

PATIENT ID



PATIENT NAME

Ima T Sample

DATE OF BIRTH



SAMPLE ID

Sample Report

BARCODE



TESTED ALLERGENS

295

TEST METHOD

ALEX<sup>2</sup>

APPROVED ON

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

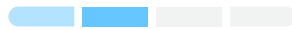


Weed Pollen



### 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

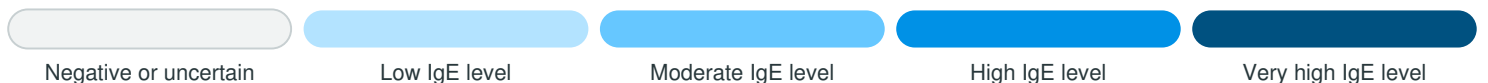
< 0.3 kU<sub>A</sub>/L

0.3 - 1 kU<sub>A</sub>/L

1 - 5 kU<sub>A</sub>/L

5 - 15 kU<sub>A</sub>/L

> 15 kU<sub>A</sub>/L



| Name | E/M | Allergen | Protein Family | kU <sub>A</sub> /L |
|------|-----|----------|----------------|--------------------|
|------|-----|----------|----------------|--------------------|

## POLLEN

### Grass Pollen

|                        |  |              |                 |        |
|------------------------|--|--------------|-----------------|--------|
| Bermuda grass          |  | Cyn d        |                 | 3.13   |
|                        |  | Cyn d 1      | Beta-Expansin   | 7.41   |
| Perennial Ryegrass     |  | Lol p 1      | Beta-Expansin   | 12.79  |
| Bahia grass            |  | Pas n        |                 | ≤ 0.10 |
| Timothy grass          |  | Phl p 1      | Beta-Expansin   | 19.44  |
|                        |  | Phl p 2      | Expansin        | 10.58  |
|                        |  | Phl p 5.0101 | Grass Group 5/6 | 37.82  |
|                        |  | Phl p 6      | Grass Group 5/6 | 4.39   |
|                        |  | Phl p 7      | Polcalcin       | ≤ 0.10 |
|                        |  | Phl p 12     | Profilin        | ≤ 0.10 |
| Common reed            |  | Phr c        |                 | ≤ 0.10 |
| Cultivated rye, Pollen |  | Sec c_pollen |                 | 0.68   |

### Tree Pollen

|                |  |              |                     |        |
|----------------|--|--------------|---------------------|--------|
| 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               | 0.28   |
|                |  | 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       | ≤ 0.10 |
|                |  | 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 |

| Name              | E/M | Allergen | Protein Family    | kU <sub>A</sub> /L |
|-------------------|-----|----------|-------------------|--------------------|
| Mountain cedar    |     | Jun a    |                   | ≤ 0.10             |
| Mulberry          |     | Mor r    |                   | ≤ 0.10             |
| Olive             |     | Ole e 1  | Ole e 1-Family    | ≤ 0.10             |
|                   |     | 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             |
| Ulme              |     | Ulm c    |                   | ≤ 0.10             |

## Weed Pollen

|                 |  |         |                       |        |
|-----------------|--|---------|-----------------------|--------|
| Common Pigweed  |  | Ama r   |                       | ≤ 0.10 |
| Ragweed         |  | Amb a   |                       | ≤ 0.10 |
|                 |  | Amb a 1 | Pectate Lyase         | 0.23   |
|                 |  | 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 Methylesterase | ≤ 0.10 |
| Nettle          |  | Urt d   |                       | ≤ 0.10 |

| Name | E/M | Allergen | Protein Family | kU <sub>A</sub> /L |
|------|-----|----------|----------------|--------------------|
|------|-----|----------|----------------|--------------------|

## MITES

### House Dust Mite

|                          |  |          |                                 |        |
|--------------------------|--|----------|---------------------------------|--------|
| American house dust mite |  | Der f 1  | Cysteine protease               | 0.58   |
|                          |  | Der f 2  | NPC2 Family                     | 1.24   |
| European house dust mite |  | Der p 1  | Cysteine protease               | 1.11   |
|                          |  | Der p 2  | NPC2 Family                     | 1.08   |
|                          |  | Der p 5  | unknown                         | ≤ 0.10 |
|                          |  | 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 | 0.65   |

### 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 |

| Name | E/M | Allergen | Protein Family | kU <sub>A</sub> /L |
|------|-----|----------|----------------|--------------------|
|------|-----|----------|----------------|--------------------|

## 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 |

## 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       | 0.17   |
| 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 |  | ≤ 0.10 |

| Name             | E/M | Allergen    | Protein Family                  | kU <sub>A</sub> /L |
|------------------|-----|-------------|---------------------------------|--------------------|
| Common buckwheat |     | Fag e       |                                 | ≤ 0.10             |
|                  |     | Fag e 2     | 2S Albumin                      | ≤ 0.10             |
| 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_T1 | 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             |

## Spices

|         |  |         |            |        |
|---------|--|---------|------------|--------|
| Paprika |  | Cap a   |            | ≤ 0.10 |
| Caraway |  | Car c   |            | ≤ 0.10 |
| 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 |

## Fruit

|            |  |           |                   |        |
|------------|--|-----------|-------------------|--------|
| 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 |

| Name      | E/M                   | Allergen | Protein Family | kU <sub>A</sub> /L |
|-----------|-----------------------|----------|----------------|--------------------|
| Apple     | <input type="radio"/> | Mal d 1  | PR-10          | ≤ 0.10             |
|           | <input type="radio"/> | Mal d 2  | TLP            | ≤ 0.10             |
|           | <input type="radio"/> | 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     | <input type="radio"/> | Pru p 3  | nsLTP          | ≤ 0.10             |
| Pear      |                       | Pyr c    |                | ≤ 0.10             |
| Blueberry |                       | Vac m    |                | ≤ 0.10             |
| Grapes    | <input type="radio"/> | Vit v 1  | nsLTP          | ≤ 0.10             |

## Vegetables

|        |                       |          |       |        |
|--------|-----------------------|----------|-------|--------|
| Onion  |                       | All c    |       | ≤ 0.10 |
| Garlic |                       | All s    |       | ≤ 0.10 |
| Celery | <input type="radio"/> | Api g 1  | PR-10 | ≤ 0.10 |
|        | <input type="radio"/> | Api g 2  | nsLTP | ≤ 0.10 |
|        | <input type="radio"/> | Api g 6  | nsLTP | ≤ 0.10 |
| Carrot |                       | Dau c    |       | ≤ 0.10 |
|        | <input type="radio"/> | Dau c 1  | PR-10 | ≤ 0.10 |
| Potato |                       | Sol t    |       | ≤ 0.10 |
| Tomato |                       | Sola l   |       | ≤ 0.10 |
|        | <input type="radio"/> | Sola l 6 | nsLTP | ≤ 0.10 |

## Nuts

|            |                       |              |              |        |
|------------|-----------------------|--------------|--------------|--------|
| Cashew     |                       | Ana o        |              | ≤ 0.10 |
|            | <input type="radio"/> | Ana o 2      | 11S Globulin | ≤ 0.10 |
|            | <input type="radio"/> | Ana o 3      | 2S Albumin   | ≤ 0.10 |
| Brazil nut |                       | Ber e        |              | ≤ 0.10 |
|            | <input type="radio"/> | Ber e 1      | 2S Albumin   | ≤ 0.10 |
| Pecan      |                       | Car i        |              | ≤ 0.10 |
| Hazelnut   | <input type="radio"/> | Cor a 1.0401 | PR-10        | ≤ 0.10 |
|            | <input type="radio"/> | Cor a 8      | nsLTP        | ≤ 0.10 |

| Name      | E/M                   | Allergen         | Protein Family       | kU <sub>A</sub> /L |
|-----------|-----------------------|------------------|----------------------|--------------------|
| Walnut    | <input type="radio"/> | Cor a 9          | 11S Globulin         | ≤ 0.10             |
|           | <input type="radio"/> | Cor a 11         | 7/8S Globulin        | ≤ 0.10             |
|           | <input type="radio"/> | Cor a 14         | 2S Albumin           | ≤ 0.10             |
|           | <input type="radio"/> | Jug r 1          | 2S Albumin           | ≤ 0.10             |
|           | <input type="radio"/> | Jug r 2          | 7/8S Globulin        | ≤ 0.10             |
|           | <input type="radio"/> | Jug r 3          | nsLTP                | ≤ 0.10             |
| Macadamia | <input type="radio"/> | Mac i 2S Albumin | 2S Albumin           | ≤ 0.10             |
|           | <input type="radio"/> | Mac inte         |                      | ≤ 0.10             |
|           | <input type="radio"/> | Pis v 1          | 2S Albumin           | ≤ 0.10             |
| Pistachio | <input type="radio"/> | Pis v 2          | 11S Globulin subunit | ≤ 0.10             |
|           | <input type="radio"/> | Pis v 3          | 7/8S Globulin        | ≤ 0.10             |
|           | <input type="radio"/> | Pru du           |                      | ≤ 0.10             |

## Seed

|                 |                       |                  |            |        |
|-----------------|-----------------------|------------------|------------|--------|
| Pumpkin seed    | <input type="radio"/> | Cuc p            |            | ≤ 0.10 |
| Sunflower seed  | <input type="radio"/> | Hel a            |            | ≤ 0.10 |
| Poppy seed      | <input type="radio"/> | Pap s            |            | ≤ 0.10 |
|                 | <input type="radio"/> | Pap s 2S Albumin | 2S Albumin | ≤ 0.10 |
| Sesame          | <input type="radio"/> | Ses i            |            | ≤ 0.10 |
|                 | <input type="radio"/> | Ses i 1          | 2S Albumin | ≤ 0.10 |
| Fenugreek seeds | <input type="radio"/> | Tri fo           |            | ≤ 0.10 |

## ANIMAL FOOD

### Milk

|             |                       |            |                 |        |
|-------------|-----------------------|------------|-----------------|--------|
| Cow, milk   | <input type="radio"/> | Bos d_milk |                 | ≤ 0.10 |
|             | <input type="radio"/> | Bos d 4    | α-Lactalbumin   | ≤ 0.10 |
|             | <input type="radio"/> | Bos d 5    | β-Lactoglobulin | ≤ 0.10 |
|             | <input type="radio"/> | Bos d 8    | Casein          | ≤ 0.10 |
| Camel       | <input type="radio"/> | Cam d      |                 | ≤ 0.10 |
| Goat, milk  | <input type="radio"/> | Cap h_milk |                 | ≤ 0.10 |
| Mare's milk | <input type="radio"/> | Equ c_milk |                 | ≤ 0.10 |



| Name | E/M | Allergen | Protein Family | kU <sub>A</sub> /L |
|------|-----|----------|----------------|--------------------|
|------|-----|----------|----------------|--------------------|

|             |  |            |  |        |
|-------------|--|------------|--|--------|
| 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 | Lysozym 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 |
|--|-----------|----------------------|--------|

|  |         |               |        |
|--|---------|---------------|--------|
|  | Gad m 1 | β-Parvalbumin | ≤ 0.10 |
|--|---------|---------------|--------|

|         |  |       |  |        |
|---------|--|-------|--|--------|
| Lobster |  | Hom g |  | ≤ 0.10 |
|---------|--|-------|--|--------|

|        |  |       |  |        |
|--------|--|-------|--|--------|
| Shrimp |  | Lit s |  | ≤ 0.10 |
|--------|--|-------|--|--------|

|       |  |          |  |        |
|-------|--|----------|--|--------|
| Squid |  | Lol spp. |  | ≤ 0.10 |
|-------|--|----------|--|--------|

|               |  |       |  |        |
|---------------|--|-------|--|--------|
| Common mussel |  | Myt e |  | ≤ 0.10 |
|---------------|--|-------|--|--------|

|        |  |       |  |        |
|--------|--|-------|--|--------|
| Oyster |  | Ost e |  | ≤ 0.10 |
|--------|--|-------|--|--------|

|        |  |       |  |        |
|--------|--|-------|--|--------|
| Shrimp |  | Pan b |  | ≤ 0.10 |
|--------|--|-------|--|--------|

|         |  |          |  |        |
|---------|--|----------|--|--------|
| Scallop |  | Pec spp. |  | ≤ 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 |
|--|---------|--------------------------------------|--------|

| Name              | E/M | Allergen          | Protein Family | kU <sub>A</sub> /L |
|-------------------|-----|-------------------|----------------|--------------------|
| Thornback ray     |     | Raj c             |                | ≤ 0.10             |
|                   |     | Raj c Parvalbumin | α-Parvalbumin  | ≤ 0.10             |
| Clam              |     | Rud spp.          |                | ≤ 0.10             |
| Salmon            |     | Sal s             |                | ≤ 0.10             |
|                   |     | Sal s 1           | β-Parvalbumin  | ≤ 0.10             |
| Atlantic mackerel |     | Sco s             |                | ≤ 0.10             |
|                   |     | Sco s 1           | β-Parvalbumin  | ≤ 0.10             |
| Tuna              |     | Thu a             |                | ≤ 0.10             |
|                   |     | Thu a 1           | β-Parvalbumin  | ≤ 0.10             |
| Swordfish         |     | Xip g 1           | β-Parvalbumin  | ≤ 0.10             |

## Meat

|                  |  |            |               |        |
|------------------|--|------------|---------------|--------|
| House cricket    |  | Ach d      |               | ≤ 0.10 |
| Cattle, meat     |  | Bos d_meat |               | ≤ 0.10 |
|                  |  | Bos d 6    | Serum Albumin | ≤ 0.10 |
| Horse, meat      |  | Equ c_meat |               | ≤ 0.10 |
| Chicken meat     |  | Gal d_meat |               | ≤ 0.10 |
| Migratory locust |  | Loc m      |               | ≤ 0.10 |
| Turkey           |  | Mel g      |               | ≤ 0.10 |
| Rabbit, meat     |  | Ory_meat   |               | ≤ 0.10 |
| Sheep, meat      |  | Ovi a_meat |               | ≤ 0.10 |
| Pork             |  | Sus d_meat |               | ≤ 0.10 |
|                  |  | Sus d 1    | Serum Albumin | ≤ 0.10 |
| Mealworm         |  | Ten m      |               | 0.26   |

## INSECTS & VENOMS

### Fire ant poison

|          |  |          |  |        |
|----------|--|----------|--|--------|
| Fire ant |  | Sol spp. |  | ≤ 0.10 |
|----------|--|----------|--|--------|

### Honey Bee Venom

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

| Name | E/M | Allergen | Protein Family | kU <sub>A</sub> /L |
|------|-----|----------|----------------|--------------------|
|------|-----|----------|----------------|--------------------|

### Wasp Venom

|                  |                                  |         |                  |        |
|------------------|----------------------------------|---------|------------------|--------|
| Hornet           |                                  | Dol spp |                  | ≤ 0.10 |
| Paper wasp venom |                                  | Pol d   |                  | ≤ 0.10 |
|                  | <input checked="" type="radio"/> | Pol d 5 | Antigen 5        | ≤ 0.10 |
| Wasp venom       |                                  | Ves v   |                  | ≤ 0.10 |
|                  | <input checked="" type="radio"/> | Ves v 1 | Phospholipase A1 | ≤ 0.10 |
|                  | <input checked="" type="radio"/> | Ves v 5 | Antigen 5        | 0.81   |

### Cockroach

|                    |                                  |         |                           |        |
|--------------------|----------------------------------|---------|---------------------------|--------|
| German Cockroach   | <input checked="" type="radio"/> | Bla g 1 | Cockroach Group 1         | ≤ 0.10 |
|                    | <input checked="" type="radio"/> | Bla g 2 | Aspartyl protease         | ≤ 0.10 |
|                    | <input checked="" type="radio"/> | Bla g 4 | Lipocalin                 | ≤ 0.10 |
|                    | <input checked="" type="radio"/> | Bla g 5 | Glutathione S-transferase | ≤ 0.10 |
|                    | <input checked="" type="radio"/> | Bla g 9 | Arginine kinase           | ≤ 0.10 |
| American Cockroach |                                  | Per a   |                           | ≤ 0.10 |
|                    | <input checked="" type="radio"/> | Per a 7 | Tropomyosin               | ≤ 0.10 |

## ANIMAL ORIGIN

### Pet

|                                |                                  |                  |               |        |
|--------------------------------|----------------------------------|------------------|---------------|--------|
| Dog                            | <input checked="" type="radio"/> | Can f_Fd1        | Uteroglobin   | ≤ 0.10 |
| Male dog urine (incl. Can f 5) |                                  | Can f_male urine |               | ≤ 0.10 |
| Dog                            | <input checked="" type="radio"/> | Can f 1          | Lipocalin     | ≤ 0.10 |
|                                | <input checked="" type="radio"/> | Can f 2          | Lipocalin     | ≤ 0.10 |
|                                | <input checked="" type="radio"/> | Can f 3          | Serum Albumin | ≤ 0.10 |
|                                | <input checked="" type="radio"/> | Can f 4          | Lipocalin     | ≤ 0.10 |
|                                | <input checked="" type="radio"/> | Can f 6          | Lipocalin     | ≤ 0.10 |
| Guinea pig                     | <input checked="" type="radio"/> | Cav p 1          | Lipocalin     | ≤ 0.10 |
| Cat                            | <input checked="" type="radio"/> | Fel d 1          | Uteroglobin   | 0.65   |
|                                | <input checked="" type="radio"/> | Fel d 2          | Serum Albumin | ≤ 0.10 |
|                                | <input checked="" type="radio"/> | Fel d 4          | Lipocalin     | ≤ 0.10 |
|                                | <input checked="" type="radio"/> | Fel d 7          | Lipocalin     | ≤ 0.10 |
| House mouse                    | <input checked="" type="radio"/> | Mus m 1          | Lipocalin     | ≤ 0.10 |

| Name               | E/M                              | Allergen | Protein Family | kU <sub>A</sub> /L |
|--------------------|----------------------------------|----------|----------------|--------------------|
| Rabbit, epithel    | <input checked="" type="radio"/> | Ory c 1  | Lipocalin      | ≤ 0.10             |
|                    | <input checked="" type="radio"/> | Ory c 2  | Lipophilin     | ≤ 0.10             |
|                    | <input checked="" type="radio"/> | Ory c 3  | Uteroglobin    | ≤ 0.10             |
| Djungarian hamster | <input checked="" type="radio"/> | Phod s 1 | Lipocalin      | ≤ 0.10             |
| Rat                |                                  | Rat n    |                | ≤ 0.10             |

## Farm Animals

|                |                                  |                 |               |        |
|----------------|----------------------------------|-----------------|---------------|--------|
| Cattle         | <input checked="" type="radio"/> | Bos d 2         | Lipocalin     | ≤ 0.10 |
| Goat, epithel  |                                  | Cap h_epithelia |               | ≤ 0.10 |
| Horse, epithel | <input checked="" type="radio"/> | Equ c 1         | Lipocalin     | ≤ 0.10 |
|                | <input checked="" type="radio"/> | Equ c 3         | Serum Albumin | ≤ 0.10 |
|                | <input checked="" type="radio"/> | Equ c 4         | Latherin      | ≤ 0.10 |
| Sheep, epithel |                                  | Ovi a_epithelia |               | ≤ 0.10 |
| Pig            |                                  | Sus d_epithelia |               | ≤ 0.10 |

## OTHERS

### Latex

|       |                                  |            |                               |        |
|-------|----------------------------------|------------|-------------------------------|--------|
| Latex | <input checked="" type="radio"/> | Hev b 1    | Rubber elongation factor      | ≤ 0.10 |
|       | <input checked="" type="radio"/> | Hev b 3    | Small rubber particle protein | ≤ 0.10 |
|       | <input checked="" type="radio"/> | Hev b 5    | unknown                       | ≤ 0.10 |
|       | <input checked="" type="radio"/> | Hev b 6.02 | Pro-Hevein                    | ≤ 0.10 |
|       | <input checked="" type="radio"/> | Hev b 8    | Profilin                      | ≤ 0.10 |
|       | <input checked="" type="radio"/> | Hev b 11   | Class 1 Chitinase             | ≤ 0.10 |

### Ficus

|             |  |       |  |        |
|-------------|--|-------|--|--------|
| Weeping fig |  | Fic b |  | ≤ 0.10 |
|-------------|--|-------|--|--------|

### Ccd

|                   |                                  |          |     |        |
|-------------------|----------------------------------|----------|-----|--------|
| Hom s Lactoferrin | <input checked="" type="radio"/> | Hom s LF | CCD | ≤ 0.10 |
|-------------------|----------------------------------|----------|-----|--------|

### Parasite

|             |                                  |         |           |        |
|-------------|----------------------------------|---------|-----------|--------|
| Pigeon tick | <input checked="" type="radio"/> | Arg r 1 | Lipocalin | ≤ 0.10 |
|-------------|----------------------------------|---------|-----------|--------|



# Total IgE: 56 kU/L

## Normal Total-IgE

**Adults:** < 20 kU/L Allergy unlikely, 20 - 100 kU/L Allergy possible, > 100 kU/L Allergy likely

# Number of tested allergen sources:

165



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



**COCKROACH** 2  
American cockroach, German cockroach



**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



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



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



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



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



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



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



**EGG** 2  
Egg white, Egg yolk



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



**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



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



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



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



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



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



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



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



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



INTERPRETATION GUIDANCE SOFTWARE

## Interpretation - Support

### Raven Interpretation Summary

#### Sample Information

The sample was tested on ALL Barcode , interpretation date .

Of the tested 295 allergens, 15 were/was above the cut off of 0.3 kU<sub>A</sub>/L. A sensitization can be an indicator of an IgE dependent allergy. For all positive ALL Allergy Test allergens, comments for interpretation guidance are listed below.

#### Total IgE: 56 kU/L

The measured total IgE was 56 kU/L. With a total IgE titre of below 100 kU/L, allergy is possible but unlikely.

#### Cross-Reactive allergen sensitization detected

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

Detected cross-reactive allergen sensitizations:

- Cysteine Proteases: Der f 1, Der p 1

##### Cysteine Proteases

Members of the Cysteine Protease (CP) allergen family can cause inhalative symptoms, as well as mild to severe forms of food allergy. CP allergens can be found in several fruits (e.g., kiwi, papaya, fig, pineapple), mites and in ragweed pollen. Associated allergic symptoms include hay fever (allergic rhinoconjunctivitis) and/or allergic asthma. CP food allergens can cause severe reactions and are resistant to heat and digestion.

#### Grass pollen

You have a sensitization to grass pollen.

Associated allergic reactions range from hay fever (allergic rhinoconjunctivitis) to allergic asthma.

Cyn d 1, Lol p 1 and Phl p 1 are members fo the  $\beta$ -Expansin allergen family. The potential for cross-reactions between members of this allergen family is very high. Allergen-specific immunotherapy (AIT) for  $\beta$ -Expansins is possible, 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 potential for cross-reactions between allergens of this family is very high.

Along with Phl p 1 and 5, Phl p 2 serves as a marker of true grass-pollen sensitization. Patients with isolated sensitization to Phl p 2 are not suitable candidates for allergen-specific immunotherapy (AIT).

Phl p 5 is a member of the Grass Group 5/6 allergen family.

The potential for cross-reactions between allergens of this family is high, although not in all grass pollen species.

Along with Phl p 1 and Phl p 2, Phl p 5 serves as marker of true grass-pollen sensitization.

Allergen-specific immunotherapy (AIT) is possible for sensitization to Phl p 1 and 5, if corresponding clinical symptoms occur.

Phl p 6 is a member of the Grass Group 5/6 allergen family.

The potential for cross-reactions between allergens of this family is high.

Treatment for symptoms includes anti-histamines as well as corticosteroid tablets and sprays. Causal treatment is possible for sensitizations to Phl p 1 and 5 via allergy-specific immunotherapy (AIT) is possible, if corresponding clinical symptoms occur.

## Furry Animals

### Cat

You have a sensitization to cat.

Associated allergic symptoms range from hay fever (allergic rhinoconjunctivitis) to allergic asthma.

Fel d 1 is a member of the Uteroglobulin (UG) allergen family and a marker for genuine cat allergy.

The potential for cross-reactions between Fel d 1 and other allergens of the UG family is low to moderate.

Allergen-specific immunotherapy (AIT) is possible, if corresponding clinical symptoms occur.

Avoidance of cats is strongly recommended. If cats cannot be avoided, allergen-specific immunotherapy can be prescribed. Treatment for symptoms includes anti-histamines as well as corticosteroid tablets and sprays.

## Mites and Cockroaches

### House dust mites

You have a sensitization to house dust mites.

Associated allergic symptoms range from hay fever (allergic rhinoconjunctivitis) to asthma.

Der p 1 & Der f 1 are members of the Cystein Protease allergen family (CP). The potential for cross-reactions between different members of the CP family in different house dust mites is high. Allergen-specific immunotherapy is possible for sensitizations to major allergens Der p 1 and Der f 1, if corresponding clinical symptoms occur. Positive results were obtained for: Der f 1, Der p 1.

Der p 2 & Der f 2 are members of the NPC2 allergen family. The potential for cross-reactions between different members of the NPC2 is very high in different house dust mites, and less so to related allergens in storage mites. Allergen-specific immunotherapy is possible for sensitizations to major allergens Der p 2 and Der f 2, if corresponding clinical symptoms occur. Positive results were obtained for: Der f 2, Der p 2.

Der p 23 is a member of the Peritrophin-like Protein allergen family (PLP), which is associated with the development of asthma.

The potential for cross-reactions to other allergens of the PLP family is not clear.

Avoidance of house dust mites is advised. Dust mite proof encasings for blankets, mattresses, and pillows can reduce the allergen load. Treatment for symptoms includes anti-histamines as well as corticosteroid tablets and sprays. Allergen-specific immunotherapy is possible for sensitizations to major allergens Der f 1/Der p 1 and Der f 2/Der p 2, if corresponding clinical symptoms occur.

## Insect Venoms

### Wasp

You have a sensitization to wasp venom.

Associated allergic symptoms range from local to severe anaphylactic reactions.

Ves v 5 is a member of the Antigen 5 allergen family.

The potential for cross-reactions between Ves v 5 and other allergens of the Antigen 5 family is high to other vespula (common wasp) species and lower to dolichovespula (yellow jackets) and vespa (hornets) species.

Allergen-specific immunotherapy for Ves v 5 sensitization is possible, if corresponding clinical symptoms occur.

As avoidance of wasps is difficult, allergen-specific immunotherapy (AIT) is the major therapy option in wasp venom allergy. Additionally, emergency kits including adrenaline autoinjectors (EpiPen) are prescribed. Please consult your allergy specialist for further information and therapy options.





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 ALL ALLERGY TEST 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 ALL ALLERGY TEST RESULTS.