



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. Consolidate 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 bench top 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



Randox biochips can support up to 23 assays per biochip.



Addition of assay reagents and sample to the biochips

Full reagent package provided. No hidden costs or extra consumables needed.

Multiple results can be obtained simultaneously from as little as 25µl of sample. Up to 54 samples can be analysed per run.



54 biochips placed in custom thermoshaker

The custom 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



Thermoshaker



Barcode Scanner



Biochip carrier handling tray



Washing of biochips

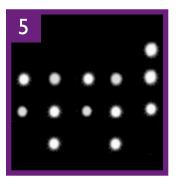
The washing procedure is quick and easy and is performed using a wash bottle.



Biochip carrier loaded into Evidence Investigator

Signal reagent is added to each biochip before imaging.

It only takes 2 minutes for the CCD camera to image each biochip carrier.



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.

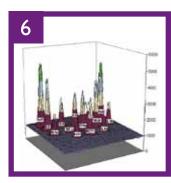


Image processing

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

No manual handling 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
- Creating 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
- Bar-coded reagents and 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 bench top 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 540 tests in 70 minutes

Quality results

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

Multiple matrices available

 Serum, Plasma, Whole Blood, Urine, Meat, Tissue, Feed, Honey, Milk, Cell Culture Supernatant, Stool, Saliva, Bronchoalveolar Lavage Fluid and Forensic Matrices

No hidden costs

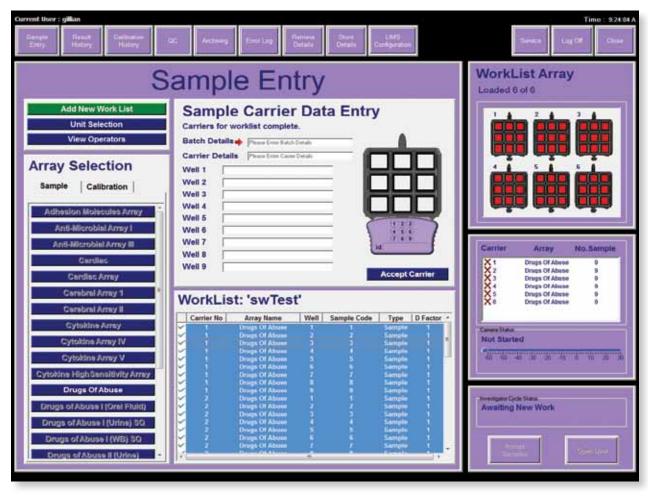
- Full analyser package includes biochip imaging module, PC and imaging software, thermoshaker, biochip carrier handling tray and barcode scanner
- All inclusive kits including reagents, biochips, buffer and multi-analyte calibrators

Ease of operation

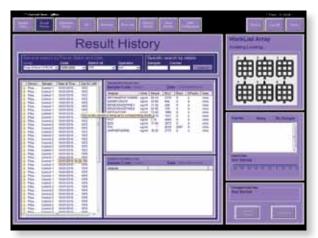
- Straightforward testing procedure, reducing operator error
- Ready to use biochips
- Minimal sample handling

Software

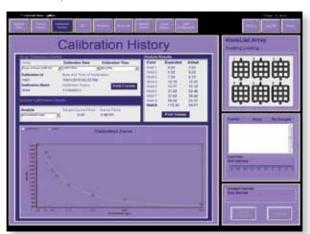
State of the art technology



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
- User defined reference ranges
- 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

Biochip test menu

The world's largest and most diverse test menu

Clinical Arrays

Cardiac Array

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

Cardiac Plus Array

Carbonic Anhydrase III (CA III) Creatine-Kinase Muscle Brain (CK-MB) Glycogen Phosphorylase BB (GP-BB) Heart Type Fatty Acid Binding Protein (H-FABP) Myoglobin(Myo) Troponin I (cTnI)

Endocrine Array

Cortisol
Dehydroepiandrosterone Sulphate (DHEAs)
Leptin

17α Hydroxyprogesterone

Fertility Hormone Array

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

Metabolic Syndrome Array I

C-peptide
Ferritin
Insulin
Interleukin-1α (IL-1α)
Interleukin-6 (IL-6)
Leptin
Plasminogen Activator Inhibitor-1 (PAI-1)
Resistin
Tumour Necrosis Factor-α (TNFα)

Metabolic Syndrome Array II

Adiponectin C-Reactive Protein (CRP) Cystatin C

Thyroid Free Array

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

Thyroid Total Array

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

Tumour Array 3 (Monitoring)

Alpha-Fetoprotein (AFP) Carcinoembryonic Antigen (CEA) Human Chorionic Gonadotropin (hCG)

Tumour PSA Array

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

Applications available for serum and/or plasma

Additional Tests

Anti-Tg Anti-TPO Beta Crosslaps 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 Vitamin D

Research Arrays

Adhesion Molecules Array

E-Selectin L-Selectin P-Selectin

Intercellular Adhesion Molecule-I (ICAM-I) Vascular Cell Adhesion Molecule-I (VCAM-I)

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 (sTNFRI) Thrombomodulin (TM)

Cytokine Array I

& Cytokine Array I High Sensitivity

Epidermal Growth Factor (EGF) Interferon- γ (IFN- γ) Interleukin- $I\alpha$ (IL- $I\alpha$)

 $\begin{array}{l} \text{Interleukin-I}\,\beta\;(\text{IL-I}\,\beta) \\ \text{Interleukin-2}\;(\text{IL-2}) \end{array}$

Interleukin-4 (IL-4)

Interleukin-6 (IL-6)

Interleukin-8 (IL-8)

Interleukin-10 (IL-10)

Monocyte Chemotactic Protein-I (MCP-I) Tumour Necrosis Factor- α (TNF- α)

Vascular Endothelial Growth Factor (VEGF)

Cytokine Array II

Eotaxir

Insulin like Growth Factor I, Free (IGF-I (free) Interleukin-I Receptor Antagonist (IL-IRa) Interleukin-I2p40 subunit (IL-I2p40) Interferon-γ -Inducible Protein I0 (IP-I0) 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 - I α (MIP-I α) Tumour Necrosis Factor β (TNF β)

Cytokine Array IV

Matrix Metalloproteinase-9 (MMP-9) Soluble IL-2 Receptor α (sIL-2R α) Soluble IL-6 Receptor (sIL-6R)

Soluble Tumour Necrosis Factor Receptor I (sTNFRI) Soluble Tumour Necrosis Factor Receptor II (sTNFRII)

Cytokine Array V

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

Applications available for serum and/or plasma

Molecular Arrays

Respiratory Pathogen Array

Chlamydophila pneumoniae Human adenovirus A/B/C/D/E

Human coronavirus 229E/N

Human coronavirus 229E/NL63 Human coronavirus OC43/HKUI Human enterovirus A/B/C

Human metapneumovirus Human parainfluenza virus I 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

Influenza A Influenza B

Legionella pneumophila Mycoplasma pneumoniae STI Array

Chlamydia trachomatis Haemophilus ducreyi Herpes simplex I Herpes simplex II Mycoplasma genitalium Mycoplasma hominis

Neisseria gonorrhoea Treponema pallidum Trichomonas vaginalis Ureaplasma urealyticum K-/BRAF/PIK Array

K-RAS BRAF PIK3CA

Applications for a wide range of matrices

Toxicology Arrays

Drugs of Abuse Array I

Amphetamine
Barbiturates
Benzodiazepine I
Benzodiazepine 2
Cannabinoids

Cocaine metabolite (Benzoylecgonine)

Methadone Methamphetamine Opiates Phencyclidine

Drugs of Abuse Array I Plus

Amphetamine Barbiturates Benzodiazepine I Benzodiazepine 2 Buprenorphine Cannabinoids

Cocaine metabolite (Benzoylecgonine)

MDMA Methadone Methamphetamine Opiates

Opiates
Phencyclidine

Tricyclic Antidepressants (TCAs Generic)

Drugs of Abuse Array II

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

Drugs of Abuse Array III

Chloral Hydrate Metabolite

Ethyl Glucuronide Fentanyl

Ketamine Metabolite Meperidine Meprobamate Zaleplon Zolpidem Zopiclone

7-amino Flunitrazepam

Drugs of Abuse Array IV

Acetaminophen
Dextromethorphan
Escitalopram
Fluoxetine
Haloperidol
Ibuprofen
Methylphenidate
Salicylate
Salicyluric acid
Sertraline
Tramadol
Trazadone

Tricyclic Antidepressants (TCAs Generic)

Drugs of Abuse Array V

Bath Salts Benzylipiperazines Mescaline Phenylpiperazines Salvinorin Synthetic Cannabinoids

Applications for urine-creatinine is included as a dilution marker Applications available for urine, whole blood, oral fluid and a wide range of forensic matrices

Drug Residues Arrays

Anthelmintics Array

Aminobenzimidazoles
Avermectins
Benzimidazoles
Levamisole
Moxidectin
Thiabendazole
Triclabendazole

Anti-Microbial Array I Plus

Sulphachlorpyridazine
Sulphadiazine
Sulphadimethoxine
Sulphadoxine
Sulphamerazine
Sulphamethazine
Sulphamethizole
Sulphamethoxazole
Sulphamethoxypyridazine
Sulphamonomethoxine
Sulphapyridine
Sulphaquinoxaline
Sulphathiazole
Sulphatsioxazole

Anti-Microbial Array II

Ceftiofur

Trimethoprim

Quinolones (generic) Florfenicol/Thiamphenicol Streptomycin/Dihydrostreptomycin

Tetracyclines (generic) Tylosin/Tilmicosin Anti-Microbial Array III

AHD AMOZ AOZ

Chloramphenicol SFM

SEM

Anti-Microbial Array III (Chloramphenicol only)

Chloramphenicol

Anti-Microbial Array IV

Acetylisovaleryltylosin Amikacin Apramycin Bacitracin Clindamycin Colistin

Dihydrostreptomycin Erythromycin Gentamicin Hygromycin Josamycin Kanamycin Lincomycin Neomycin

Roxithromycin Spectinomycin Spiramycin

Oleandomycin

Paromomycin

Pirlimycin

Streptomycin/Dihydrostreptomycin

Tilmicosin

Tylosin A Virginiamycin

Tobramycin

Tulathromycin

Coccidiostats Array

Diclazuril Halofuginone Imidocarb Lasalocid

Maduramicin/Semduramicin Monensin

Nicarbazin Nifursol Robenidine Salinomycin/Narasin Toltrazuril

Growth Promoter Multiple Matrix Screen Array

β-agonists Boldenone Corticosteroids Nandrolone Ractopamine Stanozolol Stilbenes Trenbolone Zeranol Growth Promoter Rapid Urine

Screen Array β-agonists Boldenone

Corticosteroids Ractopamine Stanozolol Trenbolone Zeranol

Synthetic Steroids Array

Ethinylestradiol
Gestagens
Methandriol
Methlytestosterone
17β - Clostebol

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.

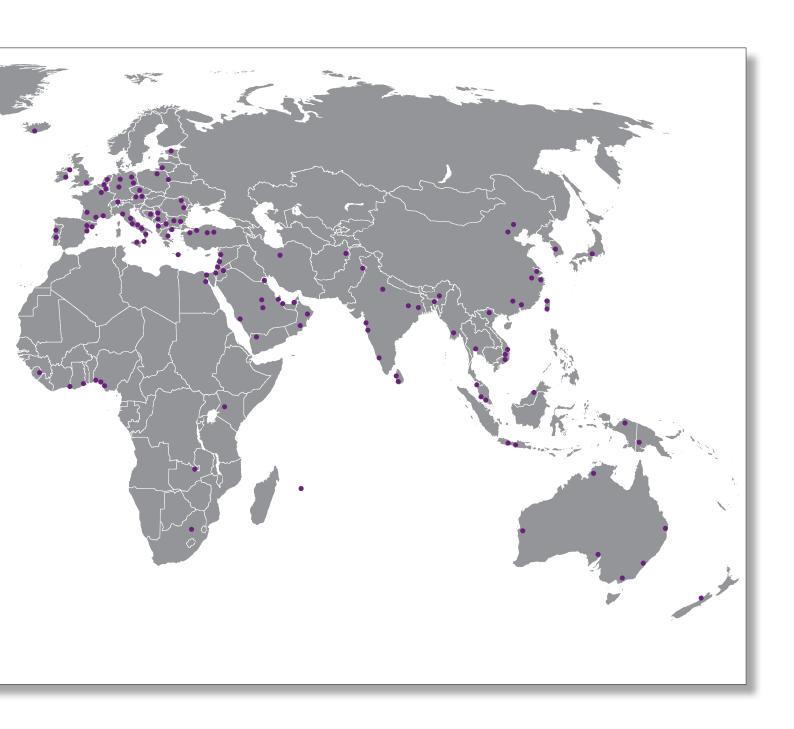
Remote Access diagnostics

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, diagnoze and resolve many queries without the time and costs associated with call outs.







Evolution of Evidence

A proven technology has evolved

The Evidence Investigator, one system for multiple applications in research, clinical, forensic 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



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 MultiStat

The Evidence MultiStat takes Biochip Array Technology out of the laboratory, to the site of patient care.

and costs. Together, 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

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

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 (TBC)
 24Kg, 52.9lbs

Performance Characteristics

Accreditation Internally accredited to full CE and UL certification

Analyser Description Semi-automated Biochip Array Analyser

Biochip Capacity 9 Biochips on Evidence Investigator, 54 Biochips on Thermoshaker

Biochip Format Biochip Carrier holds 9 individual biochips

Calibration method Nine point calibration

ConnectivityLIMS 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 (F1) T 2 A H 250V (20mm x 5mm)

Motor Control Board (FI) T I 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, Sandwich and Antibody Capture techniques with Chemiluminescent reaction

Network Services Highly Secure Remote Diagnostics, automated software and array updates

Peripherals Printer, barcode scanner, carrier handling rack, thermoshaker, PC and imaging software

Quality Control Levey-Jennings, user definable multipoint rules

Reagent volume Array specific, supplied in kits

Sample Capacity 9 samples onboard

Sample Loading Single carrier loading bay

Sample throughput Array specific

Sample type Array specific including Serum, Plasma, Whole Blood, Urine, Meat, Tissue, Feed, Honey, Milk,

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

Catalogue No. / Ordering details

Evidence Investigator analyser EV3602

RANDOX INTERNATIONAL HEADQUARTERS

Randox Laboratories Limited, 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY T +44 (0) 28 9442 2413 F +44 (0) 28 9445 2912 E marketing@randox.com I www.randox.com

Randox have sales and distribution agreements in over 130 countries. Australia, Brazil, China, Czech Republic, France, Germany, Hong Kong, India, Italy, Jamaica, Poland, Portugal, Puerto Rico, Russia, Slovakia, South Africa, South Korea, Spain, Switzerland, USA and Vietnam are directly represented by Randox Companies



Australia

Randox (Australia) Pty Ltd.

Suite 2/4 Charles Street, Paramatta, NSW 2150, Australia. Tel: +61 (0) 2 9615 4640 Fax: +61 (0) 2 9615 4644



Czech Republic

Randox S.R.O.

BHM. Sovadinova 7, 69002 Breclav 2, Czech Republic. Tel/Fax: +420 (0) 519 325 130



Hong Kong

Randox Laboratories Hong Kong

Room 602, Skyline Commercial Centre, No 71-77 Wing Lok Street, Sheung Wan, Hong Kong Tel: +852 3595 0515 Fax: +852 3008 5133



Poland

Randox Laboratories

ul. Wolnosc 7 lok. 15, 01-018, Warszawa. Tel: +48 (0) 22 862 1080 Fax: +48 (0) 22 862 1081



Republic of Ireland

Randox Teoranta

Meenmore, Dungloe, Co Donegal, Republic of Ireland Tel: +353 7495 22600



South Korea

Randox Korea Ltd.

904 Doosan Venturedime 126-1, Pyeongchon, Dongan-gu, Anyang City, Kyeonggi-do, South Korea Tel: +82 (0) 31 478 3121 Fax: +82 (0) 31 478 3122



Randox Laboratories Ltd.

55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912



Randox Brasil Ltda

Rua Fernandes Moreira, 415 CEP: 04716-000 - São Paulo / SP - Brasil. Tel: +55 11 5181-2024 Fax: +55 | 1 5 | 8 | -08 | 7



Laboratoires Randox

Roissy Parc, ZAC du Moulin 24-26 rue du Noyer, 95700 Roissy en France Tel: +33 (0) 130 18 96 80 Fax: +33 (0) 130 18 0360



India

Randox Laboratories India Pvt Ltd.

3rd Floor, Godrej Coliseum, Somaiya Hospital Road, Off. Eastern Express Highway, Sion (East), Mumbai - 400 022, India Tel: +91 22 6714 0600 Fax: +91 22 2408 3803



Portugal

Irlandox Laboratorios Quimica Analitica Ltda

Rua Agostinho de Jesus e Sousa 258, 4000-015 Porto, Portugal. Tel: +351 22 589 8320 Fax: +351 22 589 8329



Slovakia

Randox S.R.O.

Vilová 2, 85 I 01 Bratislava, Slovakia. Tel: +421 2 6381 3324 Fax: +421 2 6381 2482



Spain

Laboratorios Randox S.L.

C/Enric Prat de la Riba, 226, I° Planta, 08901 L'Hospitalet de Llobregat, Barcelona. Tel: +34 93 475 09 64 Fax: +34 93 475 09 65



USA

Randox Laboratories-US, Ltd.

515 Industrial Boulevard, Bardane Industrial Park, Kearneysville, West Virginia, 25430 Tel: +1 304 728 2890 Toll Free: 866 4 RANDOX Fax: +1 304 728 1890 Toll Free: 866 RANDOX 1



China

Randox Laboratories Ltd. Shanghai Representative Office

Room 522-523, Fortune Times Tower, No. 1438 North, Shanxi Road, Putuo District, Shanghai, China 20060 Tel: +86 021 6288 6240 Fax: +86 021 6288 6246



Germany

Randox Laboratories GmbH

Wilhelmstr. 147a, 42489 Wülfrath, Germany. Tel: +49 (0) 2151/93 706-11 Fax: +49 (0) 2151/ 93 706-222



Italy

Randox Laboratories Ltd.

Corso Montevecchio 37, 10129 Torino, Italy. Tel: +39 06 9896 8954 Fax: +39 06 6051 3810



Puerto Rico

Randox de Puerto Rico

PMB 590 PO Box 29029 San Juan, PR 00929-0029. Tel: +1 787 701 7000 Fax: +1 787 701 6901



South Africa

Randox Laboratories (SA) (PTY) Ltd

Unit 69F Allandale Business Park Cnr Le Roux Avenue & Morkels Close Halfway House, Midrand, South Africa Tel: +27 011 461 371



Switzerland

Randox Laboratories Ltd. (Switzerland)

C/O Wirtschafts-Treuhand Auctor Schwyz AG, Oberer Steisteg 18, 6430 Schwyz, Switzerland. Tel: +41 41 810 48 89 Fax: +41 41 810 48 34



Vietnam

Randox Laboratories Ltd. Vietnam

Villa Phuc Thinh 2Bis Nguyen Thi Minh Khai St. Dakao Ward, District I, Ho Chi Minh City, Vietnam. Tel: +84-8-39 II 09 04 Fax: +84-8-39 11 09 05









Randox Laboratories Limited, 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom **T** +44 (0) 28 9442 2413 **F** +44 (0) 28 9445 2912 **E** marketing@randox.com **I** www.randox.com