

**RAPID.VALID.
PRECISE.**

FCP FastCheckPOC®

The DST logo features a stylized white drop icon inside a dark red letter 'D', followed by the letters 'S' and 'T' in a bold, dark red, sans-serif font.

FastCheckPOC® – Near-patient rapid allergy screening test for qualitative determination of allergen specific IgE antibody levels from serum, capillary, serum blood or venous blood. It is suitable for ascertaining the presence of frequently occurring allergies within approximately 30 minutes without any special laboratory setup or equipment.*



Intended Use

FastCheckPOC® is a portable enzyme immunoassay for the qualitative determination of allergen specific IgE from capillary or venous blood. This test is intended for use as a tool to support the diagnosis of type I allergic sensitisations in patients who show clinical symptoms such as:

- seasonal and perennial rhinitis and conjunctivitis
- allergic asthma
- allergic eczema
- allergic gastrointestinal disorders.

FastCheckPOC® is particularly well-suited for patients being treatment with antihistamines or patients suffering from dermatitis or other skin conditions with contraindications to skin testing. The test is also ideal for individuals averse to skin prick, scratch or intracutaneous allergy testing (e.g., children, elderly persons, pregnant women) or for patients who are predisposed to anaphylactic episodes. 🩸

FastCheckPOC® – FOR RAPID, VALID AND PRECISE RESULTS.

DST groups core allergens according to different influencing factors, e.g. according to region, season and food culture. Through our own research and laboratory developments, our core allergens possess excellent reactivities in a combination of quality, purity, precision

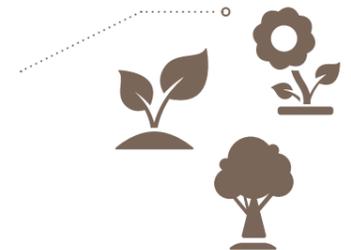
and validity. This ensures fast and clear diagnostic values of the highest informational value. These qualities have been incorporated into our FastCheckPOC® and achieve an excellent diagnostic quality. 🩸

FastCheckPOC® – 90% coverage of the most frequent allergens in Northern and Central Europe. Also suitable for other regions.



FastCheckPOC® – Rapid screening tests available for inhalant and food allergies.

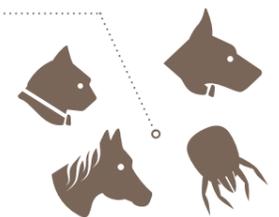
FastCheckPOC® – e.g. for the diagnosis of outdoor allergies, such as grass pollen, tree pollen, weed pollen. Early and late bloomers are differentiated.



FastCheckPOC® – e.g. for the diagnosis of food allergies.



FastCheckPOC® – e.g. for the diagnosis of allergies to animal hair and house dust mites.



🩸 **Patented diagnostics of type I sensitisation at any point of care.**

🩸 **First line diagnostics, even for non-specialists.**

2–3 DROPS AND 30 MINUTES TO A RESULT.

* This test should only be performed by medical personnel who have been trained in the use of in vitro diagnostics products.

A SMART TEST FOR THE DETECTION OF SPECIFIC IgE.

DST has developed with FastCheckPOC® an ELISA rapid test to determine specific IgE, which shows the best characteristics: through the optimisation of the allergens and chemicals used, as well as the merging

of individual steps, the DST laboratory has achieved an optimal coordination of the components. The result: with only 2-3 drops of blood a valid result is provided at room temperature within 30 minutes. 🩸

EXPERTISE AND PROFESSIONAL SOLUTIONS.

With every drop you get a valid result from DST. For your requirements and enquiries we offer a comprehensive and supportive expert service in the background.

Three diagnostic possibilities and still more reasons to work together with us: our own laboratory, LAS, Fast-CheckPOC® and cerascreen®. 🩸



DST FastCheckPOC®

- Easy handling, direct and simple readability of the results.
- Composition of the allergens from the DST laboratory with excellent sensitivity, specificity and with 90% coverage of the sensitization prevalences in Northern and Central Europe.
- Standard adjustment for other geographical regions possible at any time. 🩸

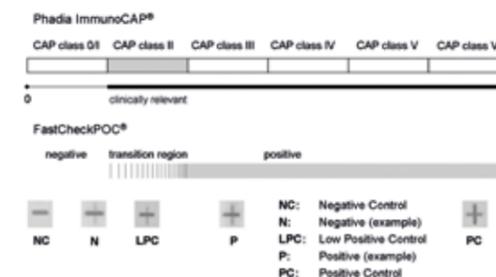
Diagnostics at a drop.

- Optimisation of components and filter membrane technology in the production makes simple application possible with only 2-3 drops of capillary blood, heparin blood or serum (100 µl). 🩸

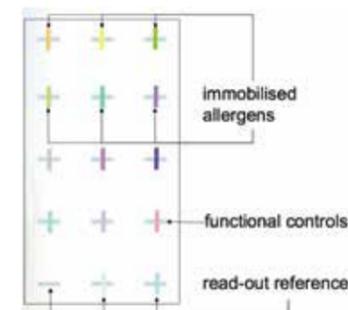


Fast, valid, clear.

- Result in only 30 minutes.
- Clear results through the use of highly sensitive allergens from the DST laboratory.
- High agreement between the results in comparison with the Thermo Fisher ImmunoCAP® lab test.



- Thanks to the high quality of the allergens used and the straightforward symbols, the results are clear and easy to read. 🩸



Accurate early diagnosis, case history and treatment options.

- We offer a round-the-clock service for laboratories, physicians, practitioners and pharmacies.
- With the use of FastCheckPOC® other allergies that are increasing among the population can be recognised and treated cost-effectively at an early stage.
- Remaining 10% cover a great many different allergens, which can be analysed at any time with DST's LAS lab tests. 🩸

Every contact to DST helps you.

- We advise you at any time and provide answers to your questions.
- We offer validation of your results upon request.
- We provide you with individual allergen compositions.
- Further well-founded lab tests (e.g. LAS) give you the highest possible flexibility and quality in the diagnostics.
- Additionally we offer allergen extracts of the highest quality. 🩸

OUR DAILY AMBITION: MAXIMIZING YOUR OUTCOME.

We offer our customers allergens with the highest reactivity and diversity in safe and flexible diagnostic carriers. Our diagnostic concepts enjoy the greatest confidence among experts and beyond.

Unique products and support services secure an established lead for our commercial customers: profitability, diagnostic and consulting competence with sustainable competitiveness. 📈

Test principle.

FastCheckPOC® is an enzyme immunoassay that has been transferred and adapted from laboratory diagnostics to the medical professional's office for determination of allergen specific IgE in whole (untreated) blood. No extra instrumentation is required to perform the test and to obtain a readout of the result. The evaluation can be made with the naked eye. The test device comprises a membrane card with 12 single allergens or mixtures that are chemically bound within certain areas on the card.

These complexes are now applied to the membrane card and bound to the allergens on its surface. Following an incubation period of 15 minutes, all unbound material is washed off using a stringent washing solution.

A developer solution is added to the membrane card and the conjugate-human IgE complexes bound to allergens on the surface turn the yellowish developer into dark blue dye indigo to reveal symbols on the membrane card. Sensitisations to the tested allergens are identified by comparing the shape (plus or minus sign) and colour intensity of the symbols with the controls on the membrane card. 📈

A blood sample (100 µl) from the fingertip or earlobe (or collected from a venous blood sample) is added to the small tube with test solution. The test solution contains an enzyme conjugate that specifically forms complexes with human IgE in the blood sample.

Table 1:
Current allergen panels used in the fast allergy test for 12 inhalation or food allergens

Food allergens	
Code	Allergen
f74	Hen egg
fx74	Fish mix ¹
fx73	Meat mix ²
f24	Shrimp
f13	Peanut
f17	Hazelnut
f14	Soy bean
f4	Wheat flour
f5	Rye flour
f31	Carrot
f85	Celery
f199	Milk, raw

Inhalation allergens	
Code	Allergen
d1	House dust mite
t3	Silver Birch
t4	Hazelnut
gx3	Grass pollen mix ⁶
w6	Mugwort
w20	Stinging nettle
e1	Cat epithelium
e2	Dog epithelium
k82	Latex
m2	Cladosporium herbarum
m3	Aspergillus fumigatus
m6	Alternaria alternata

6 ¹⁾ fx74: Herring (f21), Mackerel (f171), Plaice (f152), Cod(f13)
²⁾ fx73: Beef (f27), Pork (f26), Chicken (f83) / fx4: Pork (f26), Beef (f27), Lamb meat (f88)
³⁾ fx26: Turkey meat (f143), Goose meat (f57), Chicken (f83), Duck meat (f58)
⁴⁾ fx2: Cod fish (f3), Shrimp (f24), Blue mussel (f37), YellowfinTuna (f40), Salmon (f41)
⁵⁾ fx22: Pecannut (f103), Cashewnut (f204), Pistacionnut (f818), Walnut (f16)
⁶⁾ gx3: Sweet vernal grass (g1), Rye grass (g5), Timothy grass (g6), Rye (g12), Velvet grass (g13) / gx15: Orchard grass (g3), Rye grass (g5),



EUROPE		CAT: 79 72 0066
Code	Allergen	
f74	Hen egg	
f17	Hazelnut	
f4	Wheat	
fx74	Fish Mix ¹	
f13	Peanut	
f31	Carrot	
fx73	Meat Mix ²	
f14	Soy Bean	
f85	Celery	
f24	Shrimp	
f5	Rye flour	
f199	Milk, raw	

MEDITERRANEAN		CAT: 79 72 0014
Code	Allergen	
f74	Hen egg	
f17	Hazelnut	
f4	Wheat	
fx74	Fish Mix ¹	
f13	Peanut	
f33	Orange	
fx73	Meat Mix ²	
f14	Soy Bean	
f25	Tomato	
f24	Shrimp	
f5	Rye flour	
f199	Milk, raw	

EUROPE		CAT: 79 72 0065
Code	Allergen	
d1	House dust mite	
e1	Cat epithelium	
w20	Stinging nettle	
t4	Hazelnut	
t3	Silver Birch	
m2	Cladosporium herbarum	
gx3	Grass Mix ⁶	
k82	Latex	
m3	Aspergillus fumigatus	
w6	Mugwort	
e2	Dog epithelium	
m6	Alternaria alternata	

MEDITERRANEAN		CAT: 79 72 0012
Code	Allergen	
d1	House dust mite	
e1	Cat epithelium	
w19	Wall pellitory (Parietaria officinalis)	
t9	Olive	
t14	Populus deltoides (Cottonweed, Eastern)	
m2	Cladosporium herbarum	
gx3	Grass Mix ⁶	
k82	Latex	
m3	Aspergillus fumigatus	
t16	Pinus sylvestris	
e2	Dog epithelium	
m6	Alternaria alternata	

SWISS		CAT: 79 72 0054
Code	Allergen	
f74	Hen egg	
f17	Hazelnut	
fx4	Meat Mix ²	
fx74	Fish Mix ¹	
f13	Peanut	
f31	Carrot	
f14	Soy Bean	
f85	Celery	
f24	Shrimp	
fx26	Poultry Mix ³	
f199	Milk, raw	
f4	Wheat	

UK		CAT: 79 72 0106
Code	Allergen	
f74	Hen egg	
f17	Hazelnut	
f4	Wheat	
fx74	Fish Mix ¹	
f13	Peanut	
f31	Carrot	
fx73	Meat Mix ²	
f14	Soy Bean	
f85	Celery	
f24	Shrimp	
f10	Sesame	
f199	Milk, raw	

SWISS		CAT: 79 72 0052
Code	Allergen	
dx2	Dust mite Mix ⁷	
e1	Cat epithelium	
e3	Horse epithelium	
t4	Hazelnut	
t3	Silver Birch	
t15	White Ash	
gx3	Grass Mix ⁶	
k82	Latex	
m2	Cladosporium herbarum	
w6	Mugwort	
e2	Dog epithelium	
m6	Alternaria alternata	

EASTERN EUROPE		CAT: 79 72 0106
Code	Allergen	
d1	House dust mite	
e1	Cat epithelium	
w1	Ambrosia (Ragweed, common)	
t4	Hazelnut	
t3	Silver Birch	
m2	Cladosporium herbarum	
gx3	Grass Mix ⁶	
k82	Latex	
m3	Aspergillus fumigatus	
w6	Mugwort	
e2	Dog epithelium	
m6	Alternaria alternata	

MIDDLE EAST		CAT: 79 72 0024
Code	Allergen	
f74	Hen egg	
fx2	Seafood Mix ⁴	
f49	Apple	
f13	Peanut	
f10	Sesame	
f29	Banana	
f14	Soy Bean	
f12	(Green) Pea	
f8	Corn	
f4	Wheat	
fx22	Nuts ⁵	
f199	Milk, raw	

This could be the panel of your individual compilation.

If you would like to learn more about our laboratories, individual services and systems, please contact us. We will support you directly.

MIDDLE EAST		CAT: 79 72 0022
Code	Allergen	
tx15	Tree Mix ⁸	
w6	Mugwort	
mx15	Mould Mix ⁹	
gx15	Grass Mix ⁶	
w21	Pellitory	
ex25	Feather Mix ¹⁰	
g2	Bermuda grass	
dx2	Dust Mite Mix ⁷	
e1	Cat epithelium	
wx15	Weed Mix ¹¹	
ix1	Cockroach Mix ¹²	
e2	Dog epithelium	

NORTH ITALY		CAT: 79 72 0015
Code	Allergen	
d1	House dust mite	
e1	Cat epithelium	
w19	Wall pellitory (Parietaria officinalis)	
t9	Olive	
t14	Populus deltoides (Cottonweed, Eastern)	
t3	Silver Birch	
gx3	Grass Mix ⁶	
k82	Latex	
m2	Cladosporium herbarum	
w1	Ambrosia	
e2	Dog epithelium	
m6	Alternaria alternata	

⁷⁾ dx2: House dust mites (d1/ d2)
⁸⁾ tx15: Hazel (t4), Grey alder (t2), Olive (t9), Italian Cypress (t23), Timothy grass (g6), Johnson grass (g10)
⁹⁾ mx15: Cladosporium herbarum (m2), Asp. fumigatus (m3), Alternaria alternata (m6), Asp. niger (m33), Asp. terreus (m36), Asp. nidulans (m47)
¹⁰⁾ ex25: Chicken feather (e85), Goose feather (e70), Duck feather (e86)
¹¹⁾ wx15: Plantain, English(w9), Pigweed, common (w14), Lamb's quarters (w10)
¹²⁾ ix1: Cockroach, German (i6), Cockroach, American (i903)

FastCheckPOC® – PERFORMANCE FOR VALID RESULTS.

The rapid allergy screening test FastCheckPOC® detects IgE antibodies that are freely circulating in the blood stream. When diagnosing allergies, FastCheckPOC® –

just as in all other in vitro tests – should be regarded as one part of a diagnostic procedure that includes a complete clinical history and in-depth anamnesis. 🩸

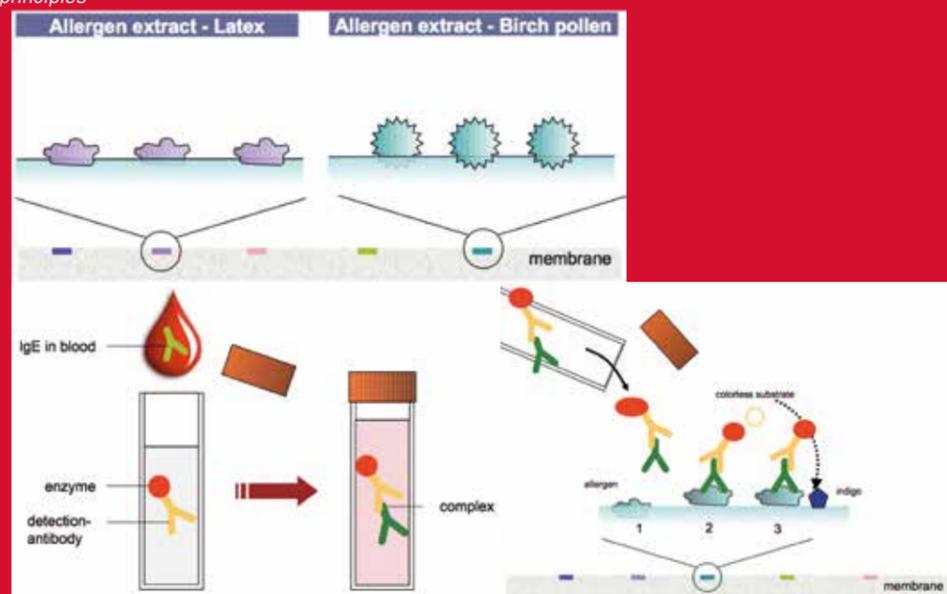
Performance characteristics.

- Analytical specificity: cross-reactivity with other immunoglobulin species is not expected
- Correlation w/ImmunoCAP®: 96 % for positive samples, 98 % for negative samples
- Accuracy: expected values were obtained in all cases
- Reproducibility: 100 % inter-assay
- Repeatability: 100 % intra-assay
- Negative results: < CAP class II
- Detection range CAP class 0-VI, class II
- Cut-off/Transition region CAP class II (0.7–3.5 kU/l)
- Positive results ≥ CAP class II

FastCheckPOC® is a qualitative test that correlates well with the ImmunoCAP®-system (> 96 %).

The allergens used in FastCheckPOC® are calibrated against the quantitative diagnostic laboratory system ImmunoCAP® by Thermo Fischer. 🩸

Illustration 1:
FastCheckPOC® principles



EVERY CONTACT TO DST HELPS YOU.

For more information, please see FastCheckPOC® Package leaflet.

FastCheckPOC®: MEDICAL STUDY AT A GLANCE.

Development and performance evaluation of a visual fast test for the development of specific IgE in capillary blood or heparin blood. We present this study as an abstract in the following.

Are you interested in the complete publication? Or do you have any questions regarding the study or our services? Please do not hesitate to contact us – we will support you directly. 🩸

Resume abstract¹

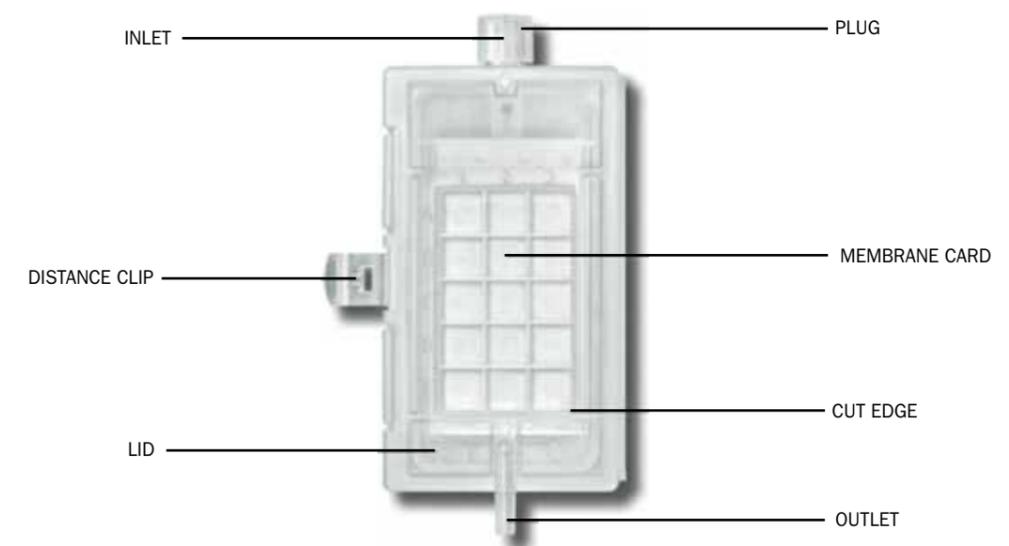
The number of allergic patients in industrialized countries has increased over the last 30 years. At present, approximately 30% of the European inhabitants have been affected.

According to estimations, only a fraction of patients with respiratory allergy is diagnosed at an early stage and treated correctly. The European Academy for Allergology and Clinical Immunology (EAACI) has, therefore, initiated a campaign focusing on the early diagnosis of allergy. Early diagnosis needs easy screening instruments. Thus, an easy visual allergy test for the fast detection of specific IgE in capillary blood has been developed. This test is based on the ELISA-technique (enzyme-linked immunosorbent assay) and adapted to be carried out at room temperature with a result within 30 minutes using only 2-3 drops of whole blood (100 µl).

Specific IgE for either 12 separate food allergens or 12 separate inhalation allergens can be tested in parallel in one test. The current allergen panel covers approximately 90 % of the relevant inhalant allergens or food allergens for northern and middle Europe.

Allergens on the membrane give a visible sign in the shape of a „+“ for positive reactions and a „-“ for negative reactions. Correlation of results of the fast allergy test with results of the Pharmacia CAP was shown.

In 313 patients the test showed 96 % positive and 98 % negative correlation in average. In conclusion, the test represents a valid method for screening of elevated specific IgE for the most common inhalant and food allergens. 🩸



1) Runge DM, Westpfahl-Wiesener KP, Schwertner H; Development and Performance Evaluation of a Visual Fast Test For the Detection of Specific IgE in Capillary Blood or Heparin Blood; Allergologie 28; 7/2005; 263-268.

FastCheckPOC®: MEDICAL STUDY RESULTS.¹

Ease-of-use of the fast allergy test was confirmed during the study. The comparison of the results of the fast allergy test and the reference system Pharmacia-CAP (Unicap 100) show a good correlation.

The results of comparing the data from 331 patients generated with the fast allergy test and the Uni-CAP 100 laboratory test system are shown below in *table 2*.¹

Table 2:
Comparison of results of allergy testing from fast allergy test and laboratory test

Allergen	Cap Positive	Fast Test positive	Positive Correlation	Cap Negative	Fast Test negative	Negative Correlation
d1 House dust mite	59	58	98.3 %	139	137	98.6 %
t4 Hazel pollen	24	24	100 %	31	30	96.7 %
gx3 Grass pollen mix	76	75	98.7 %	38	37	97.4 %
w6 Mugwort pollen	62	60	96.8 %	44	43	97.7 %
e1 Cat epithelia	33	31	93.9 %	40	40	100 %
t3 Birch pollen	80	76	95 %	58	56	96.5 %
k82 Latex	12	12	100 %	16	16	100 %
e2 Dog epithelia	21	20	95.2 %	47	44	93.6 %
w20 Stinging nettle	15	15	100 %	20	20	100 %
m2 Cladosporium	4	4	100 %	35	34	97.1 %
m3 A. furnigatus	4	4	100 %	38	37	97.3 %
m6 Alternaria alternata	15	14	93.3 %	45	45	100 %
f74 Hen egg	11	11	100 %	20	18	90 %
fx74 Fish mix	14	14	100 %	15	15	100 %
fx73 Meat mix	8	7	87.5 %	31	31	100 %
f24 Shrimps	10	9	90 %	26	25	96.2 %
f17 Hazelnut	33	30	90.9 %	34	34	100 %
f13 Peanut	22	19	86.4 %	24	24	100 %
f14 Soy bean	14	13	92.8 %	23	23	100 %
f5 Rye flour	11	11	100 %	18	18	100 %
f4 Wheat flour	18	18	100 %	21	21	100 %
f31 Carrot	17	16	94.1 %	18	18	100 %
f85 Celery	21	21	100 %	28	28	100 %
f199 Milk	15	14	93.3 %	38	36	94.7 %

Results of the study¹

Heparin blood, capillary blood and blood serum samples were concurrently drawn from the patients. For the Uni-CAP 100 laboratory test only serum was used (as this system requires serum), while capillary blood, heparin blood or serum were used with the fast allergy test.

The results of 331 patient were finally included in the evaluation. For the inhalation panel, the correlation of positive results (see legend table 2) was between 93.3 % and 100 % while the correlation of negative results was between 93.6 % and 100 %.

For pollen (birch, hazel, mugwort, grass pollen mix and stinging nettle), the positive correlation was between 95 % and 100 %, in case of epithelia (cat, dog) it reached between 93.9 % and 95.2 %, for moulds (*Aspergillus fumigatus*, *Cladosporium herbarum*, *Alternaria alternata*) it was between 93.3 % and 100 %, for latex it reached 100 % and for home dust mite it was determined to be 98.3 %. The correlation of negative results (table 2) was between 96.5 % and 100 % for pollen, 93.6 % to 100 % for epithelia, 97.1 % to 100 % for moulds, 100 % for latex and 98.6 % for house dust mite.

The correlation of positively tested samples for the food panel reached a mean value of 95 % (SD=0.05) the correlation of negatively tested samples reached a mean value of 98 % (SD=0.03).

Celery, carrots, wheat flour, fish and egg showed a correlation of positive results of 94 % to 100 %, shrimps, hazelnut, soy and milk of 90 % to 93.3 %, meat mix correlated in positive results at 87.5 % and peanut 86.4 %. Negative correlation between the two test systems was 90 % for egg, 94.7 % for milk and 96.2 % for shrimps. All other allergens revealed a correlation of 100 % regarding negative results.

Reproducibility of test results was confirmed by replicates using the same samples of heparin blood several times within one week post sampling. Capillary blood was freshly drawn for every replicate testing, patients were tested several times during the course of one week. Differences between results were found in less than 2 % of the tests.

To confirm the compatibility of the fast test with different sample preparations, capillary blood, heparin blood and serum from 48 patients were tested.

Correlation of results from different sample materials was confirmed for a sample volume of 100 µL.

Smaller sample volumes (50 µL) lead to results that differed from laboratory test results. Sample volumes of 200 µL or 400 µL did not differ from the results obtained using a sample volume of 100 µL.¹

Discussion

Type 1 allergies are widely spread in Europe, but only few patients are diagnosed early and receive appropriate treatment, because allergy expertise and immediate access to reliable diagnostic tools are limited particularly in primary care in Europe.

For an early-on diagnosis in disease development a fast allergy screening test represents a simple and effective tool for determination of type I sensitisations. The qualitative results render the fast screening test a useful tool to confirm anamnesis with regard to the presence of an allergic condition. The simultaneous testing of 12 allergens lower the cost of the test and speed it up. Positive results should be confirmed by quantitative *in vitro* testing, skin test or provocation test if indicated, to ensure an adequate therapy. If negative results occur while the symptoms still persist a visit with an allergologist is strongly recommended.

Are you interested in the complete publication? Or do you have any questions regarding the study or our services? Please do not hesitate to contact us – we will support you directly.

CONTACT US, IF YOU WANT TO ACHIEVE MORE.

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EVERYTHING'S VALID. EVERYTHING'S POSSIBLE.

DST specialises in diagnostic solutions for allergies, food intolerances and professional diet optimisation. We stand for concentrated competence and experience under one roof: science, R&D, consultation, support, allergen production. Our allergen extract production has one of the largest offers in the market: 600 allergens with valid results – fast and reliable.



DST is certified by TÜV Rheinland. 

