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www.elispot.com
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AID EliSpot



Products and services overview

Spot the difference !!!
www.elispot.com





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AID EliSpot Reader System

ELR04

This is the classic AID reader type. Fast, efficient and user-friendly, it is one of the most successful developments in the market. Since 1997 AID has developed and manufactured the AID EliSpot Reader System; the first machine was sold in 1998. Since then, AID has sold over 400 complete Reader Systems in over 20 countries. We are proud to list some of the institutes who bought a reader from us on our website www.elispot.com.



Key Features

- Read and count a plate in three minutes
- Fully validated, audit trail
- Layout definition and rule compiler
- Manage and present your data

Specifications:

Read and count most types of Elispot plate, including all brands of membrane-type plate, ELISA-style plates and low volume plates. Software and hardware fully compliant with 21CFRpart11, GMP/GLP, CE. This reader simultaneously takes pictures, autocalibrates the well and counts according to the user's settings. Data acquisition is fully automatic. Image data are saved as bmp, .tif or jpg files, the results are exported to text, dbase or Excel or to our proprietary statistics plugin. A plate overview with thumbnails can be printed as well as full -sized images of single wells. Processing time including saving and data export 3 minutes per plate. The system is very compact with a footprint of 43 cm square and the reader can be placed on top of the computer/control unit.

Technical specifications:

AID EliSpot Reader Unit:

- Digital Camera, FireWire, Color, CCD Chip
- Custom made optics
- QuadPack 2-axis precision ballbearing stage, impact-protected
- LED Ring Illumination, software controlled camera-focus



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Computer/Control Unit:

- MS Windows XP
- Pentium IV, min. 3.0 GHz, 512 MB RAM, min.80 GB HD
- Firewire Host Adaptor (accepts 3 cameras)
- DVD writer, USB memory stick, networking card
- High-quality color photo printer
- Screen: 17" TFT
- Software-driven focusing

Software:

- AID Elispot Software 4.0
- MS Office XP incl. Word and Excel
- AID Masterpate/QC module

Miscellaneous:

- Cable Set, Keyboard, Mouse
- Handbook
- Modem for online support

New!!

AID IFL EliSpot Reader System

ELR-IFL04

The new Immunofluorescent EliSpot reader ELR-IFL04 offers dual capability (analysis of conventional colorimetric EliSpot assay as well as new fluorescence based dual color Fluorescent assays (Red/Cy3 and green /FITC labels). Given that no hardware manipulation will be required for switching between colorimetric and fluorescent assay analysis, AID is now launching a new era of EliSpot technology!

- Based on the proven AID EliSpot Reader System technology
- Conventional and fluorescent-based EliSpot analysis
- Switch between both detection types within seconds, no hardware manipulation required
- Improved multiple color analysis
- Suitable for advanced TH1/TH2 balance analysis
- Reads one 96well plate within 5 minutes
- Software driven camera focus
- Comes with the new software version 4.0



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AID EliSpot Software

An original AID development, our software is designed to run several types of EliSpot Reader. Emphasis was put on user-friendly handling and fast processing. Often-used functions can be reached by context sensitive pop up menus. AID Readers use MS Windows XP and Microsoft Office XP. All variants of the software share the features of an AID software product:

Key features:

- Easy to use interface
- User management
- AutoCenter
- Assay-specific settings
- Get your EliSpot data organized

The AID EliSpot Software seamlessly integrates three different tasks:

Running software

- Stage driver (to calibrate the stage only 3 corner wells have to be adjusted, the coordinates of all wells in between are interpolated; the AutoCenter feature automatically adjusts the well outlines. You only have to calibrate once during set-up for each type of plate.)
- Print plate overview and well view
- Barcode
- Images saved as bitmap, .tiff or .jpg

Image analysis

- AutoCenter (centers the counting area automatically into the well)
- Assay-specific settings (you can assign as many different count settings as you need even within one plate)
- Count and classify spots in one operation (dual color!)

Data management

- User management (camera settings, stage settings and count settings are user-specific. Users require a login with or without password.)
- Export to text (.txt)
- Export to MS Excel (.xls) or dbase (.dbs)
- Export to LIMS (on demand)



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- Export to AID EliStat (customisable VBA EliSpot application)
- Audit trail (required for validated work)
- Plate history (This encrypted file gives you all the information you need on the EliSpot plate document in question. This is a unique software feature that is useful e.g. in multi-center studies.)
- Re-analyze saved plates as often as you want (you can also automatically recount a number of plate documents from one folder and save them in a new folder)
- AID EliStat plugin

Software features in detail

Quality control (Validation of the light source and the camera)

The AID masterplate together with the QC module enables to check performance and lightning of the AID machines frequently. For this the saturation of each well of an AID masterplate is measured and the QC module calculates if the saturation value of each well is in an acceptable range. Results of selected wells can be followed up over time and displayed in a diagram. This ensures that the quality of the light source remains the same over time and that results are comparable. This feature makes AID machines unique for long-term multicenter studies.

Export flexibility

Export in txt-files and in MS Excel is customizable. Users decide which data should be exported and which not. Export can be done to MS Excel in list format as well as in 96well format. This allows for a high degree of flexibility in interacting with subsequent applications.

Interactive Help

The AID software 4.0 comes with a Quick guide in a printed and online version, with a extensive online handbook and with several "How to's", dealing with the most important functions of the software. This detailed descriptions of the software also include training videos.

Plate layout and rule compiler

Each plate and each well can be filled with users data (e.g. cell-number, Pat.-ID, cell-typ, etc). These data are stored together with the plate images and can be used together with analysing rules to calculate results. Even empty plates can be filled with external data, thus having layouts for recurrend experiments.



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RCA function (Read, count and analyse)

Once working with AID layouts and rules it is possible to come from the experiment to the result in just one mouse click. RCA is a unique function of the AID software.

CountAID function

Integrated feature to facilitate the discover of optimized settings for particular wells.

Measurement of cytokine release (activity)

For a long time AID researchers have noted the necessity of calculating the cytokine release of spots in addition to the number of spots and have now included this feature. This makes the interpretation of EliSpot assays much more flexible and is particularly useful for diagnostic labs.

Improved Two-color function

The possibilities of performing two-color assays are greatly improved. In addition a new dialog box facilitates the use of this function.

Different Algorithms to choose

Users can decide between three different basic algorithm to count spots. Thresholds can be set on spot intensity, spot size and spot gradient.

Recounting of multiple plates

Multiple, already stored plates can be recounted by a few mouse clicks. Simultaneously data of every single plate can be pooled in MS Excel.

Customisable data display

Data in the information parts are fully customisable according to each users needs.

User management

Each user on the AID software can have his personal count settings, stage settings, camera settings and display settings. Account of each user as well as the complete program can be password protected.

CE certification

The AID soft- and hardware not only fulfils the American FDA regulations, moreover the more stringent European regulations are satisfied. This makes the AID EliSpot machine usable all over the world.



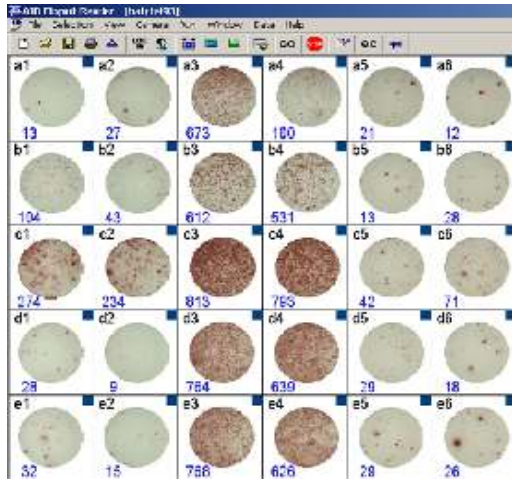
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Customisable stage movement

The direction in which the machine will read the wells on the plate are fully customisable, making plate reading even more faster. Reading of single columns and rows are done within seconds. Especially useful when using breakable plates.

Software updates

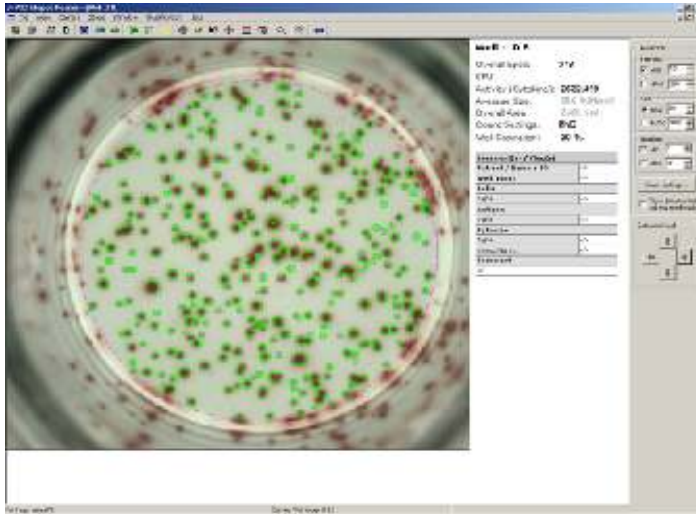
AID usually offers one major update of the AID EliSpot Software per year. Keep in touch to see how you can profit from software updates!



Screenshot of an EliSpot plate, acquired with the AID EliSpot Reader. The program counts spots according to the user's settings.



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Screenshot of a single well of the plate shown above. The spots are counted and the overall saturation of the well is calculated. A histogram gives an impression of the size/intensity variation of spots. Four markers are available: crosses for spots, lines for the spot outlines, surface for the whole spot surface and lines for the outlines of spot clusters. User-specific settings are applied to your plates. Each user can define an unlimited number of count settings, i.e. sets of rules for the image analysis which spots to count or to discard. These settings can be adjusted depending on the control wells on the plate.

A complete plate with 96 wells is read and analysed simultaneously with the image processing being effected at the same time as the motion of the stage. When a plate has been acquired, it can be re-analysed as often as you wish.

Data formats:

- Pictures (raw data) jpg, tiff, bmp
- Screenshots jpg
- Results txt, xls, dbase
- Export data to printer, pdf (optional), MS Office (Excel, Word)



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AID EliSpot Reader HR

ELHR04

Based on the classic reader type, this machine offers high-resolution images. We recommend this reader type for assay development and laboratories that specialize in assays with particularly small spots.



Specifications:

Read and count any type of Elispot plate, including all brands of membrane-type plate, ELISA-style plates, low volume plates. The reader can also be used for Agarose-type assays depending on their quality.

Software and hardware fully compliant with 21CFRpart11, GMP/GLP, CE. This reader simultaneously takes high resolution pictures, autocenters the well and counts according to the user's settings. Data acquisition is fully automatic. Image data are saved as bmp, tif or jpg files, the results export to text, dbase or Excel or to our proprietary statistics plugin. A plate overview with thumbnails can be printed as well as full -sized images of single wells. Processing time including saving and data export 3-9 minutes per plate. Barcode is optional. The system is very compact with a footprint of 43 cm square.

Key Features:

- High resolution images
- Reads and counts a plate in 3-9 minutes

Technical specifications

AID EliSpot Reader Unit HR

- Digital Firewire Camera, 1392x1040, Color, CCD Chip
- QuadPack 2-axis precision stage, impact-protected
- Long-life LED Ring Illumination
- Proprietary optics



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Computer/Control Unit

- Pentium IV 3.0 GHz
- 1 GB RAM, DVD writer, USB memory stick
- Firewire Host Adaptor (accepts 3 cameras)
- Networking card
- Screen 19" TFT
- High-quality color photo printer

Software

- MS Windows 2000/XP
- MS Office 2000/XP incl. Word and Excel
- AID EliSpot Software 4.0
- AID EliStat statistics module

Miscellaneous

- Cable Set, Keyboard, Mouse
- Handbook
- Master plate on demand



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AID EliSpot Robot **AID EliSpot Robot HR**

ELROB03

Designed for high throughput and traceable results, this is the ultimate tool for clinical studies involving large groups of samples. AID will also customize the system for your needs. Choose standard or high resolution.



Key Features of the AID EliSpot Robot

- Reads 30 plates in 90 minutes
- Hands-off, walk-away system
- Automatic barcode recognition
- Integrated system, not a reader/stacker solution

Specifications of the AID EliSpot Robot

Read and count all commonly used types of Elispot plate. Software and hardware fully compliant with 21CFRpart11, GMP/GLP, CE. Data acquisition is fully automatic: the robot simultaneously takes pictures, autocenters the well, and counts according to the user's settings. The system then automatically saves image data as bmp, tif or jpg files using information from the built-in barcode scanner, exports the results to text, dbase or Excel or to our proprietary statistics plugin. A plate overview with thumbnails can be printed as well as full-sized images of single wells. Processing time including saving and data export 3-9 minutes per plate; the robot will process 30 plates in one automated, walk-away process. Upscale for more plates per run on demand.

Robot unit (~HR)

- Compact: app. 60 x 50 x 35cm (l x w x h)
- Digital Firewire Camera, Color, 656x494 or 1392x1040 CCD Chip
- QuadPack 3-axis precision stage
- Long-life LED Illumination
- Proprietary macro-objective
- Integrated barcode reader
- 3 separate loading stations



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2 computer/control units

- Intel Pentium® IV, 512 MByte RAM (1Gbyte for HR)
- >80 Gigabyte HardDisk
- Monitor: 17" TFT, 19" for HR
- high-quality color photo printer
- MS Windows XP
- Data storage in separate computer with direct connection to network. CD-RW or optional 3,5" magneto-optical (MO) drive with 640 MB capacity. DVD-RW on demand.

Software

- Microsoft Office XP
- AID EliSpot Software
- AID EliStat statistics module
- operates in a two-computer set-up for secure data acquisition
- Handbook
- Master plate/QC module



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AID ViruSpot Reader

VSR04

This versatile reader uses the high-resolution camera from the AID EliSpot HR system. Due to a genuine optical zoom, versatile stage settings and unique software features it can cope with a variety of assay types including EliSpot and Viral Plaque Assays.

Key features of the AID ViruSpot Reader:

- 6-, 12-, 24-, 48-, 96-well plate layout
- Reads EliSpot plates at high resolution
- Reads viral plaque assays
- Optical zoom integrated



Specifications:

Read and count any type of Elispot plate, including all brands of membrane-type plate, ELISA-style plates, low volume plates, can also be used for Agarose-type assays depending on their quality. Reads Viral Plaque Assays, betaGAL transfected cells and similar assays in 24 well and 48 well layouts. Unique software features for image analysis to cope with Viral Plaque assays.

Software and hardware fully compliant with 21CFRpart11, GMP/GLP, CE. This reader simultaneously takes high resolution pictures, autocenters the well, counts according to the user's settings. Data acquisition is fully automatic. The system then saves image data as bmp, .tif or .jpg files, exports the results to text, dbase or Excel or to our proprietary statistics plugin. A plate overview with thumbnails can be printed as well as full-sized images of single wells.

Technical specifications

AID ViruSpot Reader Unit

- Digital Firewire Camera, 1280x960, Color, CCD Chip
- QuadPack Stage
- Neon or LED Ring Illumination
- 4 stepper motors to control stage, zoom and focus



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Computer/Control Unit:

- Pentium IV, 1 GB RAM, DVD Writer
- 19" TFT Screen
- High-quality color photo printer

Software

- MS Windows XP, MS Office XP incl. Word and Excel
- AID ViruSpot Software

Miscellaneous

- Cable Set, Keyboard, Mouse
- Suitable for EliSpot, virusplaques and agar plates
- Multifunctional device for use in:
 - Optical zoom
 - footprint 43x43 cm
 - Firewire Host Adaptor, Networking card

AID EliSpot Evaluation System

EL04

The AID EliSpot Evaluation System serves to store, re-analyze, present and print data acquired on an AID EliSpot Reader System (~HR, ~Robot). Data transfer is usually accomplished by the users through networking connections, by ZIP Disks or CD-ROM. More recently, USB memory sticks have become the transfer medium of choice. The AID EliSpot Evaluation System is set up so as to run an AID EliSpot Reader Unit if this is purchased later.

AID EliSpot Evaluation System

This includes the

- **Computer/Control Unit** (Pentium IV, 512 MB RAM, CD ROM Writer, Networking card)
- **17" TFT Screen**
- **Printer**, Cable Set, Keyboard and Mouse

The system is pre-installed with

- MS **Windows** Operating System,
- MS Office,
- AID EliSpot Software LITE version
- AID EliStat statistics module



AID Accessory, Upgrade or Replacement parts

First-AID-Kit

Hard disk with software installation
Neon ring Illuminator
Fuses
Technical Manual

P4A

Upgrade/ Replacement Computer/Control Unit
Pentium IV, 512 MB RAM
CD ROM/DVD Writer
Firewire Host Adaptor
Networking card

P4B

Upgrade/Replacement Computer/Control Unit (HR or ViruSpot)
Pentium IV, 1 GB RAM
DVD Writer
Firewire Host Adaptor
Networking card
UPS02
Uninterruptible Power Supply (UPS)
T1
Transformer
110V-220V



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AID EliSpot Assay Kits

ELSPxxxx

Ready to use 96-well-plates, precoated with primary antibody, in a complete kit containing secondary antibody, conjugate and substrate. We recommend precoated plates for validated work such as clinical trials.

Key features

- Convenient, ready-to-use
- High sensitivity, high signal- to-noise ratio
- Reproducible and reliable results
- Customized kits available on demand!

Now available:

Parameter	Art.- No.
Human	
Interferon- γ	ELSP 5000
TNF- α	ELSP 5080
Interleukin-1	ELSP 5070
Interleukin-2	ELSP 5050
Interleukin-4	ELSP 5060
Interleukin-5	ELSP 5010
Interleukin-6	ELSP 5020
Interleukin-8	ELSP 5030
Interleukin-10	ELSP 5040
Interleukin-12	ELSP 5090
Interleukin-13	ELSP 5052
GM-CSF	ELSP 5053
Mouse	
Interferon- γ	ELSP 5025
TNF- α	ELSP 5085
Interleukin-2	ELSP 5055
Interleukin-5	ELSP 5035
Interleukin-10	ELSP 5045



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Antigens for EliSpot

AID will provide commonly used antigens and mitogens for use in EliSpot procedures on request, ready to use and customized to meet your demands.

Validation on the AID EliSpot Products

CE

Since 1998 AID's QM (Quality Management) complies with the German Law on Medical Products (Medizinproduktegesetz). AID products carrying the CE sign can be sold without further validation anywhere in the EU (European Union).

GMP

GMP is as a standard included in the German law on Pharmaceutical products (Arzneimittelgesetz) with which we comply.

DIN EN ISO 9001

Since 1998 our Quality Management system complies with ISO 9001 which was superseded by the DIN EN ISO 13485, year 2000 edition.

DIN EN ISO 60601-1-4

This is the validation for software and hardware for medical products. This internationally accepted norm is largely identical to FDA requirements.

21CFR Part 11

These are the FDA specifications for equipment used in clinical trials. This stresses requirements such as data organisation, audit trail and electronic signatures. We meet these requirements since the 3.0 AID EliSpot Software update.

All audits are carried out by the certifying organization DQS (Deutsche Gesellschaft zur Zertifizierung von Managementsystemen mbH).



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AID- your partner in clinical trials

AID has been the partner of choice for major clinical trials. For this we supply any of our readers set up for traceable results that will pass audit and revision. We also customize setup of the data acquisition according to your company's or institute's guidelines. For example, AID offers a precisely manufactured master plate for use in trials.

Services

Service Contract

Extend your reader's warranty by entering in a service contract. Details on request.

Technical support

We offer on-site, remote and online support for all our products. This includes secure modem access to the customers' system for troubleshooting as well as secure download for all customers through internet.

Training of users

Users are carefully trained to use the equipment. A retraining or training of new users is available on request.

Plate-reading service

AID does not usually offer plate reading services. However, if you send in a limited number of plates we will read and analyse them for you and give you a technical comment. This service is specifically designed for beginners in EliSpot.

Custom Plate Manufacture

AID will manufacture precoated plates according to your requirements, eg. mixed parameter plates or half-plates. AID will also supply you with customized antigen/mitogen solutions for use in EliSpot.