

# Equinox Medical Value Proposition

---

*Robotics, Nucleic Acid  
Extraction, PCR &  
Sequencing*

# Focused Product Selection Delivering Value to Customers & their Patients **EQUINOX**

Synergistic range with genetic overlay delivering next generation diagnostics

## Pathology Diagnostics

Delivering innovative solutions for expedient detection and diagnosis as requested by our laboratory customers



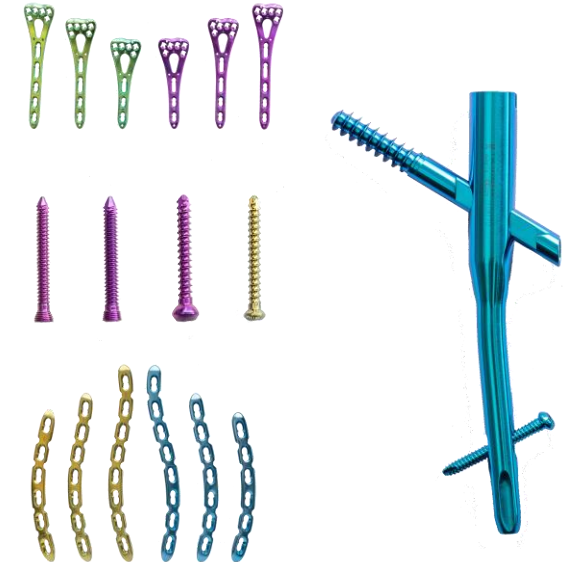
## Medical Consumables

Working with manufacturers to provide reliable, consistent and high-quality consumables



## Prostheses

Providing cutting-edge solutions in trauma and spine surgery through Australian surgeon innovation



# Renowned Clinicians & Experienced Executive Management **EQUINOX**

## Clinical leaders in fertility, pathology and orthopaedics



**PROF. MICHAEL COOPER, OAM**  
Chairman & Board Director

- Internationally-recognised multidisciplinary surgeon in endometriosis, fertility and advanced endoscopic surgery
- 26-years of experience
- Clinical Associate Professor of Sydney University Department of Obstetrics & Gynaecology



**A/PROF. ANDREW LEICESTER**  
Chief Medical Officer

- Renowned Orthopaedic surgeon based in Bowral, with part time duties at Sydney Children's Hospital and Goulburn
- 26-years of experience
- Associate Professor of University of Wollongong



**GERRY ZHAO**  
Board Finance Director

- 20-years' experience in private equity advisory and investment
- Advised numerous global corporate and private equity funds on M&A and capital raisings
- VP Corporate Development at Neuren Pharmaceuticals



**ADAM CROWE**  
Chief Executive Officer

- 35-years' experience in business development & operations
- Specialist in procurement, supply chain and healthcare sales
- Delivered sustainable value to major healthcare companies in categories such as prostheses, pathology & radiology, pharmaceuticals & medical consumables



**DAVID MITCHELL**  
Director, Business Development & Sales

- Over 25-years' experience in marketing and sales management roles in leading pharmaceutical companies
- Profound Experience in Launching Products for Specialist and Hospital Markets, Demonstrating a Comprehensive Understanding of Industry Dynamics



**FRANK FAN**  
Chief Financial Officer

- Statistical analysis and financial forecasting Analysing financial data and performance to explore investment opportunities and evaluate performance
- Developing Financial modelling and forecasting development for long- and short-term commercial plans.



**SAMPURNA GHOSH**  
Director – Pathology Services

- Over 12+ years of experience in Clinical Diagnostics encompassing Molecular Diagnostics, Cytogenetics, Biochemistry, Microbiology, Immunology, Hematology, Serology and Clinical Pathology
- Specialist in Product Management, Marketing, Procurement Development and launch of In-Vitro Diagnostics (IVDs) tests and Medical Devices.



**FAIZAN FAZIL**  
Medical & Operations Manager

- Over 5 years' experience with a strong Biomedical Engineering background
- Expertise in Pathology, Molecular Diagnostics, Clinical Laboratory Science, Hematology, Biotechnology & Bioinformatics
- 4 years' experience in supply chain operations and procurement strategies. Excels in managing complex logistics networks, streamlining processes with Oracle and SAP systems.



A blurred background image showing a person in a light blue shirt sitting at a desk, writing in a notebook with a silver pen. The person is out of focus, and the background is bright and airy, suggesting a modern office or study environment.

01

---

# Executive Summary



# Next Generation Pathology

Robotics, NGS and New Diagnostics

---

Equinox Medical provides a wide panel of **qPCR platforms** and a comprehensive range of specialized reagents for the **clinical, food and water industries**.

This diagnostic capability is advanced by Next-Generation Sequencing (NGS) reagent panels. **Robotic liquid handling** and a broad range of **nucleic acid extraction** systems ensures expedient, accurate and efficient test results.



# Our Partners for Pathology Solutions



Comprehensive offering providing end-to-end solutions with a broad coverage of qPCR

	Liquid Handling	Extraction	PCR	NGS Sequencers	Ancillary Equipment	Preventative Maintenance
Equipment		 			 	  
Reagents			 			



02

---

## Automated Liquid Handling



# Automated Liquid Handler: AlphaTool

High speed 96-well plate robotics with a small footprint (0.36m<sup>2</sup>) and open platform

## Main Features :

- Speed – 22 sec for 96 well plate
- Overall dimensions (L \* W \* H): 620 x 600 x 700 mm.
- Weight: 36 Kg
- Cost-effective
- Pipetting range 1uL – 1,000uL
- Offers range of liquid handling functions:
  - pipetting,
  - dispensing,
  - aliquoting,
  - mixing,
  - gradient dilution, and
  - reagent preparation.



AlphaTool



## Rapid pipetting

The AlphaTool can fill a 96-well plate in as little as 22 seconds. Equipped with both single-channel and 8-channel pipettes, meeting precise pipetting needs ranging from 1 to 1000 µL.



## Flexible configuration

12 plate positions, modular hardware, with a flexible and customizable tabletop.



## User friendly

The visual interface is simple and easy to understand. One-click to complete a variety of complex experimental processes via the customized script editing.



## High compatibility

Compatible with many reagents and consumables on the market and compatible with standard SBS utensils. Standard API interface that supports being integrated as a unit of work.



03

---

# Automated Nucleic Acid Extraction Systems



# Four E's 32 Sample Nucleic Acid Extraction System – EX32

Positively reviewed and used by two peer laboratories in Australia offering contamination risk reduction and broad utility





## MultiEX32

### Four E's Scientific EX32 System Specifications

Sample types	Serum, Plasma, Saliva, and other body fluids
Reaction Volume	50µl-1000µl
Sample Throughput	1-32
Magnetic beads recovery rate	96%
Extraction variation	CV<3%
Heating temperature	Adjustable from room temperature to 125°C/257°F
Reagent type	Magnetic bead-based open-source reagents
Extraction time	20min-40min/run (depending on reagent types and volumes)
Well plate	96 deep well plate
Mixing Intensities	Adjustable : 8 Levels
Max. Stirring Speed	10Hz
Display	10-inch Colour touch screen
Memory	>500 programs
Program management	Add, edit, and delete programs
UV lamp	Yes
Light	Yes
Device size	349× 325× 390(mm)
Device weight	25kg

Sliding pull out plate tray avoids spillage

 [Click to view animation](#)

Distributed by Equinox Medical

# Four E's New 96 Sample Nucleic Acid Extraction System



Flexible 96 well plate with high output yet low footprint



## MultiEX96P



### Four E's EX96P System Specifications

Sample types	Serum, Plasma, Saliva, and other body fluids
Reaction Volume	50µl-1000µl
Sample Throughput	96
Magnetic beads recovery rate	96%
Extraction variation	CV<5%
Heating temperature	Adjustable from room temperature to 125°C/257°F
Reagent type	Magnetic bead-based open-source reagents
Extraction time	20min-40min/run (depending on reagent types and volumes)
Well plate	96 deep well plate (x 6)
Mixing Intensities	Adjustable : 8 Levels
Max. Stirring Speed	10Hz
Display	10-inch colour touch screen
Memory	>500 programs
Program management	Add, edit, and delete programs
UV lamp	Yes
Light	Yes
Device size	349mm x 460mm x 390mm
Device weight	35kgs



# Additional Features EX32/EX96

Capital Pathology regarded Four E's user interface touch screens as intuitive and sensitive

## MultiEX32 Nucleic Acid Extractor



### Key Features:

- 32 samples per run
- 10-inch high-sensitivity touchscreen
- System Check Feature
- Plate drawer
- Audible alarm
- Reliable motor > 1,600,000 tests
- 349x 325x 390mm (wxdxh)

## MultiEX96P Nucleic Acid Extractor



### Key Features:

- 96 samples per run
- 10-inch Intuitive UI & sensitive touchscreen
- Self-diagnostic system checks
- Improved compact design
- Audible alarm
- Rapid heat -up to 100°C in one min
- 349 x 460 x 390mm (wxdxh)

**MultiEX16** Nucleic Acid Extractor is similar in function and capabilities with a sample throughput of 16 samples





# Introducing the VORTEX Large Volume Nucleic Acid Extractor

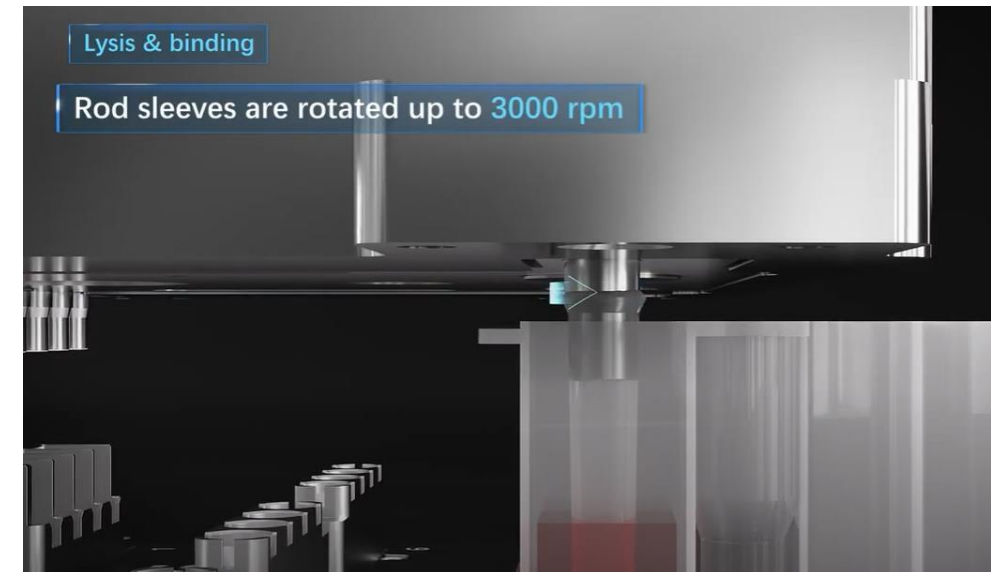
Latest innovation from Four E's Scientific provides vortex mixing for extraction

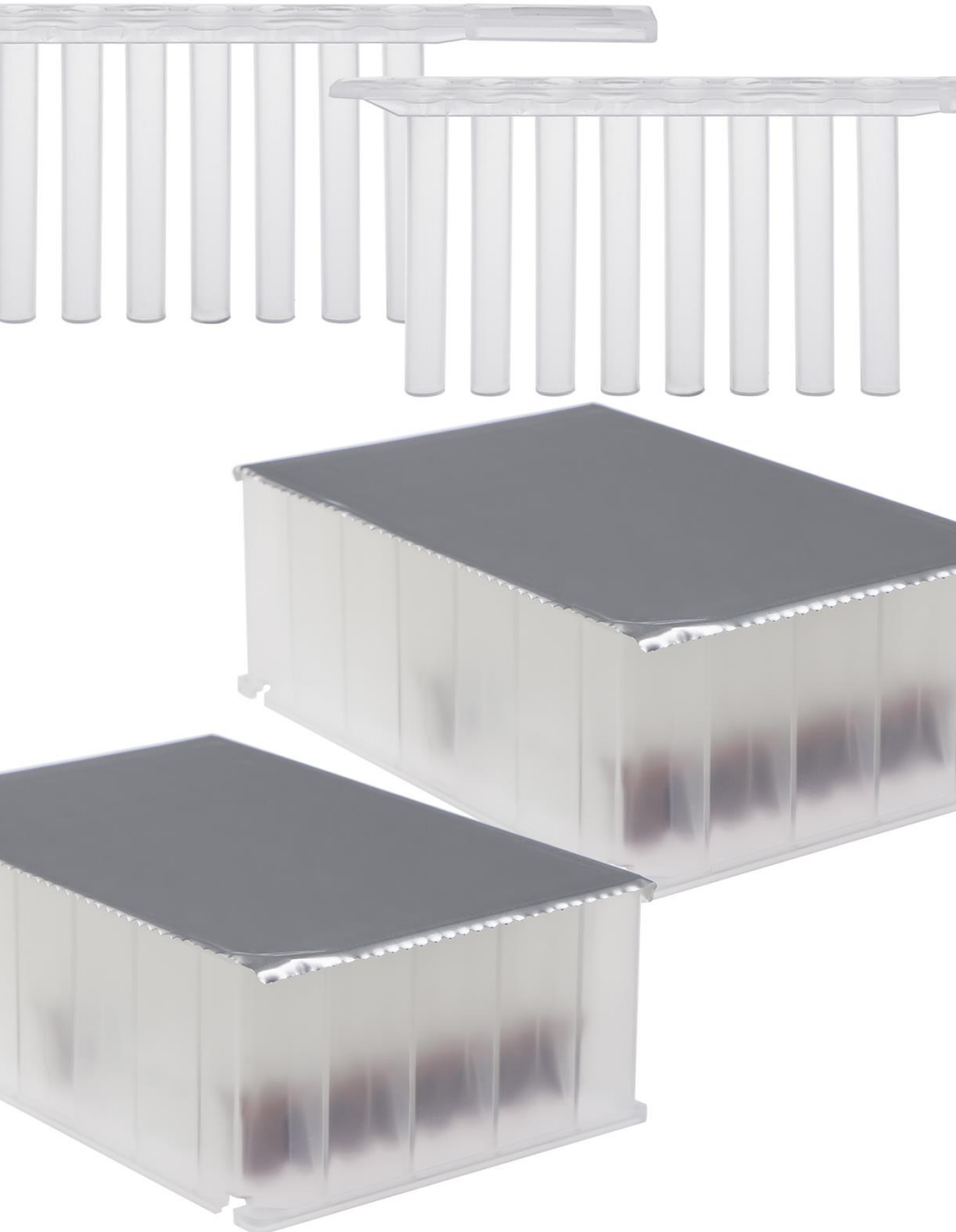


## VORTEX24

### Key Features:

- Powerful oscillation vortex mixing technology
- 1-24 samples in a single run
- Ideal for cfDNA extraction
- Processing volume up to 8mL
- Final elution volumes as low as 50uL
- High suitability also for the food and water industries





04

---

## Pre-filled RNA & DNA Extraction Kits

# Broad Extraction Reagent Offering



Four E’s offer a convenient and cost-effective extraction range

The table below outlines the appropriate kits to be used depending on desired extraction targets :-

Extraction Kit Type	4Es Sample Types	TGA approved	Protocol Run Time	Application Examples
Viral DNA/RNA	Plasma, Serum, Urine, CSF, Amniotic Fluid, Tissue, Nasopharyngeal, Oropharyngeal Swabs, Saliva	✓	10 mins	Viral Respiratory Panels and other Infectious Diseases such as HIV, HPV, HBV, HCV.
Pathogen	Blood, Sputum, Bronchoalveolar Lavage, Cerebrospinal Fluid	✓	46 mins	Atypical Respiratory Panels, STD Panels, MRSA, and HSV.
Genomic DNA (gDNA)	Saliva and Fresh or Frozen Whole Blood in EDTA	✓	39 mins	Haematological Malignancies, Dengue, Malaria and HLA B27.
Tissue DNA (FFPE)	FFPE Biological Specimens	✓	39 mins	Solid Tumour Oncology Testing for Somatic Cancers
Faecal	Fresh or Frozen Stool Samples	✓	26 mins	GI infections and Gut Microbiome analysis

# Faecal & Pathogen Extraction from Four E's

Prefilled faecal and pathogen extraction kits - cost-effective and compatible with our range of extraction systems

## Key Features:

- Throughput maximum : 1-192 sample/day
- Run time of less than 30 mins
- Automation solution for 200µL-10 ml samples;
- High extraction: > 2µg from 200mg samples;
- No toxic solvent: such as no phenol and chloroform, High Stability.
- Prefilled Single Sample or multiple-sample deep Well Plates available



Prefilled 16 sample plates



Prefilled single sample plates

Compatible with **Four E's**  
Nucleic Acid Extractors







05

---

## Real Time Quantitative PCR System & Reagents

# Four E's 6 channel PCR System – Q96



Four E's qPCR system provides 6 fluorescence channels with fast block heating ramp-up rate



## Q96 PCR System



6 Channel system with fast heating ramp up rate of 6°C/s that reduces processing times

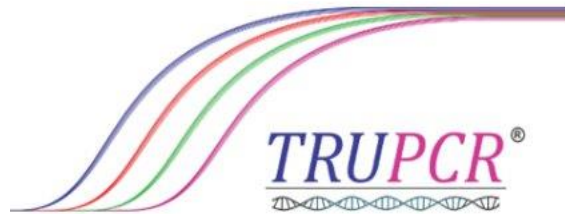
Four E's Q96 qPCR System Specifications		
Throughput	96 Well (12x8)	
Dynamic Range	1-10	
Detection Location	Top Detection	
Excitation light wavelength	400-800nm	
Detection Wavelength	500-800nm	
Fluorescence Channels	Channel 1: FAM/SYBR Green I      Channel 2: JOE/HEX/TET/VIC Channel 3: NED/TAMRA/Cy3      Channel 4: ROX/Texas Red Channel 5: Cy5      Channel 6: Cy5.5	
Excitation light source	Full-spectrum LED	
Detector	Polymerase Modulator on Temperature (PMT)	
Block Temperature Range	4~105°C	
Sample Volume Range	5-100µL	
Max block heating & cooling rate	≥6°C/s	
Heated Lid Temperature Range	30°C-110°C (default 105°C)	
Gradient Temperature Difference	1-40°C	
Fluorescence intensity	CV≤3%	
Display	10.1-inch touch screen	
Scan mode	Full plate scan or specified line scan	
Sample tray control mode	Sample tray automatically moves in/out, enabling integration with automated workstations/plate handlers.	
Software functions	Absolute quantification, Relative quantification, Melting curve, SNP genotyping, HRM, Quick run, etc.	
Operating system	Built in PC Software (Windows 8 or Higher)	
Ports	USB Type-A port × 2, USB Type-B port, RJ45 port	
Power-off protection function	Yes , Data will be restored after power resumes	
Dimensions	320mm (W) × 525mm (D) × 420mm (H)	
Extension ports	2 USB ports, 1 Ethernet port	
Weight	27Kg	



# Expanding Our Range with New Exclusive Partnerships



Indo-Spanish PCR Specialist with global success including Sonic UK validation



ISO 13485:2016 & GMP Compliant manufacturing under the Medical Device QMS through BSI



Licensed by CDSCO, Govt. Of India; equivalent to FDA, for our top-selling parameters in India



Over 120 Parameters are CE-IVD marked

3B BlackBio Dx Limited is a leading PCR-based Molecular Diagnostic Kits company with the following history & attributes :-

- Founded in 2011 as an Indo-Spanish JV
- It is ISO 13485:2016 certified and GMP compliant,
- It has achieved widespread acceptance in over 45 countries spanning the UK, Europe, the Middle East, APAC, PATAM and North America (incl. United States & Canada)



# 3B BlackBio's independent validation from Sonic UK

## BCR-ABL1 dPCR panel validated by Sonic UK



- 3B BlackBio is providing several qPCR kits to Sonic UK such as the
  - o BCR-ABL1 Transcript Screening Kit
  - o Acute Leukaemia Panel
  - o Paediatric Leukaemia Panel
- Recently launched the BCR-ABL1 dPCR kit with extensive validation by Sonic UK

The TRUPCR® dPCR BCR::ABL1 kit (RUO) is intended for the quantitative detection of the BCR::ABL1 Major fusion gene transcript in bone marrow or peripheral blood samples of chronic myeloid leukaemia (CML)



TRUPCR Europe

1,546 followers

9h • Edited • 

+ Follow

We are very excited to introduce our latest innovation - the BCR::ABL1 Major dPCR kit, the first kit in our TRUdPCR range 🚀 ⭐

We're grateful to our partners at [Sonic Healthcare Health Services Laboratories](#) for their support and clinical validation data 🙌

Our ultra sensitive and extensively clinically validated test is compatible with multiple platforms, it is simple and easy to use.

Contact us now to streamline your BCR::ABL testing and sign up for a demo kit.

For more information, visit: [www.trupcr.com](http://www.trupcr.com)

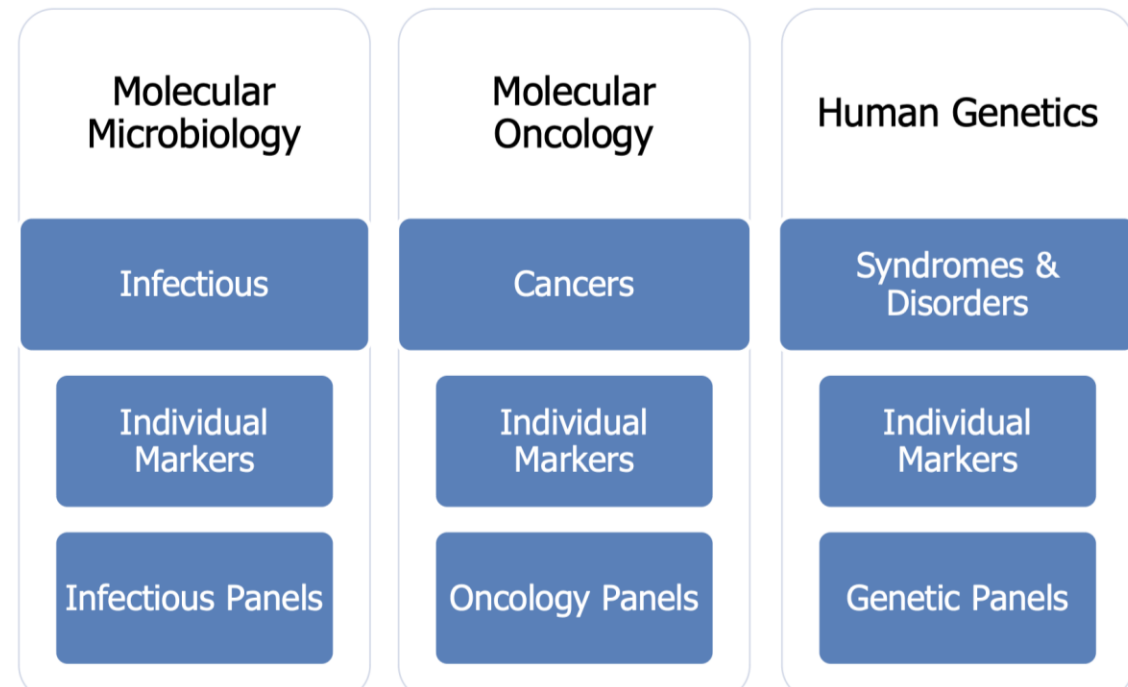


# 3B BlackBio's Broad PCR Kit Range

Over 120 CE-IVD certified kits available

Including :-

- Comprehensive leukaemia panels
- MRSA detection kits
- Coagulation panels
- Solid tumour panels – lung, colorectal, and melanoma
- Respiratory pathogen panels (31 targets) incl. Atypicals



# 3B BlackBio's Broad PCR Kit Range

Over 120 CE-IVD certified kits available

## ONCOLOGY PANELS

### Haemato-Oncology

- Acute Leukemia Panel Kit (18 Markers)
- ALL Panel Kit (8 Markers)
- AML Panel Kit (10 Markers)
- Leukemia Fusion Panel Kit (14 Markers)
- MPN Panel Kit (4 Markers)
- Pediatric Leukemia Panel Kit (18 Markers)

### Solid Tumors

- Colorectal Cancer Mutations Panel Kit (53 Mutations)
- Lung Cancer Mutations Panel Kit (72 Mutations & 29 Fusions)
- Melanoma Mutations Panel Kit (32 Mutations)

## INFECTIOUS DISEASES PANELS

- COVID-19 & Flu Panel Kit (6 Targets)
- Flu Panel with RSV Detection Kit (5 Targets)
- Gastrointestinal Panel I Kit - (4 Targets)
- Influenza Panel Kit (4 Targets)
- Meningitis Panel Kit - Viral & Bacterial (21 Targets)
- Neuro Panel Kit (11 Targets)
- Respiratory Pathogen Panel Kit - Viral & Bacterial (31 Targets)
- Sepsis AMR Panel Kit (RUO) - (18 Targets)
- STD Panel Kit (9 Targets)
- TORCH Panel Kit (5 Targets)
- Transplant Panel Kit (7 Targets)
- Tropical Fever Panel Kit (8 Targets)
- UTI ID Panel Kit (14 Targets)

## ANTIMICROBIAL RESISTANCE PANELS

- AST Panel Kit (14 Targets)
- Carbapenem Resistance Detection Kit
- ESBL & Carbapenem Resistance Detection Kit (RUO)
- ESKAPE ID & AST Panel Kit (RUO) (17 Targets)
- GPP-C ID & Carba-R Panel Kit (RUO) (10 Targets)
- MRSA Detection Kit
- Rifampicin Resistant MTB Detection Kit
- Rifampicin & Isoniazid Resistant MTB Detection Kit
- UTI AST Panel Kit (14 Targets)
- VRE Detection Kit

# The 3B BlackBio Difference

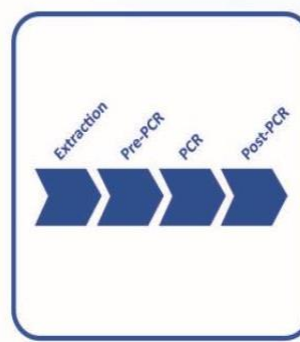
One of the largest range of CE-IVD certified qPCR kits available globally



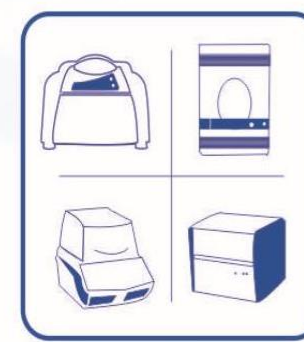
World's largest  
CE-IVD kit range



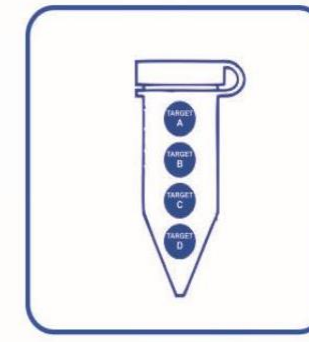
Extensively Validated on a  
Wide Variety of Specimens



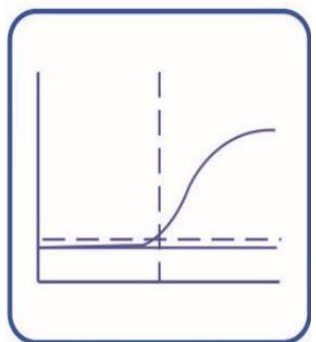
Entire Molecular  
Workflow Solutions



Platform Agnostic



Multiplex Panel And  
Singleplex Assays



Reliable Results with  
Endogenous Internal Control



Complementary  
Software Analysis Tools



Aligned with Certified  
Reference Materials



All-inclusive  
Kits



Rapid Turnaround  
Time


# Lab Developed PCR Assay Support



Specialists in customized products, developed specifically for the needs of individual laboratories


Azora Biosciences develops and manufactures high-performance products in New Zealand. They specialize in customized products, designed specifically for the needs of individual laboratories.






**Prism Probe qPCR Mastermix**

Prism Probe 4X qPCR Mastermix is optimised for inhibition resistance and sensitivity for robust, reproducible PCR workflows



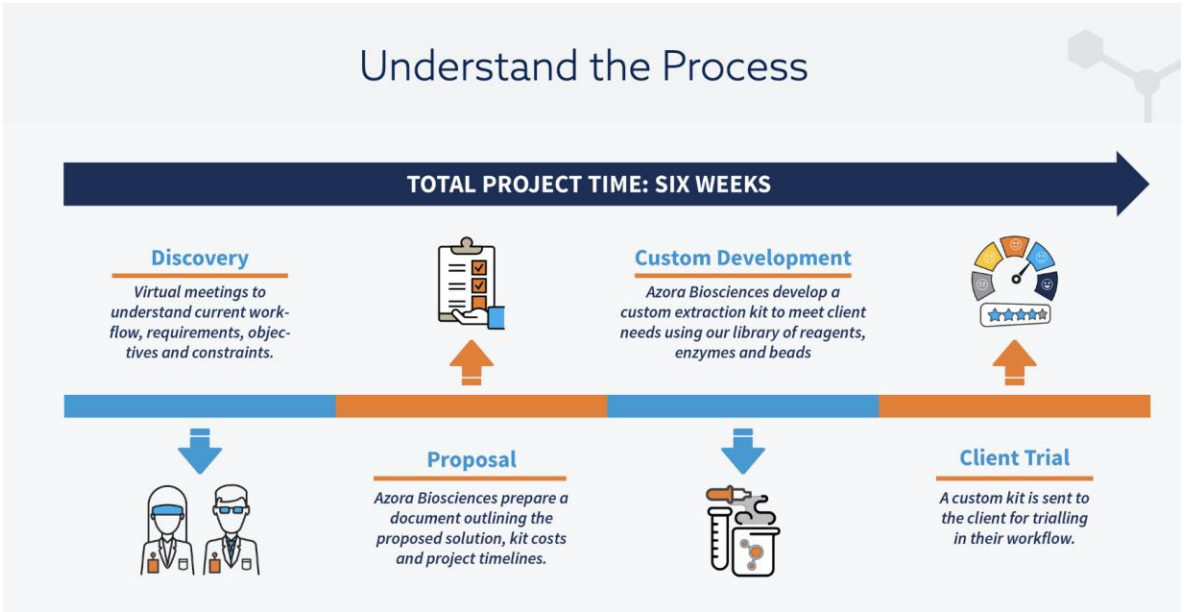
**Prism Green qPCR Mastermix**

Prism Green 4X qPCR Mastermix is optimised for inhibition resistance and sensitivity for robust, reproducible PCR workflows



**Prism Probe 1-Step RT-qPCR Mastermix**

Prism RT-qPCR 4X qPCR One-Step Mastermix is optimised for inhibition resistance and sensitivity for robust, reproducible PCR workflows





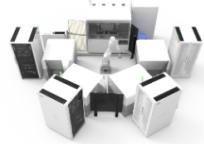





06

---

## NGS Solutions

# MGI Range of Sequencers

MGI provide one of the broadest range of sequencers globally which caters for all genetic requirements

			 Q40 Upcoming	 Q40 Upcoming		 Q40 Upcoming	
	Sequencers +	Sequencers +	Sequencers +	Sequencers +	Sequencers +	Sequencers +	Sequencers +
Product Model	DNBSEQ-T20x2	DNBSEQ-T10x4RS	DNBSEQ-T7	DNBSEQ-G400	DNBSEQ-G50	DNBSEQ-G99	DNBSEQ-E25
Sequencing Quality	Q30>85% (PE150)	Q30>85% (PE150)	Q30>85% (PE150)	Q30>85% (PE150)	Q30>80% (PE150)	Q40>85% Q30>85% (PE150)	Q30>80% (PE150)
Dimensions	4200 mm *4800 mm *2000 mm	7200 mm *5000 mm *1950 mm	1656 mm *903 mm *1815 mm	1086 mm *756 mm *710 mm	654 mm *489 mm *545 mm	607 mm *680 mm *640 mm	348 mm *312 mm *257 mm
Applications	Ultra-high-depth Whole Genome Sequencing	Ultra-high-depth Whole Genome Sequencing	Deep Whole Genome Sequencing	WGS, WES, Transcriptome sequencing, etc.	Small whole genome sequencing, targeted panels, low-pass whole genome sequencing	Targeted oncology panel sequencing, infectious disease sequencing, 16S Metagenomic Sequencing	Rapid Identification of Pathogenic Microorganisms, Small whole genome sequencing, targeted panels
Max. Flow Cell / Run	6	8	4	2	1	2	1
Flow Cell Type	Slide	Slide	FC	FCS & FCL	FCS & FCL	FC	FCL
Lane/Flow Cell++	1 Lane	1 Lane	1 Lane	2 Lanes & 4 Lanes	1 Lane	1 Lane	1 Lane
Operation Mode	Ultra-high throughput	Ultra-high throughput	High Throughput	Medium and High Throughput	Medium Throughput	Low and Medium Throughput	Low throughput
Max. Throughput / Run	~72 Tb	76.8 Tb	7 Tb	1440 Gb	150 Gb	96 Gb	7.5 Gb
Effective Reads / Flow Cell	35 B (PE100)	32 B (PE150)	5800 M	300 M, 550 M, 1500 M~1800 M	100 M, 500 M	80 M	25 M
Average Run Time	60 hrs~80 hrs	96 hrs~106 hrs	16 hrs~24 hrs	FCS: 13 hrs~37 hrs FCL: 14 hrs~109 hrs	9 hrs~40 hrs	5 hrs~30 hrs	5 hrs~20 hrs
Min. Read Length	PE100	PE100	PE100	SE50	SE50	SE100	SE100
Max. Read Length	PE150	PE150	PE150	PE300	PE150	PE300	PE150



07

---

# Ancillary Equipment



# Micro Volume Spectrophotometer

Four E's spectrophotometer provides a full spectral range (190-800nm)

The Micro volume spectrophotometer (UV-Vis) with a built-in 7-inch color touch screen can perform all detection functions without connecting to a computer.

The device has a full spectral range (190-800nm) for accurate quantitative analysis of DNA, RNA, proteins, etc. It comes with an intuitive user interface for easy operation.



## SPECIFICATIONS

Model	SPT-NanoF (built-in Fluorescence Detection)	SPT-Nano
Wavelength range	190-800nm	
Minimum sample size	0.5 ~ 2μL	
Path length	0.05mm (high concentration) / 0.2mm (high concentration) 1mm (normal concentration)	
Light source	Xenon flash lamp	
Detector type	2048px, CMOS	
Wavelength accuracy	1nm	
Spectral resolution	≤3nm	
Absorbance precision	0.003Abs	
Absorbance accuracy	1% (4.096A at 260nm)	
Absorbance Range	0.04 ~ 300A	
Lower Limit of Detection	2 ng/uL(dsDNA) / 0.06 mg/mL(BSA)	
Maximum Concentration	15,000 ng/uL(dsDNA) / 440 mg/mL(BSA)	
Sample pedestal material	Aluminum alloy and Quartz fiber	
Power supply	AC100V-240V, 50Hz/60Hz (power adapter)	
Operating power	48W	
Standby power	8W	
Software	Android	
Data Output	USB 2.0, built-in printer	





# Other Products from Four E's.

Four E's provides cost effective pipetting and gradient PCR systems



## 8-channel pipette

is designed for effortless pipetting due to light weight, light plunger forces and lowest tip ejection forces. The ergonomic design enables longer work periods without fatigue and minimizes the risk of repetitive strain injuries. Four-digit volume display provides accurate volumes setting, and easy visibility. Autoclavable lower section (at 121°C) provides effective decontamination.



## Electronic pipette

is ideal for repetitive liquid handling in laboratories, where the accuracy of results, speed and ergonomics are critical. The fully electronic control eliminates manual pipetting errors, and the lightweight, ergonomic design gives total convenience. It also comes with an easy-to-remove external Lithium-ion battery.



## Optima 96 Gradient PCR

Gradient PCRs are essential laboratory equipment for researchers who run polymerase chain reaction (PCR) for sequencing, cloning, genotyping, mutagenesis, and many other applications. It features precise PCR annealing temperature gradients to easily optimize PCR assays in a single run.







08

---

## Service and Customized Solutions

# Predictive Preventative Maintenance & National Service Partner



Mediquip & MGI provide national coverage and AirLabOne provides the world's first cloud-based lab through its digital twin

Equinox provides predictive preventative maintenance as well as national coverage through its two service partners :-

## Mediquip Services:



- Field service engineers within two hours drive of 90 percent of Australia's population
- 40 year history in Australia
- Offices in Sydney, Melbourne, Brisbane, Perth and Adelaide
- Warehouses across Australia, and
- National system servicing contract with BioRad

## MGI Services:

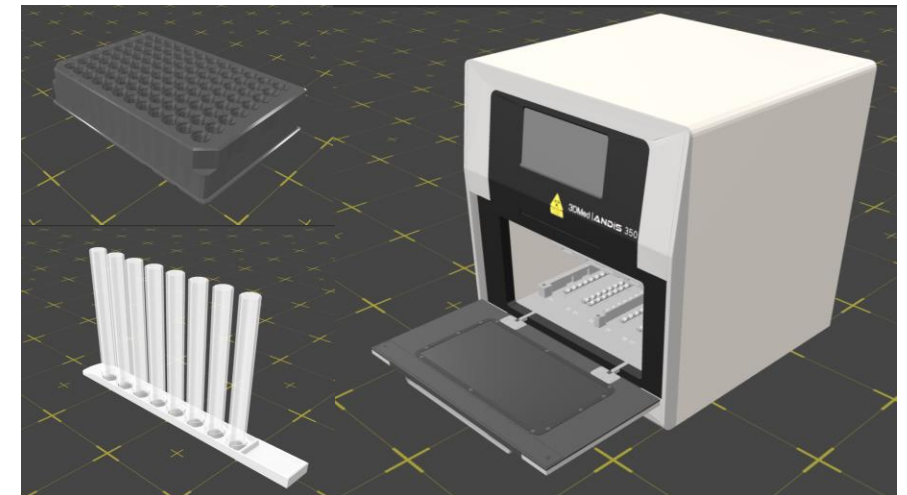


- MGI provide technicians to support their systems and sequencers

## Air Lab One Services:



- A digital twin is made of each system which through sensors enable predictive preventative maintenance notification
- twin computing system designed to address the specific maintenance demands of high-speed laboratories



Equinox Medical is committed to excellence, serving as your end-to-end partner for laboratory requirements through the following services :-

## Consulting Services:

- Listening to laboratories requirements and advising on fit-for-purpose instruments and reagent purchases
- Ensuring longevity of systems through collectively agreeing on forecast client demand growth

## Customisation:

- Tailoring system & reagent panels and protocols for:
  - Nucleic Acid Extraction
  - qPCR Mixes
  - NGS Kits

## Resourceful Distributor:

- Partnering with multiple manufacturers globally to offer sustainable solutions





# Thank you

## **Contact Information**

**Phone Number:** 0404 556 848

**Email:** [sampurna@equinoxmedical.com.au](mailto:sampurna@equinoxmedical.com.au)

**Address:** Sydney Knowledge Hub, Level 2,  
Merewether Bldg H04, University of Sydney  
NSW 2006