



# EUROIMMUN Analyzer I-2P

Efficient automation for small to medium numbers of samples



- **One for all:** fully automated processing of all EUROIMMUN ELISA – autoimmune diagnostics, infectious serology and allergology – with only one system
- **Flexibility for your benefit:** open system with more than 800 validated EUROIMMUN parameters for serum, plasma and cerebrospinal fluid, over 30 parameters in parallel
- **Convenient, simple and reliable operation:** ready-to-use reagents, custom-made racks and automatic reagent identification without manual data entry enable you to start immediately. QC certificates are simply scanned using the 2D barcode scanner
- **Capacity and throughput:** quick loading and efficient time management allow processing of up to 50 tests per hour – up to 3 plates, 144 samples at the start of a run
- **Security for patients:** validated test systems and the comprehensive safety kit provide the basis for reliable diagnostics
- **Competence and experience:** for more than 25 years EUROIMMUN has been an innovative and reliable partner – over 3000 laboratories worldwide use our successful and well-established technologies
- **Reliability and service:** instruments and reagents from one manufacturer, quick and targeted support from our personnel for a smooth workflow in your laboratory



## Sample and reagent area

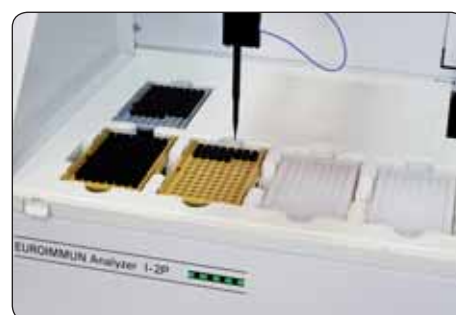
- High convenience, fast and reliable loading through barcode identification of samples and reagents: automatic scanning when racks are inserted, reading of lot-specific QC data via 2D hand barcode scanner
- Open system
- Parallel processing of autoimmune diagnostics, infectious serology (including avidity) and allergology (up to 12 parameters on one microplate and 36 parameters in one run)
- Use of all established primary tubes, early release of samples for further testing
- Individually adjustable rack set-up
- Continual reloading of samples, reagents, microplates, tips
- Ready-for-use reagents
- Economic processing through low dead volumes
- Automatic calculation of required amounts



Rack loading area

## Dilution area

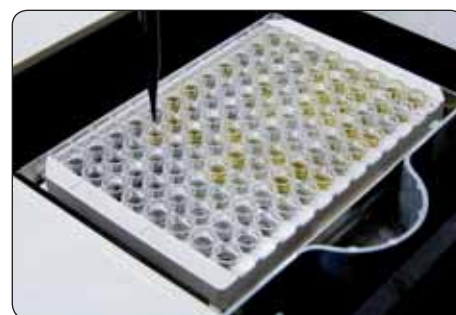
- Up to 192 dilutions (2 dilution plates each with 96 2-ml cavities)
- Efficient use and convenient handling of tips and dilution plates through memory function
- Minimal pipetting volume (5 µl)
- Economic application of samples through broad and flexible one-step dilution spectrum (e.g. for CSF diagnostics)
- Loading capacity allows for 4 sample buffer bottles
- Space for 3 tip racks (tip sizes: 300 µl and 1100 µl)



Dilution area

## Pipetting and working area

- Single pipetting needle with carbon disposable tips, no risk of carryover
- Validated drift elimination
- Exact liquid level detection (capacitive measurement)
- Clot detection
- Multi-shot (dispensing) function
- Automatic tip recognition
- Pipetting possible during plate transport (separated transport and pipetting stations)



Pipetting station

## Incubation

- 2 heatable incubators with shaking option
- 3 incubators at room temperature
- Temperature control and documentation
- Optional climate control unit



Incubators

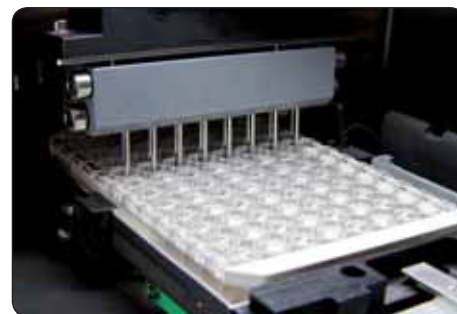


## Photometer and washer

- High-quality photometer with 6 filters (up to 8 filters can be installed); dynamic measurement possible
- Washer well suited for different types of plates
- Allercoat™ 6: no risk of allergen ring displacement due to special allergy mode

## Software

- Standard Windows software: familiar user interface
- Comprehensive safety functions and automatic error detection (e.g. if reagents run out or waste container is full)
- Real-time display of running processes
- Workflow optimisation per mouse click
- All relevant statistical functions provided
- IVD conformance password access; different user levels available
- Bidirectional communication with laboratory software
- Different languages available



Washer



Software

## High safety and reliability

- System and reagents from one manufacturer
- Software works reliably due to own processor: analysis is performed smoothly even in the event of a short IT system breakdown
- Practical rack for storing the caps of reagent bottles
- Automatic check of loaded tips and number of microplate strips during loading

## EUROIMMUN Service

- Programming and system set-up by qualified personnel
- Competent introduction to system with user training and comprehensive literature service
- Reliable and fast delivery of consumables and reagents



Storing rack for reagents' caps



EUROIMMUN Service



## EUROIMMUN ELISA: Optimised for fully automated processing

### Simple handling

- Break-off microplate wells
- Ready-for-use reagents (no mixing or diluting necessary)
- Colour-coded reagents, mostly exchangeable between different lots as well as between different parameters
- Largely standardised incubation conditions
- RF absorbent is included in the sample buffer (IgM tests) – no extra costs
- Incubation protocols of all tests have been integrated into the EUROIMMUN Analyzer I and I-2P – no additional programming necessary
- Pre-preparation of microplates with allergy parameters (Allercoat™ 6 system)



### Comprehensive validation of test systems for the EUROIMMUN Analyzers

- Validation in accordance with the directive 98/79/EG and based on EN ISO 13485:2003
- Detailed validation protocols available for almost all parameters

### Over 800 parameters – all test systems available from one manufacturer

- >70 autoantibody parameters
- >150 infectious serology parameters
- >650 allergy parameters

All test systems are manufactured according to European Quality Standards.

## Automated systems from EUROIMMUN: Less is more using EUROLabOffice

You are looking for easy-to-handle, efficient and comprehensive products for serological diagnostics from one manufacturer? We offer functional automation concepts specifically tailored to the needs of your laboratory. Our laboratory management software EUROLabOffice provides a work platform for all products of the EUROIMMUN family (ELISA/IFT/Blot) and enables a unique consolidation of autoimmune diagnostics, infectious serology and allergy diagnostics. Contact us today! We look forward to hearing from you.



# ELISA test systems available for EUROIMMUN Analyzers



## Autoantibody diagnostics:

- **Dermatoses**
  - Envoplakin
  - Desmoglein 1
  - Desmoglein 3
  - BP180
  - BP230
  - Collagen type VII
- **Diabetes\***
  - Glutamic acid decarboxylase (GAD)
  - Tyrosine phosphatase (IA2)
- **Infertility**
  - Ovary
  - Spermatozoa
  - Zona pellucida
- **Liver diseases**
  - Soluble liver antigen/
  - liver pancreas antigen (SLA/LP)
  - Cytosolic liver antigen
  - type 1 (LC-1)
  - Liver kidney microsomes (LKM-1)
  - Mitochondria (AMA M2-3E)
- **Gastrointestinal diseases**
  - Transglutaminase (endomysium)
  - Gliadin (GAF-3X)
  - Parietal cells (PCA)
  - Intrinsic factor
  - Saccharomyces cerevisiae (ASCA)
- **Rheumatic diseases**
  - ANA Screen
  - ENA Profiles
  - ENA Pool
  - DFS70
  - Double-stranded DNA (dsDNA-NcX)
  - Single-stranded DNA (ssDNA)
  - Nucleosomes
  - Histones
  - Ribosomal P-proteins
  - Sm
  - nRNP/Sm
  - SS-A (Ro)
  - SS-B (La)
  - Cyclic citrullinated peptides (CCP)
  - Rheumatoid factors
  - CEP-1
- **Thyroid diseases**
  - Thyroid peroxidase (TPO)
  - Thyroglobulin (TG)
  - TSH receptor
- **Vasculitides**
  - Proteinase 3/cANCA (PR3-hn-hr)
  - Myeloperoxidase
  - ANCA Profile (PR3, MPO, elastase, cathepsin G, BPI, lactoferrin)
- **Other**
  - Glomerular basement membrane (GBM)
  - Phospholipase A2 receptor
- Centromeres
- Scl-70
- PM-Scl
- Jo-1
- Cardiolipin (AMA M1)
- β2-glycoprotein 1
- Phosphatidylserine

## Infection diagnostics:

- Adenovirus
- Bordetella FHA
- Bordetella pertussis toxin, B. pertussis pertactin
- Borrelia (also CSF test and CXCL13)
- Brucella abortus
- Campylobacter jejuni
- Chikungunya virus
- Chlamydia pneumoniae, C. trachomatis, C. trach./pneum. Pool
- Cytomegalovirus (CMV) (also avidity and CSF test)
- Diphtheria toxoid
- Dengue virus (NS1 antigen)
- Echinococcus
- Enterovirus
- Epstein-Barr virus (EBV-CA, EBNA-1, EBV-EA) (also avidity and CSF test)
- TBE virus (also avidity and CSF test)
- Hantavirus
- Helicobacter pylori
- Hepatitis E virus
- HSV-1, HSV-2, HSV Pool (also CSF test)
- Influenza A, Influenza B, Influenza A/B Pool
- Japanese encephalitis virus
- Legionella pneumophila
- Measles virus (also avidity and CSF test)
- MERS-CoV
- Mumps virus (also CSF test)
- Mycoplasma pneumoniae
- Parainfluenza virus types 1-4
- Parvovirus B19
- Respiratory syncytial virus (RSV)
- Rubella virus (also avidity and CSF test)
- Tetanus toxoid
- Toxoplasma gondii (also avidity and CSF test)
- Treponema pallidum (also CSF test)
- Trypanosoma cruzi
- Usutu virus
- Varicella zoster virus (VZV) (also avidity und CSF test)
- West Nile virus (WNV) (also avidity)
- Yersinia enterocolitica

## Further diagnostics:

- **Allergy (Allercoat™)**
  - Mites/House dust
  - Animal allergens
  - Food
  - Grasses
- **Allergy (ELISA)**
  - Total IgE
- **Alzheimer's disease**
  - Beta-amyloid (1-40)
  - Beta-amyloid (1-42)
  - Total tau
- **Bone metabolism**
  - 25-OH vitamin D
  - Calcitonin
  - Intact PTH
- **Kidney function marker**
  - Uromodulin
- **Stress diagnostics**
  - Cortisol (saliva)
  - slgA (saliva)
  - α-amylase (saliva)
- **Gastroenterology**
  - Calprotectin (stool)
- Insect venoms
- Pharmaceutical drugs
- Tree pollens
- Environmental allergens
- Moulds
- Herbal and flower pollens (Further allergens available on request)
- **Sports medicine/infertility**
  - Testosterone (saliva)

\*Please ask for further information.

# EUROIMMUN Analyzer I-2P specifications

## System

Number of plates	up to 3 microplates
Number of samples	80 standard (144 depending on rack configuration)
Size of sample tubes	external diameter 13-16 mm internal diameter 10.5-15 mm height 30-100 mm
Number of reagents	25 standard (36 depending on rack configuration)
Number of contr./calibr.	75 standard (135 depending on rack configuration)
Number of secondary reagents	16
Dilution area	2 x 96-well 2-ml Nunc plates
Loading/Reloading	continuous loading of microplates, patient sample tubes, reagents and disposable tips
Number of tips	up to 3 tip racks
Volume of tips	300 µl and 1100 µl
Features	consumables management system (memory system): no restocking of tips required, efficient use of all dilution plate cavities; cap rack for the convenient storage of reagent lids

## Photometer

Spectral range	400-700 nm
Dynamic range	0.100 to 3.5 OD (measur. range)
Accuracy	OD +/-0.005 or 2.5 %
Linearity	OD 0-2.000 or +/-1 %
Detection	photodiode
Reading time	< 15s per microplate
Reading modes	optical density (OD)
Filter wavelength	405 nm, 450 nm, 492 nm, 570 nm, 620 nm, 690 nm (2 additional filters can be installed)

## Pipetting unit

Pipettor	liquid pipettor for disposable tips
Liquid level detection	capacitive
Min./max. volume	5-300 µl (300 µl tip) 301-1000 µl (1100 µl tip)
Precision	CV < 7.5% at 50 µl CV < 3% at 100 µl
Features	tip detection, mixing, multi- or single-shot dispensing available

## Barcodes

Samples/reagents/ quality control certificates	identification and allocation with barcodes (optional), autom. scanning when racks are retracted, quality control certificate via 2D hand barcode scanner
Barcode types	all usual barcode types e.g. EAN (8 or 13 digits), Code 128/EAN 128 selectable

## Incubation

Capacity	2 heatable incubators with shaking option up to 20Hz, 3 incubators at room temperature
Temperature range	room temperature up to 50 °C
Accuracy	+/- 2 °C
Uniformity	+/- 1.5 °C
Features	Temperature control

## Washer

Capacity	up to 2 different wash buffers
Wash head	wash comb with 8 dispensing and aspiration needles
Dispensing volume	200-2500 µl/cavity
Precision	+/- 5 % CV at 300 µl
Residual volume	< 2.5 µl in round-bottom wells < 4.0 µl in flat-bottom wells
Fluid level alarms	in case of low wash buffer level or full waste canister
Features	selectable residence times, rinsing volumes, bottom wash mode, allergy mode, overflow mode, different pump speeds + stripwise washing

## Online connection

Interface	ASTM interface
ASCII Import	worklists and sample IDs
Export options	ASCII export/report

## Assay options

Time management	time scheduling for up to 3 microplates for fully automated processing
Assays per microplate	up to 12 assays per microplate (strip tests, break-off microplate wells)
Qualitative results	user-definable result classes available
Quantitative results	linear and quadratic regression, Sigma regression etc.
QC analysis	Mean value, SD, CV, standard error and Levey Jennings

## Other

Operating system	Windows 2000/XP/7 32bit; English
Languages	various languages available
Width x depth x height (including table)	120 cm x 100 cm x 183 cm
Weight including table	approx. 135 kg

## Power supply

Universal AC input	wide range AC 50/60 Hz, ~100-230 V +/-10%
power input	max. 320 Watt (VA)