



CE

**RAN**DOX

# Evidence Investigator

Multiplexing... Proven, Perfected, Evolved

The first biochip analyser for protein and molecular arrays



# Evidence Investigator

*Versatile, efficient and comprehensive testing*

The Evidence Investigator offers complete patient profiling with the most comprehensive test menu on the market. Consolidates immunoassay and molecular diagnostics on a single platform with protein and DNA biochips.

Utilising revolutionary Biochip Array Technology, the Evidence Investigator allows simultaneous detection of multiple analytes from a single sample for efficient and cost effective testing.

The Evidence Investigator is a compact, semi-automated benchtop platform applicable in a wide range of settings including:

- Pharma and drug development: pre-clinical and clinical studies
- Private/Public sector research applications
- Environmental laboratories
- Drug residue testing
- Veterinary laboratories
- Forensic/Drugs of abuse testing
- Clinical laboratories



Ready-to-use,  
nine biochip carrier

*Radox biochips can support up to 22 assays per biochip.*



1  
Addition of assay reagents and sample to the biochips

*Full reagent package provided. (QC) Controls to be ordered separately.*

*Multiple results can be obtained simultaneously from as little as 25µl of sample. Up to 45 samples and nine calibrators can be analysed per run.*



2  
54 biochips placed in thermoshaker

*The thermoshaker provides the optimum heating environment for samples. The heated lid provides faster heat-up times, bi-directional heating, increased temperature range and standardisation of assay incubation conditions.*

## The Evidence Investigator package



Biochip imaging module



PC & imaging software



Barcode scanner



Thermoshaker



Biochip carrier handling tray



3 Washing of biochips

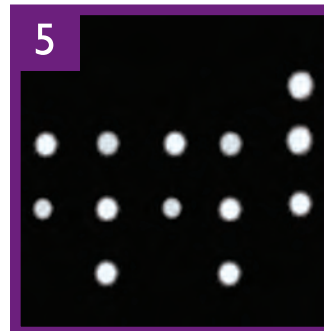
The washing procedure is quick and easy and is performed using a wash bottle.



4 Biochip carrier loaded into Evidence Investigator

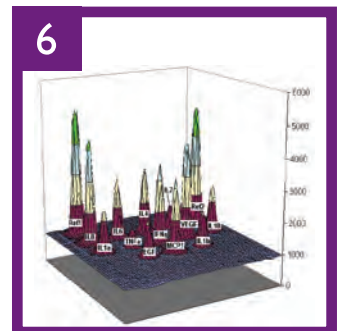
Signal reagent is added to each biochip before imaging.

It only takes 2 minutes for the Charged Coupled Device (CCD) camera to image each biochip carrier.



5 Discrete test sites on each biochip for individual analytes

The light signal generated from each of the discrete test regions on the biochip is simultaneously detected.



6 Image processing

The analyser uses unique image processing software to translate the light signal generated from the chemiluminescent reactions into an analyte concentration.

No manual processing of data required.

# Why Evidence Investigator?

*Industry leading technology for high quality results*

## Save time - save costs

- Multiplex testing allows multiple tests to be carried out from a single patient sample reducing the amount of time and labour spent on individual tests

## Consolidation on one system

- The world's first platform allowing consolidation of immunoassay and molecular diagnostics with protein and DNA based biochips
- Delivering cost savings and improving laboratory efficiency

## World's most diverse test menu

- More tests available than any other sole supplier
- Routine and novel markers available

## Result traceability

- Chain of custody features
- Barcoded calibrators

## Complete patient profiling

- Multiplex testing with Biochip Array Technology allows clinicians and investigators to consider the complete picture allowing for well informed decisions and accurate diagnosis

## Optimum laboratory efficiency

- Multi-analyte controls and calibrators available for accurate and reliable laboratory testing
- Compact benchtop system saves valuable laboratory space



## Reduced sample volume

- Analyse a complete profile of biomarkers from as little as 25µl of sample
- Ideal for paediatric testing
- Saves patient distress

## High throughput

- The Evidence Investigator has the ability to process 702 tests in 70 minutes using the protein arrays
- It can also detect up to 40 mutations, SNPs or pathogens in as many as 54 samples at once, in as little as three hours for molecular applications

## Quality results

- Inter and intra-assay CV's typically less than 10%
- Extensive QC capabilities with multi-analyte controls available
- User defined reference ranges
- Quantitative and qualitative results available

## Multiple matrices available

- Immunoassay arrays: serum, plasma, whole blood, urine, tissue, egg, feed, honey, milk, cell culture supernatant, stool, saliva, bronchoalveolar lavage fluid and forensic matrices

## No hidden costs

- Full analyser package includes biochip imaging module, PC and imaging software, thermoshaker, biochip carrier handling tray and barcode scanner
- Protein arrays: all inclusive kits including reagents, biochips, wash buffer and multi-analyte calibrators

## Ease of operation

- Straightforward testing procedure, reducing operator error
- Ready to use biochips
- Minimal sample handling





# Software

State of the art technology

Current User : gillian Time : 9:24:04 A

Sample Entry

WorkList Array  
Loaded 6 of 6

Carrier Array

Camera Status  
Not Started

Investigator Cycle Status  
Awaiting New Work

Sample Entry

Add New Work List  
Unit Selection  
View Operators

Array Selection  
Sample | Calibration

Adhesion Molecules Array  
Anti-Microbial Array I  
Anti-Microbial Array III  
Cardiac  
Cardiac Array  
Cerebral Array I  
Cerebral Array II  
Cytokine Array  
Cytokine Array IV  
Cytokine Array V  
Cytokine High Sensitivity Array  
Drugs Of Abuse  
Drugs of Abuse I (Oral Fluid)  
Drugs of Abuse I (Urine) SQ  
Drugs of Abuse I (WB) SQ  
Drugs of Abuse II (Urine)

Sample Carrier Data Entry  
Carriers for worklist complete.

Batch Details  Please Enter Batch Details

Carrier Details  Please Enter Carrier Details

Well 1  
Well 2  
Well 3  
Well 4  
Well 5  
Well 6  
Well 7  
Well 8  
Well 9

Accept Carrier

WorkList: 'swTest'

Carrier No	Array Name	Well	Sample Code	Type	D Factor
✓ 1	Drugs Of Abuse	1	1	Sample	1
✓ 1	Drugs Of Abuse	2	2	Sample	1
✓ 1	Drugs Of Abuse	3	3	Sample	1
✓ 1	Drugs Of Abuse	4	4	Sample	1
✓ 1	Drugs Of Abuse	5	5	Sample	1
✓ 1	Drugs Of Abuse	6	6	Sample	1
✓ 1	Drugs Of Abuse	7	7	Sample	1
✓ 1	Drugs Of Abuse	8	8	Sample	1
✓ 1	Drugs Of Abuse	9	9	Sample	1
✓ 2	Drugs Of Abuse	1	1	Sample	1
✓ 2	Drugs Of Abuse	2	2	Sample	1
✓ 2	Drugs Of Abuse	3	3	Sample	1
✓ 2	Drugs Of Abuse	4	4	Sample	1
✓ 2	Drugs Of Abuse	5	5	Sample	1
✓ 2	Drugs Of Abuse	6	6	Sample	1
✓ 2	Drugs Of Abuse	7	7	Sample	1
✓ 2	Drugs Of Abuse	8	8	Sample	1
✓ 2	Drugs Of Abuse	9	9	Sample	1

Carrier Array

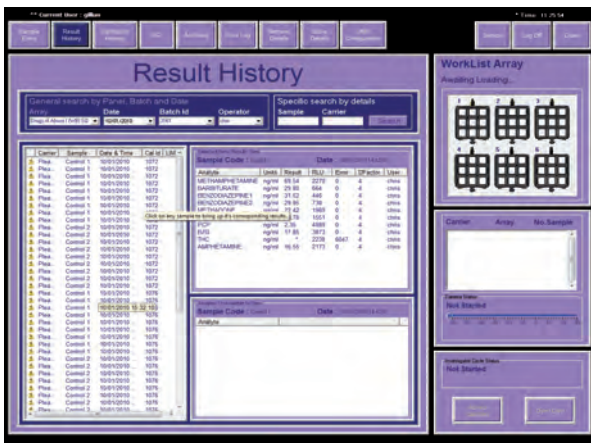
Carrier	Array	No. Sample
✗ 1	Drugs Of Abuse	9
✗ 2	Drugs Of Abuse	9
✗ 3	Drugs Of Abuse	9
✗ 4	Drugs Of Abuse	9
✗ 5	Drugs Of Abuse	9
✗ 6	Drugs Of Abuse	9

Camera Status  
Not Started

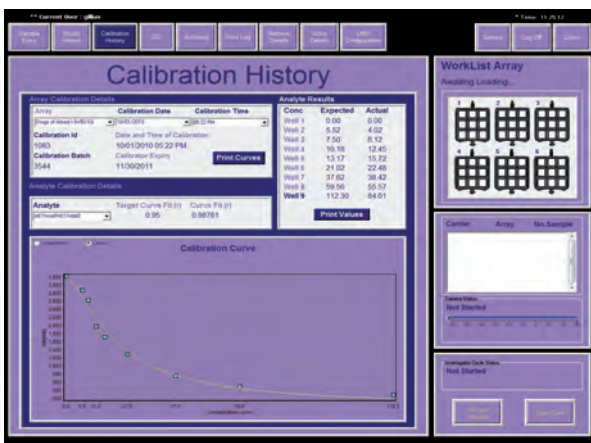
Investigator Cycle Status  
Awaiting New Work

Accept Samples Open Door

Sample Entry screen



Results History screen



Calibration screen

### On-board data analysis

- No manipulation of results required
- Reduces the scope for operator error
- Rapid results improves workflow

### Extensive QC capabilities

- Internal QC software included with Levey-Jennings charts
- multi-point QC rules and auto flagging of outliers

### Connectivity

- LIMS integrated for convenient reporting

### Retrospective testing

- Allows the user to retrieve previously unreported tests
- Reduces reagent wastage
- Saves time and labour costs

### Highly secure

- Password protected for various user levels
- Full traceability of data

### Simplicity

- Minimal training required
- Highly intuitive operating system
- Colour-coded sample addition

### Flexibility

- Multi-format option for results review  
e.g. by array, by users, by date or sample code
- Fully printable reports

### Storage facilities

- Store up to 20,000 sample results
- Store up to 500,000 sample test results

### Service

- Easy troubleshooting process
- Regular system checks to continually assure the operator of optimum system performance

# Molecular Arrays

Radox Molecular Diagnostics (MDx) offers a range of molecular arrays and assay formats, providing diagnostic, prognostic and predictive solutions for a range of conditions including sexually transmitted infection, respiratory infection, coronary heart disease (CHD), familial hypercholesterolemia and colorectal cancer with many more applications currently in development. The versatility of the Radox multiplex PCR and proprietary Biochip Array Technology is exemplified by the broad range of array formats available.

## Molecular Array Protocol Outline



Applications for a wide range of matrices



## Benefits of the Respiratory Pathogen Array

- Simultaneously detect 22 bacterial and viral pathogens
- Comprehensive profile of pathogens identifies primary infection and secondary or multiple infections, which may otherwise remain untreated
- Rapid turnaround time of five hours
- May prevent the spread of infection through early and more appropriate intervention
- May reduce antibiotic misuse
- Reduced sample requirement

## Benefits of the STI Array

- Simultaneously detect up to 10 STIs from a single patient sample
- Save time and cost associated with single infection detection
- Detection of asymptomatic co-infections
- Clear and easy results interpretation
- 54 patient samples can be processed simultaneously, with multiple runs possible in one working day

## Benefits of the *KRAS, BRAF, PIK3CA* Array

- Compatible with a broad range of genomic DNA input and type:
  - Formalin fixed paraffin embedded (FFPE) tissue
  - Fresh/frozen tissue
- Detection of 1% mutant in a background of wildtype genomic DNA
- Single reaction multiplex PCR coupled to a biochip provides greater mutation coverage of the three most important genes (*KRAS, BRAF and PIK3CA*\*) implicated in metastatic colorectal cancer therapy response
- Turnaround time of three hours

\*PIK3CA for research use only

## Benefits of the Familial Hypercholesterolemia Array

- Simultaneous detection of 40 FH-causing mutations across LDLR, ApoB and PCSK9 genes
- Samples can be assessed in small batches (as low as three samples)
- Turnaround time of three hours
- System can be used to detect single base changes, insertions and deletions, within the same multiplex PCR
- Only 20ng of genomic DNA required

## Benefits of the Cardiac Risk Prediction Array

- Randox Cardiac Risk Prediction Array is a rapid simple method for reliable genetic risk assessment of CHD
- Combined with common risk factors, the array allows more accurate classification and preventative actions to be taken
- Identifies patients genetically predisposed to statin-induced myopathy
- Simple and rapid protocol allows a patient sample to be genotyped in one day
- All 19 SNPs can be genotyped simultaneously

# Immunoassay Arrays

## Highly accurate testing

- BAT has a proven high standard of accurate test results with typical CV's <10%
- Multiplex analysis minimises analytical variation between tests

## Better patient diagnosis

- Testing for multiple markers simultaneously increases the amount of patient information rapidly available to the clinician, allowing for more informed patient diagnosis

## Optimum efficiency

- Multi-analyte reagents and quality control material, provides highly efficient testing while eliminating any wastage

## Assay formats

### Protein / Antibody assay formats

#### Competitive immunoassay

In a competitive immunoassay, the more analyte present in a sample, the less labelled conjugate that will bind to the immunoreaction site. Therefore the signal produced will be low. If there is little analyte in the sample, more labelled conjugate will bind to the capture antibody resulting in a higher signal.

#### Sandwich immunoassay

In a sandwich immunoassay, the more analyte present in a sample, the more conjugate will bind to the capture antibody. As a result, the signal will be high. Conversely, lower signal is produced when the concentration of analyte in the sample is low.

#### Antibody Capture

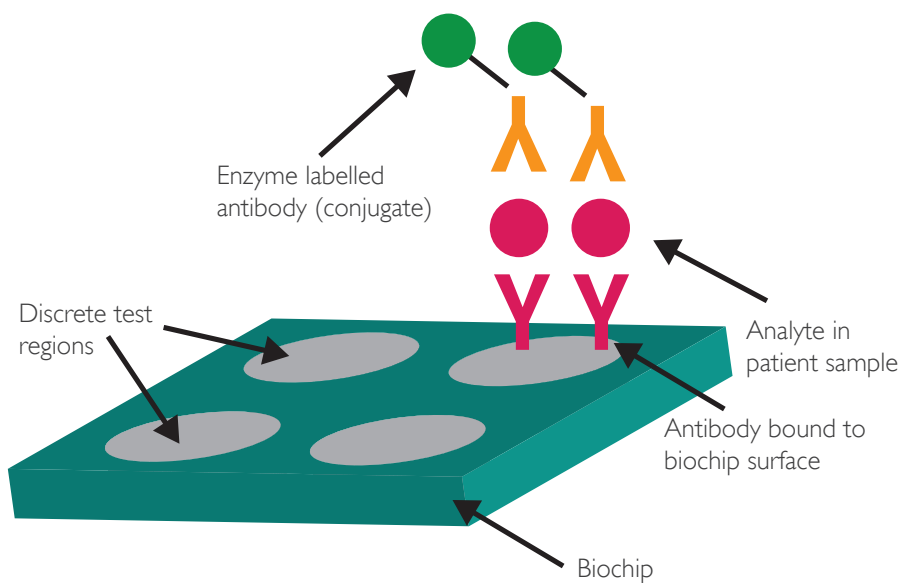
In this methodology antigens are immobilised onto the surface of the biochip and antibodies in the sample are then bound.

## Small sample volume

- Reduced sample volume requirements puts the patient at ease
- Patient profiling saves precious sample if further analysis is required

## Cost consolidation

- Multiplex testing reduces the amount of time spent on individual tests and associated laboratory costs



Sandwich immunoassay

## Multiple sample types

- Multiple sample types can be used on one analyser including serum, plasma, whole blood, urine, oral fluid and alternative matrices
- This allows the clinician to offer flexible patient testing

## Result traceability

- Barcoded controls and patient samples ensure complete traceability of results

## Retrospective reporting

- Retrieve previously unreported results without additional testing, saving time

## Wide and varied test menu

- Randox's vast biochip test menu allows clinicians to detect routine and novel markers for advanced diagnostic analysis

## Extensive Quality Control features

- Internal quality control markers on every biochip ensure optimum assay performance
- Comprehensive Quality Control data is automatically created and displayed on Levey-Jennings charts

# Biochip test menu

The world's largest and most diverse test menu

Applications available for serum and/or plasma

## Clinical Arrays

### Cardiac Array

Creatine Kinase Muscle Brain (CK-MB)  
Heart Type Fatty Acid Binding Protein (H-FABP)  
Myoglobin(Myo)  
Troponin I (cTnI)

### Thyroid Total Array

Thyroid Stimulating Hormone (TSH)  
Total Thyroxine (TT4)  
Total Tri-iodothyronine (TT3)

### Fertility Hormone Array

Estradiol (EST)  
Follicle Stimulating Hormone (FSH)  
Luteinising Hormone (LH)  
Progesterone (PROG)  
Prolactin (PRL)  
Testosterone (TEST)

### Vitamin D Array (on evidence investigator only)

Vitamin D (VITD)

### Thyroid Free Array

Free Thyroxine (FT4)  
Free Tri-iodothyronine (FT3)  
Thyroid Stimulating Hormone (TSH)

### Tumour PSA Array

Carcinoembryonic Antigen (CEA)  
Free Prostate Specific Antigen (fPSA)  
Total Prostate Specific Antigen (tPSA)

## Additional Assays\*

Anti-Tg  
Anti-TPO  
Beta Crosslaps  
Beta-hCG  
CA 125  
CA 15-3  
CA 19-9  
Carbamazepine  
Digitoxin  
Digoxin

Folate  
Gentamicin  
Growth hormone  
Intact PTH  
Methotrexate  
Osteocalcin  
Phenobarbital  
Phenytoin  
Sex Hormone-Binding Globulin (SHBG)  
Thyroglobulin (Tg)

Theophylline  
Tobramycin  
Valproic Acid  
Vancomycin  
Vitamin B12  
CAIII  
GPBB

\* In development

## Research Arrays

### Adhesion Molecules Array

E-Selectin  
L-Selectin  
P-Selectin  
Intercellular Adhesion Molecule-1 (ICAM-1)  
Vascular Cell Adhesion Molecule-1 (VCAM-1)

### Cerebral Array I

Brain-Derived Neurotrophic Factor (BDNF)  
Glial Fibrillary Acidic Protein (GFAP)  
Heart Type Fatty Acid Binding Protein (H-FABP)  
Interleukin-6 (IL-6)

### Cerebral Array II

C-Reactive Protein (CRP)  
D-dimer  
Neuron Specific Enolase (NSE)  
Neutrophil Gelatinase-Associated Lipocalin (NGAL)  
Soluble Tumour Necrosis Factor Receptor I (sTNFR I)

### Cytokine Array I

Epidermal Growth Factor (EGF)  
Interferon- $\gamma$  (IFN- $\gamma$ )  
Interleukin-1 $\alpha$  (IL-1 $\alpha$ )  
Interleukin-1 $\beta$  (IL-1 $\beta$ )  
Interleukin-2 (IL-2)  
Interleukin-4 (IL-4)  
Interleukin-6 (IL-6)  
Interleukin-8 (IL-8)  
Interleukin-10 (IL-10)  
Monocyte Chemoattractant Protein-1 (MCP-1)  
Tumour Necrosis Factor- $\alpha$  (TNF- $\alpha$ )  
Vascular Endothelial Growth Factor (VEGF)  
**(High Sensitivity Array on Evidence Investigator only)**

### Cytokine Array II

Eotaxin  
Insulin like Growth Factor 1, Free (IGF-1 (free))  
Interleukin-1 Receptor Antagonist (IL-1Ra)  
Interleukin-12/ Interleukin 23p40 (IL-12/IL-23p40)  
Interferon- $\gamma$  -Inducible Protein 10 (IP-10)  
Platelet Derived Growth Factor BB (PDGF-BB)  
Regulated on Activation, Normal T Expressed and Secreted (RANTES)

### Cytokine Array III

Granulocyte Macrophage Colony Stimulating Factor (GM-CSF)  
Interleukin-5 (IL-5)  
Interleukin-15 (IL-15)  
Macrophage Inflammatory Protein - 1 $\alpha$  (MIP-1 $\alpha$ )

### Cytokine Array IV

Matrix Metalloproteinase-9 (MMP-9)  
Soluble IL-2 Receptor  $\alpha$  (sIL-2R $\alpha$ )  
Soluble IL-6 Receptor (sIL-6R)  
Soluble Tumour Necrosis Factor Receptor I (sTNFR I)  
Soluble Tumour Necrosis Factor Receptor II (sTNFR II)

### Cytokine Array V (On Evidence Investigator only)

Interleukin-3 (IL-3)  
Interleukin-7 (IL-7)  
Interleukin-13 (IL-13)  
Interleukin-12p70 (IL-12p70)  
Interleukin-23 (IL-23)

### Endocrine Array

Cortisol  
Dehydroepiandrosterone Sulphate (DHEAs)  
Leptin  
17 $\alpha$  Hydroxyprogesterone

### Metabolic Syndrome Array I

Ferritin  
Insulin  
Interleukin-6 (IL-6)  
Leptin  
Plasminogen Activator Inhibitor-1 (PAI-1)  
Resistin  
Tumour Necrosis Factor- $\alpha$  (TNF $\alpha$ )

### Metabolic Syndrome Array II

Adiponectin  
C-Reactive Protein (CRP)  
Cystatin C

Applications available for serum and/or plasma

## Molecular Arrays available on Evidence Investigator only

### Respiratory Multiplex Array

Influenza A  
Influenza B  
Human adenovirus A/B/C/D/E  
Human bocavirus 1/2/3  
Human coronavirus 229E/NL63  
Human coronavirus OC43/HKU1  
Human enterovirus A/B/C  
Human metapneumovirus  
Human parainfluenza virus 1  
Human parainfluenza virus 2  
Human parainfluenza virus 3  
Human parainfluenza virus 4

Human respiratory syncytial virus A  
Human respiratory syncytial virus B  
Human rhinovirus A/B  
Chlamydomphila pneumoniae  
Haemophilus influenza  
Legionella pneumophila  
Moraxella catarrhalis  
Mycoplasma pneumoniae  
Staphylococcus aureus  
Streptococcus pneumoniae

### STI Multiplex Array

Chlamydia trachomatis  
Neisseria gonorrhoea  
Herpes simplex I  
Herpes simplex II  
Treponema pallidum (Syphilis)  
Trichomonas vaginalis  
Mycoplasma hominis  
Mycoplasma genitalium  
Ureaplasma urealyticum  
Haemophilus ducreyi

### K-RAS/BRAF/PIK3CA Array

K-RAS  
BRAF  
PIK3CA

### Cardiac Risk Prediction Array

### Familial Hypercholesterolemia Array

## Toxicology Arrays

### Drugs of Abuse Array I Plus

Amphetamine  
Barbiturates  
Benzodiazepine 1  
Benzodiazepine 2  
Buprenorphine  
Cannabinoids  
Cocaine metabolite (Benzoylcegonine)  
MDMA  
Methadone  
Methamphetamine  
Opiates  
Phencyclidine  
Tricyclic Antidepressants (TCAs)  
Generic

### Drugs of Abuse Array II

Buprenorphine  
Fentanyl  
Generic Opioids  
Ketamine  
LSD  
Methaqualone  
MDMA  
Oxycodone 1  
Oxycodone 2  
Propoxyphene

### Drugs of Abuse Array III

Chloral Hydrate Metabolite  
Ethyl Glucuronide  
Fentanyl  
Flunitrazepam  
Ketamine Metabolite  
Meperidine  
Meprobamate  
Zaleplon  
Zolpidem  
Zopiclone

### Drugs of Abuse Array IV

Acetaminophen  
Dextromethorphan  
Escitalopram  
Ethyl Glucuronide  
Fluoxetine  
Haloperidol  
Ibuprofen  
Methylphenidate  
Salicylate  
Sertraline  
Tramadol  
Trazodone  
Tricyclic Antidepressants (TCAs)  
Generic

### Drugs of Abuse Array V

Bath Salts I (Methcathinone + Mephedrone)  
Bath Salts II (MDPV)  
Benzylpiperazines  
Mescaline  
Phenylpiperazines I  
Phenylpiperazines II  
Salvinorin  
Synthetic Cannabinoids I  
Synthetic Cannabinoids II  
Synthetic Cannabinoids III  
Synthetic Cannabinoids IV

### Drugs of Abuse Array VI

Meprobamate  
Zaleplon  
Zolpidem  
Zopiclone

*Applications available for urine, whole blood, oral fluid and a wide range of forensic matrices. (for urine applications creatinine is included as a dilution marker)*

### Additional Assays\*

DOx Series  
Mitragnine  
NBOMe  
URI44/XLRI I  
2Cx series\*  
Gabapentin\*  
Pregabalin\*

\* In development

## Food Diagnostics Arrays

### Anthelmintics Array

Amino-benzimidazoles  
Avermectins  
Benzimidazoles  
Levamisole  
Moxidectin  
Thiabendazole  
Triclabendazole

### Anti-Microbial Array I Plus

Sulphachlorpyridazine  
Sulphadiazine  
Sulphadimethoxine  
Sulphadoxine  
Sulphamerazine  
Sulphamethazole  
Sulphamethoxazole  
Sulphamethoxyipyridazine  
Sulphamonomethoxine  
Sulphapyridine  
Sulphaquinoxaline  
Sulphathiazole  
Sulphisoxazole  
Trimethoprim

### Anti-Microbial Array II

Ceftiofur  
Quinolones  
Thiamphenicol  
Streptomycin  
Tetracyclines  
Tylosin

### Anti-Microbial Array III

AHD  
AMOZ  
AOZ  
Chloramphenicol  
SEM  
Chloramphenicol Glucuronide

### Anti-Microbial Array III (Chloramphenicol only)

Chloramphenicol  
Chloramphenicol Glucuronide

### Anti-Microbial Array IV

Amikacin/Kanamycin  
Apramycin  
Bacitracin  
Erythromycin  
Lincosamides  
Neomycin/Paromomycin  
Spectinomycin  
Spiramycin/Josamycin  
Streptomycin/Dihydrostreptomycin  
Tobramycin  
Tylosin/Tilmicosin  
Virginiamycin

### Anti-Microbial Array V

Chloramphenicol  
Nitroimidazoles

### Coccidostats Array

Clopidol  
Decoquinat  
Diclazuril  
Halofuginone  
Imidocarb  
Lasalocid  
Maduramicin  
Monensin  
Nicarbazin  
Robenidine  
Salinomycin/Narasin  
Toltrazuril

### Growth Promoter Multiple Matrix Screen Array

$\beta$ -agonists  
Boldenone  
Corticosteroids  
Nandrolone  
Ractopamine  
Stanozolol  
Stilbenes  
Trenbolone  
Zeranol

### Growth Promoter Rapid Urine Screen Array

$\beta$ -agonists  
Boldenone  
Corticosteroids  
Ractopamine  
Stanozolol  
Trenbolone  
Zeranol

### Growth Promoter Multiple Matrix Screen Ractopamine Only Array

Ractopamine

### Synthetic Steroids Array

Ethinylestradiol  
Gestagens  
Methyltestosterone  
17 $\beta$  - Clostebol

### Beta Lactam Antibiotics Array Plus

Beta-Lactams (generic)  
Cephalexin  
Cefuroxime

### Beta-Agonists Array

Zilpaterol Only  
Zilpaterol

*Applications available for feed, honey, milk, urine, tissue, egg, seafood*



# Unrivalled customer service

*Our global network, ensuring local support*

## Local support

At Randox, we realise the importance of local support. Our global team of expert technical and applications staff ensure unbeatable customer service wherever you are in the world.

Time is critical in any laboratory, therefore you are our top priority. Dedicated specialists answer all your queries in a quick and thorough manner. With our field engineers on hand at any time, you can be sure of a fast response anywhere in the world.

## Remote Access diagnostics

Our ground-breaking 'Remote Access' diagnostics allows immediate support of your system wherever, whenever, reducing downtime and ensuring you are operational as soon as possible.

Randox is committed to the smooth running of your laboratory, from the provision of quality products to unequalled customer support. We can access, diagnose and resolve many queries without the time and costs associated with call outs.



email: [technical.services@randox.com](mailto:technical.services@randox.com)



# Evolution of Evidence

*A proven technology has evolved*

**The Evidence Investigator, one system for multiple applications in research, clinical, forensic, drug residue and veterinary testing.**

Biochip Array Technology, itself a revolution in immunoassay technology, has evolved continuously over the years, giving the world accurate, high quality results faster and more efficiently than any previous method. It enables clinicians and investigators to see the full picture with complete test profiles, whilst reducing labour, time and costs. Together,



## **Evidence Investigator**

The Evidence Investigator brought Biochip Array Technology within reach of the smaller laboratory and extended the test menu to include molecular arrays.



## **Evidence**

The original high throughput Evidence analyser still brings unrivalled benefits for batch analysis in the larger laboratory.

the technology and the analysers have evolved to allow application in fields as varied as clinical diagnostics, forensic toxicology, veterinary, drug residues, research and many more. Randox is committed to constant research and development, ensuring that you remain at the cutting edge of laboratory medicine.



### **Evidence Evolution**

The Evidence Evolution is the world's first Random Access biochip testing platform, with advanced STAT testing capabilities.

# Specifications

## Physical Dimensions

Height	750mm, 29.5 in
Depth	480mm, 18.9 in
Width	420mm, 16.5 in
Weight	24Kg, 52.9lbs

## Performance Characteristics

Accreditation	Internally accredited to full CE and UL certification
Analyser description	Semi-automated Biochip Array Analyser
Biochip capacity	Nine biochips on Evidence Investigator, 54 biochips on Thermoshaker
Biochip format	Biochip Carrier holds nine individual biochips
Calibration method	Nine point calibration
Connectivity	LIMS integration
Data back-up methods	Via writable DVD, CD, USB Mass-storage or Network folder
Environment	Operating temperature 16 to 25°C Relative Humidity < 80% Altitude < 2000m Pollution degree 2 (IEC 664)
Fuses	Mains Inlet Fuse (FI) T 2 A H 250V (20mm x 5mm) Motor Control Board (FI) T 1 A L 250V (20mm x 5mm)
Incubation time	Array-specific, 30-60 minutes
Installation requirements	Evidence Investigator must be connected to a single-phase power supply
Measurement principal	Competitive and Sandwich techniques with Chemiluminescent reaction
Network services	Highly Secure Remote Diagnostics, automated software and array updates
Peripherals	Printer, barcode scanner, carrier handling tray and thermoshaker
Quality control	Levey-Jennings, user definable multipoint rules
Reagent volume	Array specific, supplied in kits
Sample loading	Single carrier loading bay
Sample throughput	Array specific
Sample type	Array specific including serum, plasma, whole blood, urine, tissue, feed, honey, milk, egg, cell culture supernatant, stool, oral fluid, bronchoalveolar lavage fluid, forensic matrices
Sample volume	Array specific; 25-150µl



Start up / shut down time	Fully automated procedure; 420 seconds to cool down to operating temperature and 150 seconds warm up
Time to first result	Array specific

## Power Requirements

Input voltage	Supply Voltage 100-120Vac, 60Hz, 22VA 200-240Vac, 50Hz, 30VA Installation category II Camera Power Supply 100-240Vac, 47-63Hz, 1.35A
UPS	Recommended

## Water Requirements

Water quality	CLSI Type II or better
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## Catalogue No. / Ordering details

Evidence Investigator analyser	EV3602
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