

Order your test

PATIENT CODE  
⊕ EXAMPLE-0000

PATIENT NAME  
👤 Example Patient

SAMPLE CODE  
🧪 EXAMPLE

QR-CODE  
📄 EXAMPLE

ALLERGENS  
☑ 300

TEST METHOD  
🔧 ALEX<sup>3</sup>

DATE OF BIRTH  
01/01/1990

DOCTOR INFORMATION  
⚕

ANALYSIS DATE  
📅

PRINT DATE  
🖨

ADDITIONAL INFORMATION

Total IgE result: 1037 kU/L

Reference range total IgE  
Adults < 100 kU/L

LAB REPORT

Summary of detectable sensitisations



POLLEN



MITES



DANDER & EPITHELIA



MICROORGANISMS



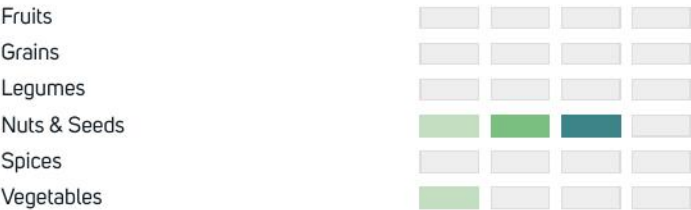
INSECTS



VENOMS



PLANT-BASED FOOD



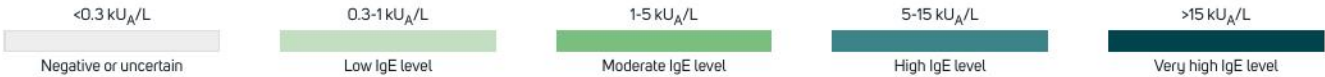
ANIMAL-BASED FOOD



OTHERS



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 <sub>A</sub> /L                                      |        |
|---------------|-----|--------------|-----------------|---------------------------------------------------------|--------|
| Bermuda grass | ●   | Cyn d 1      | β-Expansin      | <div><div></div><div></div><div></div><div></div></div> | 16.11  |
| Bahia grass   | ⋮   | Pas n        |                 | <div><div></div><div></div><div></div><div></div></div> | 2.33   |
| Timothy grass | ●   | Phl p 1      | β-Expansin      | <div><div></div><div></div><div></div><div></div></div> | 31.05  |
|               | ●   | Phl p 2      | Expansin        | <div><div></div><div></div><div></div><div></div></div> | 9.23   |
|               | ●   | Phl p 5.0101 | Grass Group 5/6 | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|               | ●   | Phl p 6      | Grass Group 5/6 | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|               | ●   | Phl p 7      | Polcalcin       | <div><div></div><div></div><div></div><div></div></div> | 0.11   |
|               | ●   | Phl p 12     | Profilin        | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Common reed   | ⋮   | Phr c        |                 | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Rye pollen    | ⋮   | Sec c_pollen |                 | <div><div></div><div></div><div></div><div></div></div> | 0.87   |
| Maize pollen  | ●   | Zea m 1      | β-Expansin      | <div><div></div><div></div><div></div><div></div></div> | 3.74   |

### Tree Pollen

| Name              | E/M | Allergen     | Allergen family     | kU <sub>A</sub> /L                                      |        |
|-------------------|-----|--------------|---------------------|---------------------------------------------------------|--------|
| Acacia            | ⋮   | Aca m        |                     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Tree of heaven    | ⋮   | Ail a        |                     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Alder             | ●   | Aln g 1      | PR-10               | <div><div></div><div></div><div></div><div></div></div> | 2.92   |
|                   | ●   | Aln g 4      | Polcalcin           | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Silver birch      | ●   | Bet v 1      | PR-10               | <div><div></div><div></div><div></div><div></div></div> | 2.98   |
|                   | ●   | Bet v 6      | Isoflavon Reductase | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|                   | ●   | Bet v 7      | Cyclophilin         | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Paper mulberry    | ⋮   | Bro pa       |                     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Sugi              | ●   | Cry j 1      | Pectate Lyase       | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Arizona cypress   | ●   | Cup a 1      | Pectate Lyase       | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Cypress           | ⋮   | Cup s        |                     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Ash               | ●   | Fra e 1      | Ole e 1 Family      | <div><div></div><div></div><div></div><div></div></div> | 2.87   |
| Walnut            | ⋮   | Jug r_pollen |                     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Mountain cedar    | ⋮   | Jun a        |                     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Olive             | ●   | Ole e 1      | Ole e 1 Family      | <div><div></div><div></div><div></div><div></div></div> | 5.17   |
|                   | ●   | Ole e 7      | nsLTP               | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|                   | ●   | Ole e 9      | β-1,3-Glucanase     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| London plane tree | ●   | Pla a 1      | Plant Invertase     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|                   | ●   | Pla a 2      | Polygalacturonase   | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|                   | ●   | Pla a 3      | nsLTP               | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Oak               | ●   | Que a 1      | PR-10               | <div><div></div><div></div><div></div><div></div></div> | 0.57   |

## Weed Pollen

| Name            | E/M  | Allergen | Allergen family       | kU <sub>A</sub> /L |
|-----------------|------|----------|-----------------------|--------------------|
| 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             |
| Wall pellitory  | ☐☐☐☐ | Par j    |                       | 0.10               |
|                 | ●    | Par j 2  | nsLTP                 | < 0.10             |
| Ribwort         | ●    | Pla l 1  | Ole e 1 Family        | < 0.10             |
| Russian thistle | ☐☐☐☐ | Sal k    |                       | < 0.10             |
|                 | ●    | Sal k 1  | Pectin Methylesterase | < 0.10             |
|                 | ●    | Sal k 5  | Ole e 1 Family        | < 0.10             |

## Mites

### House Dust Mites & Storage Mites

| Name                     | E/M  | Allergen | Allergen family                 | kU <sub>A</sub> /L |
|--------------------------|------|----------|---------------------------------|--------------------|
| Acarus siro              | ☐☐☐☐ | Aca s    |                                 | < 0.10             |
| Blomia tropicalis        | ●    | Blo t 2  | NPC2 Family                     | < 0.10             |
|                          | ●    | Blo t 5  | Mite Group 5/21                 | < 0.10             |
|                          | ●    | Blo t 10 | Tropomyosin                     | < 0.10             |
|                          | ●    | Blo t 21 | Mite Group 5/21                 | < 0.10             |
| American house dust mite | ●    | Der f 1  | Cysteine Protease               | 2.93               |
|                          | ●    | Der f 2  | NPC2 Family                     | 6.05               |
|                          | ●    | Der f 15 | Chitinase                       | < 0.10             |
|                          | ●    | Der f 18 | Chitinase-like Protein          | < 0.10             |
| European house dust mite | ●    | Der p 1  | Cysteine Protease               | 2.23               |
|                          | ●    | Der p 2  | NPC2 Family                     | 8.87               |
|                          | ●    | Der p 5  | Mite Group 5/21                 | < 0.10             |
|                          | ●    | Der p 7  | Mite Group 7                    | 3.01               |
|                          | ●    | Der p 10 | Tropomyosin                     | < 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 | 0.56               |
| Glycyphagus domesticus   | ●    | Gly d 2  | NPC2 Family                     | < 0.10             |

| Name                     | E/M | Allergen | Allergen family | kU <sub>A</sub> /L                                             |
|--------------------------|-----|----------|-----------------|----------------------------------------------------------------|
| Lepidoglyphus destructor | ●   | Lep d 2  | NPC2 Family     | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Tyrophagus putrescentiae | ⋮   | Tyr p    |                 | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                          | ●   | Tyr p 2  | NPC2 Family     | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                          | ●   | Tyr p 10 | Tropomyosin     | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

## Dander & Epithelia

### Farm Animals

| Name   | E/M | Allergen        | Allergen family | kU <sub>A</sub> /L                                             |
|--------|-----|-----------------|-----------------|----------------------------------------------------------------|
| Cattle | ●   | Bos d 2         | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Goat   | ⋮   | Cap h_epithelia |                 | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Horse  | ●   | Equ c 1         | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> 1.00   |
|        | ●   | Equ c 3         | Serum Albumin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|        | ●   | Equ c 4         | Latherin        | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Pig    | ⋮   | Sus d_epithelia |                 | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

### Pets

| Name                      | E/M | Allergen           | Allergen family | kU <sub>A</sub> /L                                             |
|---------------------------|-----|--------------------|-----------------|----------------------------------------------------------------|
| Dog                       | ●   | Can f Fel d 1 like | Uteroglobin     | <div><div></div><div></div><div></div><div></div></div> 0.53   |
| Dog urine (incl. Can f 5) | ⋮   | Can f_male urine   |                 | <div><div></div><div></div><div></div><div></div></div> 2.96   |
| Dog                       | ●   | Can f 1            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> 2.91   |
|                           | ●   | Can f 2            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                           | ●   | Can f 3            | Serum Albumin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                           | ●   | Can f 4            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                           | ●   | Can f 6            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Guinea pig                | ●   | Cav p 1            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Cat                       | ●   | Fel d 1            | Uteroglobin     | <div><div></div><div></div><div></div><div></div></div> 8.05   |
|                           | ●   | Fel d 2            | Serum Albumin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                           | ●   | Fel d 4            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                           | ●   | Fel d 7            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Golden hamster            | ●   | Mes a 1            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Mouse                     | ●   | Mus m 1            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Rabbit                    | ●   | Ory c 1            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                           | ●   | Ory c 2            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|                           | ●   | Ory c 3            | Uteroglobin     | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Djungarian hamster        | ●   | Phod s 1           | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Rat                       | ●   | Rat n 1            | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

## Microorganisms

### Fungal Spores & Yeast

| Name                    | E/M                                                                               | Allergen  | Allergen family         | kU <sub>A</sub> /L                                                                         |
|-------------------------|-----------------------------------------------------------------------------------|-----------|-------------------------|--------------------------------------------------------------------------------------------|
| Alternaria alternata    |  | Alt a 1   | Alt a 1 Family          | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Alt a 6   | Enolase                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Aspergillus fumigatus   |  | Asp f 1   | Mitogillin Family       | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Asp f 3   | Peroxisomal Protein     | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Asp f 4   | Unknown                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Asp f 6   | Mn Superoxide Dismutase | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Asp f 8   | Ribosomal Protein P2    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  |           |                         |                                                                                            |
| Cladosporium herbarum   |  | Cla h     |                         | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Cla h 8   | Mannitol Dehydrogenase  | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Malassezia sympodialis  |  | Mala s 5  | Unknown                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Mala s 6  | Cyclophilin             | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Mala s 11 | Mn Superoxide Dismutase | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                         |  | Mala s 13 | Thioredoxin             | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Penicillium chrysogenum |  | Pen ch    |                         | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |

## Insects

### Cockroach

| Name               | E/M                                                                                 | Allergen | Allergen family           | kU <sub>A</sub> /L                                                                         |
|--------------------|-------------------------------------------------------------------------------------|----------|---------------------------|--------------------------------------------------------------------------------------------|
| German cockroach   |  | Bla g 1  | Nitrile Specifier         | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                    |  | Bla g 2  | Aspartic Protease         | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                    |  | Bla g 4  | Lipocalin                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                    |  | Bla g 5  | Glutathione S-Transferase | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                    |  | Bla g 9  | Arginine Kinase           | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| American cockroach |  | Per a    |                           | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                    |  | Per a 6  | Troponin C                | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                    |  | Per a 7  | Tropomyosin               | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |

## Venoms

### Ant, Bee, Wasp, Hornet

| Name              | E/M                                                                                 | Allergen | Allergen family    | kU <sub>A</sub> /L                                                                         |
|-------------------|-------------------------------------------------------------------------------------|----------|--------------------|--------------------------------------------------------------------------------------------|
| Honey bee         |  | Api m    |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                   |  | Api m 1  | Phospholipase A2   | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                   |  | Api m 2  | Hyaluronidase      | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                   |  | Api m 10 | Icarapin Variant 2 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Bald-faced Hornet |  | Dol m 2  | Hyaluronidase      | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                   |  | Dol m 5  | Antigen 5          | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Paper wasp        |  | Pol d    |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                   |  | Pol d 5  | Antigen 5          | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Fire ant          |  | Sol spp  |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Common wasp       |  | Ves v 1  | Phospholipase A1   | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |

| Name | E/M                    | Allergen | Allergen family | kU <sub>A</sub> /L                                      |        |
|------|------------------------|----------|-----------------|---------------------------------------------------------|--------|
|      | <div><div></div></div> | Ves v 5  | Antigen 5       | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |

Plant-Based Food

Fruits

| Name       | E/M                    | Allergen | Allergen family               | kU <sub>A</sub> /L                                      |        |
|------------|------------------------|----------|-------------------------------|---------------------------------------------------------|--------|
| Kiwi       | <div><div></div></div> | Act d 1  | Cysteine Protease             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|            | <div><div></div></div> | Act d 2  | Thaumatococcus                | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|            | <div><div></div></div> | Act d 5  | Kiwifruit                     | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|            | <div><div></div></div> | Act d 10 | nsLTP                         | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Papaya     | <div><div></div></div> | Car p    |                               | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Coconut    | <div><div></div></div> | Coc n 1  | 7S Globulin                   | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Muskmelon  | <div><div></div></div> | Cuc m 2  | Profilin                      | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Fig        | <div><div></div></div> | Fic c    |                               | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Strawberry | <div><div></div></div> | Fra a 3  | nsLTP                         | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Apple      | <div><div></div></div> | Mal d 1  | PR-10                         | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|            | <div><div></div></div> | Mal d 3  | nsLTP                         | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Mango      | <div><div></div></div> | Man i 1  | Class 4 Chitinase             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Banana     | <div><div></div></div> | Mus a 2  | Class 1 Chitinase             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|            | <div><div></div></div> | Mus a 5  | β-1,3-Glucanase               | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Avocado    | <div><div></div></div> | Pers a   |                               | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|            | <div><div></div></div> | Pers a 1 | Class 1 Chitinase             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Cherry     | <div><div></div></div> | Pru av 3 | nsLTP                         | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Peach      | <div><div></div></div> | Pru p 3  | nsLTP                         | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|            | <div><div></div></div> | Pru p 7  | Gibberellin-regulated Protein | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Pear       | <div><div></div></div> | Pyr c    |                               | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Grape      | <div><div></div></div> | Vit v 1  | nsLTP                         | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |

Grains

| Name           | E/M                    | Allergen    | Allergen family             | kU <sub>A</sub> /L                                      |        |
|----------------|------------------------|-------------|-----------------------------|---------------------------------------------------------|--------|
| Oat            | <div><div></div></div> | Ave s       |                             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Quinoa         | <div><div></div></div> | Che q       |                             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Buckwheat      | <div><div></div></div> | Fag e       |                             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|                | <div><div></div></div> | Fag e 2     | 2S Albumin                  | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Barley         | <div><div></div></div> | Hor v       |                             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Lupine seed    | <div><div></div></div> | Lup a       |                             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Millet         | <div><div></div></div> | Pan m       |                             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Cultivated rye | <div><div></div></div> | Sec c_fLOUR |                             | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
| Wheat          | <div><div></div></div> | Tri a aA-TI | α-Amylase Trypsin-Inhibitor | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|                | <div><div></div></div> | Tri a 14    | nsLTP                       | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |
|                | <div><div></div></div> | Tri a 19    | Ω-5-Gliadin                 | <div><div></div><div></div><div></div><div></div></div> | < 0.10 |

| Name  | E/M | Allergen | Allergen family               | kU <sub>A</sub> /L                                             |
|-------|-----|----------|-------------------------------|----------------------------------------------------------------|
|       | ●   | Tri a 36 | Low Molecular Weight Glutenin | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|       | ●   | Tri a 37 | α-Purothionin                 | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Spelt | ■   | Tri s    |                               | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Maize | ■   | Zea m    |                               | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|       | ●   | Zea m 14 | nsLTP                         | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

## Legumes

| Name     | E/M | Allergen | Allergen family | kU <sub>A</sub> /L                                             |
|----------|-----|----------|-----------------|----------------------------------------------------------------|
| Peanut   | ●   | Ara h 1  | 7/8S Globulin   | <div><div></div><div></div><div></div><div></div></div> 0.15   |
|          | ●   | Ara h 2  | 2S Albumin      | <div><div></div><div></div><div></div><div></div></div> 0.14   |
|          | ●   | Ara h 3  | 11S Globulin    | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Ara h 6  | 2S Albumin      | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Ara h 8  | PR-10           | <div><div></div><div></div><div></div><div></div></div> 0.21   |
|          | ●   | Ara h 9  | nsLTP           | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Ara h 15 | Oleosin         | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Ara h 18 | Cyclophilin     | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Chickpea | ■   | Cic a    |                 | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Soy      | ●   | Gly m 4  | PR-10           | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Gly m 5  | 7/8S Globulin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Gly m 6  | 11S Globulin    | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Gly m 8  | 2S Albumin      | <div><div></div><div></div><div></div><div></div></div> 0.16   |
| Lentil   | ●   | Len c 1  | 7/8S Globulin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Len c 3  | nsLTP           | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Pea      | ●   | Pis s 1  | 7/8S Globulin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Pis s 2  | 7/8S Globulin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|          | ●   | Pis s 3  | nsLTP           | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

## Nuts & Seeds

| Name       | E/M | Allergen          | Allergen family | kU <sub>A</sub> /L                                             |
|------------|-----|-------------------|-----------------|----------------------------------------------------------------|
| Cashew     | ●   | Ana o 1           | 7/8S Globulin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|            | ●   | Ana o 2           | 11S Globulin    | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|            | ●   | Ana o 3           | 2S Albumin      | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Brazil nut | ■   | Ber e             |                 | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|            | ●   | Ber e 1           | 2S Albumin      | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Pecan      | ■   | Car i             |                 | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|            | ●   | Car i 1           | 2S Albumin      | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|            | ●   | Car i 2 (256-386) | 7/8S Globulin   | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|            | ●   | Car i 4           | 11S Globulin    | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Hazelnut   | ●   | Cor a 1.0401      | PR-10           | <div><div></div><div></div><div></div><div></div></div> 6.67   |
|            | ●   | Cor a 8           | nsLTP           | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|            | ●   | Cor a 9           | 11S Globulin    | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|            | ●   | Cor a 11          | 7/8S Globulin   | <div><div></div><div></div><div></div><div></div></div> 0.15   |

| Name           | E/M | Allergen              | Allergen family | kU <sub>A</sub> /L |
|----------------|-----|-----------------------|-----------------|--------------------|
|                | ●   | Cor a 14              | 2S Albumin      | < 0.10             |
| Pumpkin seed   | ☐   | Cuc p                 |                 | < 0.10             |
| Sunflower seed | ☐   | Hel a                 |                 | < 0.10             |
|                | ●   | Hel a 3               | nsLTP           | < 0.10             |
| Walnut         | ●   | Jug r 1               | 2S Albumin      | < 0.10             |
|                | ●   | Jug r 2               | 7/8S Globulin   | < 0.10             |
|                | ●   | Jug r 3               | nsLTP           | < 0.10             |
|                | ●   | Jug r 4               | 11S Globulin    | < 0.10             |
|                | ●   | Jug r 6               | 7/8S Globulin   | < 0.10             |
| Macadamia      | ☐   | Mac i                 |                 | < 0.10             |
|                | ●   | Mac i 1.0101 (28-76)  | α-Hairpinin     | < 0.10             |
| Poppy seed     | ☐   | Pap s                 |                 | < 0.10             |
|                | ●   | Pap s 1.0101 (27-846) | α-Hairpinin     | < 0.10             |
| 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             |
| Almond         | ☐   | Pru du                |                 | < 0.10             |
|                | ●   | Pru du 6              | 11S Globulin    | < 0.10             |
| Sesame         | ☐   | Ses i                 |                 | < 0.10             |
|                | ●   | Ses i 1               | 2S Albumin      | < 0.10             |

## Spices

| Name    | E/M | Allergen | Allergen family | kU <sub>A</sub> /L |
|---------|-----|----------|-----------------|--------------------|
| Mustard | ☐   | Sin a    |                 | < 0.10             |
|         | ●   | Sin a 1  | 2S Albumin      | < 0.10             |

## Vegetables

| Name   | E/M | Allergen | Allergen family | kU <sub>A</sub> /L |
|--------|-----|----------|-----------------|--------------------|
| Onion  | ☐   | All c    |                 | < 0.10             |
| Garlic | ☐   | All s    |                 | < 0.10             |
| Celery | ●   | Api g 1  | PR-10           | 0.59               |
|        | ●   | Api g 2  | nsLTP           | < 0.10             |
|        | ●   | Api g 6  | nsLTP           | < 0.10             |
|        | ●   | Api g 7  | Plant Defensin  | < 0.10             |
| Potato | ☐   | Sol t    |                 | < 0.10             |
| Tomato | ☐   | Sola l   |                 | 0.21               |
|        | ●   | Sola l 6 | nsLTP           | < 0.10             |

## Animal-Based Food

### Egg

| Name      | E/M | Allergen    | Allergen family | kU <sub>A</sub> /L |
|-----------|-----|-------------|-----------------|--------------------|
| Egg white | ⋮   | Gal d_white |                 | < 0.10             |
| Egg yolk  | ⋮   | Gal d_yolk  |                 | < 0.10             |
| Egg white | ⊙   | Gal d 1     | Ovomucoid       | 0.13               |
|           | ⊙   | Gal d 2     | Ovalbumin       | 0.23               |
|           | ⊙   | Gal d 3     | Ovotransferrin  | < 0.10             |
|           | ⊙   | Gal d 4     | Lysozyme C      | < 0.10             |
| Egg yolk  | ⊙   | Gal d 5     | Serum Albumin   | < 0.10             |

### Fish & Seafood

| Name                   | E/M | Allergen          | Allergen family                      | kU <sub>A</sub> /L |
|------------------------|-----|-------------------|--------------------------------------|--------------------|
| Anisakis simplex       | ⊙   | Ani s 1           | Kunitz Serine 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             |
|                        | ⊙   | Cyp c 2           | Enolase                              | < 0.10             |
| Atlantic cod           | ⊙   | Gad m 1           | β-Parvalbumin                        | < 0.10             |
| Lobster                | ⋮   | Hom g             |                                      | < 0.10             |
| Shrimp                 | ⋮   | Lit spp           |                                      | < 0.10             |
| Whiteleg shrimp        | ⊙   | Lit v 7           | Hemocyanin                           | < 0.10             |
| Squid                  | ⋮   | Lol spp           |                                      | < 0.10             |
| Giant freshwater prawn | ⊙   | Mac r 1           | Tropomyosin                          | < 0.10             |
|                        | ⊙   | Mac r 2           | Arginine Kinase                      | < 0.10             |
| Northern prawn         | ⋮   | Pan b             |                                      | < 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             |
| Thornback ray          | ⋮   | Raj c             |                                      | < 0.10             |
|                        | ⊙   | Raj c Parvalbumin | α-Parvalbumin                        | < 0.10             |
| Venus clam             | ⋮   | Rud spp           |                                      | < 0.10             |
| Salmon                 | ⋮   | Sal s             |                                      | < 0.10             |
|                        | ⊙   | Sal s 1           | β-Parvalbumin                        | < 0.10             |
|                        | ⊙   | Sal s 6           | Collagen                             | < 0.10             |
| Atlantic mackerel      | ⋮   | Sco s             |                                      | < 0.10             |
|                        | ⊙   | Sco s 1           | β-Parvalbumin                        | < 0.10             |

| Name      | E/M | Allergen | Allergen family | kU <sub>A</sub> /L                                                                         |
|-----------|-----|----------|-----------------|--------------------------------------------------------------------------------------------|
| Tuna      |     | Thu a 1  | β-Parvalbumin   | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Swordfish |     | Xip g 1  | β-Parvalbumin   | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |

## Meat

| Name             | E/M | Allergen   | Allergen family    | kU <sub>A</sub> /L                                                                         |
|------------------|-----|------------|--------------------|--------------------------------------------------------------------------------------------|
| House cricket    |     | Ach d      |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Beef             |     | Bos d_meat |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                  |     | Bos d 6    | Serum Albumin      | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Horse            |     | Equ c_meat |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Chicken          |     | Gal d_meat |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|                  |     | Gal d 7    | Myosin Light Chain | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Migratory locust |     | Loc m      |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Turkey           |     | Mel g      |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Rabbit           |     | Ory c_meat |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Lamb             |     | Ovi a_meat |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Pork             |     | Sus d 1    | Serum Albumin      | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Mealworm         |     | Ten m      |                    | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |

## Milk

| Name         | E/M | Allergen   | Allergen family | kU <sub>A</sub> /L                                                                         |
|--------------|-----|------------|-----------------|--------------------------------------------------------------------------------------------|
| Cow's milk   |     | Bos d_milk |                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|              |     | Bos d 4    | α-Lactalbumin   | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 0.14   |
|              |     | Bos d 5    | β-Lactoglobulin | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|              |     | Bos d 8    | Casein          | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|              |     | Bos d 9    | α-S1 Casein     | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|              |     | Bos d 10   | α-S2 Casein     | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|              |     | Bos d 11   | β-Casein        | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
|              |     | Bos d 12   | κ-Casein        | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Camel's milk |     | Cam d      |                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> 0.12   |
| Goat's milk  |     | Cap h_milk |                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Mare's milk  |     | Equ c_milk |                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |
| Sheep's milk |     | Ovi a_milk |                 | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |

## Others

### CCD

| Name              | E/M | Allergen | Allergen family | kU <sub>A</sub> /L                                                                         |
|-------------------|-----|----------|-----------------|--------------------------------------------------------------------------------------------|
| Hom s Lactoferrin |     | Hom s LF | CCD             | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> < 0.10 |

### Ficus

| Name        | E/M                                                                               | Allergen | Allergen family | kU <sub>A</sub> /L                                             |
|-------------|-----------------------------------------------------------------------------------|----------|-----------------|----------------------------------------------------------------|
| Weeping fig |  | Fic b    |                 | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

Latex

| Name  | E/M                                                                               | Allergen   | Allergen family               | kU <sub>A</sub> /L                                             |
|-------|-----------------------------------------------------------------------------------|------------|-------------------------------|----------------------------------------------------------------|
| Latex |  | Hev b 1    | Rubber Elongation Factor      | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|       |  | Hev b 3    | Small Rubber Particle Protein | <div><div></div><div></div><div></div><div></div></div> 0.21   |
|       |  | Hev b 5    | Unknown                       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|       |  | Hev b 6.02 | Pro-Hevein                    | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
|       |  | Hev b 11   | Class 1 Chitinase             | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

Parasite

| Name        | E/M                                                                               | Allergen | Allergen family | kU <sub>A</sub> /L                                             |
|-------------|-----------------------------------------------------------------------------------|----------|-----------------|----------------------------------------------------------------|
| Pigeon tick |  | Arg r 1  | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

Red meat

| Name     | E/M                                                                                | Allergen  | Allergen family | kU <sub>A</sub> /L                                             |
|----------|------------------------------------------------------------------------------------|-----------|-----------------|----------------------------------------------------------------|
| Red meat |  | Alpha-GAL | α-Gal           | <div><div></div><div></div><div></div><div></div></div> < 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 sensitiser 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 sensitised 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 <sub>A</sub> /L                                             |
|--------------|-------------------------------------------------------------------------------------|--------------|-----------------|----------------------------------------------------------------|
| Alder        |  | Aln g 1      | PR-10           | <div><div></div><div></div><div></div><div></div></div> 2.92   |
| Celery       |  | Api g 1      | PR-10           | <div><div></div><div></div><div></div><div></div></div> 0.59   |
| Peanut       |  | Ara h 8      | PR-10           | <div><div></div><div></div><div></div><div></div></div> 0.21   |
| Silver birch |  | Bet v 1      | PR-10           | <div><div></div><div></div><div></div><div></div></div> 2.98   |
| Hazelnut     |  | Cor a 1.0401 | PR-10           | <div><div></div><div></div><div></div><div></div></div> 6.67   |
| Soy          |  | Gly m 4      | PR-10           | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Apple        |  | Mal d 1      | PR-10           | <div><div></div><div></div><div></div><div></div></div> < 0.10 |
| Oak          |  | Que a 1      | PR-10           | <div><div></div><div></div><div></div><div></div></div> 0.57   |

Lipocalin

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 | Allergen family | kU <sub>A</sub> /L                                             |
|-------------|-------------------------------------------------------------------------------------|----------|-----------------|----------------------------------------------------------------|
| Pigeon tick |  | Arg r 1  | Lipocalin       | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

| Name               | E/M | Allergen | Allergen family | kU <sub>A</sub> /L |
|--------------------|-----|----------|-----------------|--------------------|
| German cockroach   | ●   | Bla g 4  | Lipocalin       | < 0.10             |
| Cattle             | ●   | Bos d 2  | Lipocalin       | < 0.10             |
| Dog                | ●   | Can f 1  | Lipocalin       | 2.91               |
|                    | ●   | Can f 2  | Lipocalin       | < 0.10             |
|                    | ●   | Can f 4  | Lipocalin       | < 0.10             |
|                    | ●   | Can f 6  | Lipocalin       | < 0.10             |
| Guinea pig         | ●   | Cav p 1  | Lipocalin       | < 0.10             |
| Horse              | ●   | Equ c 1  | Lipocalin       | 1.00               |
| Cat                | ●   | Fel d 4  | Lipocalin       | < 0.10             |
|                    | ●   | Fel d 7  | Lipocalin       | < 0.10             |
| Golden hamster     | ●   | Mes a 1  | Lipocalin       | < 0.10             |
| Mouse              | ●   | Mus m 1  | Lipocalin       | < 0.10             |
| Rabbit             | ●   | Ory c 1  | Lipocalin       | < 0.10             |
|                    | ●   | Ory c 2  | Lipocalin       | < 0.10             |
| Djungarian hamster | ●   | Phod s 1 | Lipocalin       | < 0.10             |
| Rat                | ●   | Rat n 1  | Lipocalin       | < 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 <sub>A</sub> /L |
|--------------------------|-----|----------|-----------------|--------------------|
| Blomia tropicalis        | ●   | Blo t 2  | NPC2 Family     | < 0.10             |
| American house dust mite | ●   | Der f 2  | NPC2 Family     | 6.05               |
| European house dust mite | ●   | Der p 2  | NPC2 Family     | 8.87               |
| Glycyphagus domesticus   | ●   | Gly d 2  | NPC2 Family     | < 0.10             |
| Lepidoglyphus destructor | ●   | Lep d 2  | NPC2 Family     | < 0.10             |
| 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 <sub>A</sub> /L |
|-----------------|-----|----------|-----------------|--------------------|
| Lamb's quarter  | ●   | Che a 1  | Ole e 1 Family  | < 0.10             |
| Ash             | ●   | Fra e 1  | Ole e 1 Family  | 2.87               |
| Olive           | ●   | Ole e 1  | Ole e 1 Family  | 5.17               |
| Ribwort         | ●   | Pla l 1  | Ole e 1 Family  | < 0.10             |
| Russian thistle | ●   | Sal k 5  | Ole e 1 Family  | < 0.10             |

## Uteroglobin

Uteroglobins show a limited degree of cross-reactivity.

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

| Name | E/M | Allergen           | Allergen family | kU <sub>A</sub> /L |
|------|-----|--------------------|-----------------|--------------------|
| Dog  | ●   | Can f Fel d 1 like | Uteroglobin     | 0.53               |

| Name   | E/M | Allergen | Allergen family | kU <sub>A</sub> /L                                             |
|--------|-----|----------|-----------------|----------------------------------------------------------------|
| Cat    |     | Fel d 1  | Uteroglobin     | <div><div></div><div></div><div></div><div></div></div> 8.05   |
| Rabbit |     | Ory c 3  | Uteroglobin     | <div><div></div><div></div><div></div><div></div></div> < 0.10 |

β-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 <sub>A</sub> /L                                            |
|---------------|-----|----------|-----------------|---------------------------------------------------------------|
| Bermuda grass |     | Cyn d 1  | β-Expansin      | <div><div></div><div></div><div></div><div></div></div> 16.11 |
| Timothy grass |     | Phl p 1  | β-Expansin      | <div><div></div><div></div><div></div><div></div></div> 31.05 |
| Maize pollen  |     | Zea m 1  | β-Expansin      | <div><div></div><div></div><div></div><div></div></div> 3.74  |



The sample was tested on QR code 03ELI285. RAVEN<sup>2</sup> analysed a total of 300 parameters, of which 24 were positive.

## Seasonal (Spring)

Symptoms indicative of allergies in spring time were either absent or not recorded in RAVEN<sup>2</sup>.

Genuine sensitisations to ash and silver birch were detected, but symptoms were either absent or not recorded in RAVEN<sup>2</sup>. Sensitisation to different cross-reactive families can lead to sensitisation to other trees.

Sensitisation to ash and silver birch are suspected to be the primary sources of cross-sensitisation to other Oleaceae and Fagales, respectively.

## Seasonal (Summer)

Symptoms indicative of allergies in summer were either absent or not recorded in RAVEN<sup>2</sup>.

Genuine sensitisation to timothy grass and IgE-reactivity to bahia grass and rye pollen was detected, but symptoms were either absent or not recorded in RAVEN<sup>2</sup>.

Sensitisation to ash and timothy grass are suspected to be the primary sources of cross-sensitisation to other grasses, respectively.

## Perennial

Symptoms indicative of perennial allergies were either absent or not recorded in RAVEN<sup>2</sup>.

Genuine sensitisations to cat, dermatophagoides pteronyssinus and dog were detected, but symptoms were either absent or not recorded in RAVEN<sup>2</sup>.

Sensitisation to dermatophagoides pteronyssinus and dog are suspected to be the primary sources of cross-sensitisation to other domestic mites and animal dander, respectively.

## Food

Symptoms indicative of food-related allergies were either absent or not recorded in RAVEN<sup>2</sup>.

## Contact allergens and insect venom

Symptoms indicative of allergies to insects- or arachnid venom were either absent or not recorded in RAVEN<sup>2</sup>.

## Total IgE: 1037 kU/L

The measured total IgE was 1037 kU/L. A high total IgE titre indicates that allergy is likely.

## 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:

- PR-10s: Aln g 1, Api g 1, Bet v 1, Cor a 1.0401
- Cysteine Proteases: Der f 1, Der p 1
- Lipocalins: Can f 1, Equ c 1

### PR-10 Proteins

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 birch related tree pollen explains possible IgE cross-reactivity between pollen from hazel, alder, beech, oak and hornbeam. PR-10 nutritive: PR-10 allergens in fresh fruits, nuts, vegetables and legumes can induce oral allergy syndrome and sometimes even severe allergic reactions in sensitised individuals. PR-10 allergens are not stable to heat and digestion.

### Cysteine Proteases

Members of the 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, mites and in ragweed pollen. Inhalative symptoms manifest as allergic rhinoconjunctivitis and/or allergic asthma. CP food allergens can cause severe reactions. Fruit CP allergens are resistant to heat and digestion.

### 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.

## Tree Pollen

### Birch Family

Sensitisation to pollen from the birch family was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.

Aln g 1 is a member of the PR-10 allergen family and is associated with inhalative symptoms and mostly mild forms of food allergy (e.g. oral allergy syndrome). The degree of cross-reactivity between Aln g 1 and pollen- as well as food-allergens from the PR-10 allergen family is high. The importance of these cross-reactions has to be analysed on a clinical level. Aln g 1 serves as a marker for AIT indication, if corresponding clinical symptoms are present. Bet v 1 is the major allergen in birch pollen and a member of the PR-10 allergen family. It is associated with inhalative symptoms and mostly mild forms of food allergy (e.g. oral allergy syndrome). The degree of cross-reactivity between Bet v 1 and pollen- as well as food-allergens from the PR-10 allergen family is high. The importance of these cross-reactions has to be analysed on a clinical level. Bet v 1 serves as a marker for AIT indication, if corresponding clinical symptoms are present.

Que a 1 is a member of the PR-10 allergen family and is associated with inhalative symptoms and mostly mild forms of food allergy (e.g. oral allergy syndrome). The degree of cross-reactivity between Que a 1 and pollen- as well as food-allergens from the PR-10 allergen family is high. The importance of these cross-reactions has to be analysed on a clinical level. Que a 1 serves as a marker for AIT indication, if corresponding clinical symptoms are present.

Causal treatment is possible via AIT, symptomatic treatment includes anti-histamines and local corticosteroids in various formulations (tablet, spray).

### Olive family

Sensitisation to pollen from the olive family was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.

Fra e 1 / Ole e 1 are members of the Ole e 1 allergen family. The degree of cross-reactivity is very high within the Oleaceae family (e.g. between ash, olive, lilac, privet), not so with more distant relatives (e.g. English Plantain). Fra e 1/Ole e 1 are major allergens from Ash/Olive and serve as markers for AIT indication, if corresponding clinical symptoms are present. Causal treatment is possible via AIT - Fra e 1/Ole e 1 serve as markers for AIT indication, if corresponding clinical symptoms are present. Symptomatic treatment includes anti-histamines and corticosteroids in various formulations (tablet, spray).

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

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

### Cat

Sensitisation to cat was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.

Fel d 1 is a member of the Uteroglobin (UG) allergen family and a marker for genuine cat allergy. Fel d 1 also serves as a marker for AIT indication, if corresponding clinical symptoms are present. The degree of cross-reactivity between Fel d 1 and other members of the UG allergen family is low to moderate (e.g. Can f Fel d 1 like from dog).

If avoidance of cats is not possible, an AIT can be prescribed. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance of exposition to cats is strongly recommended.

### Dog

Sensitisation to dog was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.

Can f 1 is a member of the Lipocalin allergen family (LC). There is a moderate risk of cross-reactivity with Fel d 7, a LC from cat. Can f 1 serves as a specific marker for dog sensitisation and as a marker for AIT, if corresponding clinical symptoms are present. The highest concentrations are found in fur and saliva.

Can f 5 is a member of the Arginine Esterase allergen family. It is a major allergen in male dogs only. Female and castrated dogs do not express Can f 5 in significant amounts. Also, patients sensitised to Can f 5 may react to human seminal fluid.

Can f Fel d 1 like is a member of the Uteroglobin like allergen family. The degree of cross-reactivity to Fel d 1 from cat is moderate.

If avoidance of dogs is not possible an AIT can be prescribed. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance is strongly recommended.

### Horse

Sensitisation to horse was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to allergic asthma.

Equ c 1 is a member of the Lipocalin allergen family (LC). There is a moderate risk of cross-reactivity to Fel d 4 (cat) and Can f 6 (dog). Equ c 1 is dispersed via saliva and dander.

If avoidance of horses is not possible an AIT can be prescribed - Equ c 1 serves a marker for AIT indication, if corresponding clinical symptoms are present. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance is strongly recommended.

## Mites and Cockroaches

### House dust mites

Sensitisation to house dust mite was detected. Allergic symptoms associated with this allergen source range from allergic rhinoconjunctivitis to asthma.

Der p 1 & Der f 1 are members of the Cystein Protease allergen family (CP). The degree of cross-reactivity between different members of the CP family in different house dust mites is high. Both Der p 1 and Der f 1 serve as markers for AIT indication, if corresponding symptoms are present. 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 degree of cross-reactivity between different members of the NPC2 is very high in different house dust mites and less so to related allergens in storage mites. Both Der p 2 and Der f 2 serve as markers for AIT indication. Positive results were obtained for: Der f 2, Der p 2.

Der p 7 is a member of the Mite Group 7 allergen family (MG 7). The degree of cross-reactivity to its pendant from *D. farinae* is very high, much lower to related allergens from storage mites.

Der p 23 is a member of the Peritrophin-like Protein allergen family (PLP), which is associated with the development of Asthma. The degree of cross-reactivity to other members of the PLP allergen family is not clear.

Allergen avoidance is advised. Encasings for blankets, mattresses and pillows can reduce the allergen load. Der f 1/Der p 1 and Der f 2/Der p 2 are major allergens from house dust mite and serve as markers for AIT indication, if corresponding clinical symptoms are present. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray).

## Nuts and Legumes

### Hazelnut

Sensitisation to hazelnut was detected. Allergic symptoms associated with hazelnut allergens range from oral allergy syndrome to severe anaphylactic reactions. Cor a 1.0401 is a member of the PR-10 allergen family and is associated with mild forms of hazelnut allergy e.g. oral allergy syndrome. In rare cases, mild systemic reactions occur. Severe anaphylactic reactions are very rare. The degree of cross-reactivity between Cor a 1.0401 and other members of the PR-10 allergen family is high. The importance of these cross-reactions has to be analysed on a clinical level. In most cases a Cor a 1.0401 sensitisation is caused by a primary sensitisation against Bet v 1 from birch pollen. Cor a 1.0401 is not 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).

## Vegetables

### Celery

Sensitisation to celery was detected. Allergic symptoms associated with celery range from oral allergy syndrome to anaphylaxis. Celery allergy is caused by sensitisation to pollen (from birch and mugwort), which causes cross-reactions to celery. Severe reactions to celery are often linked to a primary mugwort pollen sensitisation.

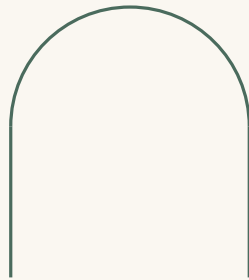
Api g 1 is a member of the PR-10 allergen family and is associated with mild forms of celery allergy (e.g. oral allergy syndrome). The degree of cross-reactivity between Api g 1 and other members of the PR-10 allergen family is high. The importance of these cross-reactions has to be analysed on a clinical level. In most cases an Api g 1 sensitisation is caused by a primary sensitisation against Bet v 1 from birch pollen. Api g 1 is not 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).

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 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 ALEX RESULTS.

ALEX<sup>3</sup> – Number of tested allergen sources

|                                                                                   |                                                                                                                                                                |                                                                                     |                                                                                                                     |                                                                                       |                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <b>Grass Pollen</b> 6                                                                                                                                          |    | <b>Legumes</b> 5                                                                                                    |    | <b>Milk</b> 5                                                                                                                                                                                                                                 |
|                                                                                   | Bahia grass, Bermuda grass, Common reed, Maize pollen, Rye pollen, Timothy grass                                                                               |                                                                                     | Chickpea, Lentil, Pea, Peanut, Soy                                                                                  |                                                                                       | Camel's milk, Cow's milk, Goat's milk, Mare's milk, Sheep's milk                                                                                                                                                                              |
|   | <b>Tree Pollen</b> 14                                                                                                                                          |    | <b>Grains</b> 10                                                                                                    |    | <b>Egg</b> 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, Millet, Oat, Quinoa, Spelt, Wheat                            |                                                                                       | Egg white, Egg yolk                                                                                                                                                                                                                           |
|   | <b>Weed Pollen</b> 8                                                                                                                                           |    | <b>Spices</b> 1                                                                                                     |    | <b>Fish &amp; Seafood</b> 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 |
|   | <b>House Dust Mites &amp; Storage Mites</b> 7                                                                                                                  |    | <b>Fruits</b> 14                                                                                                    |    | <b>Meat</b> 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, Pork, Rabbit, Turkey                                                                                                                                                   |
|   | <b>Vegetables</b> 5                                                                                                                                            |    | <b>Cockroach</b> 2                                                                                                  |    | <b>Pets</b> 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                                                                                                                                       |
|  | <b>Nuts &amp; Seeds</b> 13                                                                                                                                     |    | <b>Ant, Bee, Wasp, Hornet</b> 5                                                                                     |  | <b>Farm Animals</b> 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                                                                                                                                                                                                                      |
|                                                                                   |                                                                                                                                                                |  | <b>Fungal Spores &amp; Yeast</b> 5                                                                                  |  | <b>Others</b> 5                                                                                                                                                                                                                               |
|                                                                                   |                                                                                                                                                                |                                                                                     | Alternaria alternata, Aspergillus fumigatus, Cladosporium herbarum, Malassezia sympodialis, Penicillium chrysogenum |                                                                                       | Horn s Lactoferrin, Latex, Pigeon tick, Red meat, Weeping fig                                                                                                                                                                                 |



## An example report

This is an example report to show how the results will be presented.

Every individual's results will be different.

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One small blood sample, 300 allergens and the components behind them.

Do the test at home with a finger-prick kit, or come to Wimpole Street to have your blood taken professionally.

The test comes with a report like this. For results interpretation, you can book a consultation.

No GP referral needed.

**Order the ALEX<sup>3</sup> Allergen Panel Test**

Not sure it's the right test for you? Book a free 10-minute call and we'll talk it through.

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