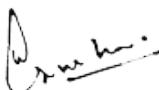


<b>Lab Ref. No :</b>	Centre : GURUGRAM
<b>Name</b>	Client : GURUGRAM
Age / Gender : 13Y 0M 21D/FEMALE	Collection Time : 27-03-2023 05:30 AM
Ref. By Dr : SELF	Reporting Time : 25-04-2023 06:04 PM
	Report Status : Final Report

**DEPARTMENT OF ALLERGY**

TEST (METHODOLOGY)	RESULT	UNIT	BIO. REF. INTERVAL
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**ALLERGENIUS Dx Comprehensive Allergy component test-163 allergens including 294 components****\*\*\* End Of Report \*\*\***  
**DR. ASIM ISRAR KHAN**  
M.D. (PATHOLOGY)  
**DR. ARJUN DANG**  
M.D. (PATHOLOGY)

SAMPLE REPORT





LAB REF. NO.



PATIENT NAME:



SIN NO.

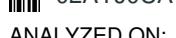


DATE OF BIRTH:



06/03/2010

QR-CODE:



02AYJ0CA

ANALYZED ON:



21/04/2023

REFERRING DR

TEST METHOD:



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

## Lab report: Summary

### POLLEN

Grass Pollen



Tree Pollen

Weed Pollen

### MITES

House Dust Mites &amp; Storage Mites

### PLANT-BASED FOOD

Legumes

Grains

Spices

Fruits

Vegetables

Nuts &amp; Seeds

### INSECTS & VENOMS

Ant, Bee, Wasp



Cockroach



### MICROORGANISMS

Fungal Spores &amp; Yeast

### ANIMAL-DERIVED FOOD

Milk

Egg

Fish &amp; Seafood

Meat

### EPITHELIAL TISSUES OF ANIMALS

Pets

Farm Animals

### OTHERS

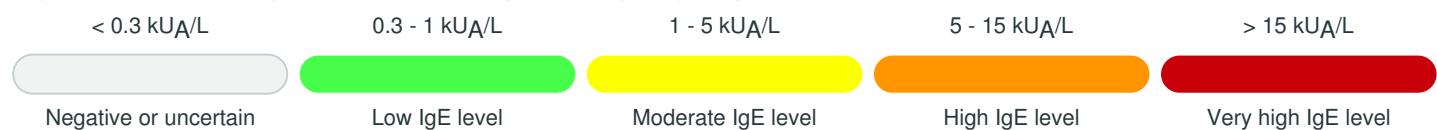
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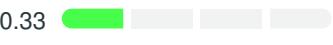
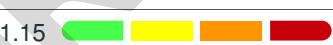
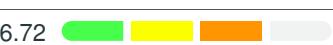
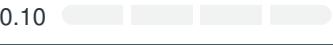
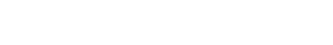
Ficus

CCD

Parasite

### Highest measured IgE concentration per allergen group



Name	E/M	Allergen	Function	kUA/L
<b>POLLEN</b>				
<b>Grass Pollen</b>				
Bermuda grass		Cyn d		0.33 
		Cyn d 1	Beta-Expansin	4.42 
Perennial Ryegrass		Lol p 1	Beta-Expansin	30.13 
Bahia grass		Pas n		0.12 
Timothy grass		Phl p 1	Beta-Expansin	46.10 
		Phl p 2	Expansin	35.67 
		Phl p 5.0101	Grass Group 5/6	44.24 
		Phl p 6	Grass Group 5/6	41.15 
		Phl p 7	Polcalcin	≤ 0.10 
		Phl p 12	Profilin	≤ 0.10 
Common reed		Phr c		≤ 0.10 
Cultivated rye, Pollen		Sec c_pollen		6.72 
<b>Tree Pollen</b>				
Acacia		Aca m		≤ 0.10 
Tree of Heaven		Ail a		≤ 0.10 
Alder		Aln g 1	PR-10	≤ 0.10 
		Aln g 4	Polcalcin	≤ 0.10 
Silver birch		Bet v 1	PR-10	≤ 0.10 
		Bet v 2	Profilin	≤ 0.10 
		Bet v 6	Isoflavon Reductase	≤ 0.10 
Paper mulberry		Bro pa		≤ 0.10 
Hazel pollen		Cor a_pollen		≤ 0.10 
		Cor a 1.0103	PR-10	≤ 0.10 
Sugi		Cry j 1	Pectate Lyase	≤ 0.10 
Cypress		Cup a 1	Pectate Lyase	0.12 
		Cup s		≤ 0.10 
Beech		Fag s 1	PR-10	≤ 0.10 
Ash		Fra e		≤ 0.10 
		Fra e 1	Ole e 1-Family	≤ 0.10 
Walnut pollen		Jug r_pollen		≤ 0.10 
Mountain cedar		Jun a		≤ 0.10 
Mulberry		Mor r		≤ 0.10 
Olive		Ole e 1	Ole e 1-Family	≤ 0.10 

 Allergen Extract Molecular Allergen

IgE &lt; 0.3 negative or uncertain

Name	E/M	Allergen	Function	kU/L
	●	Ole e 9	1,3 β Glucanase	≤ 0.10
Date palm	●	Pho d 2	Profilin	≤ 0.10
London plane tree	●	Pla a 1	Plant Invertase	≤ 0.10
	●	Pla a 2	Polygalacturonase	≤ 0.10
	●	Pla a 3	nsLTP	≤ 0.10
Cottonwood	●●●	Pop n		≤ 0.10
Elm	●●●	Ulm c		≤ 0.10

## Weed Pollen

Common Pigweed	●●●	Ama r		≤ 0.10
Ragweed	●●●	Amb a		≤ 0.10
	●	Amb a 1	Pectate Lyase	≤ 0.10
	●	Amb a 4	Plant Defensin	≤ 0.10
Mugwort	●●●	Art v		≤ 0.10
	●	Art v 1	Plant Defensin	≤ 0.10
	●	Art v 3	nsLTP	≤ 0.10
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	≤ 0.10
Wall pellitory	●●●	Par j		≤ 0.10
	●	Par j 2	nsLTP	≤ 0.10
Ribwort	●●●	Pla l		≤ 0.10
	●	Pla l 1	Ole e 1-Family	≤ 0.10
Russian thistle	●●●	Sal k		≤ 0.10
	●	Sal k 1	Pectin Methyl esterase	≤ 0.10
Nettle	●●●	Urt d		≤ 0.10

## MITES

### House Dust Mite

American house dust mite	●	Der f 1	Cysteine protease	≤ 0.10
	●	Der f 2	NPC2 Family	≤ 0.10
European house dust mite	●	Der p 1	Cysteine protease	≤ 0.10
	●	Der p 2	NPC2 Family	≤ 0.10
	●	Der p 5	unknown	≤ 0.10

 Allergen Extract

 Molecular Allergen

IgE < 0.3 negative or uncertain

Name	E/M	Allergen	Function	kU/L
	●	Der p 7	Mites, Group 7	≤ 0.10
	●	Der p 10	Tropomyosin	≤ 0.10
	●	Der p 11	Myosin, heavy chain	≤ 0.10
	●	Der p 20	Arginine kinase	≤ 0.10
	●	Der p 21	unknown	≤ 0.10
	●	Der p 23	Peritrophin-like protein domain	≤ 0.10

## Storage Mite

Acarus siro	● ● ●	Aca s		≤ 0.10
Blomia tropicalis	●	Blo t 5	Mites, Group 5	≤ 0.10
	●	Blo t 10	Tropomyosin	≤ 0.10
	●	Blo t 21	unknown	≤ 0.10
Glycyphagus domesticus	●	Gly d 2	NPC2 Family	≤ 0.10
Lepidoglyphus destructor	●	Lep d 2	NPC2 Family	≤ 0.10
Tyrophagus putrescentiae	● ● ●	Tyr p		≤ 0.10
	●	Tyr p 2	NPC2 Family	≤ 0.10

## MICROORGANISMS & SPORES

### Yeast

Malassezia sympodialis	●	Mala s 5	unknown	≤ 0.10
	●	Mala s 6	Cyclophilin	≤ 0.10
	●	Mala s 11	Mn Superoxid-Dismutase	≤ 0.10
Yeast	● ● ●	Sac c		≤ 0.10

### Moulds

Alternaria alternata	●	Alt a 1	Alt a 1-Family	≤ 0.10
	●	Alt a 6	Enolase	≤ 0.10
Aspergillus fumigatus	●	Asp f 1	Mitogillin Family	≤ 0.10
	●	Asp f 3	Peroxisomal Protein	≤ 0.10
	●	Asp f 4	unknown	≤ 0.10
	●	Asp f 6	Mn Superoxid-Dismutase	≤ 0.10
Cladosporium herbarum	● ● ●	Cla h		≤ 0.10
	●	Cla h 8	Short Chain Dehydrogenase	≤ 0.10
Penicillium chrysogenum	● ● ●	Pen ch		≤ 0.10

 Allergen Extract

 Molecular Allergen

IgE < 0.3 negative or uncertain

Name	E/M	Allergen	Function	kU/L
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## PLANT FOOD

### Legumes

Peanut		Ara h 1	7/8S Globulin	≤ 0.10
		Ara h 2	2S Albumin	≤ 0.10
		Ara h 3	11S Globulin	≤ 0.10
		Ara h 6	2S Albumin	≤ 0.10
		Ara h 8	PR-10	≤ 0.10
		Ara h 9	nsLTP	≤ 0.10
		Ara h 15	Oleosin	≤ 0.10
Chickpea		Cic a		≤ 0.10
Soy		Gly m 4	PR-10	≤ 0.10
		Gly m 5	7/8S Globulin	≤ 0.10
		Gly m 6	11S Globulin	≤ 0.10
		Gly m 8	2S Albumin	≤ 0.10
Lentil		Len c		≤ 0.10
White bean		Pha v		≤ 0.10
Pea		Pis s		≤ 0.10

### Cereals

Oat		Ave s		≤ 0.10
Quinoa		Che q		4.70
Common buckwheat		Fag e		2.25
		Fag e 2	2S Albumin	0.15
Barley		Hor v		≤ 0.10
Lupine seed		Lup a		≤ 0.10
Rice		Ory s		≤ 0.10
Millet		Pan m		≤ 0.10
Cultivated rye		Sec c_flour		≤ 0.10
Wheat		Tri a aA_Tl	Alpha-Amylase Trypsin-Inhibitor	≤ 0.10
		Tri a 14	nsLTP	≤ 0.10
		Tri a 19	Omega-5-Gliadin	≤ 0.10
Spelt		Tri s		≤ 0.10
Maize		Zea m		≤ 0.10
		Zea m 14	nsLTP	≤ 0.10

Name	E/M	Allergen	Function	kU <sub>A</sub> /L
<b>Spices</b>				
Paprika		Cap a		≤ 0.10
Caraway		Car c		0.14
Oregano		Ori v		≤ 0.10
Parsley		Pet c		≤ 0.10
Anise		Pim a		≤ 0.10
Mustard		Sin		≤ 0.10
		Sin a 1	2S Albumin	≤ 0.10
<b>Fruits</b>				
Kiwi		Act d 1	Cysteine protease	≤ 0.10
		Act d 2	TLP	≤ 0.10
		Act d 5	Kiwellin	≤ 0.10
		Act d 10	nsLTP	≤ 0.10
Papaya		Car p		≤ 0.10
Orange		Cit s		≤ 0.10
Melon		Cuc m 2	Profilin	≤ 0.10
Fig		Fic c		≤ 0.10
Strawberry		Fra a 1+3	PR-10+LTP	≤ 0.10
Apple		Mal d 1	PR-10	≤ 0.10
		Mal d 2	TLP	≤ 0.10
		Mal d 3	nsLTP	≤ 0.10
Mango		Man i		≤ 0.10
Banana		Mus a		≤ 0.10
Avocado		Pers a		≤ 0.10
Cherry		Pru av		≤ 0.10
Peach		Pru p 3	nsLTP	≤ 0.10
Pear		Pyr c		≤ 0.10
Blueberry		Vac m		≤ 0.10
Grapes		Vit v 1	nsLTP	≤ 0.10
<b>Vegetables</b>				
Onion		All c		0.11
Garlic		All s		≤ 0.10
Celery		Api g 1	PR-10	≤ 0.10

Name	E/M	Allergen	Function	kU/L
Carrot	●	Api g 2	nsLTP	≤ 0.10
	●	Api g 6	nsLTP	≤ 0.10
	●●●	Dau c		≤ 0.10
	●	Dau c 1	PR-10	≤ 0.10
Potato	●●●	Sol t		≤ 0.10
Tomato	●●●	Sola l		0.44
	●	Sola l 6	nsLTP	≤ 0.10

## Nuts

Cashew	●●●	Ana o		6.41
	●	Ana o 2	11S Globulin	≤ 0.10
	●	Ana o 3	2S Albumin	4.79
Brazil nut	●●●	Ber e		≤ 0.10
	●	Ber e 1	2S Albumin	≤ 0.10
Pecan	●●●	Car i		13.51
Hazelnut	●	Cor a 1.0401	PR-10	≤ 0.10
	●	Cor a 8	nsLTP	≤ 0.10
	●	Cor a 9	11S Globulin	5.05
	●	Cor a 11	7/8S Globulin	23.44
	●	Cor a 14	2S Albumin	10.90
Walnut	●	Jug r 1	2S Albumin	≤ 0.10
	●	Jug r 2	7/8S Globulin	18.55
	●	Jug r 3	nsLTP	≤ 0.10
	●	Jug r 4	11S Globulin	7.83
	●	Jug r 6	7/8S Globulin	5.95
Macadamia	●	Mac i 2S Albumin	2S Albumin	41.44
	●●●	Mac inte		43.01
Pistachio	●	Pis v 1	2S Albumin	≤ 0.10
	●	Pis v 2	11S Globulin subunit	≤ 0.10
	●	Pis v 3	7/8S Globulin	≤ 0.10
Almond	●●●	Pru du		≤ 0.10

## Seed

Pumpkin seed	●●●	Cuc p		≤ 0.10
Sunflower seed	●●●	Hel a		≤ 0.10
Poppy seed	●●●	Pap s		5.48

Name	E/M	Allergen	Function	kU/L
Sesame	●	Pap s 2S Albumin	2S Albumin	2.52
	●	Ses i 1		0.16
Fenugreek seeds	●	Tri fo		≤ 0.10

## ANIMAL FOOD

### Milk

Cow, milk	●	Bos d_milk		≤ 0.10
	●	Bos d 4	α-Lactalbumin	≤ 0.10
	●	Bos d 5	β-Lactoglobulin	≤ 0.10
	●	Bos d 8	Casein	≤ 0.10
Camel	●	Cam d		0.10
Goat, milk	●	Cap h_milk		≤ 0.10
Mare's milk	●	Equ c_milk		≤ 0.10
Sheep, milk	●	Ovi a_milk		≤ 0.10

### Egg

Egg white	●	Gal d_white		≤ 0.10
Egg yolk	●	Gal d_yolk		≤ 0.10
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
Egg yolk	●	Gal d 5	Serum Albumin	≤ 0.10

### Seafood

Herring worm	●	Ani s 1	Kunitz Serin Protease Inhibitor	≤ 0.10
	●	Ani s 3	Tropomyosin	≤ 0.10
Crab	●	Chi spp.		≤ 0.10
Herring	●	Clu h		≤ 0.10
	●	Clu h 1	β-Parvalbumin	≤ 0.10
Brown shrimp	●	Cra c 6	Troponin C	≤ 0.10
Carp	●	Cyp c 1	β-Parvalbumin	≤ 0.10
Atlantic cod	●	Gad m		≤ 0.10
	●	Gad m 2+3	β-Enolase & Aldolase	≤ 0.10

Name	E/M	Allergen	Function	kU/L
		Gad m 1	$\beta$ -Parvalbumin	$\leq 0.10$
Lobster		Hom g		$\leq 0.10$
Shrimp		Lit s		$\leq 0.10$
Squid		Lol spp.		$\leq 0.10$
Common mussel		Myt e		$\leq 0.10$
Oyster		Ost e		$\leq 0.10$
Shrimp		Pan b		$\leq 0.10$
Scallop		Pec spp.		$\leq 0.10$
Black Tiger Shrimp		Pen m 1	Tropomyosin	$\leq 0.10$
		Pen m 2	Arginine kinase	$\leq 0.10$
		Pen m 3	Myosin, light chain	$\leq 0.10$
		Pen m 4	Sarcoplasmic Calcium Binding Protein	$\leq 0.10$
Thornback ray		Raj c		$\leq 0.10$
		Raj c Parvalbumin	$\alpha$ -Parvalbumin	$\leq 0.10$
Clam		Rud spp.		$\leq 0.10$
Salmon		Sal s		$\leq 0.10$
		Sal s 1	$\beta$ -Parvalbumin	$\leq 0.10$
Atlantic mackerel		Sco s		$\leq 0.10$
		Sco s 1	$\beta$ -Parvalbumin	$\leq 0.10$
Tuna		Thu a		$\leq 0.10$
		Thu a 1	$\beta$ -Parvalbumin	$\leq 0.10$
Swordfish		Xip g 1	$\beta$ -Parvalbumin	$\leq 0.10$

## Meat

House cricket		Ach d		$\leq 0.10$
Cattle, meat		Bos d_meat		$\leq 0.10$
		Bos d 6	Serum Albumin	$\leq 0.10$
Horse, meat		Equ c_meat		$\leq 0.10$
Chicken meat		Gal d_meat		$\leq 0.10$
Migratory locust		Loc m		$\leq 0.10$
Turkey		Mel g		0.14
Rabbit, meat		Ory_meat		$\leq 0.10$
Sheep, meat		Ovi a_meat		$\leq 0.10$
Pork		Sus d_meat		$\leq 0.10$
		Sus d 1	Serum Albumin	$\leq 0.10$
Mealworm		Ten m		$\leq 0.10$

Name	E/M	Allergen	Function	kU/L
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## INSECTS & VENOMS

### Fire ant poison

Fire ant	   Sol spp.		≤ 0.10	
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### Honey Bee Venom

Honey bee	   Api m		≤ 0.10	
	   Api m 1	Phospholipase A2	≤ 0.10	
	   Api m 10	Icarapin Variant 2	≤ 0.10	

### Wasp Venom

Hornet	   Dol spp		≤ 0.10	
Paper wasp venom	   Pol d		≤ 0.10	
	   Pol d 5	Antigen 5	≤ 0.10	
Wasp venom	   Ves v		≤ 0.10	
	   Ves v 1	Phospholipase A1	≤ 0.10	
	   Ves v 5	Antigen 5	≤ 0.10	

### Cockroach

German Cockroach	   Bla g 1	Cockroach Group 1	≤ 0.10	
	   Bla g 2	Aspartyl protease	≤ 0.10	
	   Bla g 4	Lipocalin	≤ 0.10	
	   Bla g 5	Glutathione S-transferase	≤ 0.10	
	   Bla g 9	Arginine kinase	≤ 0.10	
American Cockroach	   Per a		≤ 0.10	
	   Per a 7	Tropomyosin	≤ 0.10	

## ANIMAL ORIGIN

### Pet

Dog	   Can f_Fd1	Uteroglobin	≤ 0.10	
Male dog urine (incl. Can f 5)	   Can f_male urine		≤ 0.10	
Dog	   Can f 1	Lipocalin	≤ 0.10	
	   Can f 2	Lipocalin	≤ 0.10	
	   Can f 3	Serum Albumin	≤ 0.10	

Name	E/M	Allergen	Function	kU/L
	●	Can f 4	Lipocalin	≤ 0.10
	●	Can f 6	Lipocalin	≤ 0.10
Guinea pig	●	Cav p 1	Lipocalin	≤ 0.10
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
House mouse	●	Mus m 1	Lipocalin	≤ 0.10
Rabbit, epithel	●	Ory c 1	Lipocalin	≤ 0.10
	●	Ory c 2	Lipophilin	≤ 0.10
	●	Ory c 3	Uteroglobin	≤ 0.10
Dzungarian hamster	●	Phod s 1	Lipocalin	2.88
Rat	● ●	Rat n		≤ 0.10

## Farm Animals

Cattle	●	Bos d 2	Lipocalin	≤ 0.10
Goat, epithel	● ●	Cap h_epithelia		≤ 0.10
Horse, epithel	●	Equ c 1	Lipocalin	≤ 0.10
	●	Equ c 3	Serum Albumin	≤ 0.10
	●	Equ c 4	Latherin	≤ 0.10
Sheep, epithel	● ●	Ovi a_epithelia		≤ 0.10
Pig	● ●	Sus d_epithelia		≤ 0.10

## OTHERS

### Latex

Latex	●	Hev b 1	Rubber elongation factor	≤ 0.10
	●	Hev b 3	Small rubber particle protein	≤ 0.10
	●	Hev b 5	unknown	≤ 0.10
	●	Hev b 6.02	Hevein	≤ 0.10
	●	Hev b 8	Profilin	≤ 0.10
	●	Hev b 11	Class 1 Chitinase	≤ 0.10

### Ficus

Weeping fig	● ●	Fic b		≤ 0.10
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Name	E/M	Allergen	Function	kU <sub>A</sub> /L
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Hom s Lactoferrin		Hom s LF	CCD	≤ 0.10
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Pigeon tick		Arg r 1	Lipocalin	≤ 0.10
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## Information to cross-reactive allergens

### 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.

Name	E/M(*)	Allergen	Function	kU <sub>A</sub> /L
Cashew		Ana o 3	2S Albumin	4.79
Hazelnut		Cor a 9	11S Globulin	5.05
		Cor a 11	7/8S Globulin	23.44
		Cor a 14	2S Albumin	10.90
Macadamia		Mac i 2S Albumin	2S Albumin	41.44
Poppy seed		Pap s 2S Albumin	2S Albumin	2.52
Walnut		Jug r 2	7/8S Globulin	18.55
		Jug r 4	11S Globulin	7.83
		Jug r 6	7/8S Globulin	5.95

## 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.

Name	E/M(*)	Allergen	Function	kU <sub>A</sub> /L
Dzungarian hamster		Phod s 1	Lipocalin	2.88



## Interpretation - Support

### Raven Interpretation Summary

#### Sample Information

The sample was tested on ALEX<sup>2</sup> Barcode 02AYJ0CA, interpretation date 25/04/2023.

Of the tested 295 allergens, 25 were/was above the cut off of 0.3 kUA/L. A sensitisation can be an indicator of an IgE dependent allergy. For all positive ALEX 2 allergens, comments for interpretation guidance are listed below.

#### Cross-Reactive allergen sensitisation detected

Sensitisations against molecular allergens which are markers of (broad) cross-reactivity between different allergen sources were detected.

Detected cross-reactive allergen sensitisations:

- Storage Proteins: Ana o 3, Cor a 9, Cor a 11, Cor a 14, Jug r 2, Jug r 4, Jug r 6, Mac i 2S Albumin, Pap s 2S Albumin
- Lipocalins: Phod s 1

#### Storage Proteins

Members of the storage protein allergen families are able to induce mild and strong allergic reactions and even anaphylactic shock. Allergens of these families can be found in legumes, nuts and seeds. Storage proteins are resistant to heat and digestion. Storage protein allergen families include 2S Albumins, 7/8S & 11S Globulins.

#### Lipocalins

Nearly all members of the Lipocalin allergen family can cause inhalative symptoms like allergic rhinoconjunctivitis and allergic asthma. Lipocalin from pigeon tick is associated with idiopathic nocturnal anaphylaxis. The degree of cross-reactivity varies wildly between members of this family. Some members of the Lipocalin family serve as markers for AIT indication.

#### Grass pollen

Sensitisation to grass pollen was detected. Allergic symptoms associated with grass pollen range from allergic rhinoconjunctivitis to allergic asthma.

Cyn d 1, Lol p 1 and Phl p 1 are members fo the β-Expansin allergen family. The degree of cross-reactivity between members of this allergen family is very high. β-Expansins serve as markers for AIT indication, if corresponding clinical symptoms are present. Positive results were obtained for: Cyn d 1, Lol p 1, Phl p 1.

Phl p 2 is a member of the Expansin allergen family. The degree of cross-reactivity between members of this allergen family is very high. Along with Phl p 1 and 5, Phl p 2 serves as a marker of true grass-pollen Sensitisation. Patients with isolated Sensitisation to Phl p 2 are not suitable candidates for AIT.

Phl p 5 is a member of the Grass Group 5/6 allergen family. The degree of cross-reactivity between members of this allergen family is high, although not in all grass pollen species a Grass Group 5/6 allergen has been described. Along with Phl p 1 and Phl p 2, Phl p 5 serves as marker of true grass-pollen sensitisation. Phl p 1 and 5 serve as markers for AIT indication, if corresponding clinical symptoms are present.

Phl p 6 is a member of the Grass Group 5/6 allergen family. The degree of cross-reactivity between members of this allergen family is high.

Causal treatment is possible via AIT - Phl p 1 and 5 serve as markers for AIT indication, if corresponding are present. Symptomatic treatment includes anti-histamines and local corticosteroids in various formulations (tablet, spray).

#### Furry Animals

## Dzungarian hamster

Sensitisation to Dzungarian hamster was detected. Allergic symptoms associated with this allergen source range from allergic rhino-conjunctivitis to allergic asthma. Most reactions happen during cleaning of Dzungarian hamsters cages.

Phod s 1 is a member of the Lipocalin allergen family. The degree of cross-reactivity to other members of this allergen family is low, even to Lipocalins from other hamster species like golden hamster or European hamster.

AIT for causal treatment may not be available. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Due to the limited degree of cross-reactivity, a hamster of a different species may be tolerated.

## Cereals and Seeds

### Buckwheat

Sensitisation to buckwheat was detected. Allergic symptoms associated with buckwheat range from oral allergy syndrome to anaphylactic reactions. Especially in Asia buckwheat is a major cause of anaphylactic reactions. A high prevalence of buckwheat sensitisation was reported from Northern Italy.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

### Poppy seed

Sensitisation to poppy seed was detected. Allergic symptoms associated with poppy seed range from oral allergy syndrome to severe anaphylactic reactions. Exercise induced reactions after the consumption of poppy seed have been described.

Pap s 2S Albumin is a storage protein associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between storage proteins from poppy seed and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Pap s 2S Albumin is stable towards heat and digestion.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

### Quinoa

Sensitisation to quinoa was detected. Allergic symptoms associated with quinoa range from oral allergy syndrome to severe anaphylactic reactions. Occupational asthma was also reported.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

## Nuts and Legumes

### Cashew

Sensitisation to cashew was detected. Allergic symptoms associated with cashew range from oral allergy syndrome to severe, anaphylactic reactions.

Ana o 2 and 3 are storage proteins associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between storage proteins from cashew and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Ana o 2 & 3 are stable towards heat and digestion. Positive results were obtained for: Ana o 3.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

### Hazelnut

Sensitisation to hazelnut was detected. Allergic symptoms associated with hazelnut allergens range from oral allergy syndrome to severe, anaphylactic reactions.

Cor a 9, 11 & 14 are storage proteins associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between storage proteins from hazelnut and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Cor a 9, 11 & 14 are stable towards heat and digestion. Positive results were obtained for: Cor a 9, Cor a 11, Cor a 14.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

### Macadamia

Sensitisation to macadamia was detected. Allergic symptoms associated with Macadamia range from oral allergy syndrome to anaphylaxis.

Mac i 2S Albumin is a storage protein (2S Albumin) associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between storage proteins from macadamia and storage proteins from legumes, nuts and seeds is low to moderate. The importance of these cross-reactions has to be analysed on a clinical level. Mac i 2S Albumin is stable towards heat and digestion.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

### Pecan

Sensitisation to pecan detected. Allergic symptoms associated with pecan range from oral allergy syndrome to anaphylaxis. Pecan strongly cross-reacts with walnut.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

### Walnut

Sensitisation to walnut was detected. Allergic symptoms associated with walnut allergens range from oral allergy syndrome to severe, anaphylactic reactions.

Jug r 1,2,4 & 6 are storage proteins associated with clinical reactions up to anaphylaxis. The degree of cross-reactivity between storage proteins from walnut and storage proteins from legumes, nuts and seeds is low to moderate. The exception is Jug r 6, which can cross-react with related allergens from tree nuts (e.g. Cor a 11 from hazelnut) and sesame. The importance of these cross-reactions has to be analysed on a clinical level. Jug r 1,2,4 are stable towards heat and digestion. Jug r 6 displays intermediate thermal stability and susceptibility to digestion. Positive results were obtained for: Jug r 2, Jug r 4, Jug r 6.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

## Vegetables

### Tomato

Sensitisation to tomato was detected. Allergic symptoms associated with tomato allergy range from oral allergy syndrome to anaphylaxis. Many tomato allergic patients react due to cross-reactions from PR-10, Profilin or nsLTP allergens.

Include extensive patient training on avoidance measures and the prescription of an emergency kit (including adrenalin autoinjector for severe cases).

**DISCLAIMER:** THE PRESENCE OF IgE-ANTIBODIES IMPLIES A RISK OF ALLERGIC REACTIONS AND HAS TO BE ANALYZED IN CONJUNCTION WITH THE CLINICAL HISTORY AND OTHER DIAGNOSTIC TEST RESULTS. THE RAVEN INTERPRETATION GUIDANCE SOFTWARE IS A TOOL TO SUPPORT PHYSICIANS IN THE INTERPRETATION OF ALEX 2 RESULTS. RAVEN COMMENTS DO NOT REPLACE THE DIAGNOSIS BY A PHYSICIAN. NO LIABILITY IS ACCEPTED FOR RAVEN COMMENTS AND RESULTING THERAPEUTIC INTERVENTIONS. THE STATED COMMENTS ARE DESIGNED EXCLUSIVELY FOR ALEX2 RESULTS.

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# CONDITIONS OF REPORTING

- ▶ In case of alarming or unexpected test results you are advised to contact the laboratory immediately for further discussions and action. Laboratory results are meant to be correlated with the patient's clinical history.
- ▶ The report will carry the name and age provided at the time of registration.
- ▶ Reporting of tests will be as per defined laboratory turn around time for each test. The same will be informed to the patient during first point of contact i.e. registration or phlebotomy as the case may be.
- ▶ Test results & reference ranges vary depending on the technology and methodology used.
- ▶ Rarely a second sample may be requested for an indeterminate result or any other pre-analytical / analytical reason.
- ▶ Reports can be received either as a hard copy or an email on your personal ID. Reports can also be delivered via courier. Payments can be made online on our website. Only reports with no pending payments are mailed, uploaded or dispatched.
- ▶ Reports can also be accessed via Dr. Dangs lab website or through the Dr. Dangs mobile application on iOS and android using the unique ID and password provided to you during registration or received by you via SMS.
- ▶ Home collection sample facility is provided with prior appointment. Request for same to be given on 999-999-2020, booked online on [www.drdangslab.com](http://www.drdangslab.com) or through the Dr. Dangs mobile application on iOS and android.
- ▶ A digital invoice for tests performed is available on our website and can be accessed by using the unique I.D. and password provided.
- ▶ To maintain confidentiality, certain reports may not be mailed at the discretion of the management.
- ▶ In case of any queries pertaining to your test results or to provide feedback/suggestions please call us on 01145004200 or mail us at [info@drdangslab.com](mailto:info@drdangslab.com).
- ▶ 48 hour notice is required for the issuing of slides and blocks.
- ▶ Test results are not valid for medico legal purposes.
- ▶ The courts (forums) at Delhi shall have exclusive jurisdiction in all disputes/claims consuming the tests and/or results of the tests.
- ▶ \*For any changes in timings, please visit our website.

