


PATIENT ID

 A2208003636555

PATIENT NAME

 TEST, FDSN 8-1


DATE OF BIRTH

 8/8/1988

SAMPLE ID

 003636555

QR-CODE

 80AAX077

TESTED ANTIGENS

 286

TEST METHOD

 FOX

REFERRING PHYSICIAN

ACCESS MEDICAL LABS 1

Lab report: Overview of the IgG profile



Highest measured IgG concentration

0 - 9.99 µg/ml



Low IgG level

10 - 19.99 µg/ml



Intermediate IgG level

≥ 20 µg/ml



Highly elevated IgG level

Milk & Egg

| | | | | | |
|---|--------------|----|-------------------------------|--------------|-----|
| Buttermilk | 5.24 µg/ml | ● | Cow's milk Bos d 8 * (Casein) | ≤ 5.00 µg/ml | ● |
| Camembert | ≤ 5.00 µg/ml | ● | Buffalo milk | ≤ 5.00 µg/ml | ● |
| Emmental | ≤ 5.00 µg/ml | ● | Camel milk | ≤ 5.00 µg/ml | ● |
| Gouda | ≤ 5.00 µg/ml | ● | Goat cheese | ≤ 5.00 µg/ml | ● |
| Cottage cheese | ≤ 5.00 µg/ml | ● | Goat milk | ≤ 5.00 µg/ml | ● |
| Cow's milk | ≤ 5.00 µg/ml | ● | Quail egg | ≤ 5.00 µg/ml | ● |
| Mozzarella | ≤ 5.00 µg/ml | ● | Egg white | 28.98 µg/ml | ●●● |
| Parmesan | ≤ 5.00 µg/ml | ● | Egg yolk | 27.15 µg/ml | ●●● |
| Cow's milk Bos d 4 * (Alpha-Lactalbumin) | 10.96 µg/ml | ●● | Sheep cheese | ≤ 5.00 µg/ml | ● |
| Cow's milk Bos d 5 * (Beta-Lactoglobulin) | ≤ 5.00 µg/ml | ● | Sheep milk | ≤ 5.00 µg/ml | ● |

Meat

| | | | | | |
|---------|--------------|---|---------|--------------|---|
| Duck | ≤ 5.00 µg/ml | ● | Chicken | ≤ 5.00 µg/ml | ● |
| Beef | ≤ 5.00 µg/ml | ● | Turkey | ≤ 5.00 µg/ml | ● |
| Veal | ≤ 5.00 µg/ml | ● | Rabbit | ≤ 5.00 µg/ml | ● |
| Venison | ≤ 5.00 µg/ml | ● | Lamb | ≤ 5.00 µg/ml | ● |
| Goat | ≤ 5.00 µg/ml | ● | Ostrich | ≤ 5.00 µg/ml | ● |
| Stag | ≤ 5.00 µg/ml | ● | Pork | ≤ 5.00 µg/ml | ● |
| Horse | ≤ 5.00 µg/ml | ● | Boar | ≤ 5.00 µg/ml | ● |

Fish & Seafood

| | | | | | |
|------------------|--------------|---|-------------------|--------------|---|
| Caviar | ≤ 5.00 µg/ml | ● | Trout | ≤ 5.00 µg/ml | ● |
| Eel | ≤ 5.00 µg/ml | ● | Oyster | 5.18 µg/ml | ● |
| Crayfish | ≤ 5.00 µg/ml | ● | Northern prawn | ≤ 5.00 µg/ml | ● |
| Cockle | 5.39 µg/ml | ● | Scallop | ≤ 5.00 µg/ml | ● |
| Crab | ≤ 5.00 µg/ml | ● | Razor shell clam | ≤ 5.00 µg/ml | ● |
| Atlantic herring | ≤ 5.00 µg/ml | ● | European plaice | ≤ 5.00 µg/ml | ● |
| Carp | ≤ 5.00 µg/ml | ● | Thornback Ray | ≤ 5.00 µg/ml | ● |
| Anchovy | ≤ 5.00 µg/ml | ● | Venus clam | ≤ 5.00 µg/ml | ● |
| Northern pike | ≤ 5.00 µg/ml | ● | Salmon | ≤ 5.00 µg/ml | ● |
| Atlantic cod | ≤ 5.00 µg/ml | ● | European pilchard | ≤ 5.00 µg/ml | ● |

* Molecular Antigen

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| | | |
|---------------|--------------|---|
| Abalone | ≤ 5.00 µg/ml | ● |
| Lobster | ≤ 5.00 µg/ml | ● |
| Shrimp mix | ≤ 5.00 µg/ml | ● |
| Squid | ≤ 5.00 µg/ml | ● |
| Monkfish | ≤ 5.00 µg/ml | ● |
| Haddock | ≤ 5.00 µg/ml | ● |
| Hake | ≤ 5.00 µg/ml | ● |
| Common mussel | 6.64 µg/ml | ● |
| Octopus | ≤ 5.00 µg/ml | ● |

| | | |
|------------------|--------------|---|
| Turbot | ≤ 5.00 µg/ml | ● |
| Mackerel | ≤ 5.00 µg/ml | ● |
| Atlantic redfish | ≤ 5.00 µg/ml | ● |
| Sepia | ≤ 5.00 µg/ml | ● |
| Sole | ≤ 5.00 µg/ml | ● |
| Gilt-head bream | ≤ 5.00 µg/ml | ● |
| Tuna | ≤ 5.00 µg/ml | ● |
| Swordfish | ≤ 5.00 µg/ml | ● |

Cereals & Seeds

| | | |
|---------------|--------------|-------|
| Amaranth | ≤ 5.00 µg/ml | ● |
| Oat | ≤ 5.00 µg/ml | ● |
| Canola | 20.59 µg/ml | ● ● ● |
| Hempseed | ≤ 5.00 µg/ml | ● |
| Quinoa | ≤ 5.00 µg/ml | ● |
| Pumpkin seed | ≤ 5.00 µg/ml | ● |
| Buckwheat | ≤ 5.00 µg/ml | ● |
| Sunflower | ≤ 5.00 µg/ml | ● |
| Barley | ≤ 5.00 µg/ml | ● |
| Malt (barley) | ≤ 5.00 µg/ml | ● |
| Flaxseed | ≤ 5.00 µg/ml | ● |
| Lupine seed | ≤ 5.00 µg/ml | ● |
| Rice | ≤ 5.00 µg/ml | ● |
| Millet | ≤ 5.00 µg/ml | ● |
| Poppyseed | ≤ 5.00 µg/ml | ● |

| | | |
|-------------------------------|--------------|-------|
| Pine nut | ≤ 5.00 µg/ml | ● |
| Rye | 12.91 µg/ml | ● ● |
| Sesame | ≤ 5.00 µg/ml | ● |
| Wheat | 15.40 µg/ml | ● ● |
| Wheat bran | 8.37 µg/ml | ● |
| Wheat gliadin Tri a Gliadin * | 11.87 µg/ml | ● ● |
| Wheatgrass | ≤ 5.00 µg/ml | ● |
| Gluten wheat | 30.48 µg/ml | ● ● ● |
| Emmer wheat | 18.91 µg/ml | ● ● |
| Durum wheat | 7.14 µg/ml | ● |
| Einkorn wheat | 7.91 µg/ml | ● |
| Polish wheat | 8.96 µg/ml | ● |
| Spelt | 5.77 µg/ml | ● |
| Corn | ≤ 5.00 µg/ml | ● |

Nuts

| | | |
|----------------|--------------|---|
| Cashew | ≤ 5.00 µg/ml | ● |
| Brazil nut | ≤ 5.00 µg/ml | ● |
| Pecan nut | ≤ 5.00 µg/ml | ● |
| Sweet chestnut | ≤ 5.00 µg/ml | ● |
| Coconut milk | ≤ 5.00 µg/ml | ● |
| Coconut | ≤ 5.00 µg/ml | ● |

| | | |
|-----------|--------------|---|
| Hazelnut | ≤ 5.00 µg/ml | ● |
| Tigernut | ≤ 5.00 µg/ml | ● |
| Walnut | ≤ 5.00 µg/ml | ● |
| Macadamia | ≤ 5.00 µg/ml | ● |
| Pistachio | ≤ 5.00 µg/ml | ● |
| Almond | ≤ 5.00 µg/ml | ● |

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Kola nut ≤ 5.00 µg/ml ●

Legumes

Peanut ≤ 5.00 µg/ml ●

Chickpea ≤ 5.00 µg/ml ●

Soy ≤ 5.00 µg/ml ●

Lentil ≤ 5.00 µg/ml ●

White bean ≤ 5.00 µg/ml ●

Green bean ≤ 5.00 µg/ml ●

Pea ≤ 5.00 µg/ml ●

Sugar pea ≤ 5.00 µg/ml ●

Tamarind ≤ 5.00 µg/ml ●

Mung bean ≤ 5.00 µg/ml ●

Fruits

Kiwi ≤ 5.00 µg/ml ●

Pineapple 10.49 µg/ml ●●

Papaya ≤ 5.00 µg/ml ●

Lime ≤ 5.00 µg/ml ●

Lemon ≤ 5.00 µg/ml ●

Watermelon ≤ 5.00 µg/ml ●

Grapefruit ≤ 5.00 µg/ml ●

Tangerine ≤ 5.00 µg/ml ●

Orange ≤ 5.00 µg/ml ●

Melon ≤ 5.00 µg/ml ●

Fig ≤ 5.00 µg/ml ●

Strawberry ≤ 5.00 µg/ml ●

Lychee ≤ 5.00 µg/ml ●

Apple ≤ 5.00 µg/ml ●

Mango ≤ 5.00 µg/ml ●

Mulberry ≤ 5.00 µg/ml ●

Banana ≤ 5.00 µg/ml ●

Passion fruit ≤ 5.00 µg/ml ●

Date ≤ 5.00 µg/ml ●

Physalis ≤ 5.00 µg/ml ●

Apricot ≤ 5.00 µg/ml ●

Cherry ≤ 5.00 µg/ml ●

Plum ≤ 5.00 µg/ml ●

Peach ≤ 5.00 µg/ml ●

Nectarine ≤ 5.00 µg/ml ●

Pomegranate ≤ 5.00 µg/ml ●

Pear ≤ 5.00 µg/ml ●

Gooseberry ≤ 5.00 µg/ml ●

Red currant ≤ 5.00 µg/ml ●

Blackberry ≤ 5.00 µg/ml ●

Raspberry ≤ 5.00 µg/ml ●

Elderberry ≤ 5.00 µg/ml ●

Blueberry ≤ 5.00 µg/ml ●

Cranberry ≤ 5.00 µg/ml ●

Grape ≤ 5.00 µg/ml ●

Raisin ≤ 5.00 µg/ml ●

Vegetables

Shallot ≤ 5.00 µg/ml ●

Onion ≤ 5.00 µg/ml ●

Leek ≤ 5.00 µg/ml ●

Caper ≤ 5.00 µg/ml ●

Endive ≤ 5.00 µg/ml ●

Radicchio ≤ 5.00 µg/ml ●

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| | | | | | |
|------------------|--------------|--|-------------------|--------------|--|
| Garlic | 8.47 µg/ml | | Chicorée | ≤ 5.00 µg/ml | |
| Chives | ≤ 5.00 µg/ml | | Pumpkin Butternut | ≤ 5.00 µg/ml | |
| Wild garlic | ≤ 5.00 µg/ml | | Pumpkin Hokkaido | ≤ 5.00 µg/ml | |
| Celery Bulb | ≤ 5.00 µg/ml | | Kiwano | ≤ 5.00 µg/ml | |
| Celery Stalk | ≤ 5.00 µg/ml | | Zucchini | ≤ 5.00 µg/ml | |
| Horseradish | ≤ 5.00 µg/ml | | Cucumber | ≤ 5.00 µg/ml | |
| Asparagus | ≤ 5.00 µg/ml | | Artichoke | ≤ 5.00 µg/ml | |
| Bamboo sprouts | ≤ 5.00 µg/ml | | Carrot | ≤ 5.00 µg/ml | |
| Chard | ≤ 5.00 µg/ml | | Arugula | ≤ 5.00 µg/ml | |
| Red beet | ≤ 5.00 µg/ml | | Fennel (bulb) | ≤ 5.00 µg/ml | |
| Cabbage | ≤ 5.00 µg/ml | | Sweet potato | ≤ 5.00 µg/ml | |
| Cauliflower | ≤ 5.00 µg/ml | | Watercress | ≤ 5.00 µg/ml | |
| White cabbage | ≤ 5.00 µg/ml | | Olive | ≤ 5.00 µg/ml | |
| Brussels sprouts | ≤ 5.00 µg/ml | | Parsnip | ≤ 5.00 µg/ml | |
| Kohlrabi | ≤ 5.00 µg/ml | | Avocado | ≤ 5.00 µg/ml | |
| Broccoli | ≤ 5.00 µg/ml | | Radish | ≤ 5.00 µg/ml | |
| Romanesco | ≤ 5.00 µg/ml | | Eggplant | ≤ 5.00 µg/ml | |
| Red cabbage | ≤ 5.00 µg/ml | | Potato | ≤ 5.00 µg/ml | |
| Green cabbage | ≤ 5.00 µg/ml | | Tomato | ≤ 5.00 µg/ml | |
| Savoy cabbage | ≤ 5.00 µg/ml | | Spinach | ≤ 5.00 µg/ml | |
| Turnip | ≤ 5.00 µg/ml | | Nettle leaves | ≤ 5.00 µg/ml | |
| Bok Choy | ≤ 5.00 µg/ml | | Lamb's lettuce | ≤ 5.00 µg/ml | |
| Chinese cabbage | ≤ 5.00 µg/ml | | | | |

Spices

| | | | | | |
|----------------|--------------|--|--|--------------|--|
| Dill | ≤ 5.00 µg/ml | | Mint | ≤ 5.00 µg/ml | |
| Tarragon | ≤ 5.00 µg/ml | | Basil | ≤ 5.00 µg/ml | |
| Paprika | ≤ 5.00 µg/ml | | Majoram | ≤ 5.00 µg/ml | |
| Cayenne pepper | ≤ 5.00 µg/ml | | Oregano | ≤ 5.00 µg/ml | |
| Chili (red) | ≤ 5.00 µg/ml | | Parsley | ≤ 5.00 µg/ml | |
| Caraway | ≤ 5.00 µg/ml | | Anise | ≤ 5.00 µg/ml | |
| Cinnamon | ≤ 5.00 µg/ml | | Pepper (black/white/green/red/yellow) | ≤ 5.00 µg/ml | |
| Curry | ≤ 5.00 µg/ml | | Rosmary | ≤ 5.00 µg/ml | |

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| | | | | | |
|---------------|--------------|---|-----------|--------------|----|
| Coriander | ≤ 5.00 µg/ml | ● | Sage | ≤ 5.00 µg/ml | ● |
| Cumin | ≤ 5.00 µg/ml | ● | Mustard | 11.21 µg/ml | ●● |
| Turmeric | ≤ 5.00 µg/ml | ● | Clove | ≤ 5.00 µg/ml | ● |
| Lemongrass | ≤ 5.00 µg/ml | ● | Thyme | ≤ 5.00 µg/ml | ● |
| Cardamom | ≤ 5.00 µg/ml | ● | Fenugreek | ≤ 5.00 µg/ml | ● |
| Juniper berry | ≤ 5.00 µg/ml | ● | Vanilla | ≤ 5.00 µg/ml | ● |
| Bay leaf | ≤ 5.00 µg/ml | ● | Ginger | ≤ 5.00 µg/ml | ● |
| Nutmeg | ≤ 5.00 µg/ml | ● | | | |

Edible Mushrooms

| | | | | | |
|----------------|--------------|---|----------------------|--------------|---|
| White mushroom | ≤ 5.00 µg/ml | ● | Enoki | ≤ 5.00 µg/ml | ● |
| Boletus | ≤ 5.00 µg/ml | ● | French horn mushroom | ≤ 5.00 µg/ml | ● |
| Chanterelle | ≤ 5.00 µg/ml | ● | Oyster mushroom | ≤ 5.00 µg/ml | ● |

Novel Foods

| | | | | | |
|----------------------|--------------|----|----------------|--------------|---|
| House cricket | 13.30 µg/ml | ●● | Ginseng | ≤ 5.00 µg/ml | ● |
| Baobab | ≤ 5.00 µg/ml | ● | Guarana | ≤ 5.00 µg/ml | ● |
| Aloe | ≤ 5.00 µg/ml | ● | Almond milk | ≤ 5.00 µg/ml | ● |
| Greater burdock root | ≤ 5.00 µg/ml | ● | Nori | ≤ 5.00 µg/ml | ● |
| Aronia | ≤ 5.00 µg/ml | ● | Chia seed | ≤ 5.00 µg/ml | ● |
| Safflower oil | ≤ 5.00 µg/ml | ● | Yacón root | ≤ 5.00 µg/ml | ● |
| Chlorella | ≤ 5.00 µg/ml | ● | Spirulina | ≤ 5.00 µg/ml | ● |
| Ginkgo | 5.69 µg/ml | ● | Dandelion root | ≤ 5.00 µg/ml | ● |
| Maca root | ≤ 5.00 µg/ml | ● | Mealworm | ≤ 5.00 µg/ml | ● |
| Migratory locust | ≤ 5.00 µg/ml | ● | Wakame | ≤ 5.00 µg/ml | ● |
| Tapioca | ≤ 5.00 µg/ml | ● | | | |

Coffee & Tea

| | | | | | |
|------------|--------------|---|------------|--------------|---|
| Tea, black | ≤ 5.00 µg/ml | ● | Chamomile | ≤ 5.00 µg/ml | ● |
| Tea, green | ≤ 5.00 µg/ml | ● | Peppermint | ≤ 5.00 µg/ml | ● |
| Coffee | ≤ 5.00 µg/ml | ● | Moringa | ≤ 5.00 µg/ml | ● |
| Hibiscus | ≤ 5.00 µg/ml | ● | Cocoa | ≤ 5.00 µg/ml | ● |
| Jasmine | ≤ 5.00 µg/ml | ● | | | |

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Others

| | | | | | |
|-------------------|--------------|---|-------------------------------|--------------|---|
| Agar Agar | ≤ 5.00 µg/ml | ● | Cane sugar | 5.52 µg/ml | ● |
| Honey | ≤ 5.00 µg/ml | ● | Brewer's yeast | ≤ 5.00 µg/ml | ● |
| Aspergillus niger | ≤ 5.00 µg/ml | ● | Elderflower | ≤ 5.00 µg/ml | ● |
| Hops | ≤ 5.00 µg/ml | ● | M-Transglutaminase, meat glue | ≤ 5.00 µg/ml | ● |
| Baker's yeast | ≤ 5.00 µg/ml | ● | | | |

CCD

Human Lactoferrin ≤ 5.00 µg/ml ●

ASSAY PERFORMED ON

8/1/2022

APPROVED ON

8/2/2022

Number of tested food sources:

283



MILK & EGG

17

Buffalo milk, Buttermilk, Camel milk, Camembert, Cottage cheese, Cow's milk, Egg white, Egg yolk, Emmental, Goat cheese, Goat milk, Gouda, Mozzarella, Parmesan, Quail egg, Sheep cheese, Sheep milk



MEAT

14

Beef, Boar, Chicken, Duck, Goat, Horse, Lamb, Ostrich, Pork, Rabbit, Stag, Turkey, Veal, Venison



FISH & SEAFOOD

37

Abalone, Atlantic cod, Atlantic herring, Atlantic redfish, Carp, Caviar, Cockle, Common mussel, Crab, Eel, Anchovy, European pilchard, European plaice, Gilt-head bream, Haddock, Hake, Lobste, Mackerel, Monkfish, Crayfish, Northern pike, Northern prawn, Octopus, Oyster, Razor shell clam, Salmon, Scallop, Sepia, Shrimp mix, Sole, Squid, Swordfish, Thornback Ray, Trout, Tuna, Turbot, Venus clam



CEREALS & SEEDS

29

Amaranth, Barley, Buckwheat, Corn, Durum wheat, Einkorn wheat, Emmer wheat, Hempseed, Flaxseed, Lupine seed, Malt (barley), Millet, Oat, Pine nut, Polish wheat, Poppyseed, Pumpkin seed, Quinoa, Canola, Rice, Rye, Sesame, Spelt, Sunflower, Wheat, Gluten wheat, Wheat bran, Wheatgrass



NUTS

13

Almond, Brazil nut, Cashew, Coconut, Coconut milk, Hazelnut, Kola nut, Macadamia, Pecan nut, Pistachio, Sweet chestnut, Tigernut, Walnut



LEGUMES

10

Chickpea, Green bean, Lentil, Mung bean, Peanut, Pea, Soy, Sugar pea, Tamarind, White bean



FRUITS

36

Apple, Apricot, Banana, Blackberry, Blueberry, Cherry, Cranberry, Date, Elderberry, Fig, Gooseberry, Grape, Grapefruit, Kiwi, Lemon, Lime, Lychee, Mango, Melon, Mulberry, Nectarine, Orange, Papaya, Passion fruit, Peach, Pear, Physalis, Pineapple, Plum, Pomegranate, Raisin, Raspberry, Red currant, Strawberry, Tangerine, Watermelon



VEGETABLES

51

Artichoke, Arugula, Avocado, Bamboo sprouts, Broccoli, Brussels sprouts, Cabbage, Caper, Carrot, Cauliflower, Celery Bulb, Celery Stalk, Chard, Chicorée, Chinese cabbage, Chives, Cucumber, Eggplant, Endive, Fennel (bulb), Garlic, Green cabbage, Horseradish, Kiwano, Kohlrabi, Lamb's lettuce, Leek, Nettle leaves, Olive, Onion, Parsnip, Bok Choi, Potato, Pumpkin Butternut, Pumpkin Hokkaido, Radicchio, Radish, Red beet, Red cabbage, Romanesco, Savoy cabbage, Shallot, Spinach, Sweet potato, Tomato, Turnip, Watercress, Asparagus, White cabbage, Wild garlic, Zucchini



SPICES

31

Anise, Basil, Bay leaf, Caraway, Cardamom, Cayenne pepper, Chili (red), Cinnamon, Clove, Coriander, Cumin, Curry, Dill, Fenugreek, Ginger, Juniper berry, Lemongrass, Marjoram, Mint, Mustard, Nutmeg, Oregano, Paprika, Parsely, Pepper (black/white/green/red/yellow), Rosemary, Sage, Tarragon, Thyme, Turmeric, Vanilla



EDIBLE MUSHROOMS

6

Boletus, Chanterelle, Enoki, French horn mushroom, Oyster mushroom, White Mushroom



NOVEL FOODS

21

Almond milk, Aloe, Aronia, Baobab, Chia seed, Chlorella, Dandelion root, Ginkgo, Ginseng, Greater burdock root, Guarana, House cricket, Maca root, Mealworm, Migratory locust, Nori, Safflower oil, Spirulina, Tapioca, Wakame, Yacón root



COFFEE & TEA

9

Chamomile, Cocoa, Coffee, Hibiscus, Jasmine, Moringa, Peppermint, Tea black, Tea green



OTHERS

9

Agar Agar, Aspergillus niger, Baker's yeast, Brewer's yeast, Cane sugar, Elderflower, Honey, Hops, M-Transglutaminase meat glue

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Interpretation - Support

Interpretation Summary

Milk & Eggs

Cow's milk

Your IgG level for cow's milk is 10.96 µg/ml.

Associated food intolerance symptoms after consuming cow's milk include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes containing cow's milk include dairy products such as butter, cheese, cream, sour cream, custard, yogurt, ice cream, and pudding. Cow's milk protein is often included in gratins, breads, cookies, crackers, cakes, battered foods, cake mix, cereal, chocolate, coffee creamer, granola bars, margarine, mashed potatoes, and salad dressings. On food labels, milk protein may be referred to as artificial butter, cheese flavor, casein, diacetyl, curd, ghee, hydrolysates, lactalbumin, lactose, recaldent, rennet, tagatose, or whey.

Possible alternatives for cow's milk include goat's milk, camel's milk, sheep's milk, and buffalo's milk for animal derived sources. Plant-based alternatives include coconut milk, rice milk, soy milk, almond milk, and oat milk. Please note that the proteins in the milk of different animals are structurally similar to the proteins in cow's milk. Some patients may tolerate them, others might experience similar reactions to what they experience after consuming cow's milk.

Egg white

Your IgG level for egg white is 28.98 µg/ml.

Associated food intolerance symptoms after consuming egg white include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes containing egg whites include all kinds of egg dishes (omelettes, fried eggs, scrambled eggs, etc.), as well as breaded and battered foods, salad dressing, cream pies, cream puffs, crepes, waffles, custards, puddings, marshmallows, marzipan, mayonnaise, meatloaf, meatballs, meringue, frosting, pasta, sauces, soufflés, surimi, and in some cases, wine. On food labels, egg proteins may be referred to as albumin, globulin, lecithin, livetin, lysozyme, ovalbumin, ovaglobulin, ovomucin, ovovitellin, or vitellin.

Possible alternatives for egg whites include aquafaba (liquid found in canned chickpeas or beans) for meringues and marshmallows. If a whole egg is used to add moisture to baked goods, mashed banana is a possible alternative. To make baked goods heavier and denser, ground flaxseeds and chia seeds are good alternatives for eggs. If the egg is used as a leavining agent, 1/4 cup of carbonated water per egg works as a substitute. Silken tofu is used as a scrambled egg substitute.

Egg yolk

Your IgG level for egg yolk is 27.15 µg/ml.

Associated food intolerance symptoms after consuming egg yolk include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes containing egg yolks include all kinds of egg dishes (omelettes, fried eggs, scrambled eggs, etc.), as well as breaded and battered foods, salad dressing, cream pies, cream puffs, crepes, waffles, custards, puddings, marshmallows, marzipan, mayonnaise, meatloaf, meatballs, meringue, frosting, pasta, sauces, soufflés, and surimi. On food labels, egg proteins may be referred to as albumin, globulin, lecithin, livetin, lysozyme, ovalbumin, ovaglobulin, ovomucin, ovovitellin, or vitellin.

Possible alternatives for egg yolks include soy lecithin (a byproduct of soybean oil). If a whole egg is used to add moisture to baked goods, mashed banana is a possible alternative. To make baked goods heavier and denser, ground flaxseeds and chia seeds are good alternatives for eggs. If the egg is used as a leavining agent, 1/4 cup of carbonated water per egg works as a substitute. Silken tofu is used as a scrambled egg substitute.

Cereals & Seeds

Emmer

Your IgG level for emmer is 18.91 µg/ml.

Associated food intolerance symptoms after consuming emmer include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn,

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diarrhea, headaches, irritability, and nervousness.

Food products and dishes typically containing emmer or emmer flour include breads, crackers, flatbreads, cereal bars, cookies, protein bars, muffins, and other baked goods.

Possible alternatives to emmer flour include spelt flour, einkorn flour, amaranth flour, barley flour, and rice flour.

Gluten

Your IgG level for gluten is 30.48 µg/ml.

Associated food intolerance symptoms after consuming gluten include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes typically containing gluten include wheat, wheat varieties (spelt, durum, couscous, semolina, farina, farro, kamut, einkorn, bulgur, wheat bran, wheat starch, emmer, seitan, graham flour, rye, barley), bread, pittas, bagels, flatbreads, rolls, pasta, crackers, biscuits, pastry, breakfast cereals, breadcrumbs, croutons, beers, ales, and lagers. On food labels, gluten may be referred to as triticum vulgare (wheat), triticale (cross between wheat and rye), hordeum vulgare (barley), secale cereale (rye), and triticum spelta (spelt).

Possible alternatives to gluten products include buckwheat (groats and flour), quinoa (grain or flour), rice (grain or flour), potato flour, soy flour, chickpea flour, corn, amaranth, millet, gluten-free oats, sorghum, and tapioca. Gluten-free pasta alternatives are made from lentils, peas, corn, rice, or buckwheat. Vegetable noodles are made from zucchini, carrot, or squash.

Canola

Your IgG level for canola is 20.59 µg/ml.

Associated food intolerance symptoms after consuming canola include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes typically containing canola include canola oil.

Possible alternatives for canola oil include olive oil, avocado oil, and pumpkin seed oil.

Rye

Your IgG level for rye is 12.91 µg/ml.

Associated food intolerance symptoms after consuming rye include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes typically containing rye and rye flour include sandwich bread, crisp bread, pretzels, crackers, as well as rye whiskey and rye beer.

Possible alternatives for rye and rye flour include barley and barley flour.

Wheat

Your IgG level for wheat is 15.4 µg/ml.

Associated food intolerance symptoms after consuming wheat include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes typically containing wheat and wheat flour include breads, bread crumbs, breakfast cereal, bulgur, biscuits, couscous, crackers, crumpets, durum, einkorn, emmer, farina, farro, kamut, malt, seitan, semolina, scones, pancakes, pizza, pasta, and pastries. On food labels, wheat may be referred to as bromated flour, cereal extract, cracker meal, hydrolyzed vegetable protein, hydrolyzed wheat protein, matzoh, monosodium glutamate (MSG), and triticale. Wheat is sometimes found in artificial flavoring, caramel color, dextrin, food starch, glucose syrup, maltodextrin, soy sauce, surimi, textured vegetable protein, and vegetable gum.

Possible alternatives for wheat include amaranth, buckwheat, millet, quinoa, and teff.

Wheat gliadin

Your IgG level for wheat gliadin is 11.87 µg/ml.

Associated food intolerance symptoms after consuming wheat gliadin include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes typically containing gliadin include major sources of gluten such as bread, pasta, pizza, dressing, and sauces, as well as barley, rye, and oats.

Possible alternatives for wheat gliadin products include amaranth, millet, buckwheat, and quinoa.

* Molecular Antigen

This assay has not been cleared or approved by the US Food and Drug Administration. Performance characteristics have been determined by Access Medical Laboratories Inc. pursuant to the CLIA regulations. All tests are performed at Access Medical Laboratories, unless otherwise indicated. CLIA #:10D1016867. Director: Alan Sara, MD.

Fruits

Pineapple

Your IgG level for pineapple is 10.49 µg/ml.

Associated food intolerance symptoms after consuming pineapple include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes typically containing pineapple include salads, chutneys, relishes, marinades, juices, smoothies and cocktails.

Possible alternatives for pineapples include green apples and oranges.

Spices

Mustard

Your IgG level for mustard is 11.21 µg/ml.

Associated food intolerance symptoms after consuming mustard include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Food products and dishes using mustard seeds as a flavoring agent include sauces, curries, and chutneys in Indian cooking. Mustard paste is used for salad dressings, as well as meat and fish dishes (as a glaze).

Possible alternatives for mustard seeds include caraway seeds and horseradish.

Novel Foods

House cricket

Your IgG level for house cricket is 13.3 µg/ml.

Associated food intolerance symptoms after consuming house cricket include nausea, stomach pain, gas, cramps, bloating, vomiting, heartburn, diarrhea, headaches, irritability, and nervousness.

Crickets are edible insects high in protein and many other nutrients, and are consumed as snacks in several African and Southeast Asian countries.

Possible alternatives for crickets are other edible insects such as grasshoppers and mealworms.

Disclaimer

The presence of IgG-antibodies may be an indication of food intolerances and has to be analyzed in conjunction with the clinical history and other diagnostic test results.

The Raven Interpretation Software is a tool to assist in the interpretation of FOX results but does not constitute a diagnosis. No liability is accepted for Raven comments and the resulting dietary recommendations. The stated comments are designed exclusively for FOX results.

(The connection between food intake, elevated IgG levels and chronic disorders has been described in peer reviewed publications and case studies. Nonetheless this connection is still debated in the scientific community and a consensus has not been reached thus far.)

PATIENT ID



PATIENT NAME



Test, test

DATE OF BIRTH



2/2/2000

SAMPLE ID



3563870

QR-CODE



02APD1CC

TESTED ALLERGENS



295

TEST METHOD



ALEX²

REFERRING PHYSICIAN

Alan Sara, MD

Lab report: Summary on detectable sensitizations

POLLEN



MITES



PLANT-BASED FOOD



INSECTS & VENOMS



MICROORGANISMS



ANIMAL-DERIVED FOOD



EPITHELIAL TISSUES OF ANIMALS



OTHERS



Highest measured IgE concentration per allergen group



| Name | E/M | Allergen | Protein Family | kUA/L |
|------|-----|----------|----------------|-------|
|------|-----|----------|----------------|-------|

POLLEN

Grass Pollen

| | | | | | |
|------------------------|--|--------------|-----------------|--------|--|
| Bermuda grass | | Cyn d | | ≤ 0.10 | |
| | | Cyn d 1 | Beta-Expansin | ≤ 0.10 | |
| Perennial Ryegrass | | Lol p 1 | Beta-Expansin | 0.53 | |
| Bahia grass | | Pas n | | ≤ 0.10 | |
| Timothy grass | | Phl p 1 | Beta-Expansin | 1.57 | |
| | | Phl p 2 | Expansin | ≤ 0.10 | |
| | | Phl p 5.0101 | Grass Group 5/6 | 6.95 | |
| | | Phl p 6 | Grass Group 5/6 | 49.46 | |
| | | Phl p 7 | Polcalcin | ≤ 0.10 | |
| Timothy grass | | Phl p 12 | Profilin | ≤ 0.10 | |
| | | Phl p 12 | Profilin | ≤ 0.10 | |
| Common reed | | Phr c | | ≤ 0.10 | |
| Cultivated rye, Pollen | | Sec c_pollen | | 0.29 | |

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 | ≤ 0.10 | |
| | | Bet v 2 | Profilin | ≤ 0.10 | |
| | | Bet v 6 | Isoflavon Reductase | ≤ 0.10 | |
| Paper mulberry | | Bro pa | | ≤ 0.10 | |
| Hazel pollen | | Cor a_pollen | | ≤ 0.10 | |
| | | Cor a 1.0103 | PR-10 | ≤ 0.10 | |
| Sugi | | Cry j 1 | Pectate Lyase | 2.83 | |
| Cypress | | Cup a 1 | Pectate Lyase | 1.30 | |
| | | Cup s | | ≤ 0.10 | |
| Beech | | Fag s 1 | PR-10 | ≤ 0.10 | |
| Ash | | Fra e | | ≤ 0.10 | |
| | | Fra e 1 | Ole e 1-Family | ≤ 0.10 | |
| Walnut pollen | | Jug r_pollen | | ≤ 0.10 | |
| Mountain cedar | | Jun a | | ≤ 0.10 | |

| Name | E/M | Allergen | Protein Family | kU _A /L |
|-------------------|------|----------|-------------------|--------------------|
| 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 ●●●● |
| Elm | ●●●● | Ulm c | | ≤ 0.10 ●●●● |

Weed Pollen

| | | | | |
|-----------------|------|---------|----------------------|-------------|
| Common Pigweed | ●●●● | Ama r | | ≤ 0.10 ●●●● |
| Ragweed | ●●●● | Amb a | | ≤ 0.10 ●●●● |
| | ● | Amb a 1 | Pectate Lyase | ≤ 0.10 ●●●● |
| | ● | Amb a 4 | Plant Defensin | ≤ 0.10 ●●●● |
| Mugwort | ●●●● | Art v | | ≤ 0.10 ●●●● |
| | ● | Art v 1 | Plant Defensin | 0.10 ●●●● |
| | ● | Art v 3 | nsLTP | ≤ 0.10 ●●●● |
| Hemp | ●●●● | Can s | | ≤ 0.10 ●●●● |
| | ● | Can s 3 | nsLTP | ≤ 0.10 ●●●● |
| Lamb's quarter | ●●●● | Che a | | ≤ 0.10 ●●●● |
| | ● | Che a 1 | Ole e 1-Family | ≤ 0.10 ●●●● |
| Annual mercury | ● | Mer a 1 | Profilin | ≤ 0.10 ●●●● |
| Wall pellitory | ●●●● | Par j | | ≤ 0.10 ●●●● |
| | ● | Par j 2 | nsLTP | ≤ 0.10 ●●●● |
| Ribwort | ●●●● | Pla l | | ≤ 0.10 ●●●● |
| | ● | Pla l 1 | Ole e 1-Family | ≤ 0.10 ●●●● |
| Russian thistle | ●●●● | Sal k | | ≤ 0.10 ●●●● |
| | ● | Sal k 1 | Pectin Methylsterase | ≤ 0.10 ●●●● |
| Nettle | ●●●● | Urt d | | ≤ 0.10 ●●●● |

MITES

House Dust Mite

| | | | | |
|--------------------------|---|---------|-------------------|-------------|
| American house dust mite | ● | Der f 1 | Cysteine protease | ≤ 0.10 ●●●● |
|--------------------------|---|---------|-------------------|-------------|

●●●● Allergen Extract

● Molecular Allergen

IgE < 0.3 negative or uncertain

| Name | E/M | Allergen | Protein Family | kU _A /L |
|--------------------------|-----|----------|---------------------------------|--------------------|
| European house dust mite | ⊙ | Der f 2 | NPC2 Family | ≤ 0.10 |
| | ⊙ | Der p 1 | Cysteine protease | ≤ 0.10 |
| | ⊙ | Der p 2 | NPC2 Family | ≤ 0.10 |
| | ⊙ | 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 | ≤ 0.10 |

Storage Mite

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

MICROORGANISMS & SPORES

Yeast

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

Moulds

| | | | | |
|-----------------------|---|---------|---------------------|--------|
| Alternaria alternata | ⊙ | Alt a 1 | Alt a 1-Family | ≤ 0.10 |
| | ⊙ | Alt a 6 | Enolase | 2.03 |
| Aspergillus fumigatus | ⊙ | Asp f 1 | Mitogillin Family | ≤ 0.10 |
| | ⊙ | Asp f 3 | Peroxisomal Protein | ≤ 0.10 |
| | ⊙ | Asp f 4 | unknown | ≤ 0.10 |

| Name | E/M | Allergen | Protein Family | kU _A /L | |
|------------------------|-----|----------|---------------------------|--------------------|--|
| Cladosporium herbarum | | Asp f 6 | Mn Superoxid-Dismutase | ≤ 0.10 | |
| | | Cla h | | 0.12 | |
| Penicilium chrysogenum | | Cla h 8 | Short Chain Dehydrogenase | ≤ 0.10 | |
| | | 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 | ≤ 0.10 | |
| Chickpea | | Cic a | | ≤ 0.10 | |
| Soy | | Gly m 4 | PR-10 | ≤ 0.10 | |
| | | Gly m 5 | 7/8S Globulin | ≤ 0.10 | |
| | | Gly m 6 | 11S Globulin | ≤ 0.10 | |
| | | Gly m 8 | 2S Albumin | ≤ 0.10 | |
| Lentil | | Len c | | ≤ 0.10 | |
| White bean | | Pha v | | ≤ 0.10 | |
| Pea | | Pis s | | ≤ 0.10 | |

Cereals

| | | | | | |
|------------------|--|-------------|------------|--------|--|
| Oat | | Ave s | | ≤ 0.10 | |
| Quinoa | | Che q | | ≤ 0.10 | |
| 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 | |

| Name | E/M | Allergen | Protein Family | kU _A /L |
|-------|-----|-------------|---------------------------------|--------------------|
| 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 |
| Apple | | Mal d 1 | PR-10 | ≤ 0.10 |
| | | Mal d 2 | TLP | ≤ 0.10 |
| | | Mal d 3 | nsLTP | ≤ 0.10 |
| Mango | | Man i | | ≤ 0.10 |
| Banana | | Mus a | | 0.22 |
| Avocado | | Pers a | | ≤ 0.10 |
| Cherry | | Pru av | | ≤ 0.10 |
| Peach | | Pru p 3 | nsLTP | ≤ 0.10 |

| Name | E/M | Allergen | Protein Family | kU _A /L |
|-----------|-----|----------|----------------|--------------------|
| Pear | | Pyr c | | ≤ 0.10 |
| Blueberry | | Vac m | | ≤ 0.10 |
| Grapes | | Vit v 1 | nsLTP | ≤ 0.10 |

Vegetables

| | | | | |
|--------|--|----------|-------|--------|
| Onion | | All c | | ≤ 0.10 |
| Garlic | | All s | | ≤ 0.10 |
| Celery | | Api g 1 | PR-10 | ≤ 0.10 |
| | | Api g 2 | nsLTP | ≤ 0.10 |
| | | Api g 6 | nsLTP | ≤ 0.10 |
| Carrot | | Dau c | | ≤ 0.10 |
| | | Dau c 1 | PR-10 | ≤ 0.10 |
| Potato | | Sol t | | ≤ 0.10 |
| Tomato | | Sola l | | ≤ 0.10 |
| | | Sola l 6 | nsLTP | ≤ 0.10 |

Nuts

| | | | | |
|------------|--|------------------|---------------|--------|
| Cashew | | Ana o | | ≤ 0.10 |
| | | Ana o 2 | 11S Globulin | ≤ 0.10 |
| | | Ana o 3 | 2S Albumin | ≤ 0.10 |
| Brazil nut | | Ber e | | ≤ 0.10 |
| | | Ber e 1 | 2S Albumin | ≤ 0.10 |
| Pecan | | Car i | | ≤ 0.10 |
| Hazelnut | | Cor a 1.0401 | PR-10 | ≤ 0.10 |
| | | Cor a 8 | nsLTP | ≤ 0.10 |
| | | Cor a 9 | 11S Globulin | ≤ 0.10 |
| | | Cor a 11 | 7/8S Globulin | ≤ 0.10 |
| | | Cor a 14 | 2S Albumin | ≤ 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 2S Albumin | 2S Albumin | ≤ 0.10 |
| | | Mac inte | | ≤ 0.10 |

| Name | E/M | Allergen | Protein Family | kU _A /L |
|-----------|-----|----------|----------------------|--------------------|
| Pistachio | | Pis v 1 | 2S Albumin | ≤ 0.10 |
| | | Pis v 2 | 11S Globulin subunit | ≤ 0.10 |
| | | Pis v 3 | 7/8S Globulin | ≤ 0.10 |
| Almond | | Pru du | | ≤ 0.10 |

Seed

| | | | | |
|-----------------|--|------------------|------------|--------|
| Pumpkin seed | | Cuc p | | ≤ 0.10 |
| Sunflower seed | | Hel a | | ≤ 0.10 |
| Poppy seed | | Pap s | | ≤ 0.10 |
| | | Pap s 2S Albumin | 2S Albumin | ≤ 0.10 |
| Sesame | | Ses i | | ≤ 0.10 |
| | | Ses i 1 | 2S Albumin | 0.26 |
| Fenugreek seeds | | Tri fo | | ≤ 0.10 |

ANIMAL FOOD

Milk

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

Egg

| | | | | |
|-----------|--|-------------|----------------|--------|
| Egg white | | Gal d_white | | ≤ 0.10 |
| Egg yolk | | Gal d_yolk | | ≤ 0.10 |
| Egg white | | Gal d 1 | Ovomucoid | ≤ 0.10 |
| | | Gal d 2 | Ovalbumin | ≤ 0.10 |
| | | Gal d 3 | Ovotransferrin | ≤ 0.10 |
| | | Gal d 4 | Lysozym C | ≤ 0.10 |
| Egg yolk | | Gal d 5 | Serum Albumin | ≤ 0.10 |

| Name | E/M | Allergen | Protein Family | | kU _A /L |
|--------------------|-----|-------------------|--------------------------------------|--------|--------------------|
| 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 | | 0.12 | |
| 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 | |
| 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 | |

| Name | E/M | Allergen | Protein Family | kUA/L |
|------|-----|----------|----------------|-------|
|------|-----|----------|----------------|-------|

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 | | ≤ 0.10 | |

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 | |

Wasp Venom

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

Cockroach

Allergen Extract

Molecular Allergen

IgE < 0.3 negative or uncertain

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

ANIMAL ORIGIN

Pet

| | | | | | |
|--------------------------------|---------|------------------|---------------|--------|---------|
| Dog | ⊙ | Can f_Fd1 | Uteroglobin | 0.22 | ● ● ● ● |
| Male dog urine (incl. Can f 5) | ● ● ● ● | Can f_male urine | | 3.38 | ● ● ● ● |
| Dog | ⊙ | Can f 1 | Lipocalin | 1.78 | ● ● ● ● |
| | ⊙ | Can f 2 | Lipocalin | ≤ 0.10 | ● ● ● ● |
| | ⊙ | Can f 3 | Serum Albumin | ≤ 0.10 | ● ● ● ● |
| | ⊙ | Can f 4 | Lipocalin | 6.00 | ● ● ● ● |
| | ⊙ | Can f 6 | Lipocalin | 0.59 | ● ● ● ● |
| Guinea pig | ⊙ | Cav p 1 | Lipocalin | 2.74 | ● ● ● ● |
| Cat | ⊙ | Fel d 1 | Uteroglobin | 5.93 | ● ● ● ● |
| | ⊙ | Fel d 2 | Serum Albumin | ≤ 0.10 | ● ● ● ● |
| | ⊙ | Fel d 4 | Lipocalin | ≤ 0.10 | ● ● ● ● |
| | ⊙ | Fel d 7 | Lipocalin | ≤ 0.10 | ● ● ● ● |
| House mouse | ⊙ | Mus m 1 | Lipocalin | 0.32 | ● ● ● ● |
| Rabbit, epithel | ⊙ | Ory c 1 | Lipocalin | ≤ 0.10 | ● ● ● ● |
| | ⊙ | Ory c 2 | Lipophilin | ≤ 0.10 | ● ● ● ● |
| | ⊙ | Ory c 3 | Uteroglobin | 0.14 | ● ● ● ● |
| Djungarian hamster | ⊙ | Phod s 1 | Lipocalin | ≤ 0.10 | ● ● ● ● |
| Rat | ● ● ● ● | Rat n | | 0.49 | ● ● ● ● |

Farm Animals

| | | | | | |
|----------------|---------|-----------------|---------------|--------|---------|
| Cattle | ⊙ | Bos d 2 | Lipocalin | ≤ 0.10 | ● ● ● ● |
| Goat, epithel | ● ● ● ● | Cap h_epithelia | | ≤ 0.10 | ● ● ● ● |
| Horse, epithel | ⊙ | Equ c 1 | Lipocalin | 0.10 | ● ● ● ● |
| | ⊙ | Equ c 3 | Serum Albumin | ≤ 0.10 | ● ● ● ● |

| Name | E/M | Allergen | Protein Family | kU _A /L |
|----------------|-----|-----------------|----------------|--------------------|
| | | Equ c 4 | Latherin | ≤ 0.10 |
| Sheep, epithel | | Ovi a_epithelia | | ≤ 0.10 |
| Pig | | Sus d_epithelia | | ≤ 0.10 |

OTHERS

Latex

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

Ficus

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

CCD

| | | | | |
|-------------------|--|----------|-----|--------|
| Hom s Lactoferrin | | Hom s LF | CCD | ≤ 0.10 |
|-------------------|--|----------|-----|--------|

Parasite

| | | | | |
|-------------|--|---------|-----------|--------|
| Pigeon tick | | Arg r 1 | Lipocalin | ≤ 0.10 |
|-------------|--|---------|-----------|--------|

Total IgE: 74 kU/L

Normal Total-IgE

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

SAMPLED ON

6/11/2022

ASSAY PERFORMED ON

6/11/2022

APPROVED ON

7/21/2022

Information to cross-reactive allergens

Lipocalins

Lipocalins show a limited degree of cross-reactivity.

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

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.

Number of tested allergen sources:

165



GRASS POLLEN

Bahia grass, Bermuda grass, Common reed, Perennial ryegrass, Rye, Timothy grass

6



COCKROACH

American cockroach, German cockroach

2



TREE POLLEN

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

19



INSECT VENOMS

Common wasp venom, Fire ant venom, Honeybee venom, Long-headed wasp venom, Paper wasp venom

5



WEED POLLEN

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

10



FUNGAL SPORES & YEAST

Alternaria alternata, Aspergillus fumigatus, Baker's yeast, Cladosporium herbarum, Malassezia sympodialis, Penicillium chrysogenum

6



HOUSE DUST MITES & STORAGE MITES

Acarus siro, American house dust mite, Blomia tropicalis, European house dust mite, Glycyphagus domesticus, Lepidoglyphus destructor, Tyrophagus putrescentiae

7



MILK

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

5



EGG

Egg white, Egg yolk

2



LEGUMES

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

6



FISH & SEAFOOD

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

20



GRAINS

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

11



MEAT

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

10



SPICES

Anise, Caraway, Mustard, Oregano, Paprika, Parsley

6



PETS

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

7



FRUITS

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

15



FARM ANIMALS

Cattle, Goat, Horse, Pig, Sheep

5



VEGETABLES

Carrot, Celery, Garlic, Onion, Potato, Tomato

6



OTHERS

Latex, Hom s lactoferrin, Pigeon tick, Weeping fig

4



NUTS & SEEDS

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

13



RAVEN[®]
INTERPRETATION GUIDANCE SOFTWARE

Interpretation - Support

Raven Interpretation Summary

Sample Information

The sample was tested on ALEX² Barcode 02APD1CC, interpretation date 7/21/2022.

Of the tested 295 allergens, 15 were/was above the cut off of 0.3 kU_A/L. A sensitisation can be an indicator of an IgE dependent allergy. For all positive ALEX 2 allergens, comments for interpretation guidance are listed below.

Total IgE: 74 kU/L

The measured total IgE was 74 kU/L. With a total IgE titre of below 100 kU/L, allergy is possible but unlikely.

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:

- Lipocalins: Can f 1, Can f 4, Can f 6, Cav p 1, Mus m 1

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

Cypress Family

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

Cry j 1 is a member fo the Pectate Lyase allergen family. The degree of cross-reactivity between different cypress species based on Pectate Lyases is high. Cry j 1 serves as a marker for AIT indication, if corresponding clinical symptoms are present.

Cup a 1 is a member fo the Pectate Lyase allergen family. The degree of cross-reactivity between different cypress species based on Pectate Lyases is high. Cup 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 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 and Phl p 1 are members fo the β-Expansin allergen family. The degree of cross-reactivity between members of this allergen family is very high. β-Expansins serve as markers for AIT indication, if corresponding clinical symptoms are present. Positive results were obtained for: Lol p 1, Phl p 1.

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

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

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

Furry Animals

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 is 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 4 is a member of the Lipocalin allergen family (LC). The degree of cross-reactivity to other members of the LC family is very low. A low degree of cross-reactivity has been reported with a related allergen from cattle. Can f 4 is the most abundant allergen in dog fur.

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 6 is a member of the Lipocalin allergen family (LC). The degree of cross-reactivity to other LCs is low, except for a moderate risk to crossreact with Fel d 4 from cat and Equ c 1 from horse.

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.

Guinea pig

Sensitisation to guinea pig was detected. Allergic symptoms associated with this allergen source range from allergic rhino-conjunctivitis to allergic asthma, especially when exposure is frequent.

Cav p 1 is a member of the Lipocalin allergen family. The degree of cross-reactivity to other members of this family is low.

AIT for causal treatment may not be available. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance is strongly recommended.

Mouse

Sensitisation to mouse was detected. Allergic symptoms associated with this allergen source range from allergic rhino-conjunctivitis to allergic asthma, especially when exposure is frequent (e.g. in laboratory workers).

Mus m 1 is a member of the Lipocalin allergen family. The degree of cross-reactivity to other members of this family is low (Exception: Rat n 1 from rat).

AIT for causal treatment may not be available. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance is strongly recommended.

Rat

Sensitisation to rat was detected. Allergic symptoms associated with rat range from allergic rhino-conjunctivitis to allergic asthma, especially when exposure is frequent (e.g. in laboratory workers).

AIT for causal treatment may not be available. Symptomatic treatment includes anti-histamines as well as local corticosteroids in various formulations (tablet, spray). Avoidance is strongly recommended.

Moulds and Yeasts

Alternaria alternata

Sensitisation to spores from *Alternaria alternata* was detected. Allergic symptoms associated with *A. alternata* range from allergic rhinoconjunctivitis to allergic asthma. *Alternaria alternata* is an outdoor fungal species.

Alt a 6 is a member of the Enolase allergen family. Cross-reactions occur between many different mould species based on allergens from the Enolase family.

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

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