

PATIENT CODE

20260230-0020

PATIENT NAME

Ima Sample

DATE OF BIRTH

11/13/2000

DOCTOR INFORMATION



ANALYSIS DATE



ADDITIONAL INFORMATION

PT 2

Total IgE result: 37 kU/L

Reference range total-IgE
Adults < 100 kU/L

LAB REPORT

Summary of detectable sensitisations



POLLEN

Grass Pollen



Tree Pollen



Weed Pollen



MITES

House Dust Mites & Storage Mites



DANDER & EPITHELIA

Farm Animals



Pets



MICROORGANISMS

Fungal Spores & Yeast



INSECTS

Cockroach



VENOMS

Ant, Bee, Wasp



PLANT BASED FOOD

Fruits



Grain



Legumes



Nuts & Seeds



Spices



Vegetables



ANIMAL BASED FOOD

Egg



Fish & Seafood



Meat



Milk



OTHERS

Alpha Gal



CCD



Ficus



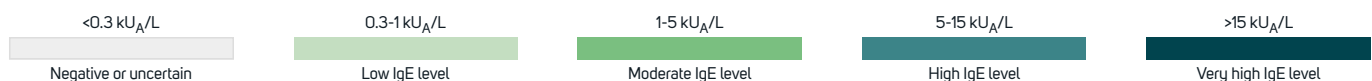
Latex



Parasite



Measured IgE concentration ranges per allergen group



Summary of all results. Please note that no components were added to the respective extracts (i.e., the extracts were not spiked).

Pollen

Grass Pollen

Name	E/M	Allergen	Allergen family	kU _A /L
Bahia grass		Pas n		 < 0.10
Bermuda grass		Cyn d 1	β Expansin	 0.74
Common reed		Phr c		 < 0.10
Maize, pollen		Zea m 1	β Expansin	 < 0.10
Rye, pollen		Sec c_pollen		 < 0.10
Timothy		Phl p 1	β Expansin	 < 0.10
		Phl p 12	Profilin	 < 0.10
		Phl p 2	Expansin	 < 0.10
		Phl p 5.0101	Grass Group 5/6	 < 0.10
		Phl p 6	Grass Group 5/6	 < 0.10
		Phl p 7	Polcalcin	 < 0.10

Tree Pollen

Name	E/M	Allergen	Allergen family	kU _A /L
Acacia		Aca m		 < 0.10
Alder		Aln g 1	PR 10	 1.34
		Aln g 4	Polcalcin	 < 0.10
Arizona cypress		Cup a 1	Pectate Lyase	 < 0.10
Ash		Fra e 1	Ole e 1 Family	 < 0.10
Cypress		Cup s		 < 0.10
London plane tree		Pla a 1	Plant Invertase	 < 0.10
		Pla a 2	Polygalacturonase	 < 0.10
		Pla a 3	nsLTP	 < 0.10
Mountain cedar		Jun a		 < 0.10
Oak		Que a 1	PR 10	 0.27
Olive		Ole e 1	Ole e 1 Family	 < 0.10
		Ole e 7	nsLTP	 < 0.10
		Ole e 9	1,3 β Glucanase	 < 0.10
Paper mulberry		Bro pa		 < 0.10
Silver birch		Bet v 1	PR 10	 < 0.10
		Bet v 6	Isoflavon Reductase	 < 0.10
		Bet v 7	Cyclophilin	 < 0.10

Name	E/M	Allergen	Allergen family	kU _A /L
Sugi		Cry j 1	Pectate Lyase	< 0.10
Tree of heaven		Ail a		< 0.10
Walnut		Jug r_pollen		< 0.10

Weed Pollen

Name	E/M	Allergen	Allergen family	kU _A /L
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	0.60
Mugwort		Art v		< 0.10
		Art v 1	Plant Defensin	< 0.10
		Art v 3	nsLTP	0.48
Pigweed		Ama r		< 0.10
Ragweed		Amb a		< 0.10
		Amb a 1	Pectate Lyase	< 0.10
		Amb a 4	Plant Defensin	< 0.10
Ribwort		Pla l 1	Ole e 1 Family	2.09
Russian thistle		Sal k		< 0.10
		Sal k 1	Pectin Methylesterase	< 0.10
		Sal k 5	Ole e 1 Family	0.85
Wall pellitory		Par j		< 0.10
		Par j 2	nsLTP	< 0.10

Mites

House Dust Mites & Storage Mites

Name	E/M	Allergen	Allergen family	kU _A /L
Acarus siro		Aca s		< 0.10
American house dust mite		Der f 1	Cysteine Protease	< 0.10
		Der f 15	Chitinase	< 0.10
		Der f 18	Chitinase-like Protein	< 0.10
		Der f 2	NPC2 Family	< 0.10
Blomia tropicalis		Blo t 10	Tropomyosin	< 0.10
		Blo t 21	Mite Group 5/21	0.74
		Blo t 5	Mite Group 5/21	< 0.10
		Blo t 2	NPC2 Family	< 0.10
European house dust mite		Der p 1	Cysteine Protease	< 0.10
		Der p 10	Tropomyosin	< 0.10

Name	E/M	Allergen	Allergen family	kU _A /L
		Der p 2	NPC2 Family	 < 0.10
		Der p 20	Arginine Kinase	 < 0.10
		Der p 21	Mite Group 5/21	 < 0.10
		Der p 23	Peritrophin-like Protein Domain	 < 0.10
		Der p 5	Mite Group 5/21	 1.27
		Der p 7	Mite Group 7	 < 0.10
Glycyphagus domesticus		Gly d 2	NPC2 Family	 0.50
Lepidoglyphus destructor		Lep d 2	NPC2 Family	 < 0.10
Tyrophagus putrescentiae		Tyr p		 < 0.10
		Tyr p 10	Tropomyosin	 < 0.10
		Tyr p 2	NPC2 Family	 < 0.10

Dander & Epithelia

Farm Animals

Name	E/M	Allergen	Allergen family	kU _A /L
Cattle		Bos d 2	Lipocalin	 < 0.10
Goat		Cap h_epithelia		 < 0.10
Horse		Equ c 1	Lipocalin	 < 0.10
		Equ c 3	Serum Albumin	 < 0.10
		Equ c 4	Latherin	 0.20
Pig		Sus d_epithelia		 < 0.10

Pets

Name	E/M	Allergen	Allergen family	kU _A /L
Cat		Fel d 1	Uteroglobin	 < 0.10
		Fel d 2	Serum Albumin	 < 0.10
		Fel d 4	Lipocalin	 < 0.10
		Fel d 7	Lipocalin	 < 0.10
Djungarian hamster		Phod s 1	Lipocalin	 < 0.10
Dog		Can f 1	Lipocalin	 < 0.10
		Can f 2	Lipocalin	 < 0.10
		Can f 3	Serum Albumin	 < 0.10
		Can f 4	Lipocalin	 < 0.10
		Can f 6	Lipocalin	 < 0.10
		Can f Fel d 1 like	Uteroglobin	 < 0.10
Dog urine (incl. Can f 5)		Can f_male urine		 < 0.10
Golden hamster		Mes a 1	Lipocalin	 < 0.10

Name	E/M	Allergen	Allergen family	kU _A /L			
Guinea pig		Cav p 1	Lipocalin				< 0.10
Mouse		Mus m 1	Lipocalin				< 0.10
Rabbit		Ory c 1	Lipocalin				< 0.10
		Ory c 2	Lipocalin				< 0.10
		Ory c 3	Uteroglobin				< 0.10
Rat		Rat n 1	Lipocalin				< 0.10

Microorganisms

Fungal Spores & Yeast

Name	E/M	Allergen	Allergen family	kU _A /L			
Alternaria alternata		Alt a 1	Alt a 1 Family				< 0.10
		Alt a 6	β Enolase				0.44
Aspergillus fumigatus		Asp f 1	Mitogillin Family				0.75
		Asp f 3	Peroxisomal Protein				< 0.10
		Asp f 4	Unknown				< 0.10
		Asp f 6	Mn Superoxide Dismutase				< 0.10
		Asp f 8	Ribosomal Protein P2				< 0.10
Cladosporium herbarum		Cla h					< 0.10
		Cla h 8	Mannitol Dehydrogenase				1.58
Malassezia sympodialis		Mala s 11	Mn Superoxide Dismutase				< 0.10
		Mala s 13	Thioredoxin				< 0.10
		Mala s 5	Unknown				< 0.10
		Mala s 6	Cyclophilin				< 0.10
Penicilium chrysogenum		Pen ch					< 0.10

Insects

Cockroach

Name	E/M	Allergen	Allergen family	kU _A /L			
American cockroach		Per a					< 0.10
		Per a 6	Troponin C				< 0.10
		Per a 7	Tropomyosin				< 0.10
German cockroach		Bla g 1	Nitrile Specifier				< 0.10
		Bla g 2	Aspartic Protease				< 0.10
		Bla g 4	Lipocalin				< 0.10
		Bla g 5	Glutathione S-Transferase				< 0.10
		Bla g 9	Arginine Kinase				< 0.10

Venoms

Ant, Bee, Wasp

Name	E/M	Allergen	Allergen family	kU _A /L
Bald-faced Hornet		Dol m 2	Hyaluronidase	< 0.10
		Dol m 5	Antigen 5	0.11
Common wasp		Ves v 1	Phospholipase A1	< 0.10
		Ves v 5	Antigen 5	< 0.10
Fire ant		Sol spp		< 0.10
Honey bee		Api m		< 0.10
		Api m 1	Phospholipase A2	< 0.10
		Api m 10	Icarapin Variant 2	< 0.10
		Api m 2	Hyaluronidase	< 0.10
Paper wasp		Pol d		< 0.10
		Pol d 5	Antigen 5	< 0.10

Plant Based Food

Fruits

Name	E/M	Allergen	Allergen family	kU _A /L
Apple		Mal d 1	PR 10	< 0.10
		Mal d 3	nsLTP	0.86
Avocado		Pers a		< 0.10
		Pers a 1	Class 1 Chitinase	0.72
Banana		Mus a 2	Class 1 Chitinase	0.14
		Mus a 5	1,3 β Glucanase	< 0.10
Cherry		Pru av 3	nsLTP	0.59
Coconut		Coc n 1	7/8S Globulin	< 0.10
Fig		Fic c		< 0.10
Grape		Vit v 1	nsLTP	0.76
Kiwi		Act d 1	Cysteine Protease	< 0.10
		Act d 10	nsLTP	3.78
		Act d 2	Thaumatococcus-like Protein	< 0.10
		Act d 5	Kiwelin	0.28
Mango		Man i 1	Class 4 Chitinase	< 0.10
Muskmelon		Cuc m 2	Profilin	< 0.10
Papaya		Car p		< 0.10
Peach		Pru p 3	nsLTP	< 0.10
		Pru p 7	Gibberellin-regulated Protein	0.44

Name	E/M	Allergen	Allergen family	kU _A /L
Pear	⋮	Pyr c		< 0.10
Strawberry	⊙	Fra a 3	nsLTP	< 0.10

Grain

Name	E/M	Allergen	Allergen family	kU _A /L
Barley	⋮	Hor v		< 0.10
Buckwheat	⋮	Fag e		< 0.10
	⊙	Fag e 2	2S Albumin	< 0.10
Cultivated rye	⋮	Sec c_flour		< 0.10
Lupine seed	⋮	Lup a		< 0.10
Maize	⊙	Zea m 14	nsLTP	< 0.10
Maize, pollen	⋮	Zea m		< 0.10
Millet	⋮	Pan m		< 0.10
Oat	⋮	Ave s		< 0.10
Quinoa	⋮	Che q		< 0.10
Spelt	⋮	Tri s		< 0.10
Wheat	⊙	Tri a 14	nsLTP	< 0.10
	⊙	Tri a 19	Ω 5 Gliadin	0.41
	⊙	Tri a 36	Low Molecular Weight Glutenin	< 0.10
	⊙	Tri a 37	α Purothionin	< 0.10
	⊙	Tri a aA_Tl	α Amylase Trypsin-Inhibitor	< 0.10

Legumes

Name	E/M	Allergen	Allergen family	kU _A /L
Chickpea	⋮	Cic a		< 0.10
Lentil	⊙	Len c 1	7/8S Globulin	< 0.10
	⊙	Len c 3	nsLTP	0.26
Pea	⊙	Pis s 1	7/8S Globulin	< 0.10
	⊙	Pis s 2	7/8S Globulin	< 0.10
	⊙	Pis s 3	nsLTP	1.05
Peanut	⊙	Ara h 1	7/8S Globulin	< 0.10
	⊙	Ara h 15	Oleasin	< 0.10
	⊙	Ara h 18	Cyclophilin	< 0.10
	⊙	Ara h 2	2S Albumin	0.79
	⊙	Ara h 3	11S Globulin	< 0.10
	⊙	Ara h 6	2S Albumin	0.22
	⊙	Ara h 8	PR 10	< 0.10
	⊙	Ara h 9	nsLTP	< 0.10
Soy	⊙	Gly m 4	PR 10	< 0.10

Name	E/M	Allergen	Allergen family	kU _A /L
		Gly m 5	7/8S Globulin	 < 0.10
		Gly m 6	11S Globulin	 < 0.10
		Gly m 8	2S Albumin	 < 0.10

Nuts & Seeds

Name	E/M	Allergen	Allergen family	kU _A /L
Almond		Pru du		 < 0.10
		Pru du 6	11S Globulin	 < 0.10
Brazil nut		Ber e		 < 0.10
		Ber e 1	2S Albumin	 0.99
Cashew		Ana o 1	7/8S Globulin	 < 0.10
		Ana o 2	11S Globulin	 1.48
		Ana o 3	2S Albumin	 < 0.10
Hazelnut		Cor a 1.0401	PR 10	 < 0.10
		Cor a 11	7/8S Globulin	 < 0.10
		Cor a 14	2S Albumin	 0.23
		Cor a 8	nsLTP	 1.87
		Cor a 9	11S Globulin	 < 0.10
Macadamia		Mac i 1.0101 (28-76)	α Hairpinin	 < 0.10
		Mac i		 < 0.10
Pecan		Car i		 < 0.10
		Car i 1	2S Albumin	 1.00
		Car i 2 (256-386)	7/8S Globulin	 < 0.10
		Car i 4	11S Globulin	 0.73
Pine nut		Pin p		 < 0.10
		Pin p 1	2S Albumin	 < 0.10
Pistachio		Pis v 1	2S Albumin	 < 0.10
		Pis v 2	11S Globulin	 < 0.10
		Pis v 3	7/8S Globulin	 < 0.10
Poppy seed		Pap s		 < 0.10
		Pap s 1.0101 (27-846)	α Hairpinin	 < 0.10
Pumpkin seed		Cuc p		 < 0.10
Sesame		Ses i		 < 0.10
		Ses i 1	2S Albumin	 < 0.10
Sunflower seed		Hel a		 < 0.10
		Hel a 3	nsLTP	 < 0.10
Walnut		Jug r 1	2S Albumin	 0.36
		Jug r 2	7/8S Globulin	 1.66
		Jug r 3	nsLTP	 < 0.10

Name	E/M	Allergen	Allergen family	kU _A /L				
		Jug r 4	11S Globulin					< 0.10
		Jug r 6	7/8S Globulin					< 0.10

Spices

Name	E/M	Allergen	Allergen family	kU _A /L				
Mustard		Sin a						< 0.10
		Sin a 1	2S Albumin					< 0.10

Vegetables

Name	E/M	Allergen	Allergen family	kU _A /L				
Celery		Api g 1	PR 10					< 0.10
		Api g 2	nsLTP					< 0.10
		Api g 6	nsLTP					< 0.10
		Api g 7	Plant Defensin					< 0.10
Garlic		All s						< 0.10
Onion		All c						< 0.10
Potato		Sol t						< 0.10
Tomato		Sola l						< 0.10
		Sola l 6	nsLTP					0.69

Animal Based Food

Egg

Name	E/M	Allergen	Allergen family	kU _A /L				
Egg white		Gal d 1	Ovomucoid					< 0.10
		Gal d 2	Ovalbumin					< 0.10
		Gal d 3	Ovotransferrin					< 0.10
		Gal d 4	Lysozyme C					< 0.10
		Gal d_white						< 0.10
Egg yolk		Gal d 5	Serum Albumin					< 0.10
		Gal d_yolk						< 0.10

Fish & Seafood

Name	E/M	Allergen	Allergen family	kU _A /L				
Anisakis simplex		Ani s 1	Kunitz Serine Protease Inhibitor					< 0.10
		Ani s 3	Tropomyosin					< 0.10
Atlantic cod		Gad m 1	β Parvalbumin					< 0.10

Name	E/M	Allergen	Allergen family	kU _A /L			
Atlantic mackerel	☐	Sco s		☐	☐	☐	< 0.10
	●	Sco s 1	β Parvalbumin	☐	☐	☐	< 0.10
Black tiger shrimp	●	Pen m 1	Tropomyosin	☐	☐	☐	< 0.10
	●	Pen m 2	Arginine Kinase	☐	☐	☐	< 0.10
	●	Pen m 3	Myosin Light Chain	☐	☐	☐	< 0.10
	●	Pen m 4	Sarcoplasmic Calcium-binding Protein	☐	☐	☐	< 0.10
Brown shrimp	●	Cra c 6	Troponin C	☐	☐	☐	< 0.10
Carp	●	Cyp c 1	β Parvalbumin	☐	☐	☐	< 0.10
	●	Cyp c 2	β Enolase	☐	☐	☐	< 0.10
Crab	☐	Chi spp		☐	☐	☐	< 0.10
Giant freshwater prawn	●	Mac r 1	Tropomyosin	☐	☐	☐	< 0.10
	●	Mac r 2	Arginine Kinase	☐	☐	☐	< 0.10
Herring	☐	Clu h		☐	☐	☐	< 0.10
	●	Clu h 1	β Parvalbumin	☐	☐	☐	< 0.10
Lobster	☐	Hom g		☐	☐	☐	< 0.10
Northern prawn	☐	Pan b		☐	☐	☐	< 0.10
Salmon	☐	Sal s		☐	☐	☐	< 0.10
	●	Sal s 1	β Parvalbumin	■	☐	☐	0.81
	●	Sal s 6	Collagen	☐	☐	☐	< 0.10
Shrimp	☐	Lit spp		☐	☐	☐	< 0.10
Squid	☐	Lol spp		☐	☐	☐	< 0.10
Swordfish	●	Xip g 1	β Parvalbumin	☐	☐	☐	< 0.10
Thornback ray	☐	Raj c		☐	☐	☐	< 0.10
	●	Raj c Parvalbumin	α Parvalbumin	☐	☐	☐	< 0.10
Tuna	●	Thu a 1	β Parvalbumin	☐	☐	☐	< 0.10
Venus clam	☐	Rud spp		☐	☐	☐	< 0.10
Whiteleg shrimp	●	Lit v 7	Hemocyanin	☐	☐	☐	< 0.10

Meat

Name	E/M	Allergen	Allergen family	kU _A /L			
Beef	●	Bos d 6	Serum Albumin	☐	☐	☐	< 0.10
	☐	Bos d_meat		☐	☐	☐	< 0.10
Chicken	●	Gal d 7	Myosin Light Chain	☐	☐	☐	< 0.10
	☐	Gal d_meat		☐	☐	☐	< 0.10
Horse	☐	Equ c_meat		☐	☐	☐	< 0.10
House cricket	☐	Ach d		☐	☐	☐	< 0.10
Lamb	☐	Ovi a_meat		☐	☐	☐	< 0.10
Mealworm	☐	Ten m		☐	☐	☐	< 0.10
Migratory locust	☐	Loc m		☐	☐	☐	< 0.10

Name	E/M	Allergen	Allergen family	kU _A /L
Pig	☒	Sus d 1	Serum Albumin	< 0.10
Rabbit	☐	Ory c_meat		< 0.10
Turkey	☐	Mel g		< 0.10

Milk

Name	E/M	Allergen	Allergen family	kU _A /L
Camel's milk	☐	Cam d		< 0.10
Cow's milk	☒	Bos d 10	α S2 Casein	< 0.10
	☒	Bos d 11	β Casein	< 0.10
	☒	Bos d 12	κ Casein	< 0.10
	☒	Bos d 4	α Lactalbumin	< 0.10
	☒	Bos d 5	β Lactoglobulin	< 0.10
	☒	Bos d 8	Casein	< 0.10
	☒	Bos d 9	α S1 Casein	< 0.10
	☐	Bos d_milk		< 0.10
Goat's milk	☐	Cap h_milk		< 0.10
Mare's milk	☐	Equ c_milk		< 0.10
Sheep's milk	☐	Ovi a_milk		< 0.10

Others

Alpha Gal

Name	E/M	Allergen	Allergen family	kU _A /L
Alpha Gal	☒	Alpha-GAL	α-Gal	< 0.10

CCD

Name	E/M	Allergen	Allergen family	kU _A /L
Hom s Lactoferrin	☒	Hom s LF	CCD	< 0.10

Ficus

Name	E/M	Allergen	Allergen family	kU _A /L
Weeping fig	☐	Fic b		< 0.10

Latex

Name	E/M	Allergen	Allergen family	kU _A /L
Latex	☒	Hev b 1	Rubber Elongation Factor	< 0.10
	☒	Hev b 11	Class 1 Chitinase	< 0.10

Name	E/M	Allergen	Allergen family	kU _A /L			
		Hev b 3	Small Rubber Particle Protein				< 0.10
		Hev b 5	Unknown				< 0.10
		Hev b 6.02	Pro-Hevein				1.66

Parasite

Name	E/M	Allergen	Allergen family	kU _A /L			
Pigeon tick		Arg r 1	Lipocalin				< 0.10

Information to cross-reactive allergens

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.

Name	E/M	Allergen	Allergen family	kU _A /L			
Alder		Aln g 1	PR 10				1.34
Apple		Mal d 1	PR 10				< 0.10
Celery		Api g 1	PR 10				< 0.10
Hazelnut		Cor a 1.0401	PR 10				< 0.10
Oak		Que a 1	PR 10				0.27
Peanut		Ara h 8	PR 10				< 0.10
Silver birch		Bet v 1	PR 10				< 0.10
Soy		Gly m 4	PR 10				< 0.10

LTPs

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.

Name	E/M	Allergen	Allergen family	kU _A /L			
Apple		Mal d 3	nsLTP				0.86
Celery		Api g 2	nsLTP				< 0.10
		Api g 6	nsLTP				< 0.10
Cherry		Pru av 3	nsLTP				0.59
Grape		Vit v 1	nsLTP				0.76
Hazelnut		Cor a 8	nsLTP				1.87
Hemp		Can s 3	nsLTP				< 0.10
Kiwi		Act d 10	nsLTP				3.78

Name	E/M	Allergen	Allergen family	kU _A /L	
Lentil		Len c 3	nsLTP		0.26
London plane tree		Pla a 3	nsLTP		< 0.10
Maize		Zea m 14	nsLTP		< 0.10
Mugwort		Art v 3	nsLTP		0.48
Olive		Ole e 7	nsLTP		< 0.10
Pea		Pis s 3	nsLTP		1.05
Peach		Pru p 3	nsLTP		< 0.10
Peanut		Ara h 9	nsLTP		< 0.10
Strawberry		Fra a 3	nsLTP		< 0.10
Sunflower seed		Hel a 3	nsLTP		< 0.10
Tomato		Sola l 6	nsLTP		0.69
Wall pellitory		Par j 2	nsLTP		< 0.10
Walnut		Jug r 3	nsLTP		< 0.10
Wheat		Tri a 14	nsLTP		< 0.10

Storage Proteins

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.

Name	E/M	Allergen	Allergen family	kU _A /L	
Almond		Pru du 6	11S Globulin		< 0.10
Brazil nut		Ber e 1	2S Albumin		0.99
Buckwheat		Fag e 2	2S Albumin		< 0.10
Cashew		Ana o 1	7/8S Globulin		< 0.10
		Ana o 2	11S Globulin		1.48
		Ana o 3	2S Albumin		< 0.10
Coconut		Coc n 1	7/8S Globulin		< 0.10
Hazelnut		Cor a 11	7/8S Globulin		< 0.10
		Cor a 14	2S Albumin		0.23
		Cor a 9	11S Globulin		< 0.10
Lentil		Len c 1	7/8S Globulin		< 0.10
Macadamia		Mac i 1.0101 (28-76)	α Hairpinin		< 0.10
Mustard		Sin a 1	2S Albumin		< 0.10
Pea		Pis s 1	7/8S Globulin		< 0.10
		Pis s 2	7/8S Globulin		< 0.10
Peanut		Ara h 1	7/8S Globulin		< 0.10
		Ara h 15	Oleasin		< 0.10
		Ara h 2	2S Albumin		0.79
		Ara h 3	11S Globulin		< 0.10
		Ara h 6	2S Albumin		0.22

Name	E/M	Allergen	Allergen family	kU _A /L
Pecan		Car i 1	2S Albumin	 1.00
		Car i 2 (256-386)	7/8S Globulin	 < 0.10
		Car i 4	11S Globulin	 0.73
Pine nut		Pin p 1	2S Albumin	 < 0.10
Pistachio		Pis v 1	2S Albumin	 < 0.10
		Pis v 2	11S Globulin	 < 0.10
		Pis v 3	7/8S Globulin	 < 0.10
Poppy seed		Pap s 1.0101 (27-846)	α Hairpinin	 < 0.10
Sesame		Ses i 1	2S Albumin	 < 0.10
Soy		Gly m 5	7/8S Globulin	 < 0.10
		Gly m 6	11S Globulin	 < 0.10
		Gly m 8	2S Albumin	 < 0.10
Walnut		Jug r 1	2S Albumin	 0.36
		Jug r 2	7/8S Globulin	 1.66
		Jug r 4	11S Globulin	 < 0.10
		Jug r 6	7/8S Globulin	 < 0.10

Parvalbumin

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.

Name	E/M	Allergen	Allergen family	kU _A /L
Atlantic cod		Gad m 1	β Parvalbumin	 < 0.10
Atlantic mackerel		Sco s 1	β Parvalbumin	 < 0.10
Carp		Cyp c 1	β Parvalbumin	 < 0.10
Herring		Clu h 1	β Parvalbumin	 < 0.10
Salmon		Sal s 1	β Parvalbumin	 0.81
Swordfish		Xip g 1	β Parvalbumin	 < 0.10
Thornback ray		Raj c Parvalbumin	α Parvalbumin	 < 0.10
Tuna		Thu a 1	β Parvalbumin	 < 0.10

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.

Name	E/M	Allergen	Allergen family	kU _A /L
American house dust mite		Der f 2	NPC2 Family	 < 0.10
Blomia tropicalis		Blo t 2	NPC2 Family	 < 0.10
European house dust mite		Der p 2	NPC2 Family	 < 0.10
Glycyphagus domesticus		Gly d 2	NPC2 Family	 0.50
Lepidoglyphus destructor		Lep d 2	NPC2 Family	 < 0.10

Name	E/M	Allergen	Allergen family	kU _A /L
Tyrophagus putrescentiae		Tyr p 2	NPC2 Family	< 0.10

Ole e 1

Ole e 1 family allergens show a high degree of cross-reactivity within plant family borders. The major olive pollen allergen, Ole e 1, represents the prototype of all Ole e 1 family allergens and is the primary sensitizer in regions with olive pollen exposure. Further Ole e 1 related allergens were identified in other trees from the Oleaceae family (ash, lilac, privet). There are further Ole e 1 family members present in grass- and weed pollen.

Name	E/M	Allergen	Allergen family	kU _A /L
Ash		Fra e 1	Ole e 1 Family	< 0.10
Lamb's quarter		Che a 1	Ole e 1 Family	0.60
Olive		Ole e 1	Ole e 1 Family	< 0.10
Ribwort		Pla l 1	Ole e 1 Family	2.09
Russian thistle		Sal k 5	Ole e 1 Family	0.85

Beta Expansin

β-Expansins show limited cross-reactivity between temperate and subtropical grasses, but high cross-reactivity within these subgroups. Grass pollen β-expansins are a family of major grass pollen allergens and are classified as 'group 1' grass pollen allergens. A positive test result to grass pollen β-expansin confirms genuine sensitisation. Group 1 allergens are present in both temperate grasses (e.g., Timothy, Orchard, Perennial rye, Bluegrass, Sweet vernal) and subtropical grasses (e.g., Bahia, Johnson and Bermuda). Phl p 1 is useful for diagnosis and therapy of grass pollen allergy in temperate regions. Bermuda and Bahia grasses belong to distinct subfamilies of subtropical grasses, with Cyn d 1 serving as a marker for Bermuda grass sensitisation and Pas n extract for Bahia and Johnson grass. Although cross-reactivity between temperate and subtropical group 1 allergens can occur, species-specific epitopes exist and should be considered when choosing therapy.

Name	E/M	Allergen	Allergen family	kU _A /L
Bermuda grass		Cyn d 1	β Expansin	0.74
Maize, pollen		Zea m 1	β Expansin	< 0.10
Timothy		Phl p 1	β Expansin	< 0.10



RAVEN² analysis completed on 17.11.2025 16:36. It analysed a total of 299 spots, of which 31 were positive.

Seasonal (Spring)

The patient did not report any symptoms indicative of allergies in spring time.

Sensitisation to different cross-reactive families were detected which can cause cross-sensitisation to Cupressaceae, Fagales, Oleaceae and other trees.

Seasonal (Summer)

The patient did not report any symptoms indicative of allergies in summer. Genuine sensitisations to bermuda grass, lamb's quarter (goosefoot), ribwort (plantain) were detected without any reported symptoms upon exposure. Sensitisation to a cross-reactive family can lead to sensitisation to other grasses and Oleaceae. Sensitisation to lamb's quarter (goosefoot), ribwort (plantain) and aspergillus fumigatus are suspected to be the primary sources of cross-sensitisation to other weeds and mould, respectively. Sensitisation to different cross-reactive families were detected which can cause cross-sensitisation to other weeds and mould and Oleaceae.

Perennial

The patient did not report any symptoms indicative of perennial allergies. Genuine sensitisations to aspergillus fumigatus, blomia tropicalis and glycyphagus domesticus

were detected without any reported symptoms upon exposure. Sensitisation to different cross-reactive families can lead to sensitisation to latex. Sensitisation to aspergillus fumigatus, blomia tropicalis and glycyphagus domesticus are suspected to be the primary sources of cross-sensitisation to other mould and domestic mites, respectively. Sensitisation to different cross-reactive families were detected which can cause cross-sensitisation to other mould and hemp and latex.

Food

The patient did not report any symptoms indicative of food-related allergies. Genuine sensitisations to avocado, brazil nut, cashew, peanut, pecan, salmon, walnut and wheat were detected without any reported symptoms upon exposure. Sensitisation to avocado, cashew, pecan, brazil nut, peanut and walnut are suspected to be the primary sources of cross-sensitisation to other vegetables, tree nuts , peanut and legumes and fruits, respectively. Sensitisation to different cross-reactive families were detected which can cause cross-sensitisation to other cereals and seeds, peanut and legumes, tree nuts , vegetables and fruits, hemp and spices. Confirmation of absence of clinical reactivity to tree nuts and peanut and legumes might be advisable.

Contact allergens and insect venom

The patient did not report any symptoms indicative of allergies to insects- or arachnid venom.

ALEX³ – Number of tested allergen sources

 Grass Pollen 6	 Legumes 5	 Milk 5
Bahia grass, Bermuda grass, Common reed, Maize, pollen, Rye, pollen, Timothy	Chickpea, Lentil, Pea, Peanut, Soy	Camel's milk, Cow's milk, Goat's milk, Mare's milk, Sheep's milk
 Tree Pollen 14	 Grain 11	 Egg 2
Acacia, Alder, Arizona cypress, Ash, Cypress, London plane tree, Mountain cedar, Oak, Olive, Paper mulberry, Silver birch, Sugi, Tree of heaven, Walnut	Barley, Buckwheat, Cultivated rye, Lupine seed, Maize, Maize, pollen, Millet, Oat, Quinoa, Spelt, Wheat	Egg white, Egg yolk
 Weed Pollen 8	 Spices 1	 Fish & Seafood 19
Hemp, Lamb's quarter, Mugwort, Pigweed, Ragweed, Ribwort, Russian thistle, Wall pellitory	Mustard	Anisakis simplex, Atlantic cod, Atlantic mackerel, Black tiger shrimp, Brown shrimp, Carp, Crab, Giant freshwater prawn, Herring, Lobster, Northern prawn, Salmon, Shrimp, Squid, Swordfish, Thornback ray, Tuna, Venus clam, Whiteleg shrimp
 House Dust Mites & Storage Mites 7	 Fruits 14	 Meat 10
Acarus siro, American house dust mite, Blomia tropicalis, European house dust mite, Glycyphagus domesticus, Lepidoglyphus destructor, Tyrophagus putrescentiae	Apple, Avocado, Banana, Cherry, Coconut, Fig, Grape, Kiwi, Mango, Muskmelon, Papaya, Peach, Pear, Strawberry	Beef, Chicken, Horse, House cricket, Lamb, Mealworm, Migratory locust, Pig, Rabbit, Turkey
 Vegetables 5	 Cockroach 2	 Pets 9
Celery, Garlic, Onion, Potato, Tomato	American cockroach, German cockroach	Cat, Djungarian hamster, Dog, Dog urine (incl. Can f 5), Golden hamster, Guinea pig, Mouse, Rabbit, Rat
 Nuts & Seeds 13	 Ant, Bee, Wasp 5	 Farm Animals 4
Almond, Brazil nut, Cashew, Hazelnut, Macadamia, Pecan, Pine nut, Pistachio, Poppy seed, Pumpkin seed, Sesame, Sunflower seed, Walnut	Bald-faced Hornet, Common wasp, Fire ant, Honey bee, Paper wasp	Cattle, Goat, Horse, Pig
 Fungal Spores & Yeast 5	Alternaria alternata, Aspergillus fumigatus, Cladosporium herbarum, Malassezia sympodialis, Penicillium chrysogenum	 Others 5
		Alpha Gal, Hom s Lactoferrin, Latex, Pigeon tick, Weeping fig