BlueDiver Quantrix

ANA[19] IgG

Order Code: ANA19Q-24

BlueDiver Protocol: 02

1. INTENDED USE

BlueDiver Quantrix ANA[19] IgG is an Immunodot kit intended for the detection, in human sera only, of IgG autoantibodies against the following antigens: Nucleosome, dsDNA, Histones, Sm, RNP 68kD/A/C, Sm/RNP, SSA/Ro 60kD, SSA/Ro 52kD, SSB, Scl-70, RNA Polymerase III, Ku, PM-Scl 100, Mi-2, Jo-1, CENP-A/B, PCNA, Ribosome P0 and DFS-70.
This kit is intended to confirm results of patterns obtained by immunofluorescence, the screening and reference method in autoimmunity; the kit is intended as an aid in the diagnosis of several autoimmune diseases (for more details, see *Autoantibodies diagnostic values*).
The test is intended for confirmation of IFA positive population and IFA negative with strong suspicion of autoimmune disorder.
This kit is strictly reserved for professional use in clinical analysis laboratories. Prior training is strongly recommended (please contact your distributor).
This kit is strictly foreseen as an automated test and can only be used in a BlueDiver Instrument Model I or II (hereinafter named BDI I or BDI II respectively).
Detection of the different IgG autoantibodies is semi-quantitative (see point 10.2).
For a semi-quantification of the test results, it is necessary to use the system BlueScan/Dr Dot Software. This system is not included in the BDI I but is included in the BDI II (see point 4).

2. PRINCIPLE OF THE TEST

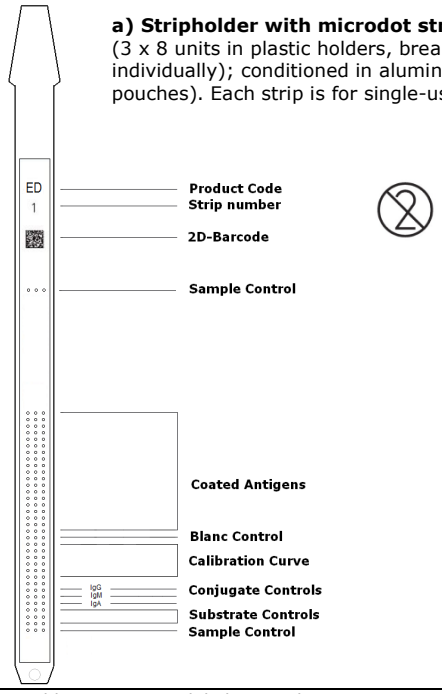
This kit and all its components are intended to be performed exclusively on the BDI I or II.
The test is based on the principle of an Enzyme Immunoassay. The test strip is composed of a membrane fixed on a specific plastic support. During the automated test procedure, the BDI sequentially incubates the strips in the wells of ready-to-use reagent cartridges. Briefly: the strips are first incubated with diluted patients' sera. Human antibodies, if present, bind to the corresponding specific antigen(s) dotted on the membrane. Unbound or excess antibodies are removed by washing. Upon further incubation into AP-conjugated goat antibodies against human IgG, the enzyme conjugate binds to the antigen-antibody complexes. After removal of excess conjugate by washing, the strips are finally incubated into a substrate solution. Enzyme activity, if present, leads to the development of purple dots on the membrane pads. The intensity of the coloration is directly proportional to the amount of antibody present in the sample. All the measured results are semi-quantitative thanks to a 6 points built-in calibration curve, including blank control. Different types of controls (sample, conjugate and substrate) are also coated on the strips. Their presence validates the whole process of the test (from sample loading to substrate kinetics, through conjugate specificity / reactivity). For optimum precision, all dots are coated in a triplicate microdot format, allowing calculation of a mean value and a confidence interval for each parameter (antigens, calibration curve and controls). The kit is composed of 24 single-use tests.

3. KIT CONTENTS

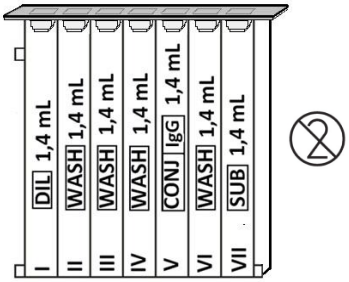
Prior to any use of the kit, please check that all the items listed are present. Please also check if the characteristics of the product are corresponding to those described hereafter.
If one of the items is missing or damaged or not conforming, please do not use the kit and contact your distributor.

3.1 COMPONENTS

a) Stripholder with microdot strips
(3 x 8 units in plastic holders, breakable individually); conditioned in aluminium pouches). Each strip is for single-use.



b) Cartridge (24 units having each 7 compartments; sealed)
Each cartridge is for single use;

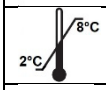


Diluent buffer	I[st] position, 1 x 1,4 ml (yellow) *contains:* *H_2O • TBS • BSA • NaCl • Tween • Preservatives • Dye • Antifoam emulsion*
Wash buffer	II[nd], III[rd],IV[th] and VI[th] position, 4 x 1,4 ml (colourless) *contains:* *H_2O • TBS • NaCl • Tween • Preservatives • Antifoam emulsion*
Conjugate	V[th] position, 1 x 1,4 ml (red) *contains:* *H_2O • TBS • NaCl • KCl • $MgCL_2$ • AP-conjugated goat anti-human IgG • Preservatives • Dye • Antifoam emulsion*
Substrate	VII[th] position, 1 x 1,4 ml (pale yellow solution) *contains:* *H_2O • Preservatives • $MgCL_2$ • TBS • NBT Stabilizer • NBT • BCIP*

c) Documents: Instructions for Use (IFU), Certificate of Analysis (CoA)

Abbreviations in alphabetic order:
AP = Alkaline Phosphatase; BCIP = Bromo-Chloro-Indolyl-Phosphate; BSA = Bovine Serum Albumin; KCl = Potassium Chloride; $MgCl_2$ = Magnesium Chloride; NaCl = Sodium Chloride; NBT = NitroBlue Tetrazolium; TBS = Tris Buffer Saline
For more information on the composition and concentration of the active ingredients used, please refer to the MSDS available on request or on www.d-tek.be.

Symbols used on kit labels

	Consult instructions for use		CE Mark + Notified Body
	In Vitro Diagnostic Medical Device		For 24 uses
	To be stored from 2-8°C		Reference
	Batch Number		To be protected from direct sunlight
	Use-by date		Manufacturer
	Cartridge		Do not re-use
	Strip		Caution

3.2 Antigens used

Nucleosome	dsDNA wrapped around a core histones octamer. Heterogenous mixture of pure native poly-nucleosomes composed of about 7 to 28 mono-nucleosomes. Contains Histones H2a, H2b, H3-H4 and traces of H1 (purified from bovine thymus chromatin)
dsDNA	Double-stranded DNA (purified from bovine thymus)
Histones	Mixture of H1, H2a, H2b, H3-H4 (purified from bovine thymus)
Sm	Core proteins of snRNP particles; contains mainly D Protein; E, F, G subunits are detectable; BB' proteins are not detectable (purified from bovine thymus)
RNP 68kD/A/C	Mixture of 68 kD, A and C proteins from snRNP particles (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
Sm/RNP	snRNP particles; contains essentially 68kD, A, BB', C and D proteins; a significant amount of snRNA is detectable (purified from bovine thymus)
SSA/Ro 60kD	Ro60kD protein (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
SSA/Ro 52kD	E3-ubiquitine ligase (Tripartite motif protein 21, TRIM21) (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
SSB	La50kD protein (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
Scl-70	DNA topoisomerase I (recombinant, human, expressed in Baculovirus- infected Sf9 cells)
RNA Polymerase III	155 kD subunit (RPC 155) of the RNA Polymerase III complex (Recombinant, human, expressed in E.coli)
Ku	Regulatory subunit of DNA-dependent protein kinase (70/80 kD heterodimer (recombinant, human, expressed in Baculovirus- infected Sf9 cells)
PM-Scl 100	Polymyositis-Scleroderma antigen (100 kD subunit) (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
Mi-2	CHD4 protein (chromodomain helicase DNA binding protein), subunit Mi-2 beta (recombinant, human, expressed in Baculovirus- infected Sf9 cells)
Jo-1	Histidyl-tRNA synthetase (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
CENP-A/B	Centromere Proteins A + B (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
PCNA	Proliferating Cell Nuclear Antigen (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
Ribosome P0	Ribosomal P0 protein (recombinant, human, expressed in Baculovirus-infected Sf9 cells)
DFS-70	Lens Epithelium Derived Growth Factor (**D**ense **F**ine **S**peckles protein 70 kD) (recombinant, human, full length, expressed in E.coli)

3.3 Reactive ingredients

Substance	**Origin**	**Intend purpose in ANA Screening kits**	**Concentration in ANA Screening kits**	**Purity**
Goat anti-human IgG-alkaline phosphatase	Animal (Goat)	Secondary antibody (detection antibody) in conjugate buffer	< 0,1 µg/ml in conjugate buffer	Unknown. No antibody is detectable to non-immunoglobulin serum components.
Nucleosomes	Animal (purified from Bovine Thymus chromatin)	Biomarker (antigen) coated on strips	0,1 mg/ml One Nucleosomes spot = 25nl on each strip	>80%
dsDNA	Animal (purified from Bovine Thymus)	Biomarker (antigen) coated on strips	0,5 mg/ml One dsDNA spot = 25nl on each strip	>80%
Histones	Animal (purified from Bovine Thymus)	Biomarker (antigen) coated on strips	0,025 mg/ml One Histones spot = 25nl on each strip	>80%
Sm	Animal (purified from Bovine Thymus)	Biomarker (antigen) coated on strips	0,04 mg/ml	>80%

			One Sm spot = 25nl on each strip	
RNP 68kD/A/C	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,02 mg/ml One RNP 68kD/A/C spot = 25 nl on each strip	>80%
Sm/RNP	Animal (purified from Bovine Thymus)	Biomarker (antigen) coated on strips	0,02 mg/ml One Sm/RNP spot = 25nl on each strip	>80%
SSA/Ro 60kD	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,04 mg/ml One SSA/Ro 60kD spot = 25nl on each strip	>80%
SSA/Ro 52kD	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,0125 mg/ml One SSA/Ro 52kD spot = 25 nl on each strip	>80%
SSB	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,01 mg/ml One SSB spot = 25nl on each strip	>80%
Scl-70	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,02 mg/ml One Scl-70 spot = 25nl on each strip	>80%
RNA-PIII	Bacterial (recombinant, human, expressed in E.Coli)	Biomarker (antigen) coated on strips	0,02 mg/ml One RNA-PIII spot = 25nl on each strip	>80%
Ku	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,025 mg/ml One Ku spot = 25nl on each strip	>80%
PM-Scl 100	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,2 mg/ml One PM-Scl 100 spot = 25nl on each strip	>80%
Mi-2	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,04 mg/ml One Mi-2 spot = 25nl on each strip	>80%
Jo-1	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,02 mg/ml One Jo-1 spot = 25nl on each strip	>80%
CENP-A/B	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	CENP-A: 0,033 mg/ml CENP-B: 0,025 mg/ml One CENP-A/B spot = 25nl on each strip	>80%
PCNA	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,2 mg/ml One PCNA spot = 25nl on each strip	>80%
Ribosome P0	Animal (recombinant, human, expressed in Baculovirus-infected Sf9 cells)	Biomarker (antigen) coated on strips	0,025 mg/ml One Ribosome P0 spot = 25nl on each strip	>80%
DFS-70	Bacterial (recombinant, human, expressed in E.Coli)	Biomarker (antigen) coated on strips	0,02 mg/ml One DFS-70 spot = 25nl on each strip	>80%
Protein L	Bacterial (from Peptostreptococcus magnus)	Reactive (positive) control	0,01 mg/ml One RC spot = 25nl on each strip	>95%
Streptavidin-Alkaline Phosphatase	Bacterial (from Streptomyces avidinii)	Cut-off (negative) control	< 0,1 µg/ml One CO spot = 25nl on each strip	Unknown.
NBT-BCIP	Synthetic (chemical substance	Substrate for alkaline phosphatase	0,2 mg/ml	≥ 98%

4. MATERIAL REQUIRED BUT NOT PROVIDED

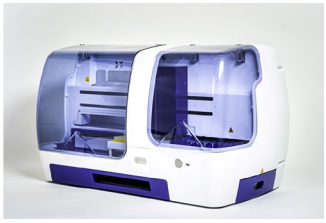
BDI I:

The BDI I is an instrument that performs the various steps of incubation and washing of D-tek's immunodot strips, from the deposit of the sample to the final colour development. The maximum capacity is of 24 strips which are incubated simultaneously. Each strip is associated with a cartridge containing the various reagents making it possible to carry out the test. The BlueDiver Instrument has a barcode reader which controls the correct association between a strip and its cartridge.
Prior training is strongly recommended (see your distributor).
Please consult The User Manual before using the BDI I.

BlueScan and Dr Dot Software:

The BlueScan and Dr Dot Software are intended for reading test results of D-tek immunodot strips. The Dr Dot Software and BlueScan scanner have to be used in combination.
The scanner has been specifically developed for the reading of the strips with "BlueDiver" design. Based on the image of the scanned strips, the Dr Dot Software converts the intensity of each dot/line into a numerical value (the numerical scale is based on a greyscale). Results are expressed in arbitrary units (from 0-100). 1-24 strips can be read.
Prior training is strongly recommended (see your distributor).
Please contact your distributor do obtain the latest version of Dr Dot Software.
Please consult The User Manual before using the BlueScan and Dr Dot Software.

BDI II:



The BDI II is an instrument that performs the various steps of samples pipetting, incubation, washing, drying and reading of D-tek's immunodot strips, from the deposit of the sample tube to the final reading of the strips.
The maximum capacity of the BDI II is of 24 strips which are incubated simultaneously. Each strip is associated with a cartridge containing the various reagents making it possible to carry out the test. The BDI II has a barcode reader which controls the correct association between a strip and its cartridge. It includes the BlueScan and Dr Dot reading system.
Prior training is mandatory (see your distributor).
Please consult The User Manual before using the BDI II

***Other Material**:* Micropipettes, absorbent paper, protective equipment (see point 6).

5. STORAGE

The test kit must be stored at a temperature between +2°C to +8°C throughout its validity period (see expiration date on the kit). Do not freeze.
After initial opening of the kit, unused reagent cartridges must be stored at 2-8°C protected from (sun)light preferably inside the original kit box.
Unused strips must be placed back into the provided pouches, sealed and stored at 2-8°C preferably inside the original kit box. When stored properly, all test kit components are stable until the indicated expiry date.

6. SAFETY PRECAUTIONS

1. All reagents are for in vitro diagnostic and professional use only. The test kit should be processed by trained technical staff only.
2. The reagents in the kit are considered as <u>not</u> dangerous, as the concentrations of potentially dangerous chemicals are below the thresholds specified by European regulations:

Name	**CAS**	**EINECS**	**Concentration in strip**	**Classification according to Regulation EC 1272/2008 Significance H Phrases**
Cellulose Nitrate	9004-70-0	-	< 5 %	Flam. Sol. 1 H228

Annex VI to Regulation (EC) No 1272/2008: Index N°: 603-037-00-6; Commission Regulation (EU) 2015/830; 3.2.1

Name	**CAS**	**EINECS**	**Concentration in mixture**	**Classification (in concentrated form) according to Regulation EC 1272/2008 Significance H Phrases**
MIT:	55965-84-9	-	< 0,0015 %	Acute Tox. 2 H330 Acute Tox. 2 H310 Acute Tox. 3 H301 Skin Corr. 1 C H314; C ≥ 0,6% Eye Dam. 1 H318; C ≥ 0,6% Skin Sens. 1 A H317 ; C ≥ 0,0015% A Aquatic Acute 1 H400 Aquatic Chronic 1 H410

Annex to Commission Regulation (EU) 2018/1480; Index Number: 613-167-00-5 ; Commission Regulation (EU) 2015/830; 3.2.1

Name	**CAS**	**EINECS**	**Concentration in mixture**	**Classification (in concentrated form) according to Regulation EC 1272/2008 Significance H Phrases**
NaN_3	26628-22-8	247-852-1	< 0.1 %	Acute tox. 2 H300 Acute tox. 1 H310 STOT RE 2 H373 Aquatic acute 1 H400 Aquatic chronic, 1 H410

Annex VI to Regulation (EC) No 1272/2008: Index Number: 011-004-00-7; Commission Regulation (EU) 2015/830; 3.2.1

Name	CAS	EINECS	Concentration in mixture	Classification (in concentrated form) according to Regulation EC 1272/2008 Significance H Phrases
NBT	298-83-9	206-067-4	< 0,01%	Acute tox. 4 H302

Nevertheless, these chemicals are toxic in concentrated form. Therefore, contact with the skin, eyes or mucous membranes should be avoided by using suitable individual protection (gloves, laboratory coat, goggles). As with any chemical containing specific hazards, the product/components of the product should only be handled by qualified personnel and with the necessary precautions.

3. Patient samples should be handled as if they were capable of transmitting infectious diseases; they therefore require suitable protection (gloves, laboratory coat, goggles). In any case, GLP should be applied with all the general or individual safety rules in force.
4. Waste disposal: Patient samples, incubated test strips and used cartridges should be handled as infectious waste. The boxes and other containers do not need to be collected separately, unless stated otherwise in official regulations.
5. The device contains substances from animal, human, and bacterial origins (cfr 3.3) at very low concentration. All these substances were selected in order to not contain any microbial or transmissible agents and are non-toxic at the concentration used in the device. Nevertheless, laboratory good practice at user site (glasses, gloves) is necessary.

7. RECOMMANDATIONS

1. D-tek and its authorized distributors cannot be held responsible for damages caused indirectly or due to: a change or modification in the indicated procedure, an improper use of the kit and / or the use of an incomplete or damaged kit. The use of this kit is reserved for qualified technical personnel only.
2. D-tek's responsibility is limited in all cases to the replacement of the kit.
3. In the event of a serious incident (injury, deterioration in health, or death) with this IVD device, please report it immediately to the manufacturer (see address below) and to the competent authority in your country.

8. SAMPLE COLLECTION, HANDLING AND STORAGE

Sera with particles should be centrifuged at low speed. Blood samples should be collected in dry tubes. Please avoid using a pool of different sera, as this can lead to inconsistent results (see point 10.4). After separation, the serum samples should be used immediately or aliquoted and stored at 2-8 ° C (for maximum 14 days) or frozen at -20°C (for longer storage periods, maximum 13 months). Repeated freezing/ thawing cycles of the samples must be at a maximum of 10 cycles.

9. ASSAY PROCEDURE

BASIC INFORMATION, HANDLING AND TIPS:

TEST PROCESS principle:

After the manual loading of the strips and reagent cartridges, the incubation and washing steps are automatically processed by the *BDI;* the continuous up and down agitation of the strips in the wells of the ready-to-use reagent cartridges ensures an efficient circulation of the fluids over the strips. The whole test procedure is run at room temperature.

Description of the STRIPS:

The reactive (front) side of the strips is coated with antigens which appear as faint blue dots. This coloration ensures that all antigens have been correctly spotted onto the membrane. The coloration disappears during the processing of the test. This front side also displays a strip number and a 2-dimensional square barcode for traceability of the strips after removal from the BDI at the end of the test.

The non-reactive (back) side of the strips displays both alphanumeric and bar-coded information for identification of the strip type and lot number by the BDI.

The strips must be manually inserted into the dedicated clamp before starting the automated process (see 9.1 and 9.2 *Test Preparation* hereafter). During this operation, avoid touching the membrane zone of the strips with fingers. Always wear laboratory gloves and use the plastic parts (strip support) for handling or manipulation.

Description of the CARTRIDGES: **(see image page 1)**

The reagent cartridges are composed of 7 different wells filled with ready-to-use reagents. The cartridges are sealed, and the reagent wells are hermetically separated. The sealing must be removed before starting the test. Once opened, manipulate the cartridges with care in order to avoid reagent spilling and contamination from well to well.

The rear (back) side of the cartridges is labelled with both alphanumeric and bar-coded information for identification of the cartridge type and lot number by the BDI.

The cartridges must be manually loaded onto the dedicated cartridge holder before starting the automated process (see 9.1 and 9.2 *Test Preparation* hereafter). The front and rear (back) sides of the cartridges have, respectively, a bottom triangular and two (bottom + top) square plastic edges for secure position and orientation into the holder.

Description of the CONTROLS:

The **Sample Control or Reaction Control (RC)** consists of a protein (Protein L) fixing all the immunoglobulins present in the test sample. If the test has been carried out correctly, this control will show a colouring at the end of the test (with an intensity depending on the effective concentration of immunoglobulins in the sample).

The absence of any colouring of this dot at the end of the test may indicate that the sample has not been pipetted on the strip (see 10.4 *Troubleshooting*). The Dr Dot Software gives the information whether the RC is low (45%<RC<55%) or absent (45% or less).

The **Blank Control** is a measure of the general background of the test and is the starting point (0 U/ml) of the calibration curve of the test.

The **calibration curve** consists of 6 points corresponding to a serial dilution of a protein (Streptavidin – alkaline phosphatase) reacting with the enzymatic substrate and with certain constituent elements of the tested samples (0 U/ml, 6 U/ml, 12 U/ml, 25 U/ml, 50 U/ml and 100 U/ml). If the test has been carried out correctly, the calibration is coloured at the end of the test, with a signal depending on the kinetics of the substrate and the characteristics of the sample. The logarithmic regression obtained by measuring the 6 curve points simulates the binding kinetic of an autoantibody on its specific antigen, semi-quantified results obtained on micro-array kits are then much more correlated with the concentration of autoantibody present into the sample.

The 6 U/ml curve point corresponds to the threshold value (CO = cut-off value) for the final interpretation of the results (see point 10).
The Dr Dot Software gives an error message if the condition 0 U/ml < 6 U/ml < 12 U/ml < 25 U/ml < 50 U/ml < 100 U/ml is not verified.

The **Conjugate Controls (IgG, IgM and IgA)** consists of immobilized immunoglobulins from different subtypes (G, M and A). If the test has been carried out correctly, the IgG spot is reacting only. The Dr Dot Software gives an error message if the IgG control value is too low (<15 AU) and/or if the IgM and IgA controls are too high (>15 AU). (AU = Absolute Units)

The **Substrate Controls (3 triplet of spots)** consists of immobilized enzyme reacting with the enzymatic substrate. If the test has been carried out correctly, these controls will show a colouring at the end of the test. The Dr Dot Software gives an error message if the slope calculated on the linear regression of the 3 triplet of spots is not into specification (0,1<slope<3,0).

STRIPS/CARTRIDGES association
The strips and cartridges of a same test kit share the same lot number and are dedicated to be associated in lot-specific pairs. Do not associate a strip and a cartridge with different lot numbers as this will be detected as an invalid setting by the BDI and will stop the process.
As long as each strip/cartridge pair is valid, the BDI can process strips/cartridges associations of different kits; However, only kits having the same protocol number (same incubation time and sequence) can be processed together in one same run (please refer to the protocol number indicated under the kit reference at the top of first page).

9.1 Test preparation on BDI I

Before any usage of the BDI I, please refer to the manual of use supplied with the instrument.
- Allow all kit components to equilibrate at room temperature (+18°C to +25°C) before use.
- A working list (either edited from Dr Dot Software, or external) should always be prepared for easy loading and correct association of strips, cartridges and patient samples.
- Make sure that the cartridge holder is fixed in its emplacement in the BDI I.
- Make sure that the BDI I is plugged in.

The following steps sequence summarizes the loading and preparation of the BDI I, test strips, reagent cartridges and patient samples before starting the test. For detailed information or in case of any problem met at one of the following steps, please refer to the Manual of Use of the BDI I.

1. Switch ON the BDI I and wait a few seconds until the date and time are displayed on the touch screen.
2. Confirm the correct Date and Time by pressing **V** on the touch screen (in case of first use or for reset, refer to the manual of use of the BDI I) → "***Initialize?***" is displayed on the screen.
3. Confirm Initialization by pressing **V** on the touch screen → the horizontal arm of the instrument automatically moves forward to a central (stand-by) position → "***Load strips (24)"*** is displayed on the screen.
4. (Do not set nor confirm the number of strips at this step). Remove the clamp from its emplacement on the arm by gently pulling it upwards and load the strips to be tested: handle the clamp with numbered side facing up (open position) and insert the strips, also with numbered (reactive) side facing up, by slipping the upper plastic part (tongue) into the dedicated holes of the clamp. Apply a gentle pressure to ensure that the plastic tongue has reached the bottom end of the hole.
   Notes:
   Always start loading into position 1 of the clamp (left side) and do not leave empty spaces between the strips!
   After complete loading, check visually the vertical, horizontal and lateral alignment of the strips. Any obvious misalignment should be corrected by unloading the strip(s) from the clamp and loading them again.
   Be careful: any plastic bits remaining after breaking apart the individual strip holders may hinder the processing on the instrument and/or the reading with the BlueScan scanner; please remove them with scissors.
5. Replace the clamp in its emplacement on the arm by gently pushing it downwards.
6. Set the number of loaded strips using the up and down arrows on the touch screen.
7. Confirm the number of loaded strips by pressing **V** on the touch screen → the horizontal arm automatically moves backward to stand over the alignment holes of the cartridge holder → "***Check alignment***" is displayed on the screen.
8. Use the "JOG" function on the screen to check the correct alignment of the strips: maintain a gentle pressure on the down arrow on the touch screen until the bottom of the strips enters into the alignment holes of the cartridge holder. If correctly aligned, the strips will not touch the outlines of the holes.
   Note:
   In case of misalignment (contact of the strips with the cartridge holder), please refer to the Manual of Use of the BDI I).
9. Confirm the correct alignment of the strips by pressing **V** on the touch screen → the BDI I lowers the strips completely into the alignment holes and reads the barcodes of the strips → after complete barcode reading, "***Load reagent***" is displayed on the touch screen.
   Note:
   In case of failure to read one or more strip barcode(s) (flashing LED at the unread position), please refer to the Manual of Use of the BDI I.
10. Unseal the reagent cartridges and insert them under their respective strips in the dedicated notches of the cartridge holder.
11. Confirm complete loading by pressing **V** on the touch screen → the BDI I reads the barcodes of the cartridges and checks the correct association with the strips → after complete barcode reading, the number of strips (validated strips/cartridges associations) is displayed on the screen.
    Note:
    In case of failure to read one or more cartridge barcode(s), or in case of detection of a wrong strip/cartridge association (flashing LED at the corresponding position), please refer to the Manual of Use of the BDI I.
12. Confirm the number of strips by pressing **V** on the touch screen → the protocol number identified on the barcodes is displayed on the screen (***Protocol ID xx***).
13. Confirm the protocol number by pressing **V** on the touch screen → "***Please close cover.***" is displayed on the screen.
14. Close the cover of the BDI I and confirm closing by pressing **V** on the touch screen → the BDI I proceeds to a first washing (pre-treatment) step by incubating the strips into the 2nd well of the cartridges (processing time: 1 minute) → At the end of the wetting step, "***Please open cover.***" is displayed on the screen.
15. Open the cover of the BDI I and confirm opening by pressing **V** on the touch screen → the horizontal arm automatically moves forward to the front of the instrument and swings the strips to an oblique position → "***Dry strips"*** is displayed on the screen.
16. Dry the strips by gently applying absorbent paper onto the basis of the bottom small cavity (sample loading hole).
17. Confirm drying by pressing **V** on the touch screen → "***Apply samples***" is displayed on the screen.
18. Apply samples by pipetting 10 µl of patient serum into the bottom sample loading holes of the strips.
    Note:
    If preferred the 10µl of the serum can be directly pipetted into the Diluent Buffer ("Well I") of the cartridge. This operation can be done at any time from opening of the cartridges (see 9.1.10).

19. Confirm samples' loading by pressing **V** on the touch screen → "***Please close cover***" is displayed on the screen.
Close the cover of the BDI I and confirm closing by pressing **V** on the touch screen → the BDI I starts the test automatically by proceeding the steps sequence of the protocol (see 9.3). After completion of the process, the clamp moves to a central (stand-by) position in the BDI I to allow easy manipulation of the clamp. The instrument beeps and "***Finished test***" is displayed on the screen.
20. Gently apply absorbent paper onto the basis of the strips to remove liquid from the bottom small cavity (sample loading hole) and allow the strips to dry for 30 minutes before interpretation of the results. The interpretation must be done in the 24 hours following the test processing. In case of use of the BlueScan for help of results interpretation, please leave the processed strips attached to the clamp

TEST DATA REGISTRATION

The test protocol can be downloaded by pressing the USB stick symbol and following the indications on the screen (Insert USB → Writing USB → Remove USB). This step is not obligatory but is highly recommended for traceability and regulatory matters.

9.2 Test preparation on BDI II

Before any usage of the BDI II, please refer to the manual of use supplied with the instrument.

- Allow all kit components to equilibrate at room temperature (+18°C to +25°C) before use.
- All the preparatory steps requiring the operator's intervention are clearly indicated in the BDI II's user interface. It is the instrument which indicates the number and type of tests to be run according to the indications made by the operator at the sample identification stage.
  The operator is guided by the user interface from the insertion of the samples and kits to be tested onwards, to the final interpretation of the results.
- Remember to open the reagent cartridges before inserting them into the holder.

9.3 Test Processing (Protocol 02 for all D-tek immunodot kits on BDI I and BDI II):

Step	Description	Processing time
01.	The strips are incubated into the 1st well of the cartridge (*Diluent Buffer*). Upon contact with the liquid in the wells and agitation, the pre-loaded patients' samples (see 9.1.18) are released from the small cavity at the bottom of the strips and are diluted in the buffer.	30 min
02.	The clamp moves forwards and the strips are incubated into the 2nd well of the cartridge (*Wash Buffer*)	2 min
03.	The clamp moves forwards and the strips are incubated into the 3rd well of the cartridge (*Wash Buffer*)	2 min
04.	The clamp moves forwards and the strips are incubated into the 6th well of the cartridge (*Wash Buffer*)	2 min
05.	The clamp moves backwards and the strips are incubated into the 5th well of the cartridge (*Conjugate*)	10 min
06.	The clamp moves backwards and the strips are incubated into the 4th well of the cartridge (*Wash Buffer*)	2 min
07.	The clamp moves backwards and the strips are incubated into the 3rd well of the cartridge (*Wash Buffer*)	2 min
08.	The clamp moves backwards and the strips are incubated into the 2nd well of the cartridge (*Wash Buffer*)	2 min
09.	The clamp moves forwards and the strips are incubated into the 7th well of the cartridge (*Substrate*)	10 min
10.	The clamp moves backwards and the strips are incubated into the 6th well of the cartridge (*Wash Buffer*)	2 min

10. INTERPRETATION OF RESULTS

The evaluation of the results is performed via the Dr Dot Software and scanning system (BlueScan). Please refer to the specific manuals of use.

NB: Dr Dot Software is an interpretation supporting software only. The final clinical interpretation has always to be validated by a professional clinician or physician.

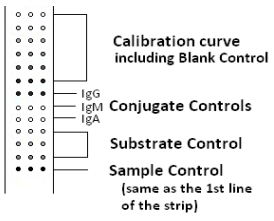
IMPORTANT NOTICE: The positivity of all parameters of this kit is NOT possible and in such a case the test is not valid. An additional test must be performed to establish the diagnosis.

1. Remove the clamp from the BDI. Leave the processed strips attached to the clamp. **Be careful: the strips must be completely dry before starting the scanning step!**
2. Insert the clamp, the reactive side of the strips facing down, into the dedicated emplacement in the cover of the BlueScan scanner.
3. Start scanning the strips using the Dr Dot Software.

10.1 Validity controls:

Before evaluating the antigen results, the Dr Dot Software automatically checks the following points for validation of the test process (see point 9 for the specification values):

- **The Calibration curve (including blank control)** (6 triplicate lines, including blank control, of increasing colour intensity from top to bottom) must fit a pre-determined specific curve equation.
- **The Sample Controls** (2 triplicate lines, first and last on the strip) must have a minimum pre-determined colour intensity.
- **The Conjugate Controls** (3 triplicate lines, respectively IgG, IgM and IgA from top to bottom) must have a minimum pre-dermined colour intensity, only for the respective conjugate specificity of the kit.
- **The Substrate Controls** (3 triplicate lines of increasing colour intensity from top to bottom) must fit a pre-determined linear regression.

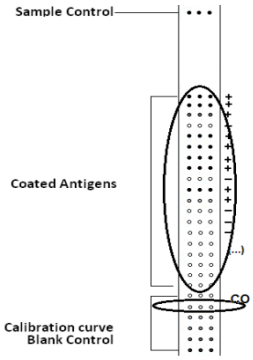


10.2 Semi-quantification of the results:

Each strip contains an integrated **calibration curve** with **6 dilution points** with the arbitrary values 0 (blank), 6, 12, 25, 50 and 100 U/ml; the Dr Dot Software measures the greyscale intensity of each dilution point of the curve triplicate, and calculates a logarithmic regression to establish the calibration curve of the test:

Greyscale value of a spot triplet (AU) = m* ln *(a* Corresponding value in U/ml + b)*

Based on this regression, the greyscale value of each antigen spot is calculated in U/ml. In the micro-array kits, the manufacturer's **cut-off value is 6 U/ml** for all antigens.



***POSITIVE RESULT*:**
A sample is considered positive for a specific antibody if the value of the corresponding Antigen dot is **higher than** the cut-off value.
In its principal results sheet, the Dr Dot Software highlights the antigens for which the result is positive and indicates the calculated numeric value into brackets.

***NEGATIVE RESULT*:**
A sample is considered negative for a specific antibody if the value of the corresponding Antigen dot is **lower than or equal to** the cut-off value.

Dr Dot results (U/ml)	Interpretation
< 6	Negative
6 – 12	Equivocal (*)
>12	Positive

For detailed information about the BlueScan and Dr Dot Software please refer to the Manual of Use of your Dr Dot Software.

For detailed information about the BlueScan and Dr Dot Software please refer to the Manual of Use of your Dr Dot Software

10.3 Important recommendations for the interpretation of results

1. D-tek's kits constitute a diagnostic aid. In consequence, no diagnosis can be established solely on the basis of our kits. The results should always be interpreted by taking into account the clinical examination, the patient's history and the results obtained by other methods.
   No single technique can rule out the possibility of false positive or false negative results. With this in mind, an indirect immunofluorescence test should, as far as possible, be carried out prior to the use of this kit (immunofluorescence being recognized as a reference method in autoimmunity).
2. The intensity of a result is not necessarily related to the degree of intensity of the disease, but rather to the level of antibodies detected.
3. Low titers of autoantibodies may occur in healthy patients. For this reason, low positive results (close to the CO, between 6 and 12 U/ml), although valid, should be considered equivocal. In such cases, the retesting of the patient, preferably by using a new sample, is recommended. If the result remains equivocal on retesting, other diagnostic tests and/or clinical information should be used to help determine the autoimmune status of the patient.
4. For various reasons, and under certain conditions, the kit may show a defect in performance (see 10.4 *Troubleshooting*). In such cases, the results are not valid and cannot be interpreted. It is recommended to repeat the test. If the error persists, please contact your distributor.
5. The intensity of the results may decrease when the device is used at the end of its life. However, the performance of the kit is not affected (detection of positives and negatives) under normal conditions of use and storage.
6. Sequential sampling (at different dates) of an autoimmune patient can sometimes lead to different results from one sample to another. This difference can have several reasons: the patient's treatment, the evolution of the disease, or a seroconversion. In the specific case of seroconversion, the result can be positive for an autoantibody in an early sampling of the patient and become positive for another autoantibody in a later sampling of the same patient.

10.4 Troubleshooting

Problem	Possible causes + Action
Discrepancy of results as compared to a reference method	-Use - incorrect pipetting of serum - incorrect volume dispensed - Use of two different samples of the same patient (see point 10.3.6) or wrong sample handling/storage between tests - erroneous Dr Dot reading → repeat the test -Material - Interfering substance in the sample - Sample is a pool of different human sera → repeat the test and confirm by other methods -Method - intrinsic performance of the kit (see 11.2 *Analytical sensitivity and specificity*) - expired kit - stability problem **Please contact your distributor for any further technical support requests.**
Different results in the same batch or between several batches	- Use - incorrect pipetting of serum - incorrect volume dispensed - bad Dr Dot reading → repeat the test - Method - intrinsic performance of the kit (see 11.1 *Repeatability and Reproducibility*)
Contamination between neighbouring strips	- Use - incorrect pipetting of serum → repeat the test - incorrect verticality of the strips on the BDI → correct the verticality **Please contact your distributor for any further technical support requests.**

Sample Control (RC) absent or weak	- Use - Serum not pipetted at all → repeat the test - Patient with immunoglobulin deficiency → repeat the test to confirm patient status - Damaged reagents → check the integrity of the reagents → contact your supplier if you suspect a problem - Spot not on the strip → count the number of dots on the strip; if not correct, contact your supplier
Calibration curve / IgG control / Substrate controls absent or low	- damaged reagents → check the integrity of the reagents, contact your distributor if you suspect a problem - Spot absent from the strip → count the number of spots present on the strip, contact your distributor in case of incorrect number - Patient with immunoglobulin deficiency → repeat the test to confirm patient status
Curve points specification 0 U/ml < 6 U/ml < 12 U/ml < 25 U/ml < 50 U/ml < 100 U/ml is not verified.	- bad Dr Dot reading → check the reading positioning
IgA and/or IgM controls too high	- interfering substance into the sample / high background → unable the IgA/IgM controls reading
Non-specific bindings / high background / high CO value	Suspected presence of a contaminant or an interfering substance in the patient sample → repeat the test and confirm through another method **Please contact your distributor for any further technical support requests.**
Barcode of the strips or cartridges cannot be read	Manufacturing problem, please contact your distributor
Kit content incorrect	Manufacturing problem, please contact your distributor
Positive results for all the biomarkers of the kit	→ Problem with reagents, please contact your distributor → IgG deficiency (low calibration curve)

NOTE:

The major residual risks of the kit, as given in the risk analysis of the kit at the end of design (after mitigation), are the following:

1) Risk of false results based on a pipetting error (bad serum)

2) Risk of false results based on an interfering substance contained in the sample

11. PERFORMANCES

11.1 Repeatability and Reproducibility

Reference samples were tested for each antibody in successive statistically representative series, both in the same test as in different tests and between different batches in order to calculate the intra-assay, inter-assay and inter-lot variations respectively.
In all the cases, the variations in colour intensity, when semi-quantified on the Dr Dot Software, were within the following expected limits:
CV ≤ 10% for intra-assay runs
CV ≤ 15% for inter-assay runs
CV ≤ 20% for inter-lot runs

11.2 Analytical sensitivity

Measurement range (semi-quantified results): From 0 U/ml (negative) to 100 U/ml (high positive).

Limit of detection: the lowest positive measured value of the test is 6 U/ml (considered as equivocal following the interpretation algorithm, see point 10.2)

As no international standard is available for the autoantibodies, trueness of measurement and linearity are not applicable on this product.

11.3 Analytical specificity

1. The main known interfering substances were tested on each biomarker of the present kit.
For each concentration of interfering substance tested, the difference between the result of the sample without the interfering substance and the result obtained in the presence of the interfering substance did not exceed 15%.

Interfering substance	Maximum Concentration	Intermediate Concentration	Minimum Concentration	Difference <15%
Bilirubin	100 mg/dL	50 mg/dL	25 mg/dL	Yes
Haemoglobin	200 mg/dL	100 mg/dL	50 mg/dL	Yes
Cholesterol	224.3 mg/dL	112 mg/dL	56 mg/dL	Yes
Rheumatoid factor IgM	~500IU/ml	~300IU/ml	~100IU/ml	Yes

Note: It is impossible to test all the possible interfering substances described in the literature. Other interferences, amongst others drug-induced interferences, are possible.

2. The high analytical specificity of the test is guaranteed by the quality of the antigen used. This kit detects IgG antibodies against Nucleosome, dsDNA, Histones, Sm, RNP 68kD/A/C, Sm/RNP, SSA/Ro 60kD, SSA/Ro 52kD, SSB, Scl-70, RNA Polymerase III, Ku, PM-Scl 100, Mi-2, Jo-1, CENP-A/B, PCNA, Ribosome P0 and DFS-70. No cross reactions with other autoantibodies have been found.

11.4 Clinical sensitivity and specificity

Characterized samples (confirmed positive or negative for specific antibodies by reference laboratories and/or methodologies) were assayed following the test instructions. Sensitivity and Specificity were calculated from the results obtained by external performance evaluations and EQAs control programs. A detailed clinical report is available upon request.

SENSITIVITY:

The percentage is established with the following calculation:

$$Sensitivity = \frac{True\ Positive\ Results}{True\ Positive\ Results + False\ Negative\ Results}$$

Antigen	True Positive Results	False Negative Results	Sensitivity (%)
Nucleosome	5	0	>99
dsDNA	14	1	93
Histones	1	0	>99
Sm	10	0	>99
RNP 68kD/A/C	12	0	>99
Sm/RNP	14	0	>99
SSA/Ro 60kD	36	0	>99
SSA/Ro 52kD	15	0	>99
SSB	12	0	>99
Scl-70	6	0	>99
RNA Polymerase III	1	0	>99
Ku	1	0	>99
PM-Scl 100	2	0	>99
Mi-2	2	0	>99
Jo-1	13	0	>99
CENP-A/B	7	0	>99
PCNA	2	0	>99
Ribosome P0	2	1	67
DFS-70	4	0	>99

SPECIFICITY:

The percentage is established with the following calculation:

$$Specificity = \frac{True\ Negative\ Results}{True\ Negative\ Results + False\ Positive\ Results}$$

Antigen	True negative results	False positive results	Specificity (%)
Nucleosome	34	0	>99
dsDNA	61	0	>99
Histones	25	0	>99
Sm	66	0	>99
RNP 68kD/A/C	63	0	>99
Sm/RNP	59	0	>99
SSA/Ro 60kD	40	1	98
SSA/Ro 52kD	25	0	>99
SSB	52	1	98
Scl-70	70	0	>99
RNA Polymerase III	20	0	>99
Ku	20	0	>99
PM-Scl 100	27	0	>99
Mi-2	19	0	>99
Jo-1	196	0	>99
CENP-A/B	69	0	>99
PCNA	39	0	>99
Ribosome P0	26	0	>99
DFS-70	25	0	>99

Note: Sensitivity and specificity values of 100 % are strictly related to sample cohorts used in clinical evaluations. In theory, a diagnostic kit shouldn't be considered to be 100% sensitive or specific (at least > 99%).

11.5 Autoantibodies diagnostic values

Anti-Nucleosome	Diagnostic marker for Systemic Lupus Erythematosus (SLE) Sensitivity of 56-90 %. Can be detected at an earlier stage of disease. Can be detected in patients with Drug-Induced Lupus.
Anti-dsDNA	Diagnostic marker (ACR and SLICC criterion) for Systemic Lupus Erythematosus (SLE) Frequently detected (>95 %) in SLE with renal involvement, detected in >50-70% in active SLE without renal involvement and in <40% in inactive SLE. Associated with the severity of SLE. May be detected in 1-12% of patients with rheumatoid Arthritis, juvenile idiopathic arthritis, Sjögren's Syndrome, myastenia gravis, autoimmune hepatitis, uveitis and drug-induced lupus-like syndromes or various infectious diseases.
Anti-Histones	Can be detected in a number of autoimmune diseases, especially rheumatic disorders : • Systemic lupus erythematosus (SLE) (50-80%) • Drug-induced lupus (DIL) (92-95%) • Rheumatoid arthritis (RA) (up to 11%) • Felty's syndrome (up to 79%) • Juvenile idiopathic arthritis (JIA) (up to 51%) • Systemic sclerosis (SSc) (up to 30%) • ANA positive undifferentiated connective tissue diseases (up to 90%) • Primary biliary cirrhosis (PBC) (up to 55%) • Autoimmune hepatitis (up to 35%) The detection of high AHA titers in the absence of SLE marker antibodies is characteristic of drug-induced lupus (DIL).
Anti-Sm	Diagnostic marker (ACR and SLICC criterion) for Systemic Lupus Erythematosus (SLE) Diagnostic specificity of 99% for Systemic Lupus Erythematosus (SLE) Diagnostic sensitivity of 5-40 % for Systemic Lupus Erythematosus (SLE)
Anti-RNP 68kD/A/C	Diagnostic criterion of Mixed connective tissue disease (MCTD). Highly specific and extremely sensitive (100%) in the absence of Sm and dsDNA antibodies. Found in 13 à 32 % of patients with Systemic Lupus Erythematosus (SLE) Found in 10 % of patients with Systemic Sclerosis (SSc)
Anti-Sm/RNP	Sm : Diagnostic marker (ACR and SLICC criterion) for systemic lupus erythematosus (SLE) Diagnostic specificity of 99% for systemic lupus erythematosus (SLE) Diagnostic sensitivity of 5-40 % for systemic lupus erythematosus (SLE) RNP 68kD/A/C: Diagnostic criterion of Mixed connective tissue disease (MCTD). Highly specific and extremely sensitive (100%) in the absence of Sm and dsDNA antibodies. Found in 13 à 32 % of patients with systemic lupus erythematosus (SLE), Found in 10 % of patients with systemic sclerosis (SSc)
Anti-SSA/Ro 60kD	Anti-SSA/Ro 60kD Diagnostic marker and classification criterion for Sjögren's Syndrome (SjS). By EIA: Found in 96% of patients with primary SjS, Found in 80% of patients with secondary SjS Found in 25-60% of patients with systemic lupus erythematosus (SLE),

	Found in 90-100 % of patients with subacute cutaneous lupus erythematosus (SCLE) Found in 90% of patients with neonatal cutaneous lupus erythematosus (NLE) Found more rarely (5-15%) in patients with rheumatoid arthritis (RA) and Found in 9% of patients with systemic sclerosis (SSc).
Anti-SSA/Ro 52kD	Found in various autoimmune diseases surch as Systemic lupus erythematosus (SLE) (23%), Sjögren's Syndrome (SjS) (17-63%), Systemic Sclerosis (SSc) (20%), Rheumatoid Arthritis (RA) (8%), Primary biliary cirrhosis (PBC) (28%), autoimmune hepatitis (17%). Often detectable in myositis patients with aminoacyl-tRNA synthetase, SRP antibodies, PM/Scl antibodies and Jo-1 antibodies May be detectable in patients with Systemic Sclerosis, in addition to Scl-70, CENP-B, CENP-A, RNA PIII and PM/Scl. Severity marker of patients with Antisynthetase Syndrome and of patients with risk of pulmonary complications in systemic autoimmune rheumatic diseases (SARD)
Anti-SSB	Diagnostic marker for Sjögren's Syndrome (SjS) By EIA: Found in 70% of patients with primary SjS, Found in 50% of patients with secondary SjS Found in 25% of patients with systemic lupus erythematosus (SLE), Found in 80% of patients with subacute cutaneous lupus erythematosus (SCLE) Found in 70% of patients with neonatal cutaneous lupus erythematosus (NLE)
Anti-Scl-70	Diagnostic marker for Systemic Sclerosis (SSc) Diagnostic specificity of 99%, sensibility of 10 % for limited SSc and up to 65% for diffuse SSc.
Anti-RNA Polymerase III	Diagnostic specificity of 98-100% for Systemic Sclerosis (SSc)
Anti-Ku	Found in 23% of patients with "primary" pulmonary hypertension Found in 1.8 à 23% of patients with systemic lupus erythematosus (SLE). Found in 1.2 à 14 % of patients with systemic sclerosis (SSc). Found in 2 à 33% of patients with an overlap syndrome with myositis.
Anti-PM-Scl 100	Diagnostic marker for connective tissue diseases with myositis and symptoms of systemic sclerosis. Diagnostic specificity of 50-70% for polymyositis/scleroderma overlap syndrome, of 20% for idiopathic myositis and of 10% for Systemic Sclerosis (SSc). Diagnostic sensitivity of 24-55% for polymyositis/scleroderma overlap syndrome, of 8-12% in patients with idiopathic myositis and of 1-16% for Systemic Sclerosis (SSc).
Anti-Mi-2	Diagnostic marker for idiopathic myositis, with a diagnostic sensitivity of 4-18%. Detectable in 15-31% of patients with adult dermatomyositis, and in 10-15% of those with juvenile dermatomyositis. Prognostic marker for a relatively mild clinical course, but associated with an increased risk of cancer. Detectable in the early stages of myositis development.
Anti-Jo-1	Diagnostic marker for idiopathic (autoimmune) myositis. Diagnostic specificity of 100%, diagnostic sensitivity of 24-30% for auto-immune idiopathic myositis.
Anti-CENP-A/B	Diagnostic marker for Systemic Sclerosis (SSc). Sensitivity of 57-82 % for patients with CREST syndrome (or other limited cutaneous forms of SSc) and in 3-12% of patients with diffuse cutaneous forms of SSc. Detectable in 10-30 % of patients with Primary biliary cirrhosis (PBC).
Anti-PCNA	Highly specific for Systemic Lupus Erythematosus (SLE), but rarely found (3-7%).
Anti-Ribosome P0	Diagnostic marker for Systemic Lupus Erythematosus (SLE) (>99%), found in 10-35% of SLE patients. Associated with disease activity (prognostic marker) May be detectable prior to SLE manifestations (predictive marker).
Anti-DFS-70	The highest frequencies of DFS70 antibodies have been reported in patients with Vogt-Koynagi-Harada syndrome (77%), atopic dermatitis (30-71%) and asthma (16%). Detected in 5-11% of healthy blood donors. The presence of isolated anti-DFS70 antibodies could be used as a biomarker to exclude the diagnosis of systemic autoimmune rheumatic diseases (SARD)

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12. TEST LIMITATIONS

1. The results obtained with this confirmatory test are dependent on the intrinsic performance of the kit and must be considered as an aid to the final diagnosis, taking into account the results obtained by a reference technique and the clinical data of the patient.
2. In case of hyper-lipemic samples, it is recommended to centrifuge it before the pipetting of the 10µl of sample, which must be done into the supernatant.
3. There is no link between the concentration of the different autoantibodies detected by the device, and the severity of its associated autoimmune diseases.
4. The concentration of autoantibodies in a serum sample is not relative to the results provided by the device.

Version D
Last revision: 09/2025