

External ID

Name	Muster	Date of Birth	10.12.1963	Order ID	11632902
First Name	Muster	Sex	Female	Order Date	27.11.2018
Sampling Date	27.11.2018 00:00	Validation Date	Thomas Gugerel	Findings Status	Final Report
Sample Material	S	Validation on	28.11.2018	Findings Date	29.11.2018

Test	Result	Unit	Standard Range	Previous Result
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EBM Nahrungsmittelscreen

IgG4-IgE Kombiscreen

Test	Unit	Rastklasse
kU/l	1 2 3 4 5 6	
IgE		
Oats	<0,35	
Rye	<0,35	
Wheat	<0,35	
Grain (gluten containing)	<0,35	
Corn	<0,35	
Buckwheat	<0,35	
Rice	<0,35	
Egg	<0,35	
Beef	<0,35	
Cod	<0,35	
Casein	<0,35	
Milk pool	<0,35	
Kiwi	<0,35	
Banana	<0,35	
Apple	<0,35	
Carrot	<0,35	
Celery	<0,35	
Soy bean	<0,35	
Green bean	<0,35	
Peanut	<0,35	
Hazel nut	<0,35	
Almond	<0,35	
Mustard seed	<0,35	
Garlic	<0,35	

Test	Unit	Rastklasse
kU/l	1 2 3 4 5 6	
IgG4		
Oats	0,36	1
Rye	2,55	2
Wheat	1,26	2
Grain (gluten containing)	<0,35	
Corn	<0,35	
Buckwheat	<0,35	
Rice	<0,35	
Egg	24,81	4
Beef	<0,35	
Cod	<0,35	
Casein	80,30	5
Milk pool	<0,35	
Kiwi	<0,35	
Banana	<0,35	
Apple	<0,35	
Carrot	<0,35	
Celery	<0,35	
Soy bean	<0,35	
Green bean	<0,35	
Peanut	<0,35	
Hazelnut	13,55	3
Almond	<0,35	
Mustard seed	<0,35	
Garlic	<0,35	

Grain: spelt, kamut, barley, malt

Milk pool: lactoglobulin, lactalbumin, goat milk, sheep's milk, mare's milk

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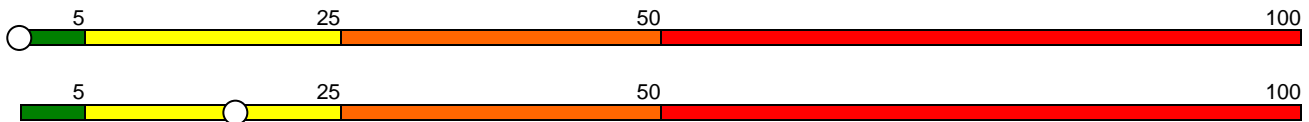
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IgG₄ **17**

Indices describe the extent of sensitizations against the tested foods.



IgE and IgG₄ Food Screen

Food intolerances are very common. It is assumed that more than one third of the population is affected. Food intolerances are not always caused by **allergies** – immunologic reactions induced **by IgE antibodies** – but may have many other reasons.

Aside from IgE also **IgG₄-antibodies** may bring about intolerances. This might lead to typical allergy symptoms. By far more frequent are, however, chronic symptoms, which often only occur hours or days after consumption of the responsible food. Gastrointestinal disorders (flatulence, diarrhoea, constipation etc.) or skin diseases (eczema etc.) may be ascribed to IgG₄-reactions, just like hyperactivity of children, chronic exhaustion or susceptibility to infections.

Food Allergies Induced by IgE-Antibodies

No allergen specific IgE antibodies could be determined in the sample of Mr. / Ms. Muster. Therefore clinically relevant food allergies (type I-allergy) do not seem likely.

If in spite of the inconspicuous IgE panel an allergy of the immediate type is still suspected, one can try **DCNG** (Die-sodium-cromoglycate, e.g. Colimune[®], 4 x 200 mg per os) for eight weeks. If the clinical symptoms improve this indicates a gastrointestinal allergy. In this case one should look for **rare food allergens** with the aid of a serological test.

Attention:

Especially in case of allergen specific IgE antibodies there are frequently negative antibody results in spite of existing symptoms (OAS: oral allergy syndrome). This applies in particular for allergies against fruits, nuts, cereals or vegetables. There are manifold reasons for this, often there are highly concentrated blocking antibodies of different categories or there is low allergen stability, leading to a change of antigen properties when passing through the stomach.

Food Intolerances caused by IgG₄ Antibodies

In the scope of the IgG₄-intolerance test we determined many significant sensitizations. There were some significantly increased antibody concentrations against: **Casein, Egg, Hazelnut**

High IgG₄ antibody concentrations in blood mostly correlate with increased intestinal mucosa permeability (**increased intestinal permeability**). This allows allergens to pass the intestinal mucosa in larger amounts. Antibodies directed against food develop (sensitization) and often as a consequence also clinically manifested intolerance reactions.

IgG mediated intolerances rarely remain for life. They regress. This, however, is only possible by temporary consequent **elimination** of not tolerated foods and **stabilization of the intestinal mucosa**. In case of foods

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with low antibody concentration elimination is not required – here a **rotation diet** suffices. This means the respective foods are only consumed every 3 or 4 days. With the aid of rotation diets further increases of antibody concentrations are counteracted and it prevents an already existing sensitization from becoming a clinically manifested intolerance.

Expert's Advice

In case of casein intolerance milk and milk products have to be avoided. As casein is not typical also goat's, sheep's or mare's milk are affected. Other than for lactalbumin intolerance, also heated milk products are not tolerated if there are reactions against casein.

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Therapeutic Approach

A. Change of Diet

- All positive foods of **Category 3 and higher** in the **IgG₄-Screen** should be eliminated. Foods in the upper range of **Category 3** are eliminated for **2 months**. Foods from **Category 4 up** should be avoided for **at least 3 months**.
- In case of foods with IgG₄ antibody concentrations of **Category 1 and 2** we recommend rotation **diets**, during which the respective foods are only consumed every 3 or 4 days. This will prevent further increase of sensitizations.

B. Mucosa Stabilizing Measures

Giving **Synerga is** of special significance in the scope of mucosa stabilizing measures. This preparation containing metabolic products of E.coli has the following effects:

- mucosa stabilization by activating the mucosa immune system,
- healing of mucosa lesions
- inhibition of histamine release from immune cells.

Synerga is available as drinking solution (dose: 1 – 3 times daily 5 ml).

Modern **multi-strain probiotics** not only support the microflora but also have an anti-inflammatory effect. Omni-Biotic Stress Repair causes not only a decrease of pro-inflammatory cytokines but significantly reduces the permeability of the intestinal mucosa, too (Holzer 2007, 2010, 2011, Akkermans 2010). Alternatives of similar composition or indication: Ecologic 825, Synbiotic Neuro Fit, Lactobact Forte.

Furthermore **humic acids** have a direct influence on the mucosa permeability. They cover the mucosa with a film and thereby reduce the permeability. Humic acids form a **protective film** on the brush border, seal the mucosa and penetrate into goblet cells, whereby their number, the villi length and **mucosa production** increase (Kühnert 2010a, 2010b).

With kind regards

Your Biovis-Diagnostik

Attention: *The recommendations given are only advice based on the compiled findings and possible clinical information. They are exclusively addressed to the therapist/physician and are **not intended** for direct transfer to the patient. They cannot replace diagnosis and therapy of the treating therapist. The recommendations for therapy are a suggestion. The responsibility for the final selection/measure/dosage lies with the medical professional/therapist responsible for each individual case. Please also note that there may be contraindications/interactions associated with the recommended medication/nutritional supplements for pre-existing primary diseases and when taking certain medication. These must be investigated by the medical professional/therapist before starting therapy.*

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List of tolerable and intolerable foods

- Group 1** Foods, which do not react in the test.
Group 2 Foods with low IgE antibody concentrations should be eaten in the scope of a rotation diet – only every 3 or 4 days. – provided they do not trigger allergic reactions. Also foods with of low IgG-test categories are rotated
Group 3 Foods, which have to be eliminated for 2 months.
Group 4 Foods, which have to be eliminated for at least 3 months.

Group 1	Group 2	Group 3	Group 4
Almond Apple Banana barley Beef Buckwheat Carrot Celery Cod Corn Garlic Grain (gluten containing) Green bean Hazel nut kamut Kiwi malt Milk pool Mustard seed Peanut Rice Soy bean spelt	Oats Rye Wheat	<i>Hazelnut</i>	<i>Casein Egg goat milk lactalbumin lactoglobulin mare´s milk sheep´s milk</i>