	Score
1	Pollen allergen Phl p 5b (Fragment) OS=Phleum pratense PE=1 SV=2	MPA5B_PHLPR	27984.6	8.75	2	68	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1455.7479	1455.7419	-0.006	-4	115	127 FDSFVASLTEALR	62	99.99			Mascot
1455.7479	1455.7419	-0.006	-4	115	127 FDSFVASLTEALR					Mascot
1587.8013	1587.7234	-0.0779	-49	72	87 TFEAAFTSSSKAAAAK					Mascot

Gel Idx/Pos	80/F12	SPOT 50	Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621		Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Score	Species
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1	Profilin-2/4 (Pollen allergen Phl p 12) (Phl p 11)	gil3914432	14140.9	4.92	5	264
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I.	% Modification	Rank	Result Type
844.5251	844.4979	-0.0272	-32	88	96	GAGGITIKK					Mascot
1432.7617	1432.7682	0.0065	5	72	84	YMQVIGEPGAVIR	93	100			Mascot
1432.7617	1432.7682	0.0065	5	72	84	YMQVIGEPGAVIR					Mascot
1448.7567	1448.7468	-0.0099	-7	72	84	YMQVIGEPGAVIR	40	78.496	Oxidation (M)[2]		Mascot
1448.7567	1448.7468	-0.0099	-7	72	84	YMQVIGEPGAVIR			Oxidation (M)[2]		Mascot
1959.927	1959.923	-0.004	-2	53	71	DFDEPGHLAPTGMFVAGAK	54	99.095			Mascot
1959.927	1959.923	-0.004	-2	53	71	DFDEPGHLAPTGMFVAGAK					Mascot
1975.9219	1975.9207	-0.0012	-1	53	71	DFDEPGHLAPTGMFVAGAK			Oxidation (M)[13]		Mascot
2764.3103	2764.3071	-0.0032	-1	97	121	TGQALVVGIDPEMTPGQCNMVER	47	95.424	Carbamidomethyl (C)[19]		Mascot
2764.3103	2764.3071	-0.0032	-1	97	121	TGQALVVGIDPEMTPGQCNMVER			Carbamidomethyl (C)[19]		Mascot
2780.3052	2780.3	-0.0052	-2	97	121	TGQALVVGIDPEMTPGQCNMVER			Carbamidomethyl (C)[19], Oxidation (M)[14]		Mascot
2796.3003	2796.3516	0.0513	18	97	121	TGQALVVGIDPEMTPGQCNMVER			Carbamidomethyl (C)[19], Oxidation (M)[14,21]		Mascot
2892.4053	2892.3965	-0.0088	-3	96	121	KTGQALVVGIDPEMTPGQCNMVER	30	0	Carbamidomethyl (C)[20]		Mascot
2892.4053	2892.3965	-0.0088	-3	96	121	KTGQALVVGIDPEMTPGQCNMVER			Carbamidomethyl (C)[20]		Mascot
2908.4001	2908.3877	-0.0124	-4	96	121	KTGQALVVGIDPEMTPGQCNMVER			Carbamidomethyl (C)[20], Oxidation (M)[15]		Mascot

Gel Idx/Pos	80/F12		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 50	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Profilin-2/4 OS=Phleum pratense GN=PRO2 PE=1 SV=1	PROF2_PHLPR	14140.9	4.92	5	262	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
844.5251	844.4979	-0.0272	-32	88	96 GAGGITIKK					Mascot
1432.7617	1432.7682	0.0065	5	72	84 YMVIQGEPGA VIR	93	100			Mascot
1432.7617	1432.7682	0.0065	5	72	84 YMVIQGEPGA VIR					Mascot
1448.7567	1448.7468	-0.0099	-7	72	84 YMVIQGEPGA VIR	40	98.179	Oxidation (M)[2]		Mascot
1448.7567	1448.7468	-0.0099	-7	72	84 YMVIQGEPGA VIR			Oxidation (M)[2]		Mascot
1959.927	1959.923	-0.004	-2	53	71 DFDEPGHLAPTGMFVAG AK	54	99.923			Mascot
1959.927	1959.923	-0.004	-2	53	71 DFDEPGHLAPTGMFVAG AK					Mascot
1975.9219	1975.9207	-0.0012	-1	53	71 DFDEPGHLAPTGMFVAG AK			Oxidation (M)[13]		Mascot
2764.3103	2764.3071	-0.0032	-1	97	121 TGQALVVG IYDEPMT PG QCNMVVER	47	99.612	Carbamidomethyl (C)[19]		Mascot
2764.3103	2764.3071	-0.0032	-1	97	121 TGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[19]		Mascot
2780.3052	2780.3	-0.0052	-2	97	121 TGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[19], Oxidation (M)[14]		Mascot
2796.3003	2796.3516	0.0513	18	97	121 TGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[19], Oxidation (M)[14,21]		Mascot
2892.4053	2892.3965	-0.0088	-3	96	121 KTGQALVVG IYDEPMT PG QCNMVVER	30	84.026	Carbamidomethyl (C)[20]		Mascot
2892.4053	2892.3965	-0.0088	-3	96	121 KTGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[20]		Mascot
2908.4001	2908.3877	-0.0124	-4	96	121 KTGQALVVG IYDEPMT PG QCNMVVER			Carbamidomethyl (C)[20], Oxidation (M)[15]		Mascot

Gel Idx/Pos	83/G1		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 51	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 6 OS=Phleum pratense GN=PHLPVI PE=1 SV=1	MPAP6_PHLPR	13912.1	5.31	10	448	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.5995	-0.0061	-5	32	41 LIEDVNASFR	80	100			Mascot
1163.6056	1163.5995	-0.0061	-5	32	41 LIEDVNASFR					Mascot
1187.5944	1187.588	-0.0064	-5	58	68 TFEAAFTVSSK					Mascot
1343.6954	1343.6897	-0.0057	-4	58	69 TFEAAFTVSSKR	109	100			Mascot
1343.6954	1343.6897	-0.0057	-4	58	69 TFEAAFTVSSKR					Mascot
1550.8901	1550.8826	-0.0075	-5	70	84 NLADAVSKAPQLVPK					Mascot
1581.806	1581.8002	-0.0058	-4	105	117 YEAFVLHFSEALR	81	100			Mascot
1581.806	1581.8002	-0.0058	-4	105	117 YEAFVLHFSEALR					Mascot
1648.8363	1648.8052	-0.0311	-19	42	57 AAMATTANVPPADKYK	12	0			Mascot
1648.8363	1648.8052	-0.0311	-19	42	57 AAMATTANVPPADKYK					Mascot
1664.8313	1664.8287	-0.0026	-2	42	57 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1706.9912	1706.9852	-0.006	-4	69	84 RNLADAVSKAPQLVPK					Mascot
1950.9767	1950.9734	-0.0033	-2	25	41 ATTEEQKLIEDVNASFR	56	99.955			Mascot
1950.9767	1950.9734	-0.0033	-2	25	41 ATTEEQKLIEDVNASFR					Mascot
3136.627	3136.4827	-0.1443	-46	1	31 MVAMFLAVAVVLGLATSP TAEGGKATTEEQK			Oxidation (M)[1]		Mascot
3739.7664	3739.7534	-0.013	-3	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	11	0			Mascot
3739.7664	3739.7534	-0.013	-3	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot

Gel Idx/Pos	84/G2		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 52	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Chain A, Crystal Structure Of Phl P 6, A Major Timothy Grass Pollen Allergen Co-Crystallized With Zinc	gi 28374059	11914	5.55	11	452	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.6101	0.0045	4	11	20 LIEDVNASFR	81	99.998			Mascot
1163.6056	1163.6101	0.0045	4	11	20 LIEDVNASFR					Mascot
1187.5944	1187.5747	-0.0197	-17	37	47 TFEAAFTVSSK					Mascot
1343.6954	1343.6987	0.0033	2	37	48 TFEAAFTVSSKR	112	100			Mascot
1343.6954	1343.6987	0.0033	2	37	48 TFEAAFTVSSKR					Mascot
1550.8901	1550.876	-0.0141	-9	49	63 NLADAVSKAPQLVPK					Mascot
1581.806	1581.8025	-0.0035	-2	84	96 YEAFVLHFSEALR					Mascot
1648.8363	1648.777	-0.0593	-36	21	36 AAMATTANVPPADKYK					Mascot
1664.8313	1664.8142	-0.0171	-10	21	36 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1706.9912	1706.9832	-0.008	-5	48	63 RNLADAVSKAPQLVPK					Mascot
1950.9767	1950.9773	0.0006	0	4	20 ATTEEQKLIEDVNASFR	60	99.786			Mascot
1950.9767	1950.9773	0.0006	0	4	20 ATTEEQKLIEDVNASFR					Mascot
2136.0933	2136.1023	0.009	4	2	20 GKATTEEQKLIEDVNASFR	63	99.88			Mascot
2136.0933	2136.1023	0.009	4	2	20 GKATTEEQKLIEDVNASFR					Mascot
2176.9783	2176.9822	0.0039	2	64	83 LDEVYNAAYNAADHAAPEDK					Mascot
2178.1038	2178.0393	-0.0645	-30	2	20 GKATTEEQKLIEDVNASFR			Acetyl (Protein N-term)[0]		Mascot
3739.7664	3739.7507	-0.0157	-4	64	96 LDEVYNAAYNAADHAAPEDKYEAFVLHFSEALR	12	0			Mascot
3739.7664	3739.7507	-0.0157	-4	64	96 LDEVYNAAYNAADHAAPEDKYEAFVLHFSEALR					Mascot

2	Pollen allergen Phl p 6 precursor (Phl p VI)	gi 1171011	13912.1	5.31	10	365	
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Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.6101	0.0045	4	32	41 LIEDVNASFR	81	99.998			Mascot

1163.6056	1163.6101	0.0045	4	32	41	LIEDVNASFR			Mascot
1187.5944	1187.5747	-0.0197	-17	58	68	TFEAAFTVSSK			Mascot
1343.6954	1343.6987	0.0033	2	58	69	TFEAAFTVSSKR	112	100	Mascot
1343.6954	1343.6987	0.0033	2	58	69	TFEAAFTVSSKR			Mascot
1550.8901	1550.876	-0.0141	-9	70	84	NLADAVSKAPQLVPK			Mascot
1581.806	1581.8025	-0.0035	-2	105	117	YEAFLVLFSEALR			Mascot
1648.8363	1648.777	-0.0593	-36	42	57	AAMATTANVPPADKYK			Mascot
1664.8313	1664.8142	-0.0171	-10	42	57	AAMATTANVPPADKYK		Oxidation (M)[3]	Mascot
1706.9912	1706.9832	-0.008	-5	69	84	RNLADAVSKAPQLVPK			Mascot
1950.9767	1950.9773	0.0006	0	25	41	ATTEEQKLIEDVNASFR	60	99.785	Mascot
1950.9767	1950.9773	0.0006	0	25	41	ATTEEQKLIEDVNASFR			Mascot
2176.9783	2176.9822	0.0039	2	85	104	LDEVYNAAYNAADHAAP EDK			Mascot
3739.7664	3739.7507	-0.0157	-4	85	117	LDEVYNAAYNAADHAAP EDKYEAFVLFSEALR	12	0	Mascot
3739.7664	3739.7507	-0.0157	-4	85	117	LDEVYNAAYNAADHAAP EDKYEAFVLFSEALR			Mascot

Gel Idx/Pos	84/G2		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 52	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 6 OS=Phleum pratense GN=PHLPVI PE=1 SV=1	MPAP6_PHLPR	13912.1	5.31	11	376	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.6101	0.0045	4	32	41 LIEDVNASFR	81	100			Mascot
1163.6056	1163.6101	0.0045	4	32	41 LIEDVNASFR					Mascot
1187.5944	1187.5747	-0.0197	-17	58	68 TFEAAFTVSSK					Mascot
1343.6954	1343.6987	0.0033	2	58	69 TFEAAFTVSSKR	112	100			Mascot
1343.6954	1343.6987	0.0033	2	58	69 TFEAAFTVSSKR					Mascot
1550.8901	1550.876	-0.0141	-9	70	84 NLADAVSKAPQLVPK					Mascot
1581.806	1581.8025	-0.0035	-2	105	117 YEAFVLHFSEALR					Mascot
1648.8363	1648.777	-0.0593	-36	42	57 AAMATTANVPPADKYK					Mascot
1664.8313	1664.8142	-0.0171	-10	42	57 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1706.9912	1706.9832	-0.008	-5	69	84 RNLADAVSKAPQLVPK					Mascot
1950.9767	1950.9773	0.0006	0	25	41 ATTEEQKLIEDVNASFR	60	99.984			Mascot
1950.9767	1950.9773	0.0006	0	25	41 ATTEEQKLIEDVNASFR					Mascot
2176.9783	2176.9822	0.0039	2	85	104 LDEVYNAAYNAADHAAP EDK					Mascot
3136.627	3136.4583	-0.1687	-54	1	31 MVAMFLAVAVVLGLATSP TAEGGKATTEEQK			Oxidation (M)[1]		Mascot
3739.7664	3739.7507	-0.0157	-4	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR	12	0			Mascot
3739.7664	3739.7507	-0.0157	-4	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot

Gel Idx/Pos	85/G3	SPOT 53	Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621		Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Score	Species
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1	Phl p6 allergen [Phleum pratense]	gi 3004465	14592.5	5.68	6	172
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14592.5	5.68
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6

172

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1177.6212	1177.62	-0.0012	-1	38	47 LIEDINASFR	53	98.844			Mascot
1177.6212	1177.62	-0.0012	-1	38	47 LIEDINASFR					Mascot
1343.6954	1343.6957	0.0003	0	64	75 TFEEAFTVSSKR	66	99.935			Mascot
1343.6954	1343.6957	0.0003	0	64	75 TFEEAFTVSSKR					Mascot
1550.8901	1550.8578	-0.0323	-21	76	90 NLADAVSKAPQLVPK					Mascot
1648.8363	1648.8258	-0.0105	-6	48	63 AAMATTANVPPADKYK					Mascot
1664.8313	1664.8192	-0.0121	-7	48	63 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1964.9923	1964.9789	-0.0134	-7	31	47 ATTEEKQLIEDINASFR	7	0			Mascot
1964.9923	1964.9789	-0.0134	-7	31	47 ATTEEKQLIEDINASFR					Mascot
2142.1189	2142.0549	-0.064	-30	64	83 TFEEAFTVSSKRNLDVSK					Mascot

2	Chain A, Crystal Structure Of Phl P 6, A Major Timothy Grass Pollen Allergen Co-Crystallized With Zinc	gjl28374059	11914	5.55	8	170
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11914 5.55

8170

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.603	-0.0026	-2	11	20 LIEDVNASFR	27	0			Mascot
1163.6056	1163.603	-0.0026	-2	11	20 LIEDVNASFR					Mascot
1343.6954	1343.6957	0.0003	0	37	48 TFEAAFTVSSKR	66	99.935			Mascot
1343.6954	1343.6957	0.0003	0	37	48 TFEAAFTVSSKR					Mascot
1550.8901	1550.8578	-0.0323	-21	49	63 NLADAVSKAPQLVPK					Mascot
1648.8363	1648.8258	-0.0105	-6	21	36 AAMATTANVPPADKYK					Mascot
1664.8313	1664.8192	-0.0121	-7	21	36 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1950.9767	1950.9758	-0.0009	0	4	20 ATTEEQKLIEDVNASFR					Mascot
2136.0933	2136.0999	0.0066	3	2	20 GKATTEEQKLIEDVNASFR					Mascot
2142.1189	2142.0549	-0.064	-30	37	56 TFEAAFTVSSKRNLADAV					Mascot

	3739.7664	3739.7373	-0.0291	-8	64	96	SK LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot
3	Pollen allergen Phl p 6 precursor (Phl p VI)				gi 1171011	13912.1	5.31	7	152			

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.603	-0.0026	-2	32	41	LIEDVNASFR	27	0			Mascot
1163.6056	1163.603	-0.0026	-2	32	41	LIEDVNASFR					Mascot
1343.6954	1343.6957	0.0003	0	58	69	TFEAAFTVSSKR	66	99.935			Mascot
1343.6954	1343.6957	0.0003	0	58	69	TFEAAFTVSSKR					Mascot
1550.8901	1550.8578	-0.0323	-21	70	84	NLADAVSKAPQLVPK					Mascot
1648.8363	1648.8258	-0.0105	-6	42	57	AAMATTANVPPADKYK					Mascot
1664.8313	1664.8192	-0.0121	-7	42	57	AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1950.9767	1950.9758	-0.0009	0	25	41	ATTEEQKLIEDVNASFR					Mascot
2142.1189	2142.0549	-0.064	-30	58	77	TFEAAFTVSSKRNLADAV SK					Mascot
3739.7664	3739.7373	-0.0291	-8	85	117	LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot

Gel Idx/Pos	85/G3		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 53	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Pollen allergen Phl p 6 OS=Phleum pratense GN=PHLPVI PE=1 SV=1	MPAP6_PHLPR	13912.1	5.31	8	162	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1163.6056	1163.603	-0.0026	-2	32	41 LIEDVNASFR	27	55.727			Mascot
1163.6056	1163.603	-0.0026	-2	32	41 LIEDVNASFR					Mascot
1343.6954	1343.6957	0.0003	0	58	69 TFEEAFTVSSKR	66	99.995			Mascot
1343.6954	1343.6957	0.0003	0	58	69 TFEEAFTVSSKR					Mascot
1550.8901	1550.8578	-0.0323	-21	70	84 NLADAVSKAPQLVPK					Mascot
1648.8363	1648.8258	-0.0105	-6	42	57 AAMATTANVPPADKYK					Mascot
1664.8313	1664.8192	-0.0121	-7	42	57 AAMATTANVPPADKYK			Oxidation (M)[3]		Mascot
1950.9767	1950.9758	-0.0009	0	25	41 ATTEEQKLIEDVNASFR					Mascot
2142.1189	2142.0549	-0.064	-30	58	77 TFEEAFTVSSKRNLADAVSK					Mascot
3136.627	3136.4463	-0.1807	-58	1	31 MVAMFLAVAVVLGLATSP TAEGGKATTEEQK			Oxidation (M)[1]		Mascot
3739.7664	3739.7373	-0.0291	-8	85	117 LDEVYNAAYNAADHAAP EDKYEAFVLHFSEALR					Mascot

Gel Idx/Pos	86/G4		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 54	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Phl p 3 allergen [Phleum pratense]	gi 39841264	10951.7	8.94	3	90	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1348.7372	1348.7312	-0.006	-4	57	68 SSKPLVGPFNFR	57	99.724			Mascot
1348.7372	1348.7312	-0.006	-4	57	68 SSKPLVGPFNFR					Mascot
1440.6754	1440.6582	-0.0172	-12	37	48 QHGSEEWELTK					Mascot
1605.8231	1605.8115	-0.0116	-7	23	36 YTRPGDSLAEVELR	12	0			Mascot
1605.8231	1605.8115	-0.0116	-7	23	36 YTRPGDSLAEVELR					Mascot

Gel Idx/Pos	33/C4		Instr./Gel Origin	ESTHER/T091203_0060_c_efd_SH	Process Status	Analysis Succeeded
Plate [#] Name	[1] T091203_0060	SPOT 54	Instrument Sample Name		Spectra	4

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Total Ion Score	Total Ion C. I. %	
1	Pollen allergen Lol p 3 OS=Lolium perenne PE=1 SV=1	MPAL3_LOLPR	10900.6	7.88	2	76	100	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Seq.	Sequence	Ion Score	C. I. %	Modification	Rank	Result Type
1334.6886	1334.65	-0.0386	-29	56	67	SAKPLTGPMNFR	27	88.298	Oxidation (M)[9]	1	Mascot
1619.8387	1619.788	-0.0507	-31	22	35	YTRPGDTLAEVELR	49	99.916		1	Mascot

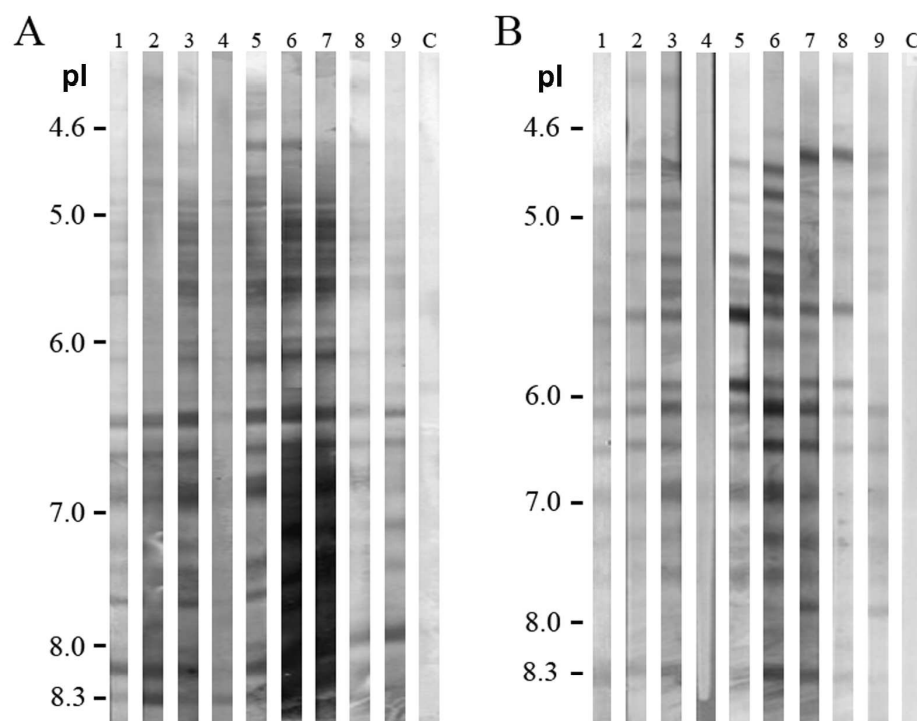
Gel Idx/Pos	87/G5		Instr./Gel Origin	ESTHER/T091009_0033_c_efd	Process Status	Analysis Succeeded
Plate [#] Name	[1] 001500000621	SPOT 55	Instrument Sample Name		Spectra	11

Rank	Protein Name	Accession No.	Protein MW	Protein PI	Pep. Count	Protein Species Score	
1	Phl p 3 allergen [Phleum pratense]	gi 39841264	10951.7	8.94	2	112	

Peptide Information

Calc. Mass	Obsrv. Mass	± da	± ppm	Start Seq.	End Sequence Seq.	Ion Score	C. I. %	Modification	Rank	Result Type
1348.7372	1348.7346	-0.0026	-2	57	68 SSKPLVGPFNFR	58	99.699			Mascot
1348.7372	1348.7346	-0.0026	-2	57	68 SSKPLVGPFNFR					Mascot
1605.8231	1605.8202	-0.0029	-2	23	36 YTRPGDSLAEVELR	42	88.076			Mascot
1605.8231	1605.8202	-0.0029	-2	23	36 YTRPGDSLAEVELR					Mascot

Figure 1, supplementary data: IEF-immunoblotting of IgE-binding proteins from *Phleum pratense* pollen and PCGs. Samples were submitted to an IEF separation in polyacrylamide gel (pH 2-11) and transferred on PVDF membrane. Ten strips were cut, incubated and revealed by IgE from individual grass pollen sensitive patient serum. Strips n°1 to 9: allergic patient sera; strip C: non-atopic patient serum as control. (A) : water-soluble pollen extract; (B) : water-soluble PCGs extract. pI are indicated on the left side.



289x220mm (300 x 300 DPI)

Table 1. Supplementary Information for peptide and protein identifications from *Phleum pratense* pollen extract

Spot number	Spots pl/Mr kDa	Database query	Score	Peptide count	Protein name	Plant species	Expected pl/Mr kDa	Entry name
1	5.1/94	in any database			<i>No confirmed protein found</i>			
2	4.6/70	in any database			<i>No confirmed protein found</i>			
3	5.0/68	in any database			<i>No confirmed protein found</i>			
4	7.4/67	TrEMBL	111	5	Pectinesterase	<i>Oryza sativa j</i>	8.2/25.84	A3APD4_ORYSJ
4	7.4/67	SwissProt	92	5	Beta-glucosidase 38	<i>Oryza sativa j</i>	7.31/56.97	BGL38_ORYSJ
5	9.6/66	TrEMBL	110	12	Pollen allergen Phl p 4	<i>Phleum pratense</i>	9.16/56.40	Q5ZQK4_PHLPR
6	4.9/54	in any database			<i>No confirmed protein found</i>			
7	5.1/55	in any database			<i>No confirmed protein found</i>			
8	8.2/55	TrEMBL	210	8	Polygalacturonase	<i>Phleum pratense</i>	7.83/41.67	Q9XG86_PHLPR
9	8.2/54	TrEMBL	315	10	Polygalacturonase (fragment)	<i>Phleum pratense</i>	7.83/41.67	Q9XG86_PHLPR
10	5.0/43	TrEMBL	118	3	Cytosolic monodehydroascorbate reductase	<i>Oryza sativa j</i>	5.53/46.60	Q9XFZ3_ORYSJ
10	5.0/43	SwissProt	66	4	Dehydroascorbatereductase	<i>Cucumis sativus</i>	5.29/47.39	MDARS_CUCSA
11	5.1/43	TrEMBL	331	14	Enolase	<i>Oryza sativa</i>	5.32/47.94	Q10P35_ORYSJ
11	5.1/43	SwissProt	272	15	Enolase	<i>Zea mays</i>	5.7/48.13	ENO_MAIZE
12	5.05/36.5	TrEMBL	81	5	Putative uncharacterized protein	<i>Zea mays</i>	6.43/32.23	B4FMP8_MAIZE
13	6.8/36.5	TrEMBL	746	14	Pollen allergen Phl p 5a fragment	<i>Phleum pratense</i>	7.94/28.27	Q84U12_PHLPR
13	6.8/36.5	SwissProt	588	10	Pollen allergen Phl p 5a fragment	<i>Phleum pratense</i>	6.06/28.51	MPA5A_PHLPR
14	7.3/35	TrEMBL	622	14	Pollen allergen Phl p 5 fragment	<i>Phleum pratense</i>	7.94/28.27	Q84U12_PHLPR
14	7.3/35	SwissProt	452	11	Pollen allergen Phl p 5a fragment	<i>Phleum pratense</i>	6.06/28.51	MPA5A_PHLPR
15	6.2/31	TrEMBL	194	7	Group 1 allergen Dac g 1	<i>Dactylis glomerata</i>	6.01/28.45	Q7XAX7_DACGL
15	6.2/31	SwissProt	300	8	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
16	6.3/31	TrEMBL	353	7	Group 1 allergen Dac g 1.02	<i>Dactylis glomerata</i>	6.01/28.45	Q7XAX7_DACGL
16	6.3/31	SwissProt	554	11	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
17	6.5/31	TrEMBL	139	5	Group 1 allergen Dac g 1	<i>Dactylis glomerata</i>	6.01/28.45	Q7XAX7_DACGL
17	6.5/31	SwissProt	123	5	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
18	4.8/30	TrEMBL	330	5	Triosephosphate isomerase	<i>Triticum aestivum</i>	5.38/26.78	Q9FS79_WHEAT
18	4.8/30	SwissProt	573	7	Triosephos isomerase cytosolic	<i>Hordeum vulgare</i>	5.39/26.72	TPIS_HORVU
19	5.2/30	TrEMBL	204	5	Pollen allergen Phl p 5 fragment	<i>Phleum pratense</i>	8.46/27.85	P93466_PHLPR
19	5.2/30	SwissProt	203	5	Pollen allergen Phl p 5 fragment	<i>Phleum pratense</i>	8.75/27.98	MPA5B_PHLPR
20	6.5/30	TrEMBL	92	4	Pollen allergen Phl p 1	<i>Phleum pratense</i>	7.53/28.18	Q40967_PHLPR
20	6.5/30	SwissProt	83	3	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
21	7.0/30	TrEMBL	278	10	Pollen allergen Phl p 1	<i>Phleum pratense</i>	7.53/28.18	Q40967_PHLPR
21	7.0/30	SwissProt	142	4	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
22	7.8/30	TrEMBL	238	5	Pollen allergen Phl p 1	<i>Phleum pratense</i>	7.53/28.18	Q40967_PHLPR
22	7.8/30	SwissProt	112	3	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
23	7.9/30	TrEMBL	729	13	Pollen allergen Phl p 1	<i>Phleum pratense</i>	7.53/28.18	Q40967_PHLPR
23	7.9/30	SwissProt	266	7	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
24	5.2/29	TrEMBL	235	7	Pollen allergen Phl p 5 fragment	<i>Phleum pratense</i>	5.61/26.19	Q9SBE0_PHLPR
24	5.2/29	SwissProt	234	7	Pollen allergen Phl p 5 fragment	<i>Phleum pratense</i>	8.75/27.98	MPA5B_PHLPR
25	4.8/26	in any database			<i>No confirmed protein found</i>			
26	5.05/22.5	in any database			<i>No confirmed protein found</i>			
27	9.5/22.5	in any database			<i>No confirmed protein found</i>			
28	5.0/21	in any database			<i>No confirmed protein found</i>			
29	5.2/21	in any database			<i>No confirmed protein found</i>			
30	5.9/20	in any database			<i>No confirmed protein found</i>			
31	6.0/18	in any database			<i>No confirmed protein found</i>			
32	6.6/18	in any database			<i>No confirmed protein found</i>			
33	9.4/18	in any database			<i>No confirmed protein found</i>			
34	5.2/14.4	TrEMBL	319	9	Phl p 6 allergen	<i>Phleum pratense</i>	5.77/14.60	Q6LAG9_PHLPR
34	5.2/14.4	SwissProt	321	9	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.31/13.91	MPAP6_PHLPR
35	5.05/14.4	TrEMBL	321	8	Pollen allergen Phl p 5 fragment	<i>Phleum pratense</i>	5.61/26.19	Q9SBE0_PHLPR
35	5.05/14.4	SwissProt	319	8	Pollen allergen Phl p 5 fragment	<i>Phleum pratense</i>	8.75/27.98	MPA5B_PHLPR
36	5.1/14.4	TrEMBL	99	4	Phl p 6 allergen	<i>Phleum pratense</i>	5.77/14.60	Q6LAG9_PHLPR
36	5.1/14.4	SwissProt	100	4	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.31/13.91	MPAP6_PHLPR
37	6.6/15	in any database			<i>No confirmed protein found</i>			
38	4.85/14.4	TrEMBL	273	4	Profilin	<i>Olea europaea</i>	5.23/14.20	A4GFC3_OLEEU
38	4.85/14.4	SwissProt	284	5	Profilin-2/4	<i>Phleum pratense</i>	4.92/14.14	PROF2_PHLPR

Table 1. Continued

39	4.85/<14.0	SwissProt	57	4	Pollen allergen Phl p 2	<i>Phleum pratense</i>	4.64/13.35	MPAP2_PHLPR
40	9.0/14.4	TrEMBL	330	6	Phl p 3 allergen (fragment)	<i>Phleum pratense</i>	8.94/10.95	Q69B42_PHLPR
40	9.0/14.4	SwissProt	185	4	Pollen allergen Dac g 3	<i>Dactylis glomerata</i>	8.90/10.93	MPAG3_DACGL
41	<4/<14	in any database			<i>No confirmed protein found</i>			
42	<4.0/<14.0	in any database			<i>No confirmed protein found</i>			
43	5.2/<14	TrEMBL	199	7	Phl p 6 allergen	<i>Phleum pratense</i>	5.77/14.60	Q6LAG9_PHLPR
43	5.2/<14	SwissProt	201	7	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.31/13.91	MPAP6_PHLPR
44	6.0/<14.0	TrEMBL	272	9	Phl p 6 allergen	<i>Phleum pratense</i>	5.77/14.60	Q6LAG9_PHLPR
44	6.0/<14.0	SwissProt	287	10	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.31/13.91	MPAP6_PHLPR
45	6.05/14.4	TrEMBL	308	9	Phl p 6 allergen	<i>Phleum pratense</i>	5.77/14.60	Q6LAG9_PHLPR
45	6.05/14.4	SwissProt	309	9	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.31/13.91	MPAP6_PHLPR
C1	acidic control				<i>No protein signal</i>			
C2	basic control				<i>No protein signal</i>			

Table 2. Supplementary Information for peptide and protein identifications from *Phleum pratense* PCGs extract

Spot number	Spots pI/Mr kDa	Database query	Score	Peptide count	Protein name	Plant species	Expected pI/Mr kDa	Entry name
1	5.0/94	in any database			<i>No confirmed protein found</i>			
2	5.2/94	in any database			<i>No confirmed protein found</i>			
3	5.55/94	in any database			<i>No confirmed protein found</i>			
4	5.1/80.5	TrEMBL	206	14	Phosphoglucumutase (fragment)	<i>Triticum aestivum</i>	5.66/62.74	Q8VX48_WHEAT
4	5.1/80.5	SwissProt	135	10	Phosphoglucumutase cytoplasmic	<i>Bromus inermis</i>	5.34/62.63	PGMC_BROIN
4	5.1/80.5	NCBI	174	16	Phosphoglucumutase	<i>Triticum aestivum</i>	5.66/62.74	gi 18076790
5	5.4/73	in any database			<i>No confirmed protein found</i>			
6	5.25/67	TrEMBL	183	10	UDP-glucose pyrophosphorylase	<i>Dendrocalamus s</i>	5.34/51.79	A8W7I0_9POAL
6	5.25/67	SwissProt	163	5	UTP-glucose-1-P-uridylyltransferase	<i>Hordeum vulgare</i>	5.2/51.61	UGPA_HORVU
6	5.25/67	NCBI	213	7	UDP-glucose pyrophosphorylase	<i>Dendrocalamus s</i>	5.34/51.79	gi 158705664
7	4.8/63	TrEMBL	153	7	monodehydroascorbate reductase	<i>Oryza sativa j</i>	5.53/46.60	Q9XFZ3_ORYSJ
8	5.1/63	TrEMBL	112	5	Enolase 2	<i>Zea mays</i>	5.7/48.13	ENO2_MAIZE
8	5.1/63	SwissProt	93	8	Enolase 2	<i>Zea mays</i>	5.7/48.14	ENO2_MAIZE
8	5.1/63	NCBI	112	5	Enolase	<i>Zea mays</i>	5.59/48.10	gi 195619804
9	5.4/63	TrEMBL	126	8	Enolase	<i>Elaeis guineensis</i>	5.98/47.73	B3TLU4_ELAGV
9	5.4/63	SwissProt	128	7	Enolase	<i>Oryza sativa j</i>	5.41/47.94	ENO_ORYSJ
9	5.4/63	NCBI	126	8	Enolase	<i>Elaeis guineensis</i>	5.98/47.73	gi 192910834
10	5.55/63	in any database			<i>No confirmed protein found</i>			
11	6.5/65	in any database			<i>No confirmed protein found</i>			
12	5.5/67	in any database			<i>No confirmed protein found</i>			
13	9.6/67	TrEMBL	92	3	Major pollen allergen Phl p 4	<i>Phleum pratense</i>	9.18/58.19	Q2I6V7_PHLPR
14	5.2/50	TrEMBL	92	2	Legumin-like protein	<i>Zea mays</i>	6.23/38.05	Q84TL6_MAIZE
15	5.3/50	in any database			<i>No confirmed protein found</i>			
16	5.55/50	in any database			<i>No confirmed protein found</i>			
17	5.65/50	in any database			<i>No confirmed protein found</i>			
18	5.3/43	in any database			<i>No confirmed protein found</i>			
19	5.3/34	in any database			<i>No confirmed protein found</i>			
20	5.55/34	SwissProt	231	4	Pollen allergen Phl p 5b (fragment)	<i>Phleum pratense</i>	8.75/27.98	MPA5B_PHLPR
21	6.0/38	in any database			<i>No confirmed protein found</i>			
22	6.0/31	in any database			<i>No confirmed protein found</i>			
23	6.5/40	SwissProt	227	10	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
23	6.5/40	NCBI	228	10	Pollen allergen Phl p 1 precursor	<i>Phleum pratense</i>	6.14/28.44	gi 1171008
24	6.5/34	SwissProt	257	6	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
24	6.5/34	NCBI	64	6	Pollen allergen Phl p 1 precursor	<i>Phleum pratense</i>	6.14/28.44	gi 1171008
25	6.7/40	in any database			<i>No confirmed protein found</i>			
26	6.7/34	SwissProt	205	6	Pollen allergen Phl p 1	<i>Phleum pratense</i>	6.14/28.44	MPAP1_PHLPR
27	6.7/30	NCBI	86	5	Pollen allergen Phl p 1	<i>Phleum pratense</i>	7.53/28.18	gi 3901094
28	7.0/39	SwissProt	66	10	Cinnamyl alcohol dehydrogenase 2	<i>Picea abies</i>	5.80/38.80	CADH2_PICAB
28	7.0/39	NCBI	69	10	Cinnamyl alcohol dehydrogenase 2	<i>Picea abies</i>	5.80/38.80	gi 10719915
29	7.5/39	SwissProt	51	5	Pollen allergen Phl p 5a (fragment)	<i>Phleum pratense</i>	6.06/28.51	MPA5A_PHLPR
29	7.5/39	NCBI	106	6	Pollen allergen Phl p 5a precursor	<i>Phleum pratense</i>	7.94/28.27	gi 29500897
30	6.4/34	NCBI	77	6	Pollen allergen Phl p 1	<i>Phleum pratense</i>	7.53/28.18	gi 3901094
31	7.5/33	in any database			<i>No confirmed protein found</i>			
32	7.45/29	NCBI	66	5	Pollen allergen Phl p 1	<i>Phleum pratense</i>	7.53/28.18	gi 3901094
33	8.8/40	in any database			<i>No confirmed protein found</i>			
34	4.8/34	TrEMBL	195	5	Triosephosphate isomerase cytosolic	<i>Hordeum vulgare</i>	5.39/26.72	TPIS_HORVU
34	4.8/34	SwissProt	364	7	Triosephosphate isomerase	<i>Hordeum vulgare</i>	5.39/26.72	TPIS_HORVU
34	4.8/34	NCBI	195	5	Triosephosphate isomerase cytosolic	<i>Hordeum vulgare</i>	5.39/26.72	gi 2507469
35	8.8/34	SwissProt	137	6	Major pollen allergen Pha a 1	<i>Phalaris aquatica</i>	5.50/28.99	MPAP1_PHAAQ
35	8.8/34	NCBI	312	12	Pollen allergen Phl p 1	<i>Phleum pratense</i>	7.53/28.18	gi 3901094
36	6.7/24	SwissProt	61	9	Cinnamyl alcohol dehydrogenase 2	<i>Picea abies</i>	5.80/38.80	CADH2_PICAB
36	6.7/24	NCBI	72	3	Pollen allergen Phl p 5a precursor	<i>Phleum pratense</i>	7.94/28.27	gi 29500897
37	7.4/25	SwissProt	41	2	Pollen allergen Phl p 5a (fragment)	<i>Phleum pratense</i>	6.06/28.51	MPA5A_PHLPR
37	7.4/25	NCBI	76	4	Pollen allergen Phl p 5a precursor	<i>Phleum pratense</i>	7.94/28.27	gi 29500897
38	9.6/25	in any database			<i>No confirmed protein found</i>			
39	5.1/20	in any database			<i>No confirmed protein found</i>			
40	5.4/20	SwissProt	339	6	Pollen allergen Phl p 11	<i>Phleum pratense</i>	4.96/15.77	PHLB_PHLPR
40	5.4/20	NCBI	279	8	Pollen allergen Phl p 11	<i>Phleum pratense</i>	4.96/15.77	gi 47606039

Table 2. Continued

41	5.55/20	SwissProt	455	8	Pollen allergen Phl p 11	<i>Phleum pratense</i>	4.96/15.77	PHLB_PHLPR
41	5.55/20	NCBI	339	8	Pollen allergen Phl p 11	<i>Phleum pratense</i>	4.96/15.77	gi 47606039
42	5.55/20	in any database			<i>No confirmed protein found</i>			
43	6.5/20	in any database			<i>No confirmed protein found</i>			
44	6.7/20	in any database			<i>No confirmed protein found</i>			
45	5.4/18	SwissProt	90	2	Pollen allergen Phl p 11	<i>Phleum pratense</i>	4.96/15.77	PHLB_PHLPR
46	5.55/18	SwissProt	295	7	Pollen allergen Phl p 11	<i>Phleum pratense</i>	4.96/15.77	PHLB_PHLPR
46	5.55/18	NCBI	251	8	Pollen allergen Phl p 11	<i>Phleum pratense</i>	4.96/15.77	gi 47606039
47	5.55/18	SwissProt	139	6	Pollen allergen Phl p 5 (fragment)	<i>Phleum pratense</i>	8.75/27.98	MPA5B_PHLPR
47	5.55/18	NCBI	134	5	Group 5 allergen Phl p 5.0204	<i>Phleum pratense</i>	5.61/26.19	gi 3309043
48	6.5/18	SwissProt	68	2	Pollen allergen Phl p 5b (fragment)	<i>Phleum pratense</i>	8.75/27.98	MPA5B_PHLPR
48	6.5/18	NCBI	69	2	Major allergen Phl p 5	<i>Phleum pratense</i>	8.46/27.84	gi 1684718
49	6.7/16	in any database			<i>No confirmed protein found</i>			
50	5.0/15	SwissProt	262	5	Profilin-2/4	<i>Phleum pratense</i>	4.92/14.14	PROF2_PHLPR
50	5.0/15	NCBI	264	5	Profilin-2/4 (Pollen allergen Phl p 12)	<i>Phleum pratense</i>	4.92/14.14	gi 3914432
51	5.55/14	SwissProt	448	10	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.31/13.91	MPAP6_PHLPR
52	6.2/14	SwissProt	376	11	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.31/13.91	MPAP6_PHLPR
52	6.2/14	NCBI	452	11	Chain A, Crystal structure of Phl p 6	<i>Phleum pratense</i>	5.55/11.91	gi 28374059
53	6.5/14	SwissProt	162	8	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.31/13.91	MPAP6_PHLPR
53	6.5/14	NCBI	172	6	Pollen allergen Phl p 6	<i>Phleum pratense</i>	5.68/14.59	gi 3004465
54	8.9/15	SwissProt	76	2	Pollen allergen Lol p 3	<i>Lolium perenne</i>	7.88/10.90	MPAL3_LOLPR
54	8.9/15	NCBI	90	3	Pollen allergen Phl p 3	<i>Phleum pratense</i>	8.94/10.95	gi 39841264
55	9.6/15	NCBI	112	2	Pollen allergen Phl p 3	<i>Phleum pratense</i>	8.94/10.95	gi 39841264
C1	acidic control				<i>No protein signal</i>			
C2	basic control				<i>No protein signal</i>			