



RIDASCREEN®

Spec. IgG Foodscreen

Enzyme immunoassay for the detection
of specific IgG antibodies against food antigens
in human serum



Enzyme immunoassay for the detection of specific IgG antibodies against food antigens in human serum.

SYSTEMATIC

Modular system for systematic screening

CUSTOMISED

Customer-specific plates available for flexible and individual diagnostics

VALIDATED

CE-certified

RELIABLE

Standard curve calibrated against the international reference preparation "1st WHO IRP 67/86 for human IgG"





RIDASCREEN® Spec. IgG Foodscreen

Allergies cause more and more health problems. It is estimated that 20 % to 40 % of the population have an IgG-mediated (type III) food allergy. Such IgG-mediated food allergies are not immediately obvious but induce a range of delayed symptoms (e.g. chronic digestive disorders, headaches, migraines and weight problems) that may seem unrelated to specific foods.

RIDASCREEN® Spec. IgG Foodscreen detects delayed food allergies. This precise and reliable test identifies high levels of specific IgG antibodies to particular foods.

IgG-mediated food allergies

Both IgE- and IgG-mediated food allergies are an increasing issue for health and well-being. Due to its acute and potentially life-threatening symptoms, IgE-mediated food allergy has always

been more in the diagnostic focus than the non-acute chronic conditions of IgG-mediated (type III) food allergy.

Differences	Immediate allergy (type I)	Delayed allergy (type III)
Nature of symptoms	E.g. itching, red skin, anaphylaxis, swelling of the mucous membranes	Chronic inflammatory ailments, e.g. headache, painful joints, concentration difficulty, muscular pain, skin problems, diarrhoea and flatulence
Onset of the symptoms	Immediate reaction within a few minutes (release of IgE antibodies)	After several hours to three days (release of IgG antibodies)

In order to distinguish between IgG-mediated food allergies and other allergies to ensure the efficiency of treatment or diet, diagnosis of specific IgG is becoming more and more important, particularly in chronic inflammatory diseases.





The immune reaction

In IgG-mediated food allergy, B cells and plasma cells produce specific IgG antibodies against usually harmless foodstuffs. IgG antibodies and the antigens agglomerate to form immune complexes, which adhere to organs and tissues and activate the complement system. When the immune complexes are destroyed, the surrounding tissues are also damaged, which leads to a low-grade inflammatory condition.

A regular intake of the concerned food may then cause a chronic inflammation.

Although the reason for the exaggerated production of IgG antibodies to harmless foodstuff is not fully understood yet, it seems that the integrity of the gut barrier – where the distinction between harmless or pathogenic is made – plays an important role in the development of IgG-mediated food allergy.

R-Biopharm AG supplies RIDASCREEN® 1-Antitrypsin for non-invasive and conclusive diagnosis of increased mucosal permeability, RIDASCREEN® sIgA for the assessment of the mucosal immunity, and RIDASCREEN® Calprotectin for the evaluation of gastro-intestinal inflammation. For more information, visit www.r-biopharm.com or ask your local distributor.

RIDASCREEN® Spec. IgG Foodscreen – laboratory processing

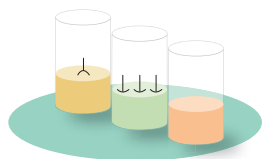
RIDASCREEN® Spec. IgG Foodscreen detects delayed food allergies. This precise and reliable test identifies high levels of specific IgG antibodies to particular foods.



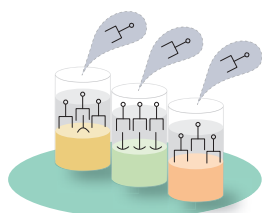
90 min incubation



Diluted patient serum, standards and control



90 min incubation



1. Food extracts are bound to the inner surfaces of the wells of a microwell plate. Patient serum and standard serum are pipetted into the corresponding wells and incubated at room temperature. During incubation, the specific IgG antibodies attach to the bound food antigens.

2. Unattached material is removed by washing.

3. After this, alkaline phosphatase-conjugated anti-human IgG antibody is added.

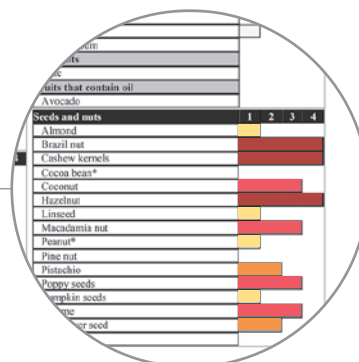


5. Substrate is then added and is dephosphorylated by the conjugated enzyme into a yellow product. The intensity of the yellow colour reaction is proportional to the quantity of antigen-specific antibodies in the serum.

6. A stopping solution is added.

7. Then the photometric measurement is carried out at 405 nm using a reference wavelength of 620 nm. The evaluation is carried out with the accompanying Foodscreen software. With this easy-to-use software a report can be printed. This report shows four reaction classes:

1 "weak", 2 "increased", 3 "high" and 4 "very high".



RIDASCREEN® Spec. IgG Foodscreen – at a glance

RIDASCREEN® Spec. IgG Foodscreen analyses IgG antibody reactions to up to 271 possible triggers of chronic diseases. Problem foods can then be eliminated from the patient's diet.

It is essential that foods are rotated to prevent new intolerances from developing. Furthermore, the consumption of alternative foodstuffs is

recommended to avoid nutrient deficiencies. RIDASCREEN® Spec. IgG Foodscreen provides pre-coated plates in a modular format offering the patients different tests to choose from.

Several plates in a modular system – choose the test that best suits your patient!

Prescreen 1 and 2

Up to 23 most common foodstuffs to predict whether a patient is sensitised

Plate 6

44 most common foodstuffs

Plate 1

90 most common foodstuffs

Plate 2

90 common alternatives to foodstuffs from Plate 1


Plate 3

91 rare foodstuffs and spices

Prescreen – semi-quantitative determination of specific IgG

Prescreen plates are designed to test for general sensitisation to the most common foodstuffs. They are a cost-saving tool used to select the allergen composition for further testing.


Both Prescreen plates are designed for 4 patients. They differ in the allergen composition (see Annex) and Prescreen 1 is provided with a blank.

RIDASCREEN®	Description	Plates	Matrix	Art. No.
Spec. IgG Foodscreen Prescreen 1	22 common food allergens	15	Serum	A8921
Spec. IgG Foodscreen Prescreen 2	23 common food allergens	15	Serum	A8929 

■ Plate 1, 2, 3 – quantitative determination of specific IgG

Plate 1, 2 and 3 have a modular composition:
Plate 1 includes the most common foodstuffs,
Plate 2 the most common alternatives to the
foodstuffs on Plate 1, and Plate 3 includes

rare and exotic foodstuffs and herbs/spices.
All foodstuffs included in Plate 1 to 3 are listed
in the Annex. Each plate is designed for one
patient.

RIDASCREEN®	Description	Plates	Matrix	Art. No.
Spec. IgG Foodscreen Plate 1	90 common food allergens	15	Serum	 A8121-15
Spec. IgG Foodscreen Plate 2	90 common alternative food allergens	15	Serum	A8221-15
Spec. IgG Foodscreen Plate 3	91 rare food allergens and spices	15	Serum	A8321-15

■ Plate 6 – quantitative determination of specific IgG

Plate 6 is designed for two patients and includes
44 food allergens. For a list of foodstuffs tested
see Annex.

RIDASCREEN®	Description	Plates	Matrix	Art. No.
Spec. IgG Foodscreen Plate 6	44 food allergens	15	Serum	A8621-15



Customised plate – quantitative determination of specific IgG


This plate is designed for individual configuration with a maximum of 91 allergens per plate for one or more patients. The system is extremely

flexible and highly individual, providing a selection of more than 300 allergens including region-specific allergens you can choose from.

RIDASCREEN®	Description	Plates	Matrix	Art. No.
Spec. IgG Foodscreen Customised plate	Max. 91 allergens per plate	15	Serum	A8101



Reagents

The reagents are needed for the processing of the plates in the laboratory.

RIDASCREEN®	Description	Plates	Matrix	Art. No.
Spec. IgG Foodscreen Reagents	<ul style="list-style-type: none">- Set of reagents for an enzyme immunoassay for the determination of circulating allergen-specific IgG in serum- Sufficient for 15 plates	15	Serum 	A8020



RIDASCREEN® Spec. IgG Foodscreen – at a glance

Product	Description	Plates	Matrix	Art. No.
RIDASCREEN®	Enzyme immunoassay for detection of spec. IgG against food in serum			
Spec. IgG Foodscreen Customised Plate	<ul style="list-style-type: none"> - Quantitative determination of specific IgG against food allergens - Up to 91 allergens per plate - 1 plate is designed for 1 or more patients 	15	Serum	A8101
Spec. IgG Foodscreen Plate 1	<ul style="list-style-type: none"> - Quantitative determination of specific IgG against 90 common food allergens - 1 plate is designed for 1 patient 	15	Serum	A8121-15
Spec. IgG Foodscreen Plate 2	<ul style="list-style-type: none"> - Quantitative determination of specific IgG against 90 common alternative food allergens - 1 plate is designed for 1 patient 	15	Serum	A8221-15
Spec. IgG Foodscreen Plate 3	<ul style="list-style-type: none"> - Quantitative determination of specific IgG against 91 rare food allergens and spices - 1 plate is designed for 1 patient 	15	Serum	A8321-15
Spec. IgG Foodscreen Plate 6	<ul style="list-style-type: none"> - Quantitative determination of specific IgG against 44 food allergens - 1 plate is designed for 2 patients 	15	Serum	A8621-15
Spec. IgG Foodscreen Starter kit	<ul style="list-style-type: none"> - Quantitative determination of specific IgG against food allergens - Kit includes Spec. IgG Foodscreen, Plate 1–3 with 5 plates each - 1 plate is designed for 1 patient 	15	Serum 	A8021
Spec. IgG Foodscreen Prescreen 1	<ul style="list-style-type: none"> - Semi-quantitative determination of specific IgG against 22 common food allergens for screening purposes - 1 plate is designed for 4 patients 	15	Serum	A8921
Spec. IgG Foodscreen Prescreen 2	<ul style="list-style-type: none"> - Semi-quantitative determination of specific IgG against 23 common food allergens for screening purposes - 1 plate is designed for 4 patients 	15 	Serum	A8929
Spec. IgG Foodscreen Reagents	<ul style="list-style-type: none"> - Set of reagents for an enzyme immunoassay for the determination of circulating allergen-specific IgG in serum - Sufficient for 15 plates 	15	Serum	A8020



RIDASCREEN® Spec. IgG Foodscreen – allergen composition

Prescreen 1

Alternatives to cereals and starchy products	Cereals	Dairy products	Eggs
Rice	Gluten	Cow's milk, Goat milk/cheese, Sheep milk/cheese	Chicken egg
Fish and seafood	Fruits	Legumes	Meat
Lobster	Banana, Orange, Pineapple	Pea/beans (green), Soyabean	Chicken meat
Seeds and Nuts	Spices and Herbs	Sweeteners	Vegetables
Almond, Hazelnut	Garlic, Vanilla	Honey	Carrots, Sweet pepper, Tomato
Yeast			
Yeast			

Prescreen 2

Alternatives to cereals and starchy products	Cereals (with gluten)	Dairy products	Eggs
Maize, Rice	Gluten, Wheat	Cow's milk, Goat milk/cheese, Sheep milk/cheese	Chicken egg
Fish and seafood	Fruits	Legumes	Seeds and Nuts
Lobster, Salmon	Banana, Orange	Soyabean	Almond, Hazelnut, Sunflower seeds
Spices and Herbs	Vegetables	Yeast	
Garlic, Mustard seed, Pepper black, Vanilla	Onion, Tomato	Yeast	

Plate 1

Alternatives to cereals and starchy products	Cereals (with gluten)	Dairy products	Eggs
Buckwheat, Maize (sweet corn), Millet, Rice	Barley, Gluten, Oats, Rye, Spelt, Wheat	Goat milk/cheese, Cow's milk, Lab-fermented cheese (cow), Sheep milk/cheese, Sour milk products (cow)	Chicken egg
Fish and seafood	Fruits	Legumes	Meat
Crayfish, Ocean perch, Pollock, Salmon, Tunafish	Apple, Apricot, Banana, Cherry, Grape, Kiwi, Lemon, Nectarine, Orange, Pineapple, Strawberry, Watermelon	Green bean, Green pea, Soyabean	Beef, Chicken, Lamb, Pork, Turkey hen
Mushrooms	Salads	Seeds and Nuts	Spices and Herbs
Meadow mushrooms	Butterhead lettuce, Lamb's lettuce	Almond, Cashew cernels, Cocoa bean, Hazelnut, Linseed, Peanut, Pistachio, Poppy seeds, Pumpkin seeds, Sesame, Sunflower seeds, Walnut	Basil, Cinnamon, Garlic, Horseradish, Mustard seed, Nutmeg, Oregano, Paprika (spice), Parsley, Pepper (black), Rosemary, Thyme, Vanilla
Sweeteners	Tea, coffee and wine	Thickening Agents	Vegetables
Cane sugar, Honey	Peppermint	Guar flour (E412)	Aubergine, Beetroot, Broccoli, Carrots, Celeriac (knob celery), Chili cayenne, Courgette, Cucumber, Turnip cabbage, Leek, Olive, Onion, Potato, Red cabbage, Sweet pepper, Tomato
Yeast			
Yeast			

Plate 2

Alternatives to cereals and starchy products	Cereals (with gluten)	Dairy products	Eggs
Amaranth, Arrowroot, Carob, Cassava, Chestnut, Fonio, Jerusalem artichoke, Lupine, Quinoa, Sweet potato, Tapioca, Teff	Kamut	Camel's milk, Halloumi, Kefir, Mare's milk, Milk cooked, Ricotta	Goose egg, Quail egg
Fish and seafood	Fruits	Legumes	Meat
Anchovy, Carp, Cod/codling, Gilthead brim, Haddock, Hake, Halibut, Herring, Mackerel, Plaice, Sardine, Shark, Sole, Swordfish, Trout, Zander	Acovado, Date, Fig, Lychee, Mango, Papaya, Peach, Pear, Plum, Yellow plum	Broad bean, Chickpeas, Lentil, Mung bean	Deer, Duck, Goat meat, Goose, Hare, Ostrich meat, Quail, Rabbit, Roe deer, Veal, Wild boar
Salads	Seeds and Nuts	Spices and Herbs	Vegetables
Chicory, Endive, Iceberg lettuce, Lollo rosso, Radicchio, Rocket, Romaine/cos lettuce	Brazil nut, Coconut, Macadamia nut, Pine nut	Chive	Artichoke, Asparagus, Brussel sprouts, Cauliflower, Chard, Chinese cabbage, Kale/curled kale, Parsnip, Pumpkin, Radish red/radish white, Rutabaga, Savoy cabbage, Spinach, Stalk celery, White cabbage

Plate 3

Algae	Eggs	Fish and Seafood	Fruits
Red algae, Spirulina	Egg white, Egg yolk	Angler/monkfish, Blue mussels, Eel, Iridescent shark/sutchi catfish, Lobster, Shrimp/prawn, Octopus, Oysters, Red snapper, Scallop, Sea bass	Blackberry, Blueberry, Cranberry, Currant, Gooseberry, Grapefruit, Guava, Honeydew melon, Juniper berry, Lime, Lingonberry, Mandarin, Pomegranate, Prickly pear, Quince, Raspberry, Rhubarb
Mushrooms	Preservatives	Salads	Specials
Cep (boletus), Chanterelle, Bay boletus, Oyster mushrooms, Shiitake	Benzoic acid (E211), Sorbic acid (E200)	Dandelion	Aloe vera, Aspergillus niger, Candida, Candied lemon peel, Vine leaves

Spices and Herbs	Sweeteners	Tea, coffee and wine	Thickening Agents
Alfalfa, Allspice, Aniseed, Capers, Caraway, Cardamom, Coriander, Cumin, Curcumin (E100), Bay leaf, Chervil, Clove, Dill, Garden cress, Ginger, Lavender, Lemon balm, Lovage, Marjoram, Pepper white, Saffron, Sage, Savory, Sea buckthorn, Wild garlic	Agave nectar, Maple syrup	Coffee, Chamomile, Nettle, Rooibos tea, Rose hip, Tannin, Tea black, Tea green	Agaragar (E406), Carrageen (E407), Pectin (E440), Tragacanth (E413), Xanthan gum
Vegetables			
Bamboo shoots, Chili Habanero/caps. chinense, Chili Japanero/caps. annum, Fennel, Moluchia, Okra/lady's finger			

Plate 6

Cereals (with gluten)	Dairy products	Eggs	Fish and Seafood
Barley, Gluten, Oats, Rye, Spelt, Wheat	Cow's milk, Goat milk, Rennet cheese (cow), Sheep yoghurt, Sour milk products (cow)	Chicken egg	Cod fish, Crawfish
Fruits	Legumes	Meat	Mushrooms
Cherry, Pineapple, Raspberries, Watermelon	Soyabean	Beef, Chicken, Pork	Oyster mushrooms
Seeds and Nuts	Spices and Herbs	Sweeteners	Tea, Coffee, Wine
Almond, Hazelnut, Linseed, Peanut, Pistachio, Poppy seeds, Sunflower seeds	Curry, Garlic, Horseradish, Mustard seed	Honey	Coffee
Vegetables	Yeast		
Broccoli, Carrots, Celery, Cucumber, Red cabbage, Sweet pepper, Tomato	Yeast		

R-Biopharm is a leading developer of test solutions for clinical diagnostics and food & feed analysis. In both sectors, the R-Biopharm test kits offer high precision and accuracy, key requirements where patient and consumer health is at risk. Since 1996 R-Biopharm's quality management systems have been certified to the international standard ISO 9001 and in 2003 the company gained ISO 13485 quality management certification.

In clinical diagnostics R-Biopharm possesses many years of sound experience, particularly in the field of infectological stool diagnostics and allergy diagnostics (type I and type III), offering different tests for both IgE and IgG determination in human serum. All tests are validated and CE-marked.

Contact us

Clinical Sales International
Phone: +49 (0) 61 51 - 81 02-0
Fax: +49 (0) 61 51 - 81 02-40
E-Mail: clinical.sales@r-biopharm.de

Alvaro Michaelis
Director Sales & Business Development
E-Mail: a.michaelis@r-biopharm.de

Sonja Scherer
International Marketing & Product Manager
E-Mail: s.scherer@r-biopharm.de

Monika Frühe
Support International
E-Mail: m.fruehe@r-biopharm.de

R-Biopharm AG
An der neuen Bergstraße 17
64297 Darmstadt, Germany
Phone: +49 (0) 61 51 - 81 02-0
Fax: +49 (0) 61 51 - 81 02-20
E-Mail: info@r-biopharm.de
Internet: www.r-biopharm.de

03/2013