

HUMAN HEALTH

ENVIRONMENTAL HEALTH

RELIABLE
TESTING FOR A
HEALTHY
FUTURE



THE AutoDELFI A[®] IMMUNOASSAY SYSTEM


PerkinElmer[®]
For the Better



QUALITY IMMUNODIAGNOSTICS FOR PRENATAL AND NEONATAL SCREENING PROGRAMS

AutoDELFLIA® leads the way in terms of results quality. Employing the proven DELFLIA® chemistry, AutoDELFLIA is a fully automatic system for sensitive and specific quantitation of the analytes most commonly requested for prenatal and neonatal screening programs.

- Accepts both serum samples and dried blood spots
- Results for up to 8 different tests from one serum sample
- Additional samples can be loaded during a run
- Bar coding of reagents for convenience and security
- Extensive range of proven sensitive kits
- External PC with Windows-based Workstation software
- MultiCalc® software for results calculation and comprehensive quality control

For serum samples

AutoDELFIA can be supplied with a Sample Processor unit that accepts serum samples in primary or secondary sampling tubes. If sample dilution is needed, this is done automatically before the dispensing of sample, standard and control aliquots into microplates. The microplates are then automatically loaded into the AutoDELFIA Plate Processor unit.

For dried blood spots

PerkinElmer offers a choice of punching devices that will prepare plates ready for loading into the Plate Processor. The chosen punching device is used instead of the Sample Processor unit.

Extensive range of proven kits

AutoDELFIA is supported by extensive panels of reagent kits. All kits employ the sensitive and robust DELFIA chemistry, based on time-resolved fluorescence. Both single and dual label assay designs are available.

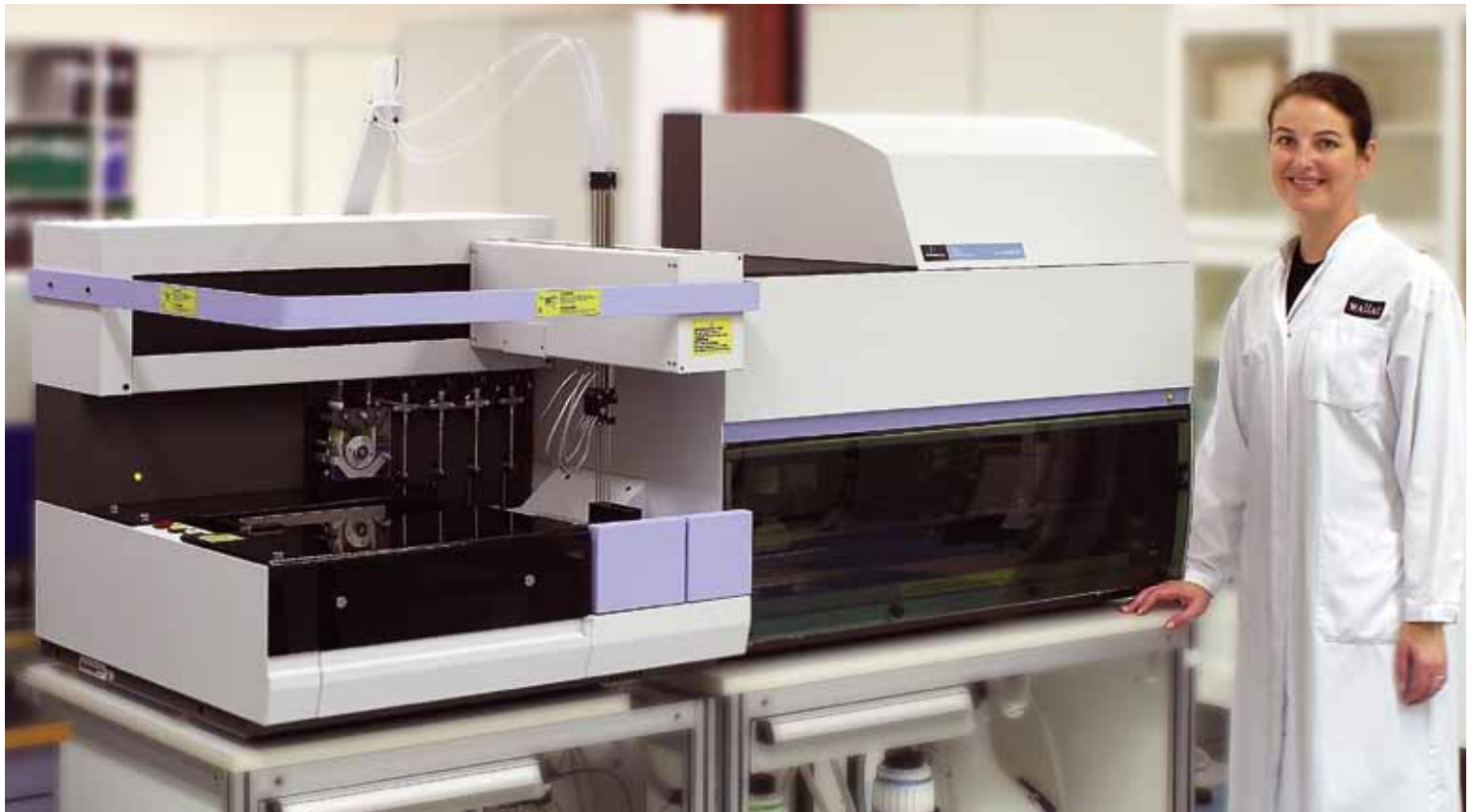
Ask for more information about our panels for first and second trimester prenatal screening, and for neonatal screening.

More than 25 years experience of screening

PerkinElmer, the manufacturer of AutoDELFIA has been involved with screening programs since the mid 1980's. As global market leader, we provide high quality reagent kits, sample handling and measuring instruments, and state-of-the art informatics - all products and systems are backed up with comprehensive expert support.

AutoDELFIA®
Immunoassay system for
screening programs and
routine diagnostics





WALK AWAY – AND RELY ON THE SYSTEM TO LOOK AFTER EVERY STAGE

All you do is load the instrument

For the majority of serum assay kits, standard vials are placed directly from the kit pack into AutoDELFIA's cooled standard box. Then for each analyte, you enter a reagent cassette

containing tracer, assay buffer and any other kit-specific reagents, and the number of plates you need.

Loading of bulk items is a once only operation, giving enough for 1152 measurements. Also, to minimize work, AutoDELFIA can be equipped with a waste pump, automatically emptying the waste bottles of both the Sample processor and the Plate processor.

All assay stages including measurement are performed automatically

You simply load and start the instrument and then leave it to carry on alone. To give you flexibility in scheduling your work, you can enter additional samples and tests after a run has been started. AutoDELFIA will perform all operations according to the protocols of the desired assays and give final results either by analyte or by patient.



Click the mouse, and AutoDELFI[®] does everything else

Accepts standards, reagents and samples and reads all bar codes

All samples are identified and checked throughout the testing procedure. Where individual samples are not labeled with bar-codes, their positions are identified within bar-coded racks.

Calculates the run order

Individual time calculations for each loading are done. AutoDELFI works out a "run list" for the various assays selected. The user may edit this, if desired.

Dilutes and pipettes samples

For serum samples the AutoDELFI Sample Processor will automatically perform any needed dilutions and pipette samples into plates, which feed directly into the Plate Processor. For dried blood spot samples the plates are prepared using a punching device.

Dilutes tracer

The tracer is diluted just before use so that the solution is always fresh. To eliminate reagent carry-over, the dilution is performed using disposable tips.

Adds tracer/buffer to plates

Buffer and tracer dilution are added using two dispensers.

Incubates plates

All plate handling takes place at 25° C. The system can access any plate when required, and at any time the user can glance at the run list to check the status of the assay.

Removes dried blood spots

For assays employing dried blood spots, the paper disks are automatically removed.

Dispenses Enhancement Solution

When the incubation is complete, the plate is withdrawn from the shaker and after washing, Enhancement Solution is added to each well.

Carries out measurements

When the plate is ready for measurement it is automatically delivered to the instrument's fluorometer.

Calculates results

After measurement, results are calculated. MultiCalc[®] software performs comprehensive quality control routines and presents results by assay, or by automatically updating worklists.

Sample processor for serum samples

Accepts primary sample tubes of most types

Up to 36 serum sample racks can be loaded at one time giving maximum capacity of 432 patient samples. Bar-coded primary tubes can be loaded directly. This reduces the need for sample transfer and helps to cut total costs. AutoDELFI can be loaded directly with most shapes and sizes of tube up to 16 mm wide and 125 mm high. The minimum size without adapters is 10 mm wide and 70 mm high. For smaller tubes down to 45 mm, special adapters are used.

Automatic dilution when needed

Dilution factors can be given either manually or automatically through the worklist or assay protocol. AutoDELFI then dilutes the patient sample automatically before it is pipetted to the plate.

Four sample pipetting probes with level detection

You can carry out up to 8 tests per sample tube. For patient sample pipetting, 4 individually working sample probes are used, and this can save a considerable amount of time whenever a long series of samples with only a few analytes is run. One plate can be pipetted in 12 minutes. The tips are equipped with four individual liquid level detection systems with optimized submerge depth to minimize contamination of probes. A clot detection system alerts the user if a sample is not properly aspirated.

Positive ID from sampling right through to reporting

Bar-codes on primary sample tubes also help you to save both time and money by eliminating the need to enter patient data manually. Since the sample identification is read before pipetting, results are linked to the correct sample throughout the procedure.

SOFTWARE POWER AND EASE-OF-USE

Control of AutoDELFI A is by an external PC with the Windows based AutoDELFI A workstation software.

MultiCalc® software, which runs in the background, handles assay protocols, worklists, results, quality control and external communication.

AutoDELFI A software looks after instrument control as well as all data handling. You operate the system via a normal PC with mouse control. The AutoDELFI A workstation program is easy to learn, guiding the user in setting up assays, loading samples, suggesting run order, etc.

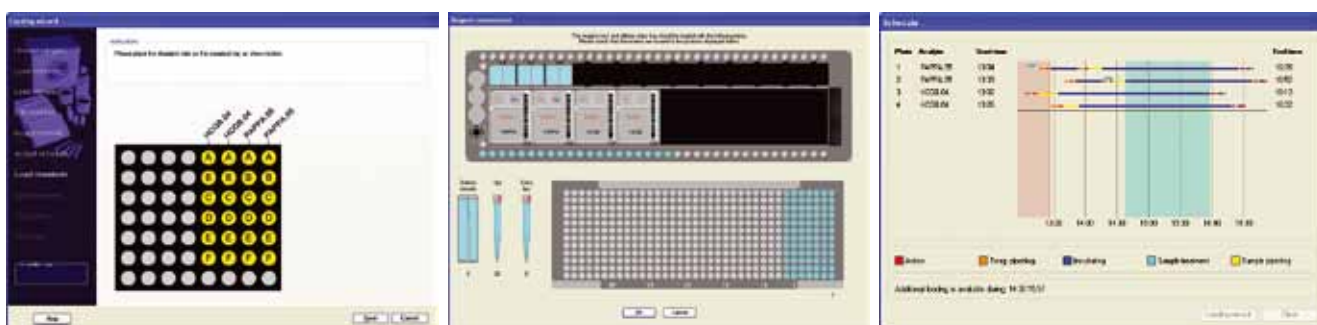
AutoDELFI A workstation software provides a wizard-type sequence for both setting up a run and for adding more tests and samples during a run. This wizard allows the possibility to go back to the previous step.

MultiCalc® excellence – behind Windows

Quality control can be set with MultiCalc software at the level you specify and tailored to your needs. MultiCalc also looks after LIS and LAN connections and provides a high level of flexibility. Storage of standard curves and recalibration based on only 2 points are important features of the program, and can be used in many of the AutoDELFI A kits. A whole standard curve can be run at any time for verification and there is a choice of standard curve fitting methods.

Easy and safe loading with LISA™

Wallac LISA™ LIS query software for AutoDELFI A makes the loading of AutoDELFI A easy and safe. Using the ASTM standard, LISA takes care of all communication with the LIS. Worklists are made up automatically as the samples pass the barcode reader. There is no need to sort the tubes or search for those tubes not available at the loading station. LISA requests which analytes are to be measured for each sample tube. After the assays, it sends back the results to update the appropriate record in the LIS.



The new Loading wizard in the AutoDELFI A® Workstation software provides step by step guidance on loading and starting an assay, with the possibility to go back to previous steps. The wizard shows how to load the standard vials (left) and the reagents (middle). The schedule can be followed during the run, and there is the possibility to add more samples and reagents (right).

Specifications

1235-514/714 AutoDELFI System components

The full AutoDELFI system for serum samples includes AutoDELFI Sample Processor, AutoDELFI Plate Processor and an external PC with Windows, AutoDELFI workstation and MultiCalc software. Workbenches for both processors are also supplied.

1235-501 AutoDELFI Plate Processor system components

For dried blood spot assays (all PerkinElmer newborn screening tests) the AutoDELFI Plate Processor system is used together with a PerkinElmer punching device. The Plate Processor system includes the AutoDELFI Plate Processor and an external PC with Windows, AutoDELFI workstation and MultiCalc software. A workbench for the Plate Processor is also supplied. In addition a PerkinElmer punching device will be needed.

The AutoDELFI Plate Processor includes the following: Shaker/Incubator, Washer, Enhancement Solution dispenser, Disk remover, Reagent dispenser for reagent handling, Bar-code reader for plates and reagents, Plate transport system, Plate elevator, Time-resolved fluorometry measurement unit.

Sample processing

Probes: 4 probes

Capacity: 36 racks with 12 samples/rack (432 patient tubes). Separate box for 56 standard bottles. Separate rack for controls.

Tube dimensions: max. height 125 mm, max. outer diameter 16 mm. min. height 45 mm min. outer diameter 10 mm min. inner diameter 8 mm

Bar-code reader for tubes and racks

Pipetting time: approx. 12 min/plate

Automatic dilution of patient samples, when specified.

Maximum 8 analytes/patient tube.

Individual liquid level sensor with clot detection facility for each probe.

Standard box cooled to 15° C.

Plate processing

Loading capacity: 12 microtitration plates

Reagent capacity: max. 8 packages for different analytes

Temperature control: 25° C

Operating environment: Temperature 15-30° C Humidity 10-85%

Reagents: ready to load

Reagent dispensing tips: disposable

Standard curves: stored curve valid for the same lot

Physical dimensions:

Plate Processor (excluding Sample Processor and PC)
Size, w x h x d: 1200 x 820 x 660 mm
Weight: approx. 170kg

Sample and Plate Processor together (excluding PC)
Size, w x h x d: 1755 x 820 x 770 mm
Weight: approx. 270 kg

Plate Processor workbench size, w x h x d: 1010 x 860 x 750 mm
Sample Processor workbench size, w x h x d: 780 x 860 x 750 mm

ORDERING INFORMATION

1235-514	AutoDELFIA system (220 V)
1235-714	AutoDELFIA system (110 V)
1235-501	AutoDELFIA Plate Processor system
2011-0030	Laser printer (230 V)
2011-0040	Laser printer (115 V)
AAAJA-0002	UPS power system (230 V)
UPSAP200	UPS power system (115 V)
1235-416	Automatic Waste Pump
1221-500	Remote support package
1235-220	External USB modem

The manufacturer reserves the right to amend these specifications without notice. The availability of AutoDELFIA kits varies from country to country. Please contact your local supplier for more information.

All PerkinElmer diagnostic products may not be available in all countries. For information on availability please contact your local representative.

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