MACRO ARRAY DIAGNOSTICS

PATIENT ID:

PATIENT NAME:

DATE OF BIRTH:

SAMPLE ID:
LC22660

QR-CODE:
02BPN2D6

ANALYZED ON:
2/29/2024

APPROVED ON:
3/8/2024

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6/14/2024

REFERRING PHYSICIAN:

ADDITIONAL INFORMATION:

The internal QC (Plausibility check for GD) was within acceptance range.

Lab report: Summary on detectable sensitizations

POLLEN

Grass Pollen

Tree Pollen

Weed Pollen

MITES

House Dust Mites & Storage Mites

PLANT-BASED FOOD

Legumes

Grains

Spices

Fruits

Vegetables

Nuts & Seeds

INSECTS & VENOMS

Ant, Bee, Wasp

Cockroach

MICROORGANISMS

Fungal Spores & Yeast

ANIMAL-DERIVED FOOD

Milk

Egg

Fish & Seafood

Meat

EPITHELIAL TISSUES OF ANIMALS

Pets

Farm Animals

OTHERS

Latex

Ficus

CCD

Parasite

Highest measured IgE concentration per allergen group

< 0.3 kU_A/L	0.3 - 1 kU_A/L	1 - 5 kU_A/L	5 - 15 kU_A/L	> 15 kU_A/L
Negative or uncertain	Low IgE level	Moderate IgE level	High IgE level	Very high IgE level

Name	E/M	Allergen	Protein Family	kUA/L

POLLEN

Grass Pollen

Name	E/M	Allergen	Protein Family	kUA/L
Bermuda grass	Extract	Cyn d		1.56
	Molecular	Cyn d 1	Beta-Expansin	4.37
Perennial Ryegrass	Molecular	Lol p 1	Beta-Expansin	2.88
Bahia grass	Extract	Pas n		2.25
Timothy grass	Molecular	Phl p 1	Beta-Expansin	3.91
	Molecular	Phl p 2	Expansin	0.71
	Molecular	Phl p 5.0101	Grass Group 5/6	4.32
	Molecular	Phl p 6	Grass Group 5/6	0.28
	Molecular	Phl p 7	Polcalcin	4.52
	Molecular	Phl p 12	Profilin	0.45
Common reed	Extract	Phr c		≤ 0.10
Cultivated rye, Pollen	Extract	Sec c_pollen		0.77

Tree Pollen

Name	E/M	Allergen	Protein Family	kUA/L
Acacia	Extract	Aca m		≤ 0.10
Tree of Heaven	Extract	Ail a		≤ 0.10
Alder	Molecular	Aln g 1	PR-10	0.20
	Molecular	Aln g 4	Polcalcin	7.05
Silver birch	Molecular	Bet v 1	PR-10	1.69
	Molecular	Bet v 2	Profilin	≤ 0.10
	Molecular	Bet v 6	Isoflavon Reductase	≤ 0.10
Paper mulberry	Extract	Bro pa		≤ 0.10
Hazel pollen	Extract	Cor a_pollen		0.20
	Molecular	Cor a 1.0103	PR-10	0.57
Sugi	Molecular	Cry j 1	Pectate Lyase	1.13
Cypress	Molecular	Cup a 1	Pectate Lyase	1.06
	Extract	Cup s		≤ 0.10
Beech	Molecular	Fag s 1	PR-10	0.77
Ash	Extract	Fra e		≤ 0.10
	Molecular	Fra e 1	Ole e 1-Family	≤ 0.10
Walnut pollen	Extract	Jug r_pollen		0.27
Mountain cedar	Extract	Jun a		≤ 0.10
Mulberry	Extract	Mor r		≤ 0.10
Olive	Molecular	Ole e 1	Ole e 1-Family	≤ 0.10
	Molecular	Ole e 9	1,3 β Glucanase	≤ 0.10

Name	E/M	Allergen	Protein Family	kU_A/L
Date palm	◉	Pho d 2	Profilin	0.83
London plane tree	◉	Pla a 1	Plant Invertase	≤ 0.10
	◉	Pla a 2	Polygalacturonase	≤ 0.10
	◉	Pla a 3	nsLTP	0.36
Cottonwood	⁙	Pop n		0.25
Elm	⁙	Ulm c		≤ 0.10

Weed Pollen

Name	E/M	Allergen	Protein Family	kU_A/L
Common Pigweed	⁙	Ama r		≤ 0.10
Ragweed	⁙	Amb a		0.93
	◉	Amb a 1	Pectate Lyase	1.18
	◉	Amb a 4	Plant Defensin	≤ 0.10
Mugwort	⁙	Art v		0.50
	◉	Art v 1	Plant Defensin	≤ 0.10
	◉	Art v 3	nsLTP	1.18
Hemp	⁙	Can s		0.10
	◉	Can s 3	nsLTP	≤ 0.10
Lamb's quarter	⁙	Che a		≤ 0.10
	◉	Che a 1	Ole e 1-Family	≤ 0.10
Annual mercury	◉	Mer a 1	Profilin	0.44
Wall pellitory	⁙	Par j		≤ 0.10
	◉	Par j 2	nsLTP	0.83
Ribwort	⁙	Pla l		≤ 0.10
	◉	Pla l 1	Ole e 1-Family	≤ 0.10
Russian thistle	⁙	Sal k		0.16
	◉	Sal k 1	Pectin Methylesterase	1.06
Nettle	⁙	Urt d		≤ 0.10

MITES

House Dust Mite

Name	E/M	Allergen	Protein Family	kU_A/L
American house dust mite	◉	Der f 1	Cysteine protease	2.73
	◉	Der f 2	NPC2 Family	6.03
European house dust mite	◉	Der p 1	Cysteine protease	3.13
	◉	Der p 2	NPC2 Family	6.32
	◉	Der p 5	unknown	1.66
	◉	Der p 7	Mites, Group 7	0.94
	◉	Der p 10	Tropomyosin	0.44

Name	E/M	Allergen	Protein Family	kU_A/L
	Molecular	Der p 11	Myosin, heavy chain	≤ 0.10
	Molecular	Der p 20	Arginine kinase	4.93
	Molecular	Der p 21	unknown	0.97
	Molecular	Der p 23	Peritrophin-like protein domain	2.41

Storage Mite

Name	E/M	Allergen	Protein Family	kU_A/L
Acarus siro	Extract	Aca s		0.41
Blomia tropicalis	Molecular	Blo t 5	Mites, Group 5	0.10
	Molecular	Blo t 10	Tropomyosin	0.61
	Molecular	Blo t 21	unknown	0.74
Glycyphagus domesticus	Molecular	Gly d 2	NPC2 Family	0.67
Lepidoglyphus destructor	Molecular	Lep d 2	NPC2 Family	0.43
Tyrophagus putrescentiae	Extract	Tyr p		0.31
	Molecular	Tyr p 2	NPC2 Family	0.13

MICROORGANISMS & SPORES

Yeast

Name	E/M	Allergen	Protein Family	kU_A/L
Malassezia sympodialis	Molecular	Mala s 5	unknown	1.99
	Molecular	Mala s 6	Cyclophilin	6.12
	Molecular	Mala s 11	Mn Superoxid-Dismutase	2.43
Yeast	Extract	Sac c		0.10

Moulds

Name	E/M	Allergen	Protein Family	kU_A/L
Alternaria alternata	Molecular	Alt a 1	Alt a 1-Family	10.92
	Molecular	Alt a 6	Enolase	0.10
Aspergillus fumigatus	Molecular	Asp f 1	Mitogillin Family	≤ 0.10
	Molecular	Asp f 3	Peroxysomal Protein	1.40
	Molecular	Asp f 4	unknown	≤ 0.10
	Molecular	Asp f 6	Mn Superoxid-Dismutase	0.26
Cladosporium herbarum	Extract	Cla h		0.11
	Molecular	Cla h 8	Short Chain Dehydrogenase	≤ 0.10
Penicilium chrysogenum	Extract	Pen ch		≤ 0.10

PLANT FOOD

Legumes

Name	E/M	Allergen	Protein Family	kUA/L
Peanut	Molecular	Ara h 1	7/8S Globulin	0.51
	Molecular	Ara h 2	2S Albumin	0.82
	Molecular	Ara h 3	11S Globulin	0.49
	Molecular	Ara h 6	2S Albumin	0.38
	Molecular	Ara h 8	PR-10	0.79
	Molecular	Ara h 9	nsLTP	1.25
	Molecular	Ara h 15	Oleosin	≤ 0.10
Chickpea	Extract	Cic a		≤ 0.10
Soy	Molecular	Gly m 4	PR-10	0.12
	Molecular	Gly m 5	7/8S Globulin	≤ 0.10
	Molecular	Gly m 6	11S Globulin	≤ 0.10
	Molecular	Gly m 8	2S Albumin	0.12
Lentil	Extract	Len c		≤ 0.10
White bean	Extract	Pha v		≤ 0.10
Pea	Extract	Pis s		0.11

Cereals

Name	E/M	Allergen	Protein Family	kUA/L
Oat	Extract	Ave s		0.37
Quinoa	Extract	Che q		≤ 0.10
Common buckwheat	Extract	Fag e		≤ 0.10
	Molecular	Fag e 2	2S Albumin	≤ 0.10
Barley	Extract	Hor v		≤ 0.10
Lupine seed	Extract	Lup a		0.12
Rice	Extract	Ory s		≤ 0.10
Millet	Extract	Pan m		0.15
Cultivated rye	Extract	Sec c_flour		0.30
Wheat	Molecular	Tri a aA_TI	Alpha-Amylase Trypsin-Inhibitor	0.13
	Molecular	Tri a 14	nsLTP	0.46
	Molecular	Tri a 19	Omega-5-Gliadin	≤ 0.10
Spelt	Extract	Tri s		0.11
Maize	Extract	Zea m		1.74
	Molecular	Zea m 14	nsLTP	2.15

Spices

Name	E/M	Allergen	Protein Family	kUA/L
Paprika	Extract	Cap a		≤ 0.10
Caraway	Extract	Car c		≤ 0.10
Oregano	Extract	Ori v		≤ 0.10

Allergen Extract   Molecular Allergen   IgE < 0.3 negative or uncertain

Name	E/M	Allergen	Protein Family	kU$_A$/L
Parsley	Allergen Extract	Pet c		≤ 0.10
Anise	Allergen Extract	Pim a		≤ 0.10
Mustard	Allergen Extract	Sin		0.18
	Molecular Allergen	Sin a 1	2S Albumin	≤ 0.10

Fruits

Name	E/M	Allergen	Protein Family	kU$_A$/L
Kiwi	Molecular Allergen	Act d 1	Cysteine protease	0.11
	Molecular Allergen	Act d 2	TLP	≤ 0.10
	Molecular Allergen	Act d 5	Kiwellin	≤ 0.10
	Molecular Allergen	Act d 10	nsLTP	0.15
Papaya	Allergen Extract	Car p		≤ 0.10
Orange	Allergen Extract	Cit s		≤ 0.10
Melon	Molecular Allergen	Cuc m 2	Profilin	0.77
Fig	Allergen Extract	Fic c		≤ 0.10
Strawberry	Molecular Allergen	Fra a 1+3	PR-10+LTP	1.53
Apple	Molecular Allergen	Mal d 1	PR-10	0.88
	Molecular Allergen	Mal d 2	TLP	≤ 0.10
	Molecular Allergen	Mal d 3	nsLTP	1.45
Mango	Allergen Extract	Man i		≤ 0.10
Banana	Allergen Extract	Mus a		≤ 0.10
Avocado	Allergen Extract	Pers a		≤ 0.10
Cherry	Allergen Extract	Pru av		≤ 0.10
Peach	Molecular Allergen	Pru p 3	nsLTP	2.11
Pear	Allergen Extract	Pyr c		≤ 0.10
Blueberry	Allergen Extract	Vac m		≤ 0.10
Grapes	Molecular Allergen	Vit v 1	nsLTP	2.73

Vegetables

Name	E/M	Allergen	Protein Family	kU$_A$/L
Onion	Allergen Extract	All c		≤ 0.10
Garlic	Allergen Extract	All s		≤ 0.10
Celery	Molecular Allergen	Api g 1	PR-10	≤ 0.10
	Molecular Allergen	Api g 2	nsLTP	1.67
	Molecular Allergen	Api g 6	nsLTP	≤ 0.10
Carrot	Allergen Extract	Dau c		0.32
	Molecular Allergen	Dau c 1	PR-10	≤ 0.10
Potato	Allergen Extract	Sol t		0.16
Tomato	Allergen Extract	Sola l		0.17

Allergen Extract   Molecular Allergen   IgE < 0.3 negative or uncertain

Name	E/M	Allergen	Protein Family	kUA/L
	Molecular	Sola l 6	nsLTP	0.16

Nuts

Name	E/M	Allergen	Protein Family	kUA/L
Cashew	Extract	Ana o		1.25
	Molecular	Ana o 2	11S Globulin	≤ 0.10
	Molecular	Ana o 3	2S Albumin	0.82
Brazil nut	Extract	Ber e		≤ 0.10
	Molecular	Ber e 1	2S Albumin	≤ 0.10
Pecan	Extract	Car i		0.30
Hazelnut	Molecular	Cor a 1.0401	PR-10	0.97
	Molecular	Cor a 8	nsLTP	0.77
	Molecular	Cor a 9	11S Globulin	0.28
	Molecular	Cor a 11	7/8S Globulin	≤ 0.10
	Molecular	Cor a 14	2S Albumin	0.31
Walnut	Molecular	Jug r 1	2S Albumin	0.16
	Molecular	Jug r 2	7/8S Globulin	≤ 0.10
	Molecular	Jug r 3	nsLTP	0.91
	Molecular	Jug r 4	11S Globulin	≤ 0.10
	Molecular	Jug r 6	7/8S Globulin	≤ 0.10
Macadamia	Molecular	Mac i 2S Albumin	2S Albumin	≤ 0.10
	Extract	Mac inte		≤ 0.10
Pistachio	Molecular	Pis v 1	2S Albumin	0.42
	Molecular	Pis v 2	11S Globulin subunit	0.22
	Molecular	Pis v 3	7/8S Globulin	≤ 0.10
Almond	Extract	Pru du		0.19

Seed

Name	E/M	Allergen	Protein Family	kUA/L
Pumpkin seed	Extract	Cuc p		≤ 0.10
Sunflower seed	Extract	Hel a		≤ 0.10
Poppy seed	Extract	Pap s		≤ 0.10
	Molecular	Pap s 2S Albumin	2S Albumin	≤ 0.10
Sesame	Extract	Ses i		≤ 0.10
	Molecular	Ses i 1	2S Albumin	≤ 0.10
Fenugreek seeds	Extract	Tri fo		≤ 0.10

ANIMAL FOOD

Milk

Name	E/M	Allergen	Protein Family	kU$_A$/L
Cow, milk	Allergen Extract	Bos d_milk		0.26
	Molecular Allergen	Bos d 4	α-Lactalbumin	≤ 0.10
	Molecular Allergen	Bos d 5	β-Lactoglobulin	≤ 0.10
	Molecular Allergen	Bos d 8	Casein	0.63
Camel	Allergen Extract	Cam d		≤ 0.10
Goat, milk	Allergen Extract	Cap h_milk		0.21
Mare's milk	Allergen Extract	Equ c_milk		≤ 0.10
Sheep, milk	Allergen Extract	Ovi a_milk		0.35

Egg

Name	E/M	Allergen	Protein Family	kU$_A$/L
Egg white	Allergen Extract	Gal d_white		0.48
Egg yolk	Allergen Extract	Gal d_yolk		0.14
Egg white	Molecular Allergen	Gal d 1	Ovomucoid	≤ 0.10
	Molecular Allergen	Gal d 2	Ovalbumin	0.38
	Molecular Allergen	Gal d 3	Ovotransferrin	0.22
	Molecular Allergen	Gal d 4	Lysozym C	≤ 0.10
Egg yolk	Molecular Allergen	Gal d 5	Serum Albumin	≤ 0.10

Seafood

Name	E/M	Allergen	Protein Family	kU$_A$/L
Herring worm	Molecular Allergen	Ani s 1	Kunitz Serin Protease Inhibitor	≤ 0.10
	Molecular Allergen	Ani s 3	Tropomyosin	0.16
Crab	Allergen Extract	Chi spp.		≤ 0.10
Herring	Allergen Extract	Clu h		0.30
	Molecular Allergen	Clu h 1	β-Parvalbumin	1.06
Brown shrimp	Molecular Allergen	Cra c 6	Troponin C	≤ 0.10
Carp	Molecular Allergen	Cyp c 1	β-Parvalbumin	0.83
Atlantic cod	Allergen Extract	Gad m		0.10
	Molecular Allergen	Gad m 2+3	β-Enolase & Aldolase	≤ 0.10
	Molecular Allergen	Gad m 1	β-Parvalbumin	0.41
Lobster	Allergen Extract	Hom g		≤ 0.10
Shrimp	Allergen Extract	Lit s		0.19
Squid	Allergen Extract	Lol spp.		≤ 0.10
Common mussel	Allergen Extract	Myt e		≤ 0.10
Oyster	Allergen Extract	Ost e		≤ 0.10
Shrimp	Allergen Extract	Pan b		≤ 0.10
Scallop	Allergen Extract	Pec spp.		≤ 0.10
Black Tiger Shrimp	Molecular Allergen	Pen m 1	Tropomyosin	0.23

Allergen Extract   Molecular Allergen   IgE < 0.3 negative or uncertain

Name	E/M	Allergen	Protein Family	kU$_A$/L
	Molecular Allergen	Pen m 2	Arginine kinase	2.61
	Molecular Allergen	Pen m 3	Myosin, light chain	0.91
	Molecular Allergen	Pen m 4	Sarcoplasmic Calcium Binding Protein	0.12
Thornback ray	Allergen Extract	Raj c		≤ 0.10
	Molecular Allergen	Raj c Parvalbumin	α-Parvalbumin	≤ 0.10
Clam	Allergen Extract	Rud spp.		≤ 0.10
Salmon	Allergen Extract	Sal s		0.17
	Molecular Allergen	Sal s 1	β-Parvalbumin	0.98
Atlantic mackerel	Allergen Extract	Sco s		≤ 0.10
	Molecular Allergen	Sco s 1	β-Parvalbumin	1.98
Tuna	Allergen Extract	Thu a		≤ 0.10
	Molecular Allergen	Thu a 1	β-Parvalbumin	1.83
Swordfish	Molecular Allergen	Xip g 1	β-Parvalbumin	1.85

Meat

Name	E/M	Allergen	Protein Family	kU$_A$/L
House cricket	Allergen Extract	Ach d		≤ 0.10
Cattle, meat	Allergen Extract	Bos d_meat		≤ 0.10
	Molecular Allergen	Bos d 6	Serum Albumin	0.23
Horse, meat	Allergen Extract	Equ c_meat		≤ 0.10
Chicken meat	Allergen Extract	Gal d_meat		≤ 0.10
Migratory locust	Allergen Extract	Loc m		1.31
Turkey	Allergen Extract	Mel g		≤ 0.10
Rabbit, meat	Allergen Extract	Ory_meat		≤ 0.10
Sheep, meat	Allergen Extract	Ovi a_meat		0.13
Pork	Allergen Extract	Sus d_meat		≤ 0.10
	Molecular Allergen	Sus d 1	Serum Albumin	1.48
Mealworm	Allergen Extract	Ten m		≤ 0.10

INSECTS & VENOMS

Fire ant poison

Name	E/M	Allergen	Protein Family	kU$_A$/L
Fire ant	Allergen Extract	Sol spp.		0.31

Honey Bee Venom

Name	E/M	Allergen	Protein Family	kU$_A$/L
Honey bee	Allergen Extract	Api m		0.11
	Molecular Allergen	Api m 1	Phospholipase A2	≤ 0.10
	Molecular Allergen	Api m 10	Icarapin Variant 2	≤ 0.10

Name	E/M	Allergen	Protein Family	kU$_A$/L

Wasp Venom

Name	E/M	Allergen	Protein Family	kU$_A$/L
Hornet	Allergen Extract	Dol spp		≤ 0.10
Paper wasp venom	Allergen Extract	Pol d		≤ 0.10
	Molecular Allergen	Pol d 5	Antigen 5	0.23
Wasp venom	Allergen Extract	Ves v		≤ 0.10
	Molecular Allergen	Ves v 1	Phospholipase A1	≤ 0.10
	Molecular Allergen	Ves v 5	Antigen 5	0.21

Cockroach

Name	E/M	Allergen	Protein Family	kU$_A$/L
German Cockroach	Molecular Allergen	Bla g 1	Cockroach Group 1	20.47
	Molecular Allergen	Bla g 2	Aspartyl protease	≤ 0.10
	Molecular Allergen	Bla g 4	Lipocalin	≤ 0.10
	Molecular Allergen	Bla g 5	Glutathione S-transferase	≤ 0.10
	Molecular Allergen	Bla g 9	Arginine kinase	5.57
American Cockroach	Allergen Extract	Per a		2.87
	Molecular Allergen	Per a 7	Tropomyosin	≤ 0.10

ANIMAL ORIGIN

Pet

Name	E/M	Allergen	Protein Family	kU$_A$/L
Dog	Molecular Allergen	Can f_Fd1	Uteroglobin	5.74
Male dog urine (incl. Can f 5)	Allergen Extract	Can f_male urine		3.34
Dog	Molecular Allergen	Can f 1	Lipocalin	6.84
	Molecular Allergen	Can f 2	Lipocalin	5.57
	Molecular Allergen	Can f 3	Serum Albumin	6.10
	Molecular Allergen	Can f 4	Lipocalin	7.97
	Molecular Allergen	Can f 6	Lipocalin	7.77
Guinea pig	Molecular Allergen	Cav p 1	Lipocalin	≤ 0.10
Cat	Molecular Allergen	Fel d 1	Uteroglobin	5.99
	Molecular Allergen	Fel d 2	Serum Albumin	2.84
	Molecular Allergen	Fel d 4	Lipocalin	2.36
	Molecular Allergen	Fel d 7	Lipocalin	1.70
House mouse	Molecular Allergen	Mus m 1	Lipocalin	0.76
Rabbit, epithel	Molecular Allergen	Ory c 1	Lipocalin	≤ 0.10
	Molecular Allergen	Ory c 2	Lipophilin	≤ 0.10
	Molecular Allergen	Ory c 3	Uteroglobin	≤ 0.10
Djungarian hamster	Molecular Allergen	Phod s 1	Lipocalin	≤ 0.10

Name	E/M	Allergen	Protein Family	kUA/L
Rat	Allergen Extract	Rat n		0.22

Farm Animals

Name	E/M	Allergen	Protein Family	kUA/L
Cattle	Molecular Allergen	Bos d 2	Lipocalin	≤ 0.10
Goat, epithel	Allergen Extract	Cap h_epithelia		0.87
Horse, epithel	Molecular Allergen	Equ c 1	Lipocalin	2.71
	Molecular Allergen	Equ c 3	Serum Albumin	0.30
	Molecular Allergen	Equ c 4	Latherin	≤ 0.10
Sheep, epithel	Allergen Extract	Ovi a_epithelia		≤ 0.10
Pig	Allergen Extract	Sus d_epithelia		0.77

OTHERS

Latex

Name	E/M	Allergen	Protein Family	kUA/L
Latex	Molecular Allergen	Hev b 1	Rubber elongation factor	≤ 0.10
	Molecular Allergen	Hev b 3	Small rubber particle protein	≤ 0.10
	Molecular Allergen	Hev b 5	unknown	0.49
	Molecular Allergen	Hev b 6.02	Hevein	≤ 0.10
	Molecular Allergen	Hev b 8	Profilin	0.12
	Molecular Allergen	Hev b 11	Class 1 Chitinase	≤ 0.10

Ficus

Name	E/M	Allergen	Protein Family	kUA/L
Weeping fig	Allergen Extract	Fic b		≤ 0.10

CCD

Name	E/M	Allergen	Protein Family	kUA/L
Hom s Lactoferrin	Molecular Allergen	Hom s LF	CCD	≤ 0.10

Parasite

Name	E/M	Allergen	Protein Family	kUA/L
Pigeon tick	Molecular Allergen	Arg r 1	Lipocalin	≤ 0.10

Total IgE: 351 kU/L

Normal Total-IgE
Adults: < 100 kU/L

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Information to cross-reactive allergens

Polcalcins

Polcalcins show a very high degree of cross-reactivity.

Polcalcins are calcium binding proteins only expressed in mature pollen. Positive sIgE results against polcalcines can be considered a marker of polysensitization with unknown clinical relevance for respiratory symptoms.

Profilins

Profilins show a very high degree of cross-reactivity.

Depending on the population, up to 50% of pollen allergics are sensitized to profilin (higher rate in Mediterranean countries, lower rate in Northern Europe). The sensitization to profilin can cause inhalative symptoms. Up to 50% of profilin sensitized patients may have food allergy - oral allergy syndrome in most cases. Raw tomato, melon, watermelon, and citrus fruits are typically associated with profilin. Profilins are not stable to processing.

PR-10

PR-10 allergens show a high degree of cross-reactivity.

PR-10 inhalative:
The major birch pollen allergen, Bet v 1, represents the prototype of all PR-10 allergens and is the primary sensitizer in regions with birch pollen exposure. The presence of PR-10 allergens in Fagales tree pollen explains IgE cross-reactivity between pollen from hazel, alder, beech, oak and hornbeam.
PR-10 nutritive:
PR-10 allergens in raw fruits, nuts, vegetable and legumes can induce oral allergy syndrome and sometimes severe allergic reactions in sensitized individuals, if a high amount of the respective allergen is consumed. PR-10 allergens are not stable to processing.

nsLTPs

nsLTPs show a high degree of cross-reactivity within plant family borders (e.g. stone-fruit, Rosaceae).

nsLTPs are the most prevalent plant-food allergens in Southern Europe. The clinical reactions can be systemic and severe, especially when not associated to birch pollinosis. Pru p 3, the major allergen of peach, plays a precursor role in the sensitization to other nsLTPs. Relevant nsLTPs containing plant-foods belong not only to Rosaceae family (incl. stone- and pomaceous fruit), but also to the nuts and legumes group, as well as to cereals such as wheat, maize and rice. nsLTPs are stable to processing.

Storage proteins (2S Albumins, 7/8S Globulins, 11S Globulins)

Storage proteins show a limited degree of cross-reactivity.

Storage proteins are major allergens in legumes (e.g. peanut or soy), tree nuts (e.g. wal- or hazelnut) and other seeds (e.g. buckwheat, sesame, mustard). Storage proteins are the major cause of severe allergic reactions, including anaphylaxis. Storage proteins are stable to processing.

Lipocalins

Lipocalins show a limited degree of cross-reactivity.

Lipocalins are airborne and easily spread in indoor environments. They are a risk factor for respiratory symptoms and asthma. The impact of individual lipocalin allergens on severity of symptoms is unknown.

Serum Albumins

Serum albumins show a very high degree of cross-reactivity.

Serum albumins represent a minor respiratory allergen of animal dander. Serum albumins are also implicated in rare allergic diseases like pork-cat and bird-egg syndrome. Meat and milk allergen: May elicit severe symptoms upon ingestion of uncooked or unboiled food, not stable to processing.

Parvalbumins

Parvalbumins show a very high degree of cross-reactivity.

Clinical cross-reactivity between different fish species is explained by highly conserved parvalbumin IgE epitopes. Parvalbumins are food and respiratory allergens and can cause severe allergic reactions. Parvalbumins are stable to processing.

Tropomyosins

Tropomyosins show a very high degree of cross-reactivity.

Tropomyosins can induce diverse symptoms including anaphylaxis. Sensitization to tropomyosins can occur by ingestion (seafood), inhalation (mites, cockroaches) or parasite infection (ascariasis, anisakiasis). Tropomyosins are stable to processing.

NPC2

NPC2 allergens show a limited degree of cross-reactivity.

Members of the NPC2 family are present in house dust- and storage mites. The cross-reactivity between Der f 2 and Der p 2 is quite extensive. NPC2 allergens from storage mites show only a limited degree of cross-reactivity to their pendants in house dust mites.

Uteroglobin

Uteroglobins show a limited degree of cross-reactivity.

Uteroglobins are generated in salivary glands and in the skin of some furry animals. Higher levels of sIgE against Uteroglobins were observed in children with asthma to cat.

Arginine kinase

Arginine kinases show a very high degree of cross-reactivity.

Arginine kinases from food sources can elicit allergic reactions. Sensitizations against Arginine kinases can occur after ingestion (seafood) and inhalation (cockroaches, mites, seafood). Arginine kinases are not stable towards heat and digestion.

ALEX² – Number of tested allergen sources: 295

GRASS POLLEN 6
Bahia grass, Bermuda grass, Common reed, Perennial ryegrass, Rye, Timothy grass

TREE POLLEN 19
Acacia, Alder, Arizona Cypress, European Ash, Beech, Cottonwood, Date palm, Elm, Hazel, London Plane Tree, Mediterranean Cypress, Mountain cedar, Mulberry, Olive, Paper mulberry, Silver birch, Sugi, Tree of Heaven, Walnut

WEED POLLEN 10
Annual mercury, Hemp, Lamb's quarter, Mugwort, Nettle, Pigweed, Ragweed, Ribwort, Russian thistle, Wall pellitory

HOUSE DUST MITES & STORAGE MITES 7
Acarus siro, American house dust mite, Blomia tropicalis, European house dust mite, Glycyphagus domesticus, Lepidoglyphus destructor, Tyrophagus putrescentiae

LEGUMES 6
Chickpea, White bean, Lentil, Pea, Peanut, Soy

GRAINS 11
Barley, Buckwheat, Corn, Cultivated rye, Lupine, Millet, Oat, Quinoa, Rice, Spelt, Wheat

SPICES 6
Anise, Caraway, Mustard, Oregano, Paprika, Parsley

FRUITS 15
Avocado, Apple, Banana, Blueberry, Cherry, Fig, Grape, Kiwi, Mango, Muskmelon, Orange, Papaya, Peach, Pear, Strawberry

VEGETABLES 6
Carrot, Celery, Garlic, Onion, Potato, Tomato

NUTS & SEEDS 13
Almond, Brazil nut, Cashew, Hazelnut, Macadamia, Pecan, Pistachio, Walnut, Fenugreek seeds, Poppy seed, Pumpkin seed, Sesame, Sunflower seed

COCKROACH 2
American cockroach, German cockroach

INSECT VENOMS 5
Common wasp venom, Fire ant venom, Honeybee venom, Long-headed wasp venom, Paper wasp venom

FUNGAL SPORES & YEAST 6
Alternaria alternata, Aspergillus fumigatus, Baker's yeast, Cladosporium herbarum, Malassezia sympodialis, Penicilium chrysogenum

MILK 5
Camel's milk, Cow's milk, Goat's milk, Mare's milk, Sheep's milk

EGG 2
Egg white, Egg yolk

FISH & SEAFOOD 20
Anisakis simplex, Atlantic cod, Atlantic herring, Atlantic mackerel, Black-Tiger shrimp, Brown shrimp, Carp, Common mussel, Crab, Lobster, Northern prawn, Oyster, Salmon, Scallop, Shrimp mix, Squid, Swordfish, Thornback ray, Tuna, Venus clam

MEAT 10
Beef, Chicken, Horse, House cricket, Lamb, Mealworm, Migratory locust, Pig, Rabbit, Turkey

PETS 7
Cat, Djungarian hamster, Dog, Guinea pig, Mouse, Rabbit, Rat

FARM ANIMALS 5
Cattle, Goat, Horse, Pig, Sheep

OTHERS 4
Latex, Hom s lactoferrin, Pigeon tick, Weeping fig