

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 S1. Complete protein lists of identified, in solution tryps

This table sup

Green labelled

Unique protein entries to SPP fraction	Protein Group	Protein ID	Accession
A0A068EPQ1	64	390	O65352
A0A088MAW6	23	17	G8CUD5_LACSA
A0A0K1Z625	14	16	G5EN35_9ASTR
A1BLL7	21	18	E0D6S0_9ASTR
B2KNE6	74	203	V9VA11_9ASTR
E0D6S0	68	120	A0A0K1Z625_TRAPR
G8CUD5	52	175	D4NYE5_TRAPR
I6LNUO	84	116	P18260
O04223	77	270	A0A088MAW6_9ASTR
Q0H284	88	97	Q9STC9_ZINVI
Q3LVE9	181	885	Q6A1A0_HELAN
Q3LVN1	80	244	Q6A199_HELAN
Q6A1A0	17	34	V5LU01_AMBAR
Q8H2C9	121	215	Q38678_AMBAR
Q94LX7	59	266	Q6S4N3_HELAN
Q9STC9	50	49	A0A0M4JA76_CICIN
R4JCP3	111	408	Q9SC12
R4TYT0	69	213	A1BLL7_HELAN
T1WLF9	13	40	A0A0P0A367_LACSA
	36	56	R4JCP3_TARER
	24	39	G8XWY8_9ASTR
	229	942	T1WLF9_HELAN
	67	85	A0A0A1HAD2_CHRMC
	125	395	O04223_HELAN
	48	100	O04004
	56	160	P47919
	79	239	P47920
	70	238	Q96559
	16	3	E1XUL9_AMBAR
	3	11	P27760
	33	13	P27762
	6	2	E1XUL2_AMBAR
	2	10	E1XUL3_AMBAR
	7	4	E1XUL4_AMBAR
	8	5	E1XUL5_AMBAR
	32	14	E1XUM0_AMBAR
	29	32	A8CYN7_GERHY
	234	1127	Q94LX7_FLAPR

40	59	A1Y2J9_HELAN
44	65	I6LNT9_HELAN
54	241	I6LNU0_HELAN
291	1013	R4TYT0_SILMA
192	1131	B2KNE6_HELAN
112	1011	A9P745_HELAN
42	103	Q2KM81_ARTVU
46	117	P00304
55	207	P02878
75	373	P43174
4	43	Q2KN24_AMBAR
9	45	Q2KN23_AMBAR
41	174	Q8H2C9
27	74	Q64LH0
47	211	Q0H286_ZINVI
37	164	A5HSG4_ARTAN
175	1016	Q0H284_ZINVI
53	283	D4IIH1_AMBAR
43	214	D4IIH6_AMBAR
39	1037	A0A0A7E6L1_LACSA
49	7526	G0WY74_CIRVU
189	856	Q3LVE9_TAROF
119	210	Q3LVQ4_TAROF
94	379	Q3LVN1_TAROF
35	44	P48493
255	689	Q41186_LACSA
139	454	A0A068EPQ1_CARTI
15	66	P69313

66 protein groups

20 allergen isoforms

in-digested short ragweed total pollen protein extract (TOT) after proteomic shotgun analysis by PEAKS DB software.

ports results presented in the Figure 1. of the manuscript

d cells denotes officially recognized allergen isoforms

Description	-10lgP	Coverage (%)	#Peptides	#Unique
14-3-3-like protein OS=Helianthus annuus PE=2 SV=1	54.35	6	2	2
Actin (Fragment) OS=Lactuca sativa PE=3 SV=1	190.78	64	17	2
Actin OS=Chrysanthemum seticuspe f. boreale GN=CsActin PE=	202.1	61	21	3
Actin OS=Gynura bicolor GN=GbACT PE=2 SV=1	182.12	49	17	1
Alcohol dehydrogenase 1A (Fragment) OS=Podospermum jacq	105.84	26	4	1
Alcohol dehydrogenase 1A (Fragment) OS=Tragopogon porrifc	109.36	27	4	1
Ascorbate peroxidase 2-like protein (Fragment) OS=Tragopogc	80.85	58	5	5
ATP synthase subunit alpha mitochondrial OS=Helianthus ann	111.43	12	5	5
ATP synthase subunit beta chloroplastic OS=lanthopappus cor	74.66	5	2	2
Beta-tubulin (Fragment) OS=Zinnia violacea PE=2 SV=1	113.55	14	5	5
Cu/Zn superoxide dismutase (Fragment) OS=Helianthus annuu	29.15	18	1	1
Superoxide dismutase [Cu-Zn] OS=Helianthus annuus GN=sod2	77.32	22	3	3
Cysteine protease OS=Ambrosia artemisiifolia PE=2 SV=1	189.05	45	17	17
Cysteine proteinase inhibitor OS=Ambrosia artemisiifolia PE=2	71.51	37	3	3
Cytochrome c OS=Helianthus annuus PE=2 SV=1	79.76	30	4	4
Elongation factor 1-alpha OS=Cichorium intybus GN=EF1alpha	125.03	23	9	7
Eukaryotic translation initiation factor 5A OS=Senecio vernalis	41.41	17	2	2
Glucose-6-phosphate isomerase OS=Helianthus annuus GN=Gl	76.51	7	3	3
Glyceraldehyde 3-phosphate dehydrogenase (Fragment) OS=L	178.26	57	14	7
Glyceraldehyde-3-phosphate dehydrogenase (Fragment) OS=T	128.59	79	7	1
Glyceraldehyde-3-phosphate dehydrogenase OS=Mikania micr	149.19	35	13	1
Gly-rich RNA binding protein (Fragment) OS=Helianthus annuu	27.78	8	1	1
Heat shock protein 70 OS=Chrysanthemum morifolium GN=hs	107.35	12	6	5
HSP70-related protein (Fragment) OS=Helianthus annuus PE=2	53.53	3	1	1
Non-specific lipid-transfer protein OS=Ambrosia artemisiifolia	116.5	53	6	6
Nucleoside diphosphate kinase A OS=Flaveria bidentis PE=2 SV	117.57	30	5	3
Nucleoside diphosphate kinase B OS=Flaveria bidentis PE=2 SV	103.75	22	4	1
Nucleoside diphosphate kinase OS=Helianthus annuus PE=2 SV	97.44	28	4	2
Pectate lyase (Fragment) OS=Ambrosia artemisiifolia GN=amb	232.58	73	28	18
Pectate lyase 1 OS=Ambrosia artemisiifolia PE=1 SV=1	245.36	87	36	1
Pectate lyase 4 OS=Ambrosia artemisiifolia PE=1 SV=1	217.65	78	23	1
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1 PE=2 SV=	252.68	83	40	1
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1.2 PE=2 S'	247.06	87	37	2
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1.3 PE=2 S'	257.36	85	43	3
Pectate lyase OS=Ambrosia artemisiifolia GN=amba1.3 PE=2 S'	256.68	84	42	2
Pectate lyase OS=Ambrosia artemisiifolia GN=amba2.01 PE=2	215.45	78	23	1
Peptidyl-prolyl cis-trans isomerase OS=Gerbera hybrida PE=2 S	161.4	77	13	4
Phosphoenolpyruvate carboxykinase OS=Flaveria pringlei GN=	21.82	1	1	1

Phosphoglycerate kinase OS=Helianthus annuus GN=PGK1 PE=	137.97	23	9	2
Phosphoglycerate kinase OS=Helianthus annuus GN=PGK2 PE=	118.82	22	10	4
Phosphoglycerate kinase OS=Helianthus annuus GN=PGK3 PE=	101.43	8	4	1
Phospholipase D (Fragment) OS=Silybum marianum GN=PLD P	25.53	8	1	1
Phospholipase D OS=Helianthus annuus GN=PLD1 PE=2 SV=1	22.04	2	1	1
Plastid enolase OS=Helianthus annuus GN=ENO1 PE=2 SV=1	32.18	1	1	1
Polcalcin OS=Artemisia vulgaris PE=2 SV=1	124.8	41	7	7
Pollen allergen Amb a 3 OS=Ambrosia artemisiifolia var. elatio	119.09	50	8	8
Pollen allergen Amb a 5 OS=Ambrosia artemisiifolia var. elatio	130.05	93	5	4
Pollen allergen Amb p 5a OS=Ambrosia psilostachya PE=1 SV=:	102.59	31	3	2
Profilin OS=Ambrosia artemisiifolia PE=2 SV=1	183.37	83	19	12
Profilin OS=Ambrosia artemisiifolia PE=2 SV=1	162.46	83	14	7
Profilin-1 OS=Artemisia vulgaris PE=1 SV=3	100.91	35	8	2
Profilin-3 OS=Ambrosia artemisiifolia GN=D03 PE=1 SV=1	160.35	62	12	6
Putative glyceraldehyde 3-phosphate dehydrogenase (Fragme	82.04	57	3	1
Putative calmodulin OS=Artemisia annua PE=2 SV=1	112.07	52	5	5
Putative F1-ATPase alpha subunit (Fragment) OS=Zinnia violac	23.94	9	1	1
Ragweed homologue of Art v 1 (Fragment) OS=Ambrosia arter	88.05	16	3	1
Ragweed homologue of Art v 1 OS=Ambrosia artemisiifolia GN	116.41	28	5	3
Rhomboid-like protein (Fragment) OS=Lactuca sativa PE=2 SV=	29.11	4	1	1
Ribulose-1 5-bisphosphate carboxylase/oxygenase large subur	23.5	2	1	1
TO114-2 (Fragment) OS=Taraxacum officinale GN=To114-2 PE:	36.13	7	1	1
TO23-1 (Fragment) OS=Taraxacum officinale GN=To23-1 PE=2	79.72	43	3	2
TO45-3 (Fragment) OS=Taraxacum officinale GN=To45-3 PE=2	66.58	19	2	2
Triosephosphate isomerase cytosolic (Fragment) OS=Lactuca :	162.95	62	13	13
Triosephosphate isomerase (Fragment) OS=Lactuca sativa PE=	47.94	27	1	1
Tubulin alpha chain OS=Carthamus tinctorius GN=TUA PE=2 SV	58.51	3	1	1
Ubiquitin OS=Helianthus annuus PE=3 SV=2	129.12	86	9	9

Avg. Mass	PTM
28947	
31953	Carbamidomethylation; Oxidation (M)
41625	Carbamidomethylation; Oxidation (M)
41712	Carbamidomethylation; Oxidation (M)
18689	Carbamidomethylation; Deamidation (NQ)
18503	Carbamidomethylation; Deamidation (NQ)
13225	
55487	
53625	
49391	Carbamidomethylation
20478	
15425	
43157	Carbamidomethylation
10524	
12113	Deamidation (NQ)
49404	
17265	Carbamidomethylation
62308	
19485	Oxidation (M)
10802	
36918	Deamidation (NQ); Oxidation (M)
12663	
70896	
29079	
12789	Carbamidomethylation
16136	
16200	
16217	
42311	Carbamidomethylation
43665	Carbamidomethylation
44082	Carbamidomethylation; Deamidation (NQ)
42695	Carbamidomethylation
43637	Carbamidomethylation
42913	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
42963	Carbamidomethylation; Deamidation (NQ); Oxidation (M)
44083	Carbamidomethylation; Deamidation (NQ)
18129	Carbamidomethylation; Deamidation (NQ)
72880	

42303
42408 Carbamidomethylation
50144
18598
91916
52027 Deamidation (NQ)
16694
11375 Carbamidomethylation
4979 Carbamidomethylation
8710 Carbamidomethylation
14245 Carbamidomethylation; Oxidation (M)
14100 Carbamidomethylation; Oxidation (M)
14207 Carbamidomethylation
14277 Carbamidomethylation; Oxidation (M)
6321
16848 Deamidation (NQ)
26751
13260 Carbamidomethylation
11896 Carbamidomethylation
37307 Deamidation (NQ)
52241
11707
10531
12394
20540 Carbamidomethylation
4742 Carbamidomethylation
49541
8672