Anti-dsDNA

ELISA for the quantitative determination of IgG antibodies against double-stranded DNA (dsDNA)





Product Highlights

- Serological marker for systemic lupus erythematosus (SLE)
- Excellent diagnostic efficiency with high sensitivity and specificity
- Automatable

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20 Years of Experience, 150 Partners in more than 100 Countries

Antibodies against Double-Stranded DNA (dsDNA)

Importance in the Diagnosis of systemic Lupus erythematosus

Systemic lupus erythematosus

Systemic lupus erythematosus (SLE) is an autoimmune disease that manifests with the formation of anti-nuclear antibodies (ANA), especially antibodies against double-stranded deoxyribonucleic acid (dsDNA). The disease is rare. Women get sick much more often than men. Depending on which organs or organ systems are affected, systemic lupus erythematosus manifests with different symptoms, which usually occur in phases and can also change over the course of the disease. Butterfly erythema occurs in a large number of patients and spreads symmetrically from the bridge of the nose to the cheeks. General symptoms such as tiredness and fever are also described. Kidney involvement, joint inflammation and other clinical manifestations are also often observed.

Diagnosis

The diagnosis is made on the basis of the clinical symptoms and laboratory medical examinations. Laboratory examinations are based in particular on the detection of anti-nuclear antibodies. Antibodies against double-stranded deoxyribonucleic acid are pathognomonic for systemic lupus erythematosus. They occur in about 65 % of patients and, along with antibodies against Smith antigen (Sm) and against phospholipids, are part of the classification criteria of American and European rheumatologists (ACR: American College of Rheumatology, EULAR: European League Against Rheumatism).

Publikationen

- Haugbro, K., Nossent, J.C., Winkler, T., Figenschau,
 Y., Rekvig, O.P. (2004) Anti-dsDNA antibodies and
 disease classification in antinuclear antibody
 positive patients: the role of analytical diversity.
 Ann. Rheum. Dis. 63, 386 94.
- Infantino, M., Nagy, E., Bizzaro, N., Fischer, K., Bossuyt, X., Damoiseaux, J. (2021) Anti-dsDNA antibodies in the classification criteria of systemic lupus erythematosus. J. Transl. Autoimmun. 5, 100139.



Anti-dsDNA – Enzyme Immunoassay for the quantitative Determination of IgG Antibodies against Double-Stranded DNA (dsDNA)

Antigen

The Anti-dsDNA immunoassay is based on the use of purified double-stranded DNA (dsDNA).

Calibration

The Anti-dsDNA immunoassay is calibrated using the international reference preparation WO/80 (Central Laboratory of the Netherlands Red Cross Blood Transfusion Service, Amsterdam). Quantitative results are expressed in IU/mL.

Precision

The precision of the immunoassay was assessed by the determination of the intra- and interassay variation with multiple samples of different antibody activities.

	INTRAASSAY PRECISION		INTERASSAY PRECISION	
	IU/mL	CV (%)	IU/mL	CV (%)
Sample 1	29	4.4	32	7.7
Sample 2	56	6.1	61	6.2
Sample 3	151	3.5	139	10.3

Diagnostic Sensitivity and Specificity

Sensitivity and specificity of the immunoassay were assessed by the analysis of 61 samples from patients with systemic lupus erythematosus (SLE) and 102 samples from unselected blood donors.

	DIAGNOSTIC PERFORMANCE
Sensitivity	94.6 %
Specificity	> 99 %





Product Information

Anti-dsDNA



Anti-dsDNA

Enzyme immunoassay for the quantitative determination of IgG antibodies against double-stranded DNA (dsDNA) in human serum

HIGH QUALITY - MADE IN GERMANY

- Use of purified double-stranded DNA
- Ready-to-use (exception: wash buffer) and barcoded reagents
- Quality assured handling in routine laboratories
- Short incubation times (60 min / 30 min / 15 min) at room temperature
- Quantitative determination of IgG antibodies
- Calibrated with the international reference preparation WO/80
- Results expressed in IU/mL
- Excellent diagnostic sensitivity and specificity
- High precision within the measurement range
- CE marked
- Automatable

Contact

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Order Information

Anti-dsDNA (96 Determinations) REF 4015

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