







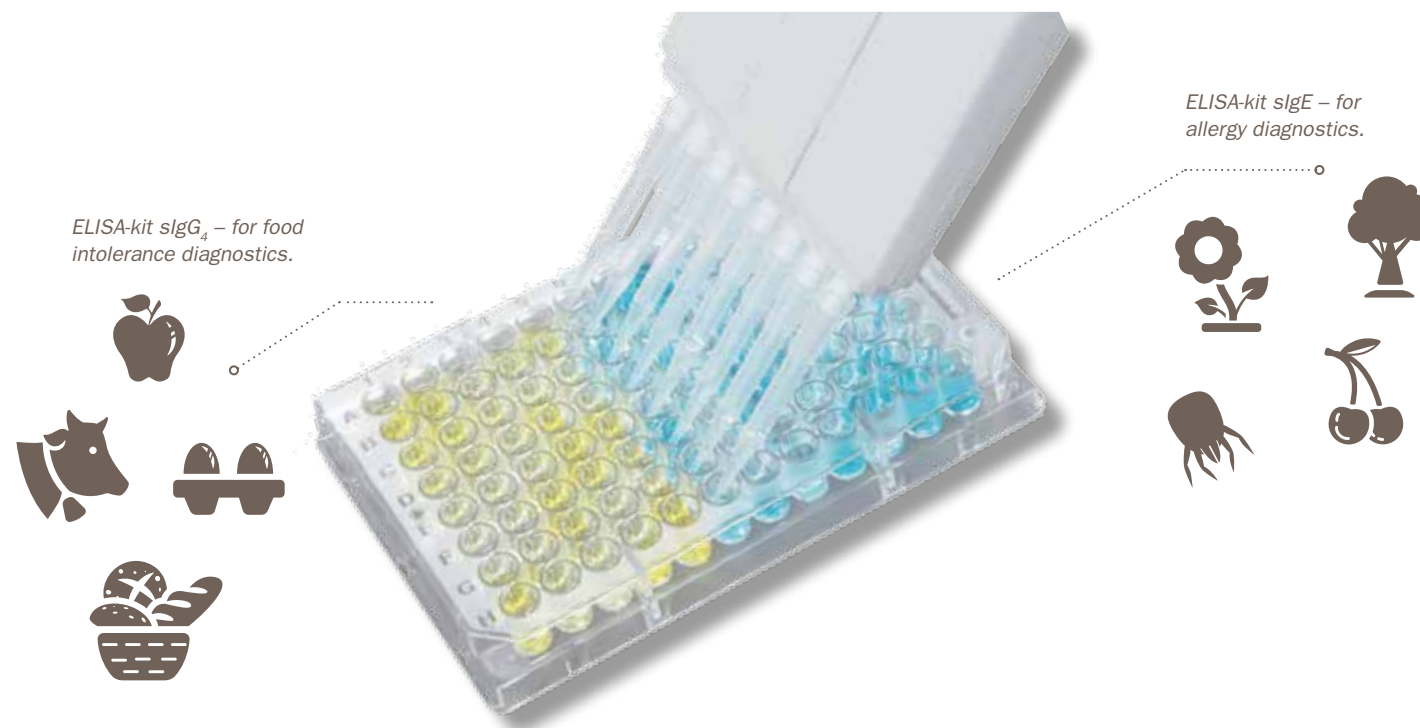


# DST ELISA KITS. EASE OF USE, CUSTOMISABLE PANELS.

DST ELISA kits can be coated with allergens of your choice according to the geographical region, season and food culture. DST extracts more than 600 allergens at its own manufacturing facility, and because of years

of research and development our allergens possess excellent reactivity and certified quality and purity. This ensures accurate and clear diagnostic results from all our ELISA kits. 

-  **To reduce your assay time allergens are precoated on microtitre plates.**
-  **Customisable allergen panels with a large choice of over 600 available allergens.**
-  **Pre-designed panels with selected symptom-specific or regional allergen combinations.**
-  **slgE is determined from 10 µl of serum or plasma per allergen in less than 2.5 hours. Fully quantitative results can be read out with a standard micro-titre plate reader starting as low as 0.35 ku/L.**
-  **Quantification using a 6-point standard curve.**
-  **slgE: The identified units/ml can be assigned to CAP-classes and represent the level of specific IgE sensitisation.**
-  **slgG<sub>4</sub> is determined from either 10 µl or less than 1 µl of serum or plasma per antigen in less than 2.5h/4h. slgG<sub>4</sub> levels are given as fully quantitative results and represented in 6 classes of reaction severity.**



## **DST** Diagnostische Systeme & Technologien GmbH


Gueterbahnhofstraße 16  
19059 Schwerin

T +49 385 30348-0  
F +49 385 30348-499

E [info@dst-diagnostic.com](mailto:info@dst-diagnostic.com)  
W [dst-diagnostic.com](http://dst-diagnostic.com)

DST specialises in diagnostic solutions for allergies, food intolerances and professional diet optimisation. Our allergen extract production has one of the largest offers in the market: 600 food and respiratory allergens.



DST is certified by the TÜV Rheinland according to ISO 9001 and EN ISO 13485. 




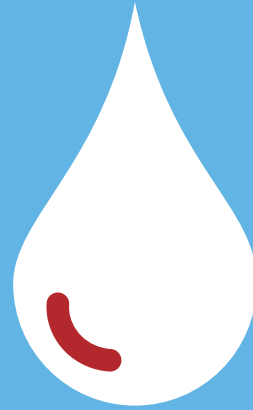
ID: MKLE8\_003 ISO 9001/13485 Made in Germany

# DST ELISA KITS

Allergy and Food Intolerance Diagnostics.  
600 Allergens.



The **DST ELISA KITS** are used for **in vitro diagnostics in humans of allergen-specific IgE, IgG<sub>4</sub> and IgG antibodies in serum or plasma**. DST develops, manufactures and markets *in vitro* diagnostics for laboratory use – a variety of microtitre plate-based detection systems: ELISA (enzyme-linked immunosorbent assay) kits for diagnostics of specific IgE, specific IgG<sub>4</sub> and specific IgG. 




#### Intended Use

The DST ELISA KITS are used for the quantitative determination of specific IgE and IgG<sub>4</sub> antibodies against a selection of over 600 allergens.

ELISA kit for detection of specific IgE (human) is a laboratory use enzyme immunoassay for allergy diagnostics. The test is an aid in the screening and diagnosis

of sensitisation of type I allergy (immediate type) in patients with symptoms of suspected allergic cause.

ELISA kit for detection of specific IgG<sub>4</sub> (human) is a laboratory use enzyme immunoassay for food intolerance diagnostics. This test is an aid in the screening and diagnosis of food intolerance. 

For more information, please see Package leaflet.


## ELISA KIT FOR DETECTION OF SPECIFIC IgE (HUMAN)

#### Test principle

The ELISA KIT sIgE is an enzyme immunoassay for *in vitro* detection of allergen-specific IgE in serum or plasma of humans. Allergens are bound on the surface of each well of the microtitre plate. For testing, a diluted sample (serum or plasma) is added to the wells. Specific IgE antibodies of the sample bind to the antigens in the wells during incubation, and non-bound components of serum or plasma are washed away after incubation. Subsequently, digoxigenin-labeled anti-human IgE antibodies and radish peroxidase-coupled anti-digoxigenin antibodies (conjugate) are added.

The digoxigenin-labeled anti-human IgE antibodies bind to IgE antibodies of the sample, standards and controls. The conjugate binds to the digoxigenin-labeled anti-human IgE antibodies. Subsequently, un-bound detection

antibodies are washed away. A color substrate TMB (3,3', 5,5'-tetramethylbenzidine) is added, which is converted by the horseradish peroxidase conjugate bound enzyme. The reaction is stopped by adding a stop solution. A yellow dye is formed and the respective intensity correlates with the proportional amount of locally-bound antibody. The dye formed is quantified photometrically by measuring the extinction. The quantification of the tests is carried out using a point-to-point regression of a 6-point standard curve. Standards are calibrated according to the WHO reference serum 75/5021.

The identified units/mL can be assigned to the respective CAP-classes and provide the level of specific IgE sensitisation (Table 1). 

 **Comes with step-by-step Quick Guide.**


 **All necessary reagents for the ELISA are included in the kit.**


 **50 µl serum or plasma per individual test.**

 **Total assay time of 2 hours.**

 **Measurement at 450 nm (- 620 / 630 nm reference wavelength).**

 **Customised regional pre-coated panels available from a large choice of allergens.**

 **Intra-assay precision/Inter-assay precision: mean coefficient of variation 4.47 %/4.61 %.**

 **DST ELISA Kits can be used with standard automated and semi-automated ELISA analysers as well.**

**Table 1:**  
Correlation between U/ml of allergen-specific IgE, the CAP-class and the level of IgE-mediated sensitisation

allergen-specific IgE		
CAP-class	U/mL	Sensitisation
0	0,00 – 0,34	none
1	0,35 – 0,69	very low
2	0,70 – 3,49	low – moderate
3	3,50 – 17,49	moderate
4	17,50 – 49,99	high
5	50,00 – 99,99	very high
6	≥ 100	extremely high

Reference: Package leaflet


## ELISA KIT FOR DETECTION OF SPECIFIC IgG<sub>4</sub> (HUMAN)

#### Test principle

The ELISA kit for detection of specific IgG<sub>4</sub> (human) is a laboratory use enzyme immunoassay for *in vitro* diagnostics of food intolerance in patients. Allergen extracts from different foods are bound to the surface of the microtitre plate wells. For testing, a diluted sample (serum or plasma) is added to the wells. Specific IgG<sub>4</sub> antibodies of the sample bind to the antigens in the wells during incubation.

Non-bound components of serum or plasma are washed away after incubation of the sample. Horseradish peroxidase-coupled anti-IgG<sub>4</sub> antibodies (conjugate) are added and bind to the IgG<sub>4</sub> antibodies of the sample, the standards or controls. Subsequently, unbound

detection antibodies are washed away. The color substrate TMB (3,3', 5,5'-tetramethylbenzidine) is added, which is converted by the horseradish peroxidase conjugate.

The reaction is stopped by adding a stop solution. A yellow dye is formed and the respective intensity correlates with the proportional amount of locally-bound antibody. The dye formed is quantified photometrically by measuring the extinction. Test results are quantified using a point-to-point regression from the measured absorbances of the standard series. The identified units/mL can be assigned to the respective intensity and provide the level of specific IgG<sub>4</sub> sensitisation (Table 2). 

 **Sample volume of less than 1 µl per allergen needed.**

 **Choice of wide range of food extracts available.**

 **All necessary reagents for the ELISA are included in the kit.**

 **Total assay time of 2 hours.**

 **Intra-assay precision: mean coefficient of variation 5.37%.**

 **No cross reactions with other immunoglobulins.**

**Table 2:**  
The identified units/ml of IgG<sub>4</sub> represent the level of food sensitisation

sIgG <sub>4</sub> -Class (Range)	sIgG <sub>4</sub> -Unit [Unit/m]
1	0,35 – 0,70
2	0,70 – 3,50
3	3,50 – 17,50
4	17,50 – 50,00
5	50,00 – 100,00
6	> 100,00

Reference: Package leaflet