

RANDOX

BIO SCIENCES

Biochip Array Technology

Biochip Array Technology (BAT) is a precision multiplex testing platform allowing for the simultaneous quantitative or qualitative detection of a wide range of analytes from a single sample. Offering a unique Immunoassay platform where up to 45 analytes can be tested, resulting in a qualitative or quantitative report. As well as our 'off-the-shelf' prefabricated chips, we also offer a custom service with a test menu of over 300 analytes to choose from that can be spotted on the chemically activated ceramic biochip, which acts as a solid phase reaction vessel.



The Evidence Investigator Powered by Biochip Array Technology

The Evidence Investigator is a compact, semi-automated benchtop analyser that offers efficient and comprehensive testing across a range of applications including clinical diagnostics, molecular testing, research, toxicology and food analysis. Renowned for its versatility, robustness and effective reporting methods, the Evidence Investigator has been used in a wide range of laboratory settings for over 15 years.



Early Detection of Drug Toxicity

Detection of drug toxicity is critical in early stage clinical trials and is imperative to reduce the impact of late-stage failures of drug candidates as well as ensuring patient safety. 95% of drugs that enter clinical trials do not make it to the market¹. Earlier detection of drug toxicity will reduce the amount of time, effort and resources spent on failed drug candidates.



Drug Induced Kidney Injury

Drug Induced Kidney Injury (DIKI) can be characterised by the rapid loss of the kidneys excretory function within a few hours or days. The DIKI array, can be utilised for safety endpoint monitoring for drug-related renal toxicity during Phase I clinical trials along with monitoring the rate of CKD progression for renal CDx therapeutics.

DIKI Biomarkers
Kidney injury molecule-1 (KIM-1)
Neutrophil gelatinase-associated lipocalin (NGAL)
Cystatin C
Clusterin

The Urine biomarkers included on our Drug Induced Kidney Injury Panel are based on recommendations outlined by the Predictive Testing Safety Consortium (PTSC). The mission of the PTSC is to identify new and improved safety methods and submit them for normal regulatory qualification by the FDA, EMA and PMDA.

1. Hartung, T. (2013). Food for Thought Look Back in Anger – What Clinical Studies Tell Us About Preclinical Work. *ALTEX*, 30(3), 275–291.



Chronic Kidney Disease

Chronic Kidney Disease (CKD) is the abnormal kidney function present for 3 months or longer. Randox Biosciences CKD Arrays simultaneously and quantitatively detect multiple serum biomarkers of kidney damage-related analytes from a single sample.

CKD Biomarkers	
CKD I	CKD II
Fatty Acid Binding Protein-1 – FABP1	Complement C3a des Arginine – C3a des Arg
Soluble Tumour Necrosis Factor Receptor I – sTNFR I	C-Reactive Protein – CRP
Soluble Tumour Necrosis Factor Receptor II – sTNFR II	Neutrophil Gelatinase-Associated Lipocalin – NGAL
Macrophage Inflammatory Protein 1 α – MIP-1 α	Cystatin C
Interleukin-8 – IL-8	
Epidermal Growth Factor – EGF	
D-Dimer	