

erytra
eflexis[®]

Adaptability
that fits your lab



TYPING

No matter your workflow, the system addresses your changing needs

No two IH labs are alike; therefore, Grifols offers a scalable range of different instruments that are specifically tailored to suit different processing needs. Now, we are introducing the new Erytra Eflexis[®], the natural evolution in Grifols scalable blood typing solutions.

Introducing the new Erytra Eflexis

Erytra Eflexis adaptability helps labs achieve workflow efficiency and improve daily work routines. The system provides reliable and timely results that contribute to patient safety.

This truly flexible system allows laboratories to select the solution that is best suited to different workflow needs and capacities.

Erytra Eflexis is a benchtop, compact model. The transparent casing and simple internal organization provide a clear view of the internal processes.

- Process status indicator traffic light
- External touchscreen can be placed on either side of the instrument

TOP PRIORITY

A primary concern in blood transfusions is patient safety. After fifty years of experience in the field of transfusion medicine, safety is also our number one priority. For more than twenty years, Grifols has driven innovation in developing blood typing systems that support safer transfusions all over the world.



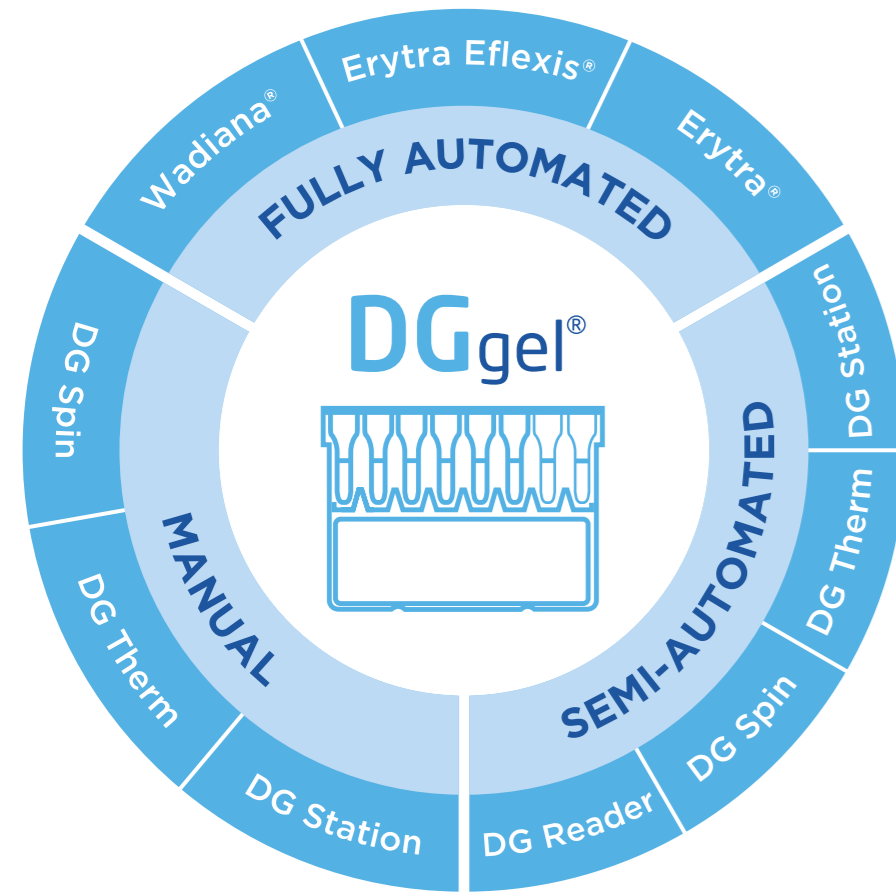
INTRODUCING

Erytra Eflexis is a fully automated, mid-sized analyzer that performs pretransfusion compatibility testing.

The system uses DG Gel technology with a smart and compact design offering intuitive operation.

Enjoy the virtual experience!

Explore the DG Gel® system portfolio and the new Erytra Eflexis by downloading the DG Gel augmented reality application. Enjoy the virtual experience!



Welcome to the virtual experience of DG Gel system.

Please download the DG Gel augmented reality application through the QR code. Scan the DG Gel target circle with your smartphone or table to begin the experience.



Download from



Download from



erytra
eflexis

No matter your workflow, the system addresses your changing needs

No two IH labs are alike; therefore, Grifols offers a scalable range of different instruments that are specifically tailored to suit different processing needs. Now, we are introducing the new Erytra Eflexis®, the natural evolution in Grifols scalable blood typing solutions.

Introducing the new Erytra Eflexis

Erytra Eflexis adaptability helps labs achieve workflow efficiency and improve daily work routines. The system provides reliable and timely results that contribute to patient safety.

This truly flexible system allows laboratories to select the solution that is best suited to different workflow needs and capacities.

Erytra Eflexis is a benchtop, compact model. The transparent casing and simple internal organization provide a clear view of the internal processes.

- Process status indicator traffic light
- External touchscreen can be placed on either side of the instrument

TOP PRIORITY

A primary concern in blood transfusions is patient safety. After fifty years of experience in the field of transfusion medicine, safety is also our number one priority. For more than twenty years, Grifols has driven innovation in developing blood typing systems that support safer transfusions all over the world.



INTRODUCING

Erytra Eflexis is a fully automated, mid-sized analyzer that performs pretransfusion compatibility testing.

The system uses DG Gel technology with a smart and compact design offering intuitive operation.

Note: Product registration and availability vary by country. To know whether the Erytra Eflexis system is available for sale in your country, please contact your local Grifols representative.

How you can benefit by using the Erytra Eflexis?

Employ highly flexible performance to optimize your lab

- Two in One – Two different lab configurations in a single instrument through the unique interchangeable sample and reagent lineal racks, automatically recognized by the system
- Excellent capacity of cards and samples for a mid-size analyzer, depending on the system configuration
- Flexible incubators management is available depending on the requested tests
- True continuous loading of cards, reagents, and samples

Reduce hands-on time with an intuitive user-friendly experience

- Minimal training¹ is required to interact with the easy-to-use external touchscreen
- Minimal maintenance²
- Remote access for results validation and after-sales support remote connection

Improve daily workloads and efficiency easily

- Multiple lab configurations as well as different multi-site health networks can be tailored – the system can be easily used alone or connected to other Erytra Eflexis or Erytra units
- Always sharing the same:
 - Our latest generation software suit
 - Sample holders
 - Convenient Grifols universal reagents³
- Grifols exclusive simultaneous perforations and dispensing technology for the 100% use of the cards

100%

use of cards across all Grifols platforms



2 in 1

OPTION 1

A comprehensive menu:
48 samples
46 liquid reagents



High sample capacity for a mid-size system

OPTION 2

During peak hours:
72 samples
23 liquid reagents

¹ The training required is similar to the training for the Erytra instrument

² Only monthly maintenance is required

³ Grifols universal reagents are compatible to work with all of the DG Gel system platforms (from manual to fully automated instruments)

A smart, compact design for optimal use of lab space

Samples & reagents management — Flexible performance with easy adaptability for different workflow needs

- Internal backup
- STAT management — just load the samples randomly in any position, click the STAT button and samples will be automatically prioritized
- Continuous and random loading and unloading of samples and reagents
- Fast positive identification

2 independent centrifuges (12 cards/centrifuge)

3 intelligent incubators independently managed (12 cards/incubator)

Grifols exclusive probe system

- Lab workflow adaptability — unique interchangeable sample and reagent lineal racks automatically identified by the system
- To hold any type of tube, including pediatric tubes or those with plungers, the same Erytra sample holders are used providing additional flexibility
- Clever maintenance of the red blood cell reagent suspension
- Multi-functional pipettor arm using Grifols exclusive probe system, which accounts for several functions like:
 - Automatic level detection and fluid level monitoring
 - Sample dilution by using the Grifols universal DG Gel Sol diluent in the cup dilution station (automatic washing)
 - Unique simultaneous perforation and dispensing technology uses 100% of the card wells and prevents cross-contamination
 - Integrated probe washing station to prevent cross-contamination

CAPACITY UP TO

72 samples

46 liquid reagents



Flexible performance

DG Gel card management — Enormous capacity to store up to 1600 tests

- Exclusive direct loading of the DG Gel double decker racks on the Grifols multi-drawer system
- Fast positive identification
- High stock and monitoring of 8-wells DG Gel cards
- Flexible incubation and centrifugation
- High-resolution reading with a multi-functional CCD camera:
 - Card integrity check before and after processing
 - Dispensing verification of the DG Gel cards
 - High-definition color results

System solutions management — Easy user interaction

- Monitoring of the level of Erytra Eflexis solutions and the number of cards used
- Easy and innovative loading and unloading of system fluids allow for minimal user interaction
- Optimal direct drainage to maximize system's autonomy
- New disposable cards waste container supports user safety

CAPACITY UP TO

200 cards (1600 tests)

Universal washing solutions used by all Grifols platforms



DG Gel cards loading area



System solutions area

Intuitive experience

Simply load, select, and process!

Laboratory staff can easily work with Erytra Eflexis after minimal training, since it requires very little intervention. User interaction is easy with the intuitive software, which can be customized to different lab requirements by defining worksheet layouts, user profiles, and priorities.

REAL-TIME INFORMATION

- Analyzer status and autonomy
- Remaining time for samples to be completed
- Operator receives real-time system warnings

CLEAR RESULTS

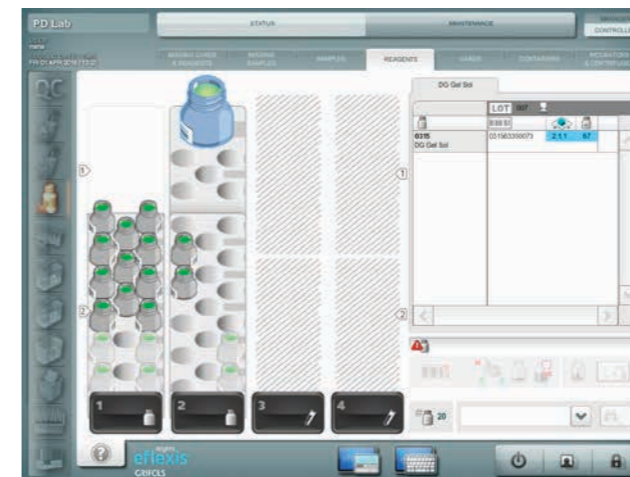
- Revision of results with a clear, close-up, high-definition picture for extra assurance
- Check of discrepancies. Configurable warnings for results to be reviewed
- Complete results traceability report

INCREASED SAFETY AND SECURITY LEVELS

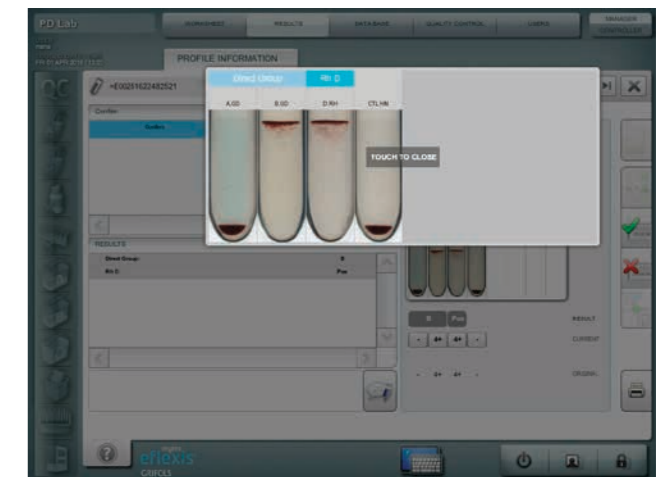
- Entire process and results are fully traceable
- System access is password controlled. Configurable roles per user
- Internal checking at different steps of the test procedure
- Configurable quality control policy

EFFICIENT COMMUNICATION

- Bidirectional connectivity to the LIS (laboratory information system)
- Remote access to the instrument through the web application to validate results, monitor instrument and samples status and real-time warnings
- Remote diagnostics: technical/specialist support can remotely connect to the system for troubleshooting



Real-time information



Clear results



erytra
eflexis[®]

Technical specifications



LIST OF TECHNIQUES

Full ABO/Rh blood group typing (forward and reverse)
Rh + Kell phenotype
Unexpected antibody screening
Identification of unexpected antibodies
Enzyme assays
Antibody titration*
Direct Coombs test
Rare antigens typing
Weak D test
ABO/Rh (D) confirmation
Crossmatch test

*Feature under development

THROUGHPUT

Maximum throughput: 50 cards/hr (400 results/hr)¹
Full ABO/Rh blood group typing: 35 samples/hr²
Antibody screening (I, II, III): 72 samples/hr
Type & Screen: 23 samples/hr³

Throughput depends on the profiles being processed:

- 1 Results obtained with DG Gel[®] Rh Pheno + Kell
- 2 Results obtained with DG Gel[®] ABO/Rh (2D) (profile: A, B, AB, D1, D2, Ctl., N/A1, N/B)
- 3 Results obtained with DG Gel[®] ABO/Rh (2D) and antibody screening (I, II, III)

CAPACITY

2 lab configuration options:

- For peak hours:
 - 23 reagents (1 rack): 17 agitated, 5 non-agitated and 1 diluent (non-agitated reagents can be extended to 22)
 - 72 samples: 3 racks x 2 holders x 12 positions
- For more comprehensive menu:
 - 46 reagents (2 racks): 34 agitated, 10 non-agitated and 2 diluents (non-agitated reagents can be extended to 44)
 - 48 samples: 2 racks x 2 holders x 12 positions

Up to 200 DG Gel[®] cards

Washing solutions:

- 6 L DG Fluid A solution (extendable to 12 L)*
- 6 L DG Fluid B solution (extendable to 12 L)*
- 12 L waste solution*

*With optional direct drainage to laboratory

SIZE AND WEIGHT

Width: 110 cm (without monitor) (43.3 in)
Depth: 71 cm (27.9 in)
Height: 91 cm (35.8 in)
Weight: Approximately 173 kg (381.4 lb)

POWER SUPPLY

Voltage: 100-240 V
Frequency: 50-60 Hz
Input power: 600 W

| REFERENCE | PRODUCT LIST | PRODUCT DESCRIPTION |
|-----------|-------------------------------------|--|
| 210600 | Erytra Eflexis | A fully automated, mid-sized analyzer to perform the pretransfusion compatibility tests using DG Gel technology with a smart and compact design for intuitive operations |
| 210601 | Erytra Eflexis rack for samples | Rack to load samples into the Erytra Eflexis |
| 234179 | System solution container | Container designated to hold diluted wash solution (A or B) or decontamination solution |
| 213713 | Samples holder | Holder to load samples into the analyzer |
| 210603 | Erytra Eflexis card waste container | Disposable container for card waste |

The Erytra Eflexis[®] analyzer is CE marked in accordance with the Directive 98/79/EC of the European Parliament and of the Council of 27 October 1998 on in vitro diagnostic medical devices.



GRIFOLS

Grifols International, S.A
Parc Empresarial Can Sant Joan
Av. De la Generalitat, 152-158
08174 Sant Cugat del Vallès
Barcelona, SPAIN
Tel. (+34) 935 710 500
Fax. (+34) 935 710 267

Diagnostic Grifols, S.A.
Pg. Fluvial, 24
08015 Paretts del Vallès
Barcelona, SPAIN
Tel. (+34) 935 710 400



wadiana[®]

FULL AUTOMATION FOR DG GEL[®] CARDS

THE RIGHT **choice** FOR
YOUR LABORATORY

BLOOD TYPING SOLUTIONS

Compatible with you

GRIFOLS

wadiana®



Used by thousands of laboratories to make millions of safe transfusions

Blood group compatibility between donor and patient is the key to ensuring your primary concern of patient safety. For more than twenty years, Grifols has researched and developed blood typing systems that have enabled millions of safe transfusions to be performed all over the world.

Since no two immunohematology laboratories are identical, Grifols offers a wide range of different instruments that are specifically tailored to suit different processing needs.

One of Grifols most widely used instruments is the Wadiana® analyzer. It is the ideal instrument for taking the all-important step forward from manual to automatic processing. The analyzer optimizes patient

safety by reducing the possibility of errors and providing you with full traceability. The results are precise and reliable and processing is much easier with this fully automated analyzer.

Thousands of immunohematology laboratories currently use Grifols' technology to process gel agglutination cards. The Wadiana® analyzer, in combination with Grifols eight-column DG Gel® cards, has achieved international acclaim; it is considered the instrument of reference for fully automated pretransfusion compatibility testing. The Wadiana® is the right choice for your laboratory.



The Wadiana® is a fully automated compact instrument, designed and manufactured by Grifols, to process DG Gel® cards in pretransfusion compatibility tests.

The Wadiana® analyzer combines Grifols' proven robust technology with the flexibility you need to conduct your daily routine. The Wadiana® software delivers more precise and reliable readings with less reagent consumption, so that you can ensure patient safety in the most cost-effective way.

How do you achieve total traceability in your daily routine?

- The Wadiana® is a walk-away system: once processing starts, minimum user intervention is required
- Bidirectional communication with the LIS
- Password-controlled access for each user

How does the Wadiana® ensure precise, high-quality reliable results?

- The DG Gel® 8-column format lets you configure the most complete and unique test profiles
- DG Gel® incorporates a unique airtightness quality control test
- The Wadiana® performs a DG Gel® card integrity check prior to processing



Airtightness test








How does the Wadiana® lessen the workload in the laboratory?

- The analyzer is ready for processing in just 4 minutes
- The highly intuitive software is quick to program
- A functional worksheet is used to schedule the daily workflow
- For your peace of mind minimal preventive maintenance is needed

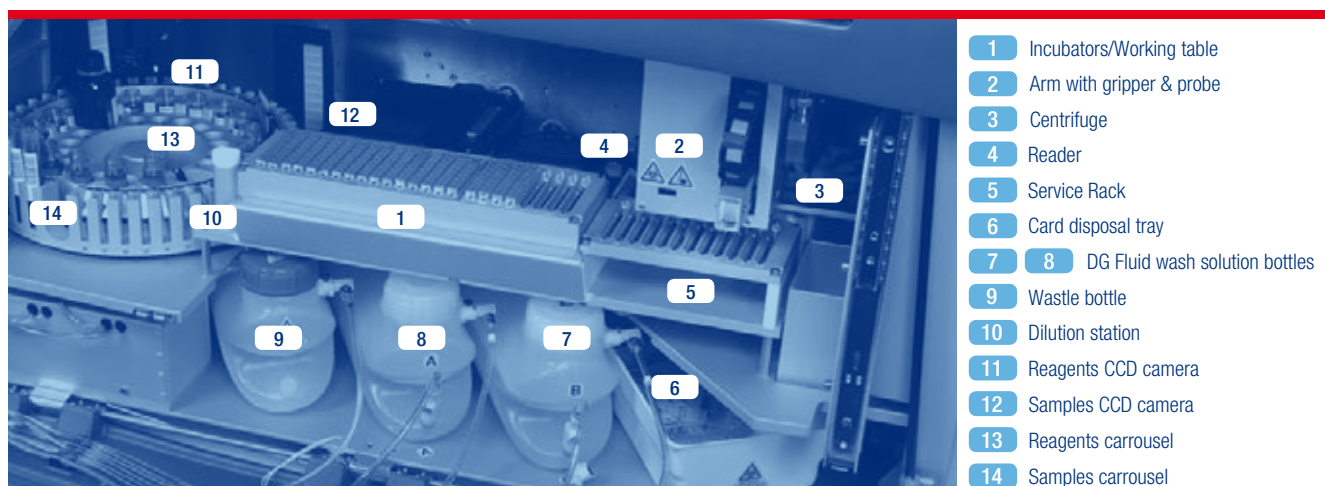
How can the Wadiana® help reduce the possibility of errors to ensure safety throughout processing?

- There is no need to manually key in data; the Wadiana® positively identifies both samples and reagents
- Grifols' unique simultaneous perforation and dispensing technology helps to avoid cross-contamination
- The Wadiana® automatically checks that dispensing reaches the required volume by imaging all of the wells

Wadiana® automatically performs all the required steps in the process:

-  Positive identification of samples and reagents
-  Dilution of samples at a dedicated dilution station
-  Dispensing of samples and reagents through the exclusive simultaneous perforation and dispensing technology
-  Incubation of DG Gel® cards in two independent configurable blocks (25°C, 37°C)
-  Centrifuging of DG Gel® cards
-  Reading of results by CCD camera. Digitalization, interpretation and reporting of results
-  Bidirectional data transmission to the LIS (Laboratory Information System)

Equipment components



FLEXIBILITY AND ADAPTABILITY

- Random positioning of samples & reagents
- Multi-diameter tube loading without adaptor
- Possibility to connect an additional external bar code reader
- Network connection between different Wadiana® units

ROBUST HARDWARE

- Probe impact detector: anti-crash needle system
- Clot detection and recovery
- Anti-dropping control system
- Dilution station with auto-wash & anti-block system
- Continuous monitoring of levels (reagents, diluents, wash and disposal solutions)

COST-EFFICIENT & ENVIRONMENTALLY FRIENDLY SYSTEM

- Partially used cards are reprocessed and every single well is used
- Non-disposables
- Optimized reagent consumption
- Exclusive DG Gel® double-decker rack
- DG Gel® 8 column format provides maximum information at a minimum cost (less cards are needed)

CUSTOMIZED PERFORMANCE

- Customized installation and configuration of the instrument
- Configurable user passwords at different functional levels
- Operating modes: by batch, by sample and STAT

QUALITY CONTROL

- The Wadiana® verifies the expiry date and batch compatibility of all reagents
- Integrated Quality Control software application with dedicated reports
- Open configuration

SERVICE & SUPPORT

- High-quality service and support
- International after-sales support through Grifols affiliates or exclusive distributors in direct contact with the manufacturer
- Minimal preventive maintenance



MAIN CHARACTERISTICS

Fully automated compact instrument
100% use of cards
DG Gel® cards integrity checking
Continuous liquid level monitoring
Digitalized results
Non-disposables
Unique simultaneous perforation and dispensing technology
Probe impact detector
Clot detection and recovery
QC program
Optimized reagent consumption

LIST OF TECHNIQUES

Full ABO/Rh blood group typing (forward and reverse)
Rh + Kell phenotype
Weak D
Crossmatch test
Unexpected antibody screening
Identification of unexpected antibodies
Enzyme assays
Direct Coombs' test
Determination of special antigens
Self diagnostic

CAPACITY

Loading capacity:
18 reagents (16 reagent vials and 2 diluents)
48 samples
24 DG Gel® cards
Centrifuge capacity: 12 DG Gel® cards (96 tests)

SIZE AND WEIGHT

Depth: 60 cm
Width: 100 cm
Height: 650 cm
Weight: 87 kg

POWER SUPPLY

Voltage: 100-120/220-240V ~
Frequency: 50-60 Hz
Input power: 300 W

This equipment complies with the Directive 98/79/EC of the European Parliament and of the Council on "in vitro diagnostic medical devices". CE Mark Certification.

Grifols International, S.A.

Parc Empresarial Can Sant Joan
Av. de la Generalitat, 152-158
08174 Sant Cugat del Vallès
Barcelona - SPAIN

Tel. (+34) 935 710 500
Fax. (+34) 935 710 267

| Reference | Product List | Product description |
|-----------|--------------|--|
| 213787 | Wadiana® | Fully automated instrument for the processing of DG Gel® cards |
| 213778 | Diana BCC | Duplicate barcode label printer |
| 213679 | DG Fluid A | Reagent used for Wadiana® internal washing (concentrate) |
| 213678 | DG Fluid B | Reagent used for Wadiana® internal washing (concentrate) |

DG Therm

Digital incubator for the manual processing of Grifols DG Gel[®] cards.



Main characteristics

- 2 independent incubation zones with a capacity for 12 DG Gel[®] cards and 12 test tubes in each zone
- Digital user interface screen for control and visualization of remaining incubation time and real temperature for each zone
- Fixed pre-set temperature of 37 °C
- Pre-set incubation time of 15 minutes, which can be adjusted by the user
- Audible programmable alarm to notify end of incubation period.
- Visual and audible indication of any errors and power failure.
- Quick procedure guide included.
- Removable trash bin.

Quality tracking and records

- Records of relevant information and possible incidents produced during operating (log file) with computerized connection.
- External communication port for periodical instrument verifications.

Technical specifications

- Capacity: 24 DG Gel[®] cards and 24 testing tubes
- Temperature: 37 °C ±1 °C
- Time: 15 min. (variable)
- Voltage: 100-240 V
- Frequency: 50-60 Hz
- Consumption: 270 W

DG Spin

Digital centrifuge for the manual processing of Grifols DG Gel[®] cards.



Main characteristics

- Simultaneous centrifuge of up to 24 DG Gel[®] cards.
- Removable and exchangeable spinning head.
- Pre-defined centrifugal parameters for optimum DG Gel[®] cards processing: acceleration, speed, braking and time.
- Digital user interface visor for control and visualization of centrifuge speed and time remaining for processing.
- Programmable audible alarms for end of centrifugal time periods.
- Visual and audible indication of any error situation and power failure.
- Imbalance system detects incorrect placing of DG Gel[®] cards on the spinning head.
- Quick procedure guide included.

Quality tracking and records

- Records of relevant information and possible incidents produced during operating (log file) with computerized connection.
- External communication port for periodical instrument verifications.

Technical specifications

- Capacity: 24 DG Gel[®] cards
- Speed: 990 rpm \pm 10
- Time: 9 min.
- Voltage: 100-240 V
- Frequency: 50-60 Hz
- Consumption: 50 W

Grifols DG Gel® cards

A new standard in the column agglutination technique.

8-column gel card based on the column agglutination technique for blood typing and investigation of unexpected antibodies.

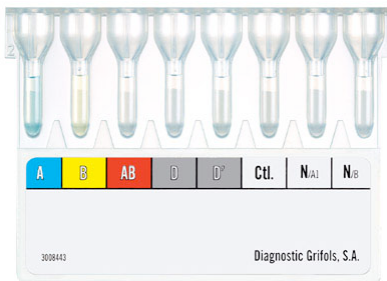
Grifols Clear Card Technology

Clear Card Technology is the culmination of Grifols' years of experience in the field of Immunohematology. By carefully selecting and treating raw materials we have developed a uniform, homogeneous and consistent gel with exceptional clarity.

The combination of a high-definition gel and the new design of the reaction column gives the laboratory technician clear results.

Clear Card Technology is not only a gel treatment technique, but also a new concept for a new product: DG Gel®, a new standard in the column agglutination technique.

DG Gel® ABO/Rh (2D)

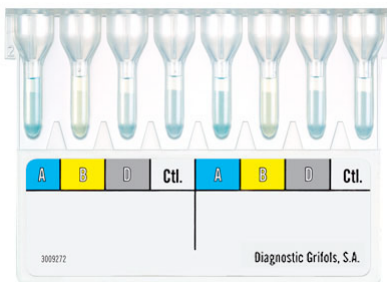


Profile: A - B - AB - D^{VI-} - D^{VI+} - Ctl.- N/A₁ - N/B
Technique: Determination of the antigens of the ABO and Rh (D) system and determination of the reverse ABO group.

Number of tests/card: 1

Presentation: 4 x 12 cards – Ref. 210311
2 x 25 cards – Ref. 210338

DG Gel® Confirm



Profile: A - B - D^{VI+} - Ctl. - A - B - D^{VI+} - Ctl.
Technique: Confirmation of the blood groups of the ABO and Rh (D) system.

Number of tests/card: 2

Presentation: 4 x 12 cards – Ref. 210312
2 x 25 cards – Ref. 210339

DG Gel® Coombs



Profile: 8x (AHG)

Technique: Indirect Coombs and Direct Coombs tests. The Indirect Coombs tests include screening and identification of unexpected antibodies, crossmatch tests, autocontrol and red blood cell typing.

Number of tests/card: depending on the test.

Presentation: 4 x 12 cards – Ref. 210319

2 x 25 cards – Ref. 210342

DG Gel® Neutral



Profile: 8x (N)

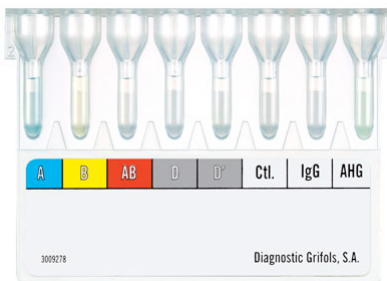
Technique: Physical medium for saline and enzymatic tests. The saline and enzymatic technique tests include: screening and identification of unexpected antibodies, crossmatch tests, autocontrol, red blood cell typing, and determination of the reverse ABO group.

Number of tests/card: depending on the test

Presentation: 4 x 12 cards – Ref. 210320

2 x 25 cards – Ref. 210343

DG Gel® Newborn



Profile: A - B - AB - D^{VI-} - D^{VI+} - Ctl. - IgG - AHG

Technique: Determination of the antigens of the ABO and Rh (D) systems and Direct Coombs test in newborns.

Number of tests/card: 1

Presentation: 4 x 12 cards – Ref. 210337

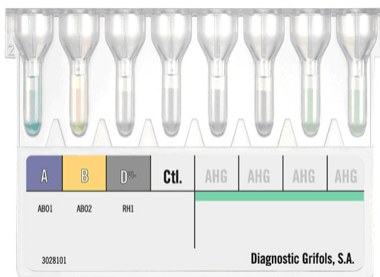
2 x 25 cards – Ref. 210353

DG Gel® CT



Profile: A - B - D^{VI+} - Ctl. - N - N - AHG - AHG
Technique: Confirmation of the antigens of the ABO and Rh (D) systems, ABO/ Rh (D) compatibility test, screening of unexpected antibodies, crossmatch and autocontrol.
Number of tests/card: 1
Presentation: 4 x 12 cards – Ref. 210318
2 x 25 cards – Ref. 210374

DG Gel® T/S Poly



Profile: A - B - D^{VI-} - Ctl. - AHG - AHG - AHG - AHG
Technique: Confirmation of the blood groups of the ABO and Rh (D) systems and Indirect Coombs tests. The Indirect Coombs tests include: screening and identification of unexpected antibodies, crossmatch tests, and autocontrol.
Number of tests/card: 1
Presentation: 4 x 12 cards – Ref. 210334
2 x 25 cards – Ref. 210377