

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 S3. Complete list of identified protein groups in "in sc**

This table supports

Green labelled

Unique protein entries to APE fraction	Protein Group	Protein ID	Accession
Q0PUV7	69	1482	Q0PUV7_STERE
Q2KN26	28	390	O65352
J7KE88	23	16	G5EN35_9ASTR
A0A0A0QVW1	118	203	V9VA11_9ASTR
A5JRL1	49	175	D4NYE5_TRAPR
K9MJH9	241	15777	Q2KN26_AMBAR
A0A076EA72	58	1159	Q69AB6_HELAN
Q6T8D1	22	34	V5LU01_AMBAR
Q3LVP4	72	215	Q38678_AMBAR
	73	8297	Q9MB08_HELAN
	21	266	Q6S4N3_HELAN
	66	49	A0A0M4JA76_CICIN
	60	40	A0A0P0A367_LACSA
	34	85	A0A0A1HAD2_CHRM
	139	5297	J7KE88_LACSA
	48	2193	Q2I6J6_STERE
	30	8142	V5P1B9_CIRAR
	63	16015	A0A0A0QVW1_9AST
	124	11095	A5JRL1_9ASTR
	1	100	O04004
	85	3940	K9MJH9_SENVU
	86	160	P47919
	31	15962	A0A076EA72_9ASTR
	14	3	E1XUL9_AMBAR
	8	11	P27760
	20	13	P27762
	5	1	P27759
	7	2	E1XUL2_AMBAR
	6	10	E1XUL3_AMBAR
	11	4	E1XUL4_AMBAR
	26	32	A8CYN7_GERHY
	51	59	A1Y2J9_HELAN
	56	65	I6LNT9_HELAN
	43	103	Q2KM81_ARTVU
	13	117	P00304
	3	207	P02878
	9	373	P43174
	12	43	Q2KN24_AMBAR

15	45	Q2KN23_AMBAR
19	74	Q64LH0
17	164	A5HSG4_ARTAN
74	7517	W8P1H2_9ASTR
479	396	Q6T8D1_HELAN
10	214	D4IIH6_AMBAR
16	283	D4IIH1_AMBAR
240	244	Q6A199_HELAN
176	1144	Q41724_ZINVI
64	210	Q3LVQ4_TAROF
232	15963	Q3LVP4_TAROF
33	44	P48493
154	689	Q41186_LACSA
2	66	P69313

52 protein groups

18 allergen isoforms

**"solution trypsin-digested" short ragweed aqueous pollen protein extract (APE) after proteomic shotgun analysis by PEAKS DB software.**

results presented in the Figure 1. of the manuscript

cells denotes officially recognized allergen isoforms

Description	-10lgP	Coverage (%)	#Peptides	#Unique
(E)-4-hydroxy-3-methylbut-2-enyl diphosphate synthase OS	34.72	1	1	1
14-3-3-like protein OS=Helianthus annuus PE=2 SV=1	108.4	17	6	6
Actin OS=Chrysanthemum seticuspe f. boreale GN=CsActin	115.31	14	5	1
Alcohol dehydrogenase 1A (Fragment) OS=Podospermum j.	43.63	6	1	1
Ascorbate peroxidase 2-like protein (Fragment) OS=Tragop	102.48	38	3	3
Calcium-binding protein isoallergen 2 OS=Ambrosia artemis	31.74	12	2	1
CC-NBS-LRR-like protein (Fragment) OS=Helianthus annuus	34.16	2	2	1
Cysteine protease OS=Ambrosia artemisiifolia PE=2 SV=1	155.84	28	9	9
Cysteine proteinase inhibitor OS=Ambrosia artemisiifolia P	79.22	14	1	1
Cysteine proteinase inhibitor OS=Helianthus annuus GN=sn	56.31	6	2	2
Cytochrome c OS=Helianthus annuus PE=2 SV=1	110.68	40	4	4
Elongation factor 1-alpha OS=Cichorium intybus GN=EF1alp	54.27	2	1	1
Glyceraldehyde 3-phosphate dehydrogenase (Fragment) O	69.03	18	3	2
Heat shock protein 70 OS=Chrysanthemum morifolium GN	130.34	14	7	6
Heat shock protein 90 OS=Lactuca sativa GN=Hsp90 PE=2 S	63.29	2	1	1
Malate dehydrogenase (Fragment) OS=Stevia rebaudiana P	46.55	11	2	2
Maturase K (Fragment) OS=Cirsium arvense GN=matK PE=4	31.71	2	1	1
Mitogen-activated protein kinase kinase kinase 1 plant (Fr	25.01	1	1	1
NBS-LRR resistance-like protein RGC569 (Fragment) OS=He	38.21	6	1	1
Non-specific lipid-transfer protein OS=Ambrosia artemisiifo	246.42	72	33	33
NtPRp27-like (Fragment) OS=Senecio vulgaris PE=4 SV=1	65.18	5	2	2
Nucleoside diphosphate kinase A OS=Flaveria bidentis PE=2	84.06	20	2	2
PawS-like prealbumin 1 OS=Espeletia schultzei GN=PawL	31.16	3	1	1
Pectate lyase (Fragment) OS=Ambrosia artemisiifolia GN=al	232.35	55	22	13
Pectate lyase 1 OS=Ambrosia artemisiifolia PE=1 SV=1	271.27	70	37	1
Pectate lyase 4 OS=Ambrosia artemisiifolia PE=1 SV=1	189.37	41	11	11
Pectate lyase 5 OS=Ambrosia artemisiifolia PE=1 SV=1	279.35	81	38	1
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1 PE=2	276.03	81	37	2
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1.2 PE=	274.01	70	38	2
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1.3 PE=	263.64	66	32	27
Peptidyl-prolyl cis-trans isomerase OS=Gerbera hybrida PE=	166.14	60	10	2
Phosphoglycerate kinase OS=Helianthus annuus GN=PGK1	123.14	13	5	4
Phosphoglycerate kinase OS=Helianthus annuus GN=PGK2	105.2	18	6	5
Polcalcin OS=Artemisia vulgaris PE=2 SV=1	126.89	35	4	4
Pollen allergen Amb a 3 OS=Ambrosia artemisiifolia var. ela	158.47	52	12	12
Pollen allergen Amb a 5 OS=Ambrosia artemisiifolia var. ela	212.74	93	21	11
Pollen allergen Amb p 5a OS=Ambrosia psilostachya PE=1 S	188.02	55	13	3
Profilin OS=Ambrosia artemisiifolia PE=2 SV=1	212.98	79	16	8

Profilin OS=Ambrosia artemisiifolia PE=2 SV=1	196.82	74	14	6
Profilin-3 OS=Ambrosia artemisiifolia GN=D03 PE=1 SV=1	183.48	61	12	7
Putative calmodulin OS=Artemisia annua PE=2 SV=1	211.16	72	16	16
Putative cell wall xyloglucan endotransglucosylase/hydrolase	47.37	6	1	1
Putative luminal binding protein (Fragment) OS=Helianthus	43.61	5	1	1
Ragweed homologue of Art v 1 OS=Ambrosia artemisiifolia	173.88	34	12	8
Ragweed homologue of Art v 1 (Fragment) OS=Ambrosia ar	130.23	22	7	3
Superoxide dismutase [Cu-Zn] OS=Helianthus annuus GN=s	41.47	7	1	1
TED2 OS=Zinnia violacea PE=2 SV=1	41.47	3	1	1
TO23-1 (Fragment) OS=Taraxacum officinale GN=To23-1 PE	87.91	60	4	3
TO38-23 (Fragment) OS=Taraxacum officinale GN=To38-23	35.86	5	1	1
Triosephosphate isomerase cytosolic (Fragment) OS=Lactu	138.48	50	6	6
Triosephosphate isomerase (Fragment) OS=Lactuca sativa f	51.92	27	1	1
Ubiquitin OS=Helianthus annuus PE=3 SV=2	130.24	69	9	9

<b>Avg. Mass</b>	<b>PTM</b>
82152	
28947	
41625	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
18689	Carbamidomethylation
13225	
9294	
77365	Deamidation (NQ)
43157	Carbamidomethylation
10524	
31827	Deamidation (NQ)
12113	Deamidation (NQ)
49404	
19485	
70896	
79808	
19812	
38829	
50554	Deamidation (NQ)
19379	
12789	Carbamidomethylation; Deamidation (NQ)
23005	
16136	
17354	
42311	Carbamidomethylation
43665	Carbamidomethylation
44082	Carbamidomethylation
42709	Carbamidomethylation
42695	Carbamidomethylation
43637	Carbamidomethylation; Deamidation (NQ)
42913	Carbamidomethylation; Deamidation (NQ)
18129	Carbamidomethylation
42303	
42408	Carbamidomethylation; Deamidation (NQ)
16694	
11375	
4979	Carbamidomethylation; Deamidation (NQ)
8710	Carbamidomethylation; Deamidation (NQ)
14245	Carbamidomethylation; Oxidation (M)

14100 Carbamidomethylation; Oxidation (M)  
14277 Carbamidomethylation; Oxidation (M)  
16848 Carbamidomethylation; Deamidation (NQ)  
20018  
19650  
11896 Carbamidomethylation  
13260 Carbamidomethylation  
15425 Carbamidomethylation  
34971  
10531  
15907  
20540 Carbamidomethylation  
4742 Carbamidomethylation  
8672