

Supplementary data for article:

Smiljanic, K.; Apostolovic, D.; Trifunovic, S.; Ognjenovic, J.; Perusko, M.; Mihajlovic, L.; Burazer, L.; van Hage, M.; Cirkovic Velickovic, T. Subpollen Particles Are Rich Carriers of Major Short Ragweed Allergens and NADH Dehydrogenases: Quantitative Proteomic and Allergomic Study. *Clinical and Experimental Allergy* **2017**, *47* (6), 815–828.

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Table S2. Complete list of identified protein groups in "in s

This table supports

Green labelled

Unique protein entries to SPP fraction	Protein Group	Protein ID	Accession
AOA076L591	273	1209	I6RE61
A0PJ16	302	390	O65352
A5HML4	54	8254	V5QF94_HELDV
B1GV87	41	16	G5EN35_9ASTR
COSU64	105	7518	A5HML4_CHRMO
I6RE61	70	203	V9VA11_9ASTR
P00069	151	116	P18260
Q3LVJ7	91	6562	COSU64_ZINVI
Q40751	50	8257	Q40751_PARAR
Q84ZX5	131	2044	Q8SA59_HELAN
Q8SA59	97	1149	Q69AB6_HELAN
V5QF94	17	34	V5LU01_AMBAR
	126	215	Q38678_AMBAR
	300	8297	Q9MB08_HELAN
	16	412	P00069
	15	266	Q6S4N3_HELAN
	106	408	Q9SC12
	28	40	AOAOP0A367_LACS
	40	39	G8XWY8_9ASTR
	35	7487	Q84ZX5
	150	2193	Q2I6J6_STERE
	89	7880	V5P1B9_CIRAR
	77	1817	B1GV87_9ASTR
	8	100	O04004
	51	160	P47919
	74	239	P47920
	71	238	Q96559
	12	3	E1XUL9_AMBAR
	2	11	P27760
	18	13	P27762
	9	1	P27759
	11	2	E1XUL2_AMBAR
	1	10	E1XUL3_AMBAR
	5	4	E1XUL4_AMBAR
	6	5	E1XUL5_AMBAR
	19	14	E1XUM0_AMBAR
	33	1004	A0PJ16_ARTVU
	23	32	A8CYN7_GERHY

47	59	A1Y2J9_HELAN
52	65	I6LNT9_HELAN
112	1011	A9P745_HELAN
96	103	Q2KM81_ARTVU
42	117	P00304
20	207	P02878
29	373	P43174
13	43	Q2KN24_AMBAR
14	45	Q2KN23_AMBAR
22	74	Q64LH0
59	164	A5HSG4_ARTAN
255	7517	W8P1H2_9ASTR
57	211	Q0H286_ZINVI
3	214	D4IIH6_AMBAR
7	283	D4IIH1_AMBAR
76	1037	AOA0A7E6L1_LACS
67	7526	G0WY74_CIRVU
53	2370	AOA076L591_9ASTI
94	244	Q6A199_HELAN
257	1144	Q41724_ZINVI
190	8091	Q3LVJ7_TAROF
26	44	P48493
55	66	P69313

61 protein groups
22 allergen isoform

solution trypsin-digested" short ragweed sub-pollen particles (SPP) fraction after proteomic shotgun analysis by PEAKS DB software.

results presented in the Figure 1. of the manuscript

ed cells denotes officially recognized allergen isoforms

Description	-10lgP	Coverage (%)	#Peptides	#Unique
(E)-beta-ocimene synthase chloroplastic OS=Matricaria chan	21.09	2	1	1
14-3-3-like protein OS=Helianthus annuus PE=2 SV=1	21.76	3	1	1
Acetyl-coenzyme A carboxylase carboxyl transferase subunit	20.92	2	1	1
Actin OS=Chrysanthemum seticuspe f. boreale GN=CsActin P	153.04	47	15	2
Adenosylhomocysteinase OS=Chrysanthemum morifolium G	36.69	3	1	1
Alcohol dehydrogenase 1A (Fragment) OS=Podospermum jac	90.4	26	3	3
ATP synthase subunit alpha mitochondrial OS=Helianthus an	31.81	2	1	1
Auxin efflux carrier component OS=Zinnia violacea GN=ZePIN	24.14	2	1	1
Calreticulin (Fragment) OS=Parthenium argentatum GN=111l	22.04	7	1	1
Carbohydrate oxidase OS=Helianthus annuus PE=4 SV=1	22.17	1	1	1
CC-NBS-LRR-like protein (Fragment) OS=Helianthus annuus P	34.16	2	2	1
Cysteine protease OS=Ambrosia artemisiifolia PE=2 SV=1	190.89	45	18	18
Cysteine proteinase inhibitor OS=Ambrosia artemisiifolia PE=	25.78	10	1	1
Cysteine proteinase inhibitor OS=Helianthus annuus GN=smc	21.55	4	1	1
Cytochrome c OS=Guizotia abyssinica PE=1 SV=1	98.26	37	5	1
Cytochrome c OS=Helianthus annuus PE=2 SV=1	98.64	37	5	1
Eukaryotic translation initiation factor 5A OS=Senecio vernali	28.06	5	1	1
Glyceraldehyde 3-phosphate dehydrogenase (Fragment) OS=	159.85	57	10	4
Glyceraldehyde-3-phosphate dehydrogenase OS=Mikania mi	149.19	35	13	1
Major pollen allergen Art v 1 OS=Artemisia vulgaris PE=1 SV=	62.64	14	2	1
Malate dehydrogenase (Fragment) OS=Stevia rebaudiana PE:	21.47	4	1	1
Maturase K (Fragment) OS=Cirsium arvense GN=matK PE=4 S	29.35	3	1	1
NADH dehydrogenase subunit F (Fragment) OS=Hymenolepis	20.93	3	1	1
Non-specific lipid-transfer protein OS=Ambrosia artemisiifoli	184.21	69	20	20
Nucleoside diphosphate kinase A OS=Flaveria bidentis PE=2 S	129.04	36	6	3
Nucleoside diphosphate kinase B OS=Flaveria bidentis PE=2 S	113.3	24	4	1
Nucleoside diphosphate kinase OS=Helianthus annuus PE=2 S	90.29	28	4	2
Pectate lyase (Fragment) OS=Ambrosia artemisiifolia GN=am	239.41	75	31	18
Pectate lyase 1 OS=Ambrosia artemisiifolia PE=1 SV=1	275.82	87	58	2
Pectate lyase 4 OS=Ambrosia artemisiifolia PE=1 SV=1	225.7	72	24	1
Pectate lyase 5 OS=Ambrosia artemisiifolia PE=1 SV=1	270	85	46	2
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1 PE=2 S\	263.24	85	44	2
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1.2 PE=2	277.13	87	59	3
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1.3 PE=2	279.58	88	48	3
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1.3 PE=2	277.78	87	47	2
Pectate lyase OS=Ambrosia artemisiifolia GN=amba2.01 PE=:	224.53	72	24	1
Pectate lyase OS=Artemisia vulgaris PE=2 SV=1	72.34	7	5	1
Peptidyl-prolyl cis-trans isomerase OS=Gerbera hybrida PE=2	180.54	77	14	3

Phosphoglycerate kinase OS=Helianthus annuus GN=PGK1 PE=1	133.33	19	8	4
Phosphoglycerate kinase OS=Helianthus annuus GN=PGK2 PE=1	86.35	12	6	2
Plastid enolase OS=Helianthus annuus GN=ENO1 PE=2 SV=1	24.86	1	1	1
Polcalcin OS=Artemisia vulgaris PE=2 SV=1	63.53	14	2	2
Pollen allergen Amb a 3 OS=Ambrosia artemisiifolia var. elati	119.38	43	5	5
Pollen allergen Amb a 5 OS=Ambrosia artemisiifolia var. elati	148.67	93	7	4
Pollen allergen Amb p 5a OS=Ambrosia psilostachya PE=1 SV	112.33	51	5	2
Profilin OS=Ambrosia artemisiifolia PE=2 SV=1	180.1	99	14	7
Profilin OS=Ambrosia artemisiifolia PE=2 SV=1	163.3	72	12	5
Profilin-3 OS=Ambrosia artemisiifolia GN=D03 PE=1 SV=1	158.45	55	8	3
Putative calmodulin OS=Artemisia annua PE=2 SV=1	70.55	41	3	3
Putative cell wall xyloglucan endotransglucosylase/hydrolase	38.61	10	1	1
Putative glyceraldehyde 3-phosphate dehydrogenase (Fragment)	95.28	57	3	1
Ragweed homologue of Art v 1 OS=Ambrosia artemisiifolia G	177.92	38	17	3
Ragweed homologue of Art v 1 (Fragment) OS=Ambrosia arte	135.98	30	10	2
Rhomboid-like protein (Fragment) OS=Lactuca sativa PE=2 S\	31	4	1	1
Ribulose-1 5-bisphosphate carboxylase/oxygenase large subu	24.4	4	1	1
RNA polymerase beta subunit (Fragment) OS=Famatinanthus	23	0	1	1
Superoxide dismutase [Cu-Zn] OS=Helianthus annuus GN=sod	73.71	18	2	2
TED2 OS=Zinnia violacea PE=2 SV=1	20.31	2	1	1
TO65-3 (Fragment) OS=Taraxacum officinale GN=To65-3 PE=	22.5	6	1	1
Triosephosphate isomerase cytosolic (Fragment) OS=Lactuc	171.38	69	11	11
Ubiquitin OS=Helianthus annuus PE=3 SV=2	81.13	45	3	3

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Avg. Mass	PTM
69527	Deamidation (NQ)
28947	
54226	Carbamidomethylation; Deamidation (NQ)
41625	Carbamidomethylation; Oxidation (M)
53081	
18689	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
55487	
63991	Deamidation (NQ)
11399	
60970	
77365	Carbamidomethylation
43157	Carbamidomethylation; Oxidation (M)
10524	
31827	
11897	Deamidation (NQ)
12113	Deamidation (NQ)
17265	
19485	Oxidation (M)
36918	Deamidation (NQ); Oxidation (M)
13404	Carbamidomethylation
19812	
27097	
33532	Deamidation (NQ)
12789	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
16136	
16200	
16217	
42311	Carbamidomethylation; Oxidation (M)
43665	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
44082	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
42709	Carbamidomethylation; Oxidation (M)
42695	Carbamidomethylation; Oxidation (M)
43637	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
42913	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
42963	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
44083	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
43154	Carbamidomethylation
18129	Carbamidomethylation; Deamidation (NQ); Oxidation (M)

42303
42408 Carbamidomethylation
52027 Deamidation (NQ)
16694
11375 Carbamidomethylation
4979 Carbamidomethylation
8710 Carbamidomethylation
14245 Carbamidomethylation; Deamidation (NQ); Oxidation (M)
14100 Carbamidomethylation; Oxidation (M)
14277 Carbamidomethylation; Oxidation (M)
16848 Oxidation (M)
20018
6321
11896 Carbamidomethylation
13260 Carbamidomethylation
37307 Deamidation (NQ)
50223 Deamidation (NQ); Oxidation (M)
116578 Carbamidomethylation
15425
34971
11711 Carbamidomethylation
20540 Carbamidomethylation; Oxidation (M)
8672