

RANDOX

THIRD PARTY CONTROLS



ACUSERA

RANDOX

QUALITY CONTROL

ACUSERA

TRUE THIRD PARTY CONTROLS
OFFERING COMPLETE TEST MENU CONSOLIDATION



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BENEFITS

For over 40 years Randox has been shaping the future of clinical diagnostics with our pioneering high quality, cost effective laboratory solutions. With approximately 70% of clinical decisions based on laboratory test results, it is essential that the results provided are accurate and reliable in order to prevent potential misdiagnosis or inappropriate treatment.

Quality Control is our passion; we believe in producing high quality material that can help streamline procedures, whilst saving time and money for laboratories of all sizes and budgets. With an extensive product offering comprising third party quality controls & calibrators, interlaboratory data management, external quality assessment, calibration verification and molecular IQC and EQA for infectious disease testing, you can count on Randox to deliver trustworthy results time and time again. Just ask one of our 60,000 users worldwide.



Commutability

All Acusera controls are designed to react to the test system in the same manner as the patient sample, helping to meet ISO 15189:2012 requirements whilst reducing inconvenient and costly shifts in QC results when reagent batch is changed.



Accurate Target Values

Our unique value assignment process utilises thousands of independent labs globally, ensuring availability of highly accurate, robust target values for a wide range of instruments and methods, ultimately eliminating the need to spend time and money assigning in-house.



True Third Party Controls

Manufactured independently, the Acusera range delivers unbiased performance assessment with any instrument or method, helping to meet ISO 15189:2012 requirements whilst simultaneously eliminating the need for multiple instrument dedicated controls.



Shelf Life

With a shelf life of up to four years for lyophilised controls and two years for liquid controls, you can benefit from continuity of lot supply whilst reducing the frequency of new lot validation studies, thus saving time and money.



Consistency

Our superior manufacturing processes ensure stability claims and analyte levels won't differ significantly from lot-to-lot. You can therefore be sure of receiving the same standard of product time and time again.



Traceability

The values assigned to both our calibrators and control materials are traceable to a recognised reference material or reference measurement procedure meeting ISO 17511 and ISO 18153 requirements.



Consolidation

Specialising in consolidation, the Acusera range of multi-analyte controls is designed to reduce the number of individual controls required to cover your test menu, ultimately reducing costs, preparation time and storage space.



Clinically Relevant Levels

The presence of analytes at key decision levels not only helps to ensure accurate instrument performance but maximises laboratory efficiency by eliminating the need for additional low/high level controls at extra expense.



Reduced Waste

The unrivalled working stability of the Acusera control range helps to keep waste and costs to a minimum.



Flexible Options

With an extensive range of assayed/unassayed, liquid/lyophilised and single/multi-analyte controls, the Acusera portfolio has a solution to suit all laboratory preferences.



Custom Controls

Randox is a market leader in the manufacture of customised quality controls designed to meet the individual and unique requirements of even the most specialised laboratories.

For more information about Randox and for our full range of products,
please visit randoxqc.com, or contact your local Randox representative.

ISO REQUIREMENTS

Acusera; helping you to meet ISO 15189:2012 requirements.

Third Party Controls

“Use of independent third party control materials should be considered, either instead of, or in addition to, any control materials supplied by the reagent or instrument manufacturer”

As true third party controls, the Acusera range has been designed to provide an unbiased, independent assessment of performance. Our Acusera controls have not been manufactured in line with, or optimised for use with any particular reagent, method or instrument.

Commutability

“The laboratory shall use quality control materials that react to the examining system in a manner as close as possible to patient samples”

All Acusera controls are 100% commutable, ensuring they behave in the same manner as a patient sample thus providing an accurate reflection of test system performance.

Clinically Relevant Levels

“The laboratory should choose concentrations of control materials wherever possible, especially at or near clinical decision values, which ensure the validity of decisions made”.

The inclusion of analytes at clinical decision levels will not only eliminate the need to purchase additional low/high level controls but will help to ensure accurate instrument performance.

Data Management

“The laboratory shall have a procedure to prevent the release of patient results in the event of quality control failure. When the quality control rules are violated and indicate that examination results are likely to contain clinically significant errors, the results shall be rejected.... Quality Control data shall be reviewed at regular intervals to detect trends in examination performance”.

Acusera 24•7 provides instant access to an unrivalled range of features including QC multi-rules, interactive charts, live peer group data, automatic calculation of Measurement Uncertainty & Sigma Metrics & our unique dashboard interface, all designed to speed up the review process and provide at-a-glance performance assessment.

EQA

“The laboratory shall participate in interlaboratory comparisons such as those organised by external quality assessment or proficiency testing schemes”.

The Randox International Quality Assessment Scheme (RIQAS), is used by more than 55,000 laboratory participants in 134 countries and accredited to ISO 17043. As a result, we have RIQAS users on every continent who are registered for one or more of our 37 flexible EQA programmes, utilising the available data to ensure the quality and reliability of their results.

Consolidate and Save with Randox Acusera.

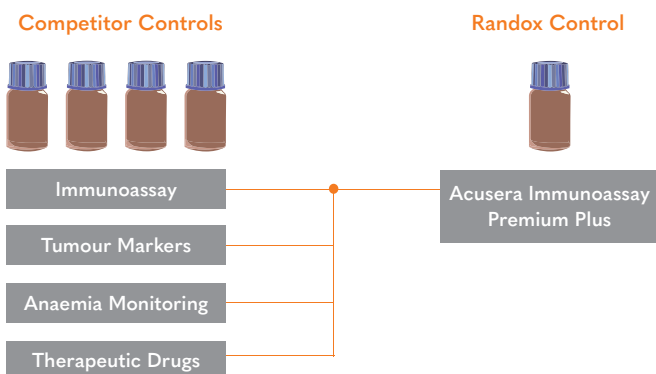
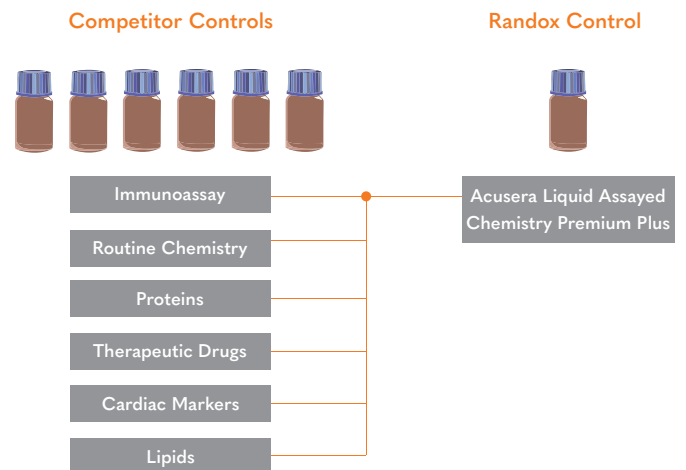
Randox is a leading provider of multi-analyte, true third party controls covering more than 400 parameters. The unique combination of analytes facilitates effective consolidation, helping your laboratory to reduce costs without compromising on performance or quality. Unlike some competitor products, our Acusera Controls are manufactured with analytes present at clinically relevant decision levels, eliminating the need to purchase additional high or low level controls, at extra expense.

How can consolidating with Randox Acusera benefit you?

With Randox Acusera you could consolidate up to 6 competitor controls into one Acusera control, reducing the amount of storage space required for your QC material, as well as saving valuable time and money for your laboratory. The following examples have been selected to highlight areas where Acusera can help you effectively consolidate your control purchases.

Liquid Assayed Chemistry Premium Plus Control

Uniquely combining up to 99 analytes including; routine chemistry, immunoassays, lipids, therapeutic drugs, proteins and cardiac markers in a single vial, you can experience effective consolidation and significant cost savings. The presence of CRP and other proteins at elevated levels will not only help to ensure accurate instrument performance at key decision levels but further reduce the number of individual controls required. - turn to page 22 for more information



Immunoassay Premium Plus Control

Impressively covering 54 analytes including tumour markers, therapeutic drugs and routine immunoassay tests, the Acusera Immunoassay Premium Plus control has been uniquely designed to eliminate the need for four or more controls, dramatically reducing costs and time. The added advantage of ultra-low levels of Ferritin, Vitamin B₁₂ and TSH will help to ensure accurate performance at key decision levels and further reduce the number of controls required. - turn to page 39 for more information

COMMITMENT TO QUALITY

Randox is committed to quality at every stage of the production process from research and development to customer support. This commitment has been recognised through official accreditation to both national and international standards including UKAS and ISO.

Accreditation to international standards ensures confidence in the quality and consistency of the products and services provided by Randox, and demonstrates compliance to internationally agreed standards.



UKAS

The United Kingdom Accreditation Service (UKAS) is the only national accreditation body recognised by the government to assess against internationally agreed standards.

RIQAS systems and procedures have been accredited with UKAS approval to **ISO/IEC 17043:2010** "Conformity assessment - General requirements for proficiency testing".



ISO13485:2016

The International Organisation for Standardisation (ISO) is the largest developer and publisher of international standards in the world. In 2016, Randox was accredited with **ISO13485:2016** approval.

ISO13485:2016 relates to the design/development, manufacture, service and distribution of in vitro diagnostic medical devices, in vitro diagnostic test kits, in vitro diagnostic reagents and in vitro diagnostic analysers.

ISO13485:2016 highlights the requirements for a quality management system where an organisation needs to prove its ability to provide medical devices and other related services that consistently meet regulatory requirements.

FDA Cleared

Many of our quality controls and calibrators are FDA cleared and therefore appropriate for clinical use in the USA. In order for an IVD to be approved for sale in the USA it must not only be safe for use and effective but it must also satisfy the requirements set out in **part 820 title 21** of the Code of Federal Regulations published by the FDA.



CE Mark

Many of our Quality Control (QC) products are CE certified and carry the CE mark. CE marking on a product indicates that the product complies with and has satisfied the essential requirements set out by the **In Vitro Diagnostic (IVD) Medical Devices Directive 98/79/EC**. It also demonstrates the fact the product is fit for its intended purpose.

The CE mark is also a declaration from the manufacturer that the product has met all legislation in relation to health and safety and where required, has been assessed in accordance with this legislation.

CE marking is essential for products to be placed on the market and sold in the European Union (EU). It also ensures the free movement of products within the EFTA and EU.

Canadian
Medical Device
Regulations
from Health
Canada

Many Randox products, including our quality controls and calibrators, are **licensed for use in Canada**. Before an IVD device can be sold in Canada, it must meet the requirements set out in the Therapeutic Products Directorate. Health Canada reviews all medical devices to assess their safety, effectiveness and quality before they are authorised for sale.

ANTIOXIDANT CONTROLS

Free radicals are highly reactive molecules that seek stability by gaining other electrons. In their attempt to do this they often attack nearby molecules, resulting in cellular or systemic damage. Antioxidants act by preventing or slowing the damage caused by these free radicals. A reduction in total antioxidant status has been identified in several disease states, such as cancer and heart disease. Our Acusera Antioxidant Quality Controls are lyophilised for enhanced stability and cover a range of antioxidants ideal for both clinical and research use.

ANTIOXIDANTS

Antioxidant Product Range

Product Description	Size	Cat. No.	Page No.
Glutathione Peroxidase (Ransel) Control	10 x 1 ml	SC692	08
Glutathione Peroxidase (Ransel) Calibrator	10 x 1 ml	SC10154	08
Glutathione Reductase Control	10 x 5 ml	GR2608	08
Glutathione Reductase Calibrator	10 x 5 ml	GR2609	08
Superoxide Dismutase (Ransod) Control	10 x 1 ml	SD126	08
Total Antioxidant Status (TAS) Control	10 x 5 ml	NX2331	08



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

Glutathione Peroxidase (Ransel) Control and Calibrator

A bovine based, whole blood control designed for use in the routine monitoring of accuracy and precision. This product is compatible for use on most clinical chemistry analysers.

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 3 days at 2°C to 8°C
- Single point calibrator

Description	Size	Cat. No.
Ransel Control	10 x 1 ml	SC692
Ransel Calibrator	10 x 1 ml	SC10154

Glutathione Reductase Control and Calibrator

A bovine based control designed for use in the routine monitoring of accuracy and precision. This product is compatible for use on most clinical chemistry analysers.

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 1 days at 2°C to 8°C or 8 hours at 15°C to 25°C

Description	Size	Cat. No.
Ransel Control	10 x 1 ml	GR2608
Ransel Calibrator	10 x 1 ml	GR2609

Superoxide Dismutase (Ransod) Control

A bovine based, whole blood control designed for use in the routine monitoring of accuracy and precision. This product is compatible for use on most clinical chemistry analysers.

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 10 days at 2°C to 8°C

Description	Size	Cat. No.
Ransod Control	10 x 1 ml	SD126

Total Antioxidant Status (TAS) Control and Calibrator

A human based control designed for use in the routine monitoring of accuracy and precision. This product is compatible for use on most clinical chemistry analysers.

Control

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 2 days at 2°C to 8°C or 12 hours at 15°C to 25°C

Calibrator

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 2 days at 2°C to 8°C or 28 days at -20°C
- Single point calibrator

Description	Size	Cat. No.
Total Antioxidant Status Control	10 x 5 ml	NX2331

BLOOD GAS CONTROLS

Blood Gas tests can provide crucial information for medical professionals in acute care environments. As such, the results they produce must be accurate and reliable to ensure correct patient diagnosis and subsequent treatment. Used in both clinical laboratories and at the point-of-care, our Acusera Blood Gas Controls have been designed to ensure ease-of-use and peace of mind. The liquid ready-to-use format ensures that no preparation time is needed and controls can be easily stored both on the ward and in the laboratory at 2°C to 8°C.

Blood Gas Product Range

Product Description	Size	Cat. No.	Page No.
Blood Gas Control Level 1	30 x 1.8 ml	BG5001	11
Blood Gas Control Level 2	30 x 1.8 ml	BG5002	11
Blood Gas Control Level 3	30 x 1.8 ml	BG5003	11



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

BLOOD GAS

Blood Gas Control

Analytes				
Bicarbonate	Glucose	pH	Sodium	
Calcium	Lactate	pO ₂		
Chloride	pCO ₂	Potassium		

Combining 10 parameters including electrolytes and lactate, the Acusera Blood Gas control is designed to meet the demands of today's blood gas analysers. Supplied in convenient, easy to open ampoules and in a liquid ready-to-use format, preparation is kept to an absolute minimum, making this control ideally suited for POC testing. As a true third party control, assayed target values are provided, ensuring unbiased performance assessment.

- **Liquid ready-to-use**
- **Aqueous material**
- **Suitable for use in POCT**
- **Stable to expiry date at 2°C to 8°C**
- **Once opened, controls should be analysed immediately for pH and blood gas analytes; for electrolyte measurements, the control should be analysed within 1 hour of opening**

Description	Size	Cat. No.
Blood Gas Control Level 1	30 x 1.8 ml	BG5001
Blood Gas Control Level 2	30 x 1.8 ml	BG5002
Blood Gas Control Level 3	30 x 1.8 ml	BG5003

CARDIAC CONTROLS

The accurate diagnosis of a potentially life threatening cardiac event is essential in order to avoid misdiagnosis and/or incorrect treatment. The Acusera Cardiac Controls have been designed to cover a wide range of cardiac markers at clinical decision levels, eliminating the need for additional low level controls at extra expense. Manufactured from 100% human serum, a matrix similar to that of the patient sample is guaranteed.

Cardiac Product Range

Product Description	Size	Cat. No.	Page No.
Cardiac Control – Ultra Low	3 x 3 ml	CQ10453	14
Cardiac Control Level 1	3 x 3 ml	CQ10454	14
Cardiac Control Level 2	3 x 3 ml	CQ10455	14
Cardiac Control Level 3	3 x 3 ml	CQ10456	14
Tri-Level Cardiac Control	3 x 1 ml	CQ3100	14
Tri-Level Cardiac Control	3 x 2 ml	CQ3259	14
Troponin T Control (ultra low)	6x 3 ml	CQ10450	15
CK-MB Control	10 x 2 ml	CK1212	15
CK-MB Calibrator	10 x 1 ml	CK2393	15



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

Cardiac Control

Analytes			
Cardiac Ultra Low Troponin I	Cardiac Level 1 NT-proBNP Troponin I	Cardiac Level 2 NT-proBNP Troponin I	Cardiac Level 3 NT-proBNP Troponin I

Delivering an assayed solution for Troponin I and NT-proBNP testing, the Acusera Cardiac Control is designed for use with Roche and Abbott systems. This control provides a full range of clinically relevant testing levels, including High Sensitivity Troponin I.

- Liquid frozen
- Human based serum
- 4 Clinically relevant levels (including Ultra-Low)
- Stable to expiry date at -18°C to -24°C
- Open vial stability of up to 7 days at 2°C to 8°C

Description	Size	Cat. No.
Cardiac Control Ultra Low	3 x 3 ml	CQ10453
Cardiac Control Level 1	3 x 3 ml	CQ10454
Cardiac Control Level 2	3 x 3 ml	CQ10455
Cardiac Control Level 3	3 x 3 ml	CQ10456

Tri-Level Cardiac Control

Analytes			
CK (Total) CK-MB (Activity)*	CK-MB (Mass) Homocysteine	Myoglobin Troponin I	Troponin T

The Acusera Cardiac Control was designed for the routine monitoring of accuracy and precision. Assayed, instrument specific values and ranges are provided for 7 common cardiac markers, eliminating the need to spend time assigning target values in-house. The availability of two convenient pack sizes ensures suitability for all laboratory throughputs.

- Lyophilised for enhanced stability
- Aqueous material
- Cut off levels for Troponin I and T in-line with international recommendations
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 5 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Tri-Level Cardiac Control	3 x 1 ml	CQ3100
Tri-Level Cardiac Control	3 x 2 ml	CQ3259

* Only available in level 2 and level 3

CARDIAC

Troponin T Control

Intended for use with the Roche system, this control is manufactured using only the highest quality material.

- Liquid frozen
- 100% human serum
- Ultra low levels of Troponin T
- Stable to expiry date at -18°C to -24°C
- Open vial stability of up to 7 days at 2°C to 8°C

Description	Size	Cat. No.
Troponin T Control	6 x 3 ml	CQ10450

CK-MB Control and Calibrator

Analytes	
CK-MB	CK-NAC*

A dedicated true third party CK-MB control designed for the routine monitoring of both accuracy and precision. Assayed target values and ranges are provided for serum start, substrate start and CK-NAC methods eliminating the need to spend time assigning target values in-house.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 5 days at 4°C, 8 hours at 25°C and 28 days at -20°C
- Single point calibrator

Description	Size	Cat. No.
CK-MB Control	10 x 2 ml	CK1212
CK-MB Calibrator	10 x 1 ml	CK2393

* CK-NAC is not available in the CK-MB Calibrator

CLINICAL CHEMISTRY CONTROLS

Our clinical chemistry controls are suitable for a range of integrated analyser systems and methods. To cover all laboratory requirements, our flexible Clinical Chemistry Controls contain up to 100 analytes, delivering effective consolidation and cost savings. Available in a choice of assayed/unassayed, liquid/lyophilised and human/bovine formats, options are available to suit all laboratory sizes and budgets.

CLINICAL CHEMISTRY

Clinical Chemistry Product Range			
Product Description	Size	Cat. No.	Page No.
Precision Chemistry Premium Plus Level 2	20 x 5 ml	UN1557	18
Precision Chemistry Premium Plus Level 3	20 x 5 ml	UE1558	18
Liquid Chemistry Premium Plus Level 1	12 x 5 ml	LUL5069	19
Liquid Chemistry Premium Plus Level 2	12 x 5 ml	LUN5070	19
Liquid Chemistry Premium Plus Level 3	12 x 5 ml	LUE5071	19
Assayed Chemistry Premium Plus Level 2	20 x 5 ml	HN1530	20
Assayed Chemistry Premium Plus Level 3	20 x 5 ml	HE1532	20
Assayed Chemistry Premium Plus Level 2 & 3	2 x 5 x 5 ml	HS2611	20
Liquid Assayed Chemistry Premium Plus Level 1	12 x 5 ml	LAL4213	21
Liquid Assayed Chemistry Premium Plus Level 2	12 x 5 ml	LAN4214	21
Liquid Assayed Chemistry Premium Plus Level 3	12 x 5 ml	LAE4215	21
Bovine Chemistry Assayed Level 1	20 x 5 ml	AL1027	22
Bovine Chemistry Assayed Level 2	20 x 5 ml	AN1026	22
Bovine Chemistry Assayed Level 3	20 x 5 ml	AE1032	22
Clinical Chemistry Calibration Serum Level 2	20 x 5 ml	CAL2350	23
Clinical Chemistry Calibration Serum Level 3	20 x 5 ml	CAL2351	23
Ammonia Ethanol Control Level 1	6 x 2 ml	EA1366	23
Ammonia Ethanol Control Level 2	6 x 2 ml	EA1367	23
Ammonia Ethanol Control Level 3	6 x 2 ml	EA1368	23
Aldolase Calibrator	3 x 1 ml	AD5000	24
Aldolase Control Level 2	3 x 1 ml	AD5001	24
Aldolase Control Level 3	3 x 1 ml	AD5002	24
Liquid Bilirubin Control Level 1	3 x 3 ml	BR10442	24
Liquid Bilirubin Control Level 2	3 x 3 ml	BR10443	24
Bilirubin Elevated Serum	10 x 3 ml	BE454	24
Glycerol Control	3 x 5 ml	GY1369	25
Multi Calibrator	3 x 2 ml	MC1382	25
Multi Control Level 1	5 x 2 ml	MC1379	25
Multi Control Level 2	5 x 2 ml	MC1380	25
Multi Control Level 3	5 x 2 ml	MC1381	25
Glutamine Control Level 1	5 x 5 ml	GM1376	25
Glutamine Control Level 2	5 x 5 ml	GM1377	25
Glutamine Control Level 3	5 x 5 ml	GM1378	25
Glutamine Calibrator	3 x 5 ml	GM1375	25
Serum Indices Control	4 x 5 ml	SI10448	26



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

Precision Chemistry Premium Plus Control

Analytes			
<p>Cardiac</p> <ul style="list-style-type: none"> CK (Total) Myoglobin Troponin I <p>Drugs</p> <ul style="list-style-type: none"> Carbamazepine Digoxin Gentamicin Lithium Paracetamol Phenobarbitone Phenytoin Salicylate Theophylline Tobramycin Valproic Acid Vancomycin <p>Immunoassay</p> <ul style="list-style-type: none"> α-Fetoprotein (AFP) CEA Cortisol Folate hCG 	<ul style="list-style-type: none"> Prolactin PSA (Total) T3 (Free) T3 (Total) T4 (Free) T4 (Total) TSH Vitamin B₁₂ <p>Lipids</p> <ul style="list-style-type: none"> Apolipoprotein A-I Apolipoprotein B Cholesterol (HDL) Cholesterol (Total) NEFA Triglycerides <p>Proteins</p> <ul style="list-style-type: none"> α-1-Acid Glycoprotein α-1-Antitrypsin Ceruloplasmin Complement C3 Complement C4 CRP 	<ul style="list-style-type: none"> Ferritin Haptoglobin Immunoglobulin A (IgA) Immunoglobulin E (IgE) Immunoglobulin G (IgG) Immunoglobulin M (IgM) Prealbumin Protein (Total) Transferrin <p>Routine Chemistry</p> <ul style="list-style-type: none"> α-HBDH Acid Phosphatase (Prostatic) Acid Phosphatase (Total) Albumin Alkaline Phosphatase (ALP) ALT (GPT) Amylase Amylase (Pancreatic) AST (GOT) Bicarbonate Bile Acids Bilirubin (Direct) Bilirubin (Total) Calcium 	<ul style="list-style-type: none"> Chloride Cholinesterase Creatinine D-3-Hydroxybutyrate γGT GLDH Glucose Iron Iron (TIBC) Iron (UIBC) Lactate Lactate Dehydrogenase (LDH) LAP Lipase Magnesium Osmolality Phosphate (Inorganic) Potassium Sodium Urea Uric Acid (Urate) <p>Trace Metals</p> <ul style="list-style-type: none"> Copper Zinc

Our Precision Chemistry Premium Plus control conveniently covers 86 analytes; including a wide range of proteins, lipids and immunoassays making it perfect for consolidation. As an unassayed, third party control it is suitable for use with a wide range of clinical chemistry platforms.

- Lyophilised for enhanced stability
- Human based serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 7 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Precision Chemistry Premium Plus Level 2	20 x 5 ml	UN1557
Precision Chemistry Premium Plus Level 3	20 x 5 ml	UE1558

CLINICAL CHEMISTRY

Liquid Chemistry Premium Plus Control

Analytes			
Cardiac CK (Total) Myoglobin Troponin T	Immunoassay α-Fetoprotein (AFP) CEA Cortisol DHEA Sulphate Folate FSH Growth Hormone (GH) hCG Luteinising Hormone (LH) Progesterone Prolactin Testosterone T Uptake T3 (Free) T3 (Total) T4 (Free) T4 (Total) TSH Vitamin B ₁₂	Proteins α-1-Acid Glycoprotein α-1-Antitrypsin β-2-Microglobulin Ceruloplasmin Complement C3 Complement C4 CRP Ferritin Haptoglobin Immunoglobulin A (IgA) Immunoglobulin E (IgE) Immunoglobulin G (IgG) Immunoglobulin M (IgM) Prealbumin Protein (Total) Transferrin	Bile Acids Bilirubin (Direct) Bilirubin (Total) Calcium Chloride Cholinesterase Creatinine D-3-Hydroxybutyrate γGT GLDH Glucose Iron Iron (TIBC) Iron (UIBC) Lactate Lactate Dehydrogenase (LDH) LAP Lipase Magnesium Osmolality Phosphate (Inorganic) Potassium Sodium Urea Uric Acid (Urate)
Drugs Amikacin Caffeine Carbamazepine Digoxin Ethanol Gentamicin Lithium Paracetamol Phenobarbitone Phenytoin Salicylate Theophylline Valproic Acid Vancomycin	Lipids Apolipoprotein A-1 Apolipoprotein B Cholesterol (HDL) Cholesterol (LDL) Cholesterol (Total) Lipoprotein (a) Triglycerides	Routine Chemistry α-HBDH ACE (Angiotensin Converting Enzyme)* Acid Phosphatase (Prostatic) Acid Phosphatase (Total) Albumin Alkaline Phosphatase (ALP) ALT (GPT) Amylase Amylase (Pancreatic) AST (GOT) Bicarbonate	Trace Metals Copper Zinc
Electrophoresis α-1-Globulin α-2-Globulin Albumin β-Globulin γ-Globulin			

Comprising 101 analytes in total, the Acusera Liquid Chemistry Premium Plus control is one of the most comprehensive available. Our vast analyte menu allows complete consolidation, eliminating the need to purchase additional controls at extra expense. As an unassayed, third party control it is ideal for monitoring precision on a wide range of laboratory analysers. Presented in a convenient liquid format for ease-of-use, minimal preparation is required.

- Liquid frozen
- Human based serum
- High levels of CRP and other proteins eliminate the need for separate controls
- Stable to expiry date at -20°C to -70°C
- Open vial stability of up to 7 days at 2°C to 8°C
- Typical values provided for all analytes

Description	Size	Cat. No.
Liquid Chemistry Premium Plus Level 1	12 x 5 ml	LUL5069
Liquid Chemistry Premium Plus Level 2	12 x 5 ml	LUN5070
Liquid Chemistry Premium Plus Level 3	12 x 5 ml	LUE5071

*No claims are made regarding values or stability.

Assayed Chemistry Premium Plus Control

Analytes			
Cardiac CK (Total)	Immunoassay Cortisol Folate PSA (Total) T3 (Total) T4 (Free) T4 (Total) TSH Vitamin B ₁₂	Immunoglobulin M (IgM) Protein (Total) Transferrin	D-3-Hydroxybutyrate γGT GLDH Glucose Iron Iron (TIBC) Lactate Lactate Dehydrogenase (LDH)
Drugs Digoxin Gentamicin Lithium Paracetamol Salicylate Theophylline Tobramycin	Lipids Apolipoprotein A-1 Apolipoprotein B Cholesterol (HDL) Cholesterol (Total) NEFA Triglycerides	Routine Chemistry α-HBDH Acid Phosphatase (Total) Albumin Alkaline Phosphatase (ALP) ALT (GPT) Amylase Amylase (Pancreatic) AST (GOT) Bicarbonate Bile Acids Bilirubin (Direct) Bilirubin (Total) Calcium Chloride Cholinesterase Creatinine	Magnesium Osmolality Phosphate (Inorganic) Potassium Sodium Urea Uric Acid (Urate)
Electrophoresis α-1-Globulin α-2-Globulin Albumin β-Globulin γ-Globulin	Proteins Immunoglobulin A (IgA) Immunoglobulin G (IgG)		Trace Metals Copper Zinc

One of our most popular controls, the Acusera Assayed Chemistry Premium Plus Control, combines a comprehensive 68 analytes in a single vial for maximum efficiency. As a true third party control, assayed instrument, method and temperature specific target values are provided for an extensive range of clinical chemistry analysers, reducing the need to assign values in-house. Also provided are electrophoresis targets as a % breakdown of total protein.

- Lyophilised for enhanced stability
- Human based serum
- Typical Osmolality values: Level 2 is 300 mOsm/kg, Level 3 is 370 mOsm/kg
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 7 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Assayed Chemistry Premium Plus Level 2	20 x 5 ml	HN1530
Assayed Chemistry Premium Plus Level 3	20 x 5 ml	HE1532
Assayed Chemistry Premium Plus Level 2 & 3	2 x 5 x 5 ml	HS2611

CLINICAL CHEMISTRY

Liquid Assayed Chemistry Premium Plus Control

Analytes			
Cardiac CK (Total) Myoglobin Troponin T	Immunoassay α-Fetoprotein (AFP) CEA Cortisol DHEA Sulphate Folate FSH hCG Luteinising Hormone (LH) Progesterone Prolactin PSA (Total) T Uptake T3 (Free) T3 (Total) T4 (Free) T4 (Total) Testosterone TSH Vitamin B ₁₂	Proteins α-1- Acid Glycoprotein α-1-Antitrypsin β-2-Microglobulin Ceruloplasmin Complement C3 Complement C4 CRP Ferritin Haptoglobin Immunoglobulin A (IgA) Immunoglobulin E (IgE) Immunoglobulin G (IgG) Immunoglobulin M (IgM) Prealbumin Protein (Total) Transferrin	Bile Acids Bilirubin (Direct) Bilirubin (Total) Calcium Chloride Cholinesterase Creatinine D-3-Hydroxybutyrate γGT GLDH Glucose Iron Iron (TIBC) Lactate Lactate Dehydrogenase (LDH) Lipase Magnesium Osmolality Phosphate (Inorganic) Potassium Sodium Urea Uric Acid (Urate)
Drugs Amikacin Caffeine Carbamazepine Digoxin Ethanol Gentamicin Lithium Paracetamol Phenobarbitone Phenytoin Salicylate Theophylline Valproic Acid Vancomycin	Lipids Apolipoprotein A-1 Apolipoprotein B Cholesterol (HDL) Cholesterol (LDL) Cholesterol (Total) Lipoprotein (a) Triglycerides	Routine Chemistry α-HBDH ACE (Angiotensin Converting Enzyme)* Acid Phosphatase (Total) Albumin Alkaline Phosphatase (ALP) ALT (GPT) Amylase Amylase (Pancreatic) AST (GOT) Bicarbonate	Trace Metals Copper Zinc
Electrophoresis α-1-Globulin α-2-Globulin Albumin β-Globulin γ-Globulin			

Uniquely combining up to 99 analytes including; routine chemistry, immunoassays, lipids, therapeutic drugs, proteins and cardiac markers in a single vial, laboratories can experience effective consolidation and significant cost savings. The presence of CRP and other proteins at elevated levels will not only ensure accurate instrument performance at key decision levels but further reduce the number of individual controls required. As a true third party control, assayed target values are provided for most major instruments.

- Liquid frozen
- Human based serum
- Assayed instrument specific target values and ranges
- High levels of CRP and other proteins eliminate the need for multiple controls
- Stable to expiry when stored at -20°C to -70°C
- Open vial stability of up to 7 days at 2°C to 8°C

Description	Size	Cat. No.
Liquid Assayed Chemistry Premium Plus Level 1	12 x 5 ml	LAL4213
Liquid Assayed Chemistry Premium Plus Level 2	12 x 5 ml	LAN4214
Liquid Assayed Chemistry Premium Plus Level 3	12 x 5 ml	LAE4215

*No claims are made regarding values or stability.

Bovine Chemistry Assayed Control

Analytes			
Cardiac CK (Total)	Lipids Cholesterol NEFA Triglycerides	Amylase AST (GOT) Bicarbonate Bile Acids Bilirubin (Direct) Bilirubin (Total) Calcium Chloride Creatinine D-3-Hydroxybutyrate	Lactate Dehydrogenase (LDH) Lipase Magnesium Osmolality Phosphate (Inorganic) Potassium Sodium Urea Uric Acid (Urate)
Drugs Lithium	Proteins Protein (Total)		
Immunoassay Cortisol PSA (Total) T3 (Total) T4 (Free) T4 (Total) Vitamin B ₁₂	Routine Chemistry α-HBDH Acid Phosphatase (Prostatic) Acid Phosphatase (Non-Prostatic) Acid Phosphatase (Total) Albumin Alkaline Phosphatase (ALP) ALT (GPT)	Trace Metals Copper Zinc	

Designed for use in the routine monitoring of accuracy and precision, this comprehensive bovine based, assayed control provides method, instrument and temperature specific values for a unique combination of 46 analytes. Due to its bovine serum matrix and inclusion of common veterinary markers; NEFA, Bile Acids, Lactate and D-3 Hydroxybutyrate, the Acusera Bovine Chemistry Assayed Control delivers a cost effective solution especially suited to veterinary laboratories.

- Lyophilised for enhanced stability
- Bovine based serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 7 days at 2°C to 8°C or 28 days at -20°C
- GLDH is stable for 1 day at 2°C to 8°C and TIBC (AL1027 Only) is stable for 4 days at 2°C to 8°C.

Description	Size	Cat. No.
Bovine Chemistry Assayed Level 1	20 x 5 ml	AL1027
Bovine Chemistry Assayed Level 2	20 x 5 ml	AN1026
Bovine Chemistry Assayed Level 3	20 x 5 ml	AE1032

CLINICAL CHEMISTRY

Clinical Chemistry Calibration Serum

Analytes			
Cardiac CK (Total)	Routine Chemistry α-HBDH	Bilirubin (Total)	Lipase
Drugs Lithium	Acid Phosphatase (Prostatic)	Calcium	Magnesium
Lipids Cholesterol Triglycerides	Acid Phosphatase (Total)	Chloride	Osmolality
Proteins Protein (Total)	Albumin	Cholinesterase	Phosphate (Inorganic)
	Alkaline Phosphatase (ALP)	Creatinine	Potassium
	ALT (GPT)	D-3-Hydroxybutyrate	Sodium
	Amylase (Pancreatic)	γGT	Urea
	Amylase (Total)	GLDH	Uric Acid (Urate)
	AST (GOT)	Glucose	Trace Metals
	Bicarbonate	Iron	Copper
	Bile Acids	Iron (TIBC)	Zinc
	Bilirubin (Direct)	Lactate	
		Lactate Dehydrogenase (LDH)	

Comprising 41 analytes in a single vial, this multi-analyte, third party calibrator is designed for use with a wide range of clinical chemistry platforms. Assayed, instrument, method and temperature specific values are supplied, ensuring accurate and reliable instrument calibration.

- Lyophilised for enhanced stability
- Human based serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 7 days at 2°C to 8°C or 28 days at -20°C
- Multi-point calibration serum

Description	Size	Cat. No.
Clinical Chemistry Calibration Serum Level 2	20 x 5 ml	CAL2350
Clinical Chemistry Calibration Serum Level 3	20 x 5 ml	CAL2351

Ammonia Ethanol Control

Analytes	
Ammonia	Ethanol

This dedicated Ammonia/Ethanol control comes in a highly convenient, liquid ready-to-use format ensuring no preparation is required. As a true third party control, assayed target values are provided, ensuring unbiased performance assessment while eliminating the need for in-house value assignment.

- Liquid ready-to-use
- Aqueous material
- Stable to expiry date at 2°C to 8°C
- Open vial stability of up to 30 days at 2°C to 8°C

Description	Size	Cat. No.
Ammonia Ethanol Control Level 1	6 x 2 ml	EA1366
Ammonia Ethanol Control Level 2	6 x 2 ml	EA1367
Ammonia Ethanol Control Level 3	6 x 2 ml	EA1368

Aldolase Control and Calibrator

This dedicated Aldolase control is specifically designed to monitor the accuracy and precision of Aldolase on a wide range of chemistry analysers. Supplied in a lyophilised format for enhanced stability, this control and calibrator set comes in a convenient 1ml vial.

- Lyophilised for enhanced stability
- Human based serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 5 days at 2°C to 8°C
- Single point calibrator

Description	Size	Cat. No.
Aldolase Calibrator	3 x 1 ml	AD5000
Aldolase Control Level 2	3 x 1 ml	AD5001
Aldolase Control Level 3	3 x 1 ml	AD5002

Liquid Bilirubin Control

Analytes	
Bilirubin (Direct)	Bilirubin (Total)

Providing a true third party solution of Bilirubin, this control is designed to deliver an unbiased, independent assessment of performance. Two levels are available covering the required clinically relevant decision levels for neonatal testing and adult liver disease.

- Liquid frozen
- 100% human serum
- Stable to expiry when stored at -20°C to -70°C
- Open vial stability of 7 days at 2°C to 8°C
- Elevated levels of Bilirubin ensure clinical decision levels are met

Description	Size	Cat. No.
Liquid Bilirubin Control Level 1	3 x 3 ml	BR10442
Liquid Bilirubin Control Level 2	3 x 3 ml	BR10443

Bilirubin Elevated Serum

Analytes	
Bilirubin (Direct)	Bilirubin (Total)

Acusera Bilirubin Elevated Serum is a bovine based serum designed for use in the monitoring of accuracy and precision. This product is suitable for monitoring paediatric bilirubin levels and contains method specific target values and ranges.

- Lyophilised for enhanced stability
- Bovine serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 5 days at 2°C to 8°C

Description	Size	Cat. No.
Bilirubin Elevated Serum	10 x 3 ml	BE454

CLINICAL CHEMISTRY

Glycerol Control

Dedicated Glycerol control for use in the routine monitoring of accuracy and precision. Supplied in a lyophilised format for enhanced stability, this control comes with assayed target values for most major chemistry analysers.

- Lyophilised for enhanced stability
- Human based serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C

Description	Size	Cat. No.
Glycerol Control	3 x 5 ml	GY1369

Multi Control and Calibrator

Analytes

Ammonia

Glucose

Glutamate

Lactate

This multi-analyte control and calibrator is designed for use in the routine monitoring of accuracy and precision. Supplied in a convenient liquid ready-to-use format no preparation is required.

- Liquid ready-to-use
- Human based serum
- Stable to expiry date at 2°C to 8°C
- Once opened stable to expiry date at 2°C to 8°C
- Single point calibrator

Description	Size	Cat. No.
Multi Calibrator	3 x 2 ml	MC1382
Multi Control Level 1	5 x 2 ml	MC1379
Multi Control Level 2	5 x 2 ml	MC1380
Multi Control Level 3	5 x 2 ml	MC1381

*FOR BIOTECHNOLOGY INDUSTRIAL USE.
Not for use in diagnostic procedures.

Glutamine Control and Calibrator

This dedicated Glutamine control is supplied in a lyophilised format for enhanced stability. Manufactured using 100% human material, it is designed to mimic patient samples, ensuring accurate test system performance.

- Lyophilised for enhanced stability
- 100% human material
- Stable to expiry at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C
- Single point calibrator

Description	Size	Cat. No.
Glutamine Control Level 1	5 x 5 ml	GM1376
Glutamine Control Level 2	5 x 5 ml	GM1377
Glutamine Control Level 3	5 x 5 ml	GM1378
Glutamine Calibrator	3 x 5 ml	GM1375

*FOR BIOTECHNOLOGY INDUSTRIAL USE.
Not for use in diagnostic procedures.

Serum Indices Control

Analytes		
Haemolysis (H)	Icterus (I)	Lipemia (L)

Designed to be used to monitor an IVD instrument's response in the detection of haemolysed, icteric and lipemic (HIL) samples. This control can be utilised in laboratory interference testing to assist in improving error detection of pre-analytical errors affecting clinical chemistry testing.

- Lyophilised for enhanced stability
- Human based serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 14 days at 2°C to 8°C
- 4 separate levels available including a negative (-) and three positives (+, ++ & +++)

Description	Size	Cat. No.
Serum Indices Control	4 x 5 ml	S110448

COAGULATION AND HAEMATOTOLOGY CONTROLS

Our true third party Coagulation and Haematology Controls have been designed to deliver an unbiased assessment of analytical performance, while providing a matrix similar to that of the patient. These multi-analyte controls cover the full clinical range in a single control, enabling you to consolidate your test menu, saving both time and money.

COAGULATION AND HAEMATOTOLOGY

Coagulation and Haematology Product Range

Product Description	Size	Cat. No.	Page No.
Coagulation Control Level 1	12 x 1 ml	CG5021	29
Coagulation Control Level 2	12 x 1 ml	CG5022	29
Coagulation Control Level 3	12 x 1 ml	CG5023	29
Haematology Control	3 x 2 x 4.5 ml	HM5162	29



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

COAGULATION AND HAEMATOLOGY

Coagulation Control

Analytes			
Activated Partial Thromboplastin Time (APTT)	Factor VII	Factor XI	Protein C
Anti-Thrombin III (AT III)	Factor VIII	Factor XII	Protein S
Factor II	Factor IX	Fibrinogen	Prothrombin Time (PT)
Factor V	Factor X	Plasminogen	Thrombin Time (TT)

Our Coagulation Control combines 16 analytes in total, delivering a comprehensive, third party solution for laboratories carrying out both routine and specialised coagulation tests. Comprising a variety of factor assays and basic coagulation tests, the number of individual controls required is reduced, saving costs and time. Assayed method and instrument specific target values & ranges are provided, eliminating the need to spend time assigning target values in-house.

- Lyophilised for enhanced stability
- 100% human material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 24 hours at 2°C to 8°C

Description	Size	Cat. No.
Coagulation Control Level 1	12 x 1 ml	CG5021
Coagulation Control Level 2	12 x 1 ml	CG5022
Coagulation Control Level 3	12 x 1 ml	CG5023

Haematology Control

Analytes	
BASO-X	Mean Platelet Volume (MPV)
BASO -Y	Monocytes (MONO)
Basophils (BASO)*	% Monocytes (% MONO)
% Basophils (% BASO)	Neutrophils (NEUT)
DIFF-X	% Neutrophils (% NEUT)
DIFF-Y	Nucleated Red Blood Cells (NRBC)*
Eosinophils (EOS)	Nucleated Red Blood Cells X (NRBC-X)
% Eosinophils (%EOS)	Nucleated Red Blood Cells Y (NRBC-Y)
FSC-X	% Nucleated Red Blood Cells (%NRBC)
Haematocrit (HCT)	Platelet Distribution Width (PDW)
Haemoglobin (HGB)	Platelet Large Cell Ratio (P-LCR)
Haematopoietic Progenitor Cell (HPC)	Plateletcrit (PCT)
IMIDC	Platelets (PLT)
IMIRF	Platelets Optical Count (PLT-O)
Immature Granulocytes (IG)	Red Blood Cells (RBC)
% Immature Granulocytes (%IG)	Red Blood Cell X (RBC-X)
Immature Myeloid Information (IMI)	Red Blood Cell Y (RBC-Y)
Immature Platelet Fraction (IPF)	Red Blood Cell Distribution Width CV (RDW-CV)
Lymphocytes (LYMPH)	Red Blood Cell Distribution Width SD (RDW-SD)
% Lymphocytes (% LYMPH)	Red Blood Cells Optical Count (RBC-O)
Mean Corpuscular Haemoglobin (MCH)	White Blood Cells (WBC)
Mean Corpuscular Haemoglobin Concentration (MCHC)	White Blood Cells Differential (WBC-D)
Mean Corpuscular Volume (MCV)	

The Acusera Haematology Control combines an impressive 45 analytes, covering the full blood profile in a convenient liquid ready-to-use format, ultimately increasing productivity and reducing the need for multiple controls. Providing a true third party solution for 5-part WBC differential Sysmex Haematology analysers, ensuring unbiased performance assessment.

- Liquid ready-to-use
- 100% Human whole blood
- Barcoded labels enabling quick and easy sample recognition
- Stable for 70 days at 2°C to 8°C
- Open vial stability of 14 days at 2°C to 8°C

Description	Size	Cat. No.
Haematology Control Tri-Level	3 x 2 x 4.5 ml	HM5162

*This product may not be suitable for the control of Basophils and NRBC on some Sysmex models.

DIABETES AND WHOLE BLOOD CONTROLS

This Acusera Diabetes range provides a true third party solution for key tests used in the diagnosis and monitoring of diabetes and haemoglobin variants. Designed for use on multiple platforms, an independent assessment of performance is guaranteed. An extended reconstituted stability of four weeks for many controls will not only keep waste to a minimum but will help to reduce costs. As with all Acusera controls, laboratories can expect to experience reduced preparation time and costs without compromising on consistency or quality.

DIABETES AND WHOLE BLOOD

Diabetes and Whole Blood Product Range

Product Description	Size	Cat. No.	Page No.
HbA1c Control Set Level 1 and 2	2 x 2 x 0.5 ml	HA5072	32
HbA1c Calibrator Series	5 x 2 ml, 1 x 8 ml	HA3444	32
Liquid HbA1c Control Level 1	6 x 1 ml	HA10224	32
Liquid HbA1c Control Level 2	6 x 1 ml	HA10225	32
Liquid HbA1c Control Set	2 x 2 x 0.5 ml	HA10155	32
G-6PDH Control Deficient	6 x 0.5 ml	PD2617	32
G-6PDH Control Normal	6 x 0.5 ml	PD2618	32
Fructosamine Control Level 1	3 x 1 ml	FR2994	33
Fructosamine Control Level 3	3 x 1 ml	FR2996	33
Fructosamine Calibrator	3 x 1 ml	FR2993	33



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

DIABETES AND WHOLE BLOOD

HbA1c Control and Calibrator Series

The Acusera HbA1c control is designed for use in the quality control of HbA1c assays. Assayed instrument and method specific target values and ranges are provided for all major systems and methods including HPLC. A reconstituted stability of 4 weeks keeps waste to a minimum and helps to reduce costs.

Control

- Lyophilised for enhanced stability
- 100% human whole blood
- Treated in the same manner as a patient sample (requires pre-treatment)
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 28 days at 2°C to 8°C

Calibrator

- Liquid ready-to-use
- 100% human whole blood
- Treated in the same manner as a patient sample (requires pre-treatment)
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 28 days at 2°C to 8°C
- Multi-point calibrator

Description	Size	Cat. No.
HbA1c Control Set Level 1 and 2	2 x 2 x 0.5 ml	HA5072
HbA1c Calibrator Series	5 x 2 ml, 1 x 8 ml	HA3444

Liquid HbA1c Control

Delivering an assayed QC solution for HbA1c testing, our Acusera Liquid HbA1c control offers a liquid ready-to-use format ideal for both laboratory and POCT testing. Employing our Liquid HbA1c Control in your laboratory could reduce preparation time, whilst the 30 day stability will ultimately minimise waste and costs.

- Liquid ready-to-use
- Human based whole blood
- Suitable for use in POCT
- Treated in the same manner as a patient sample (requires pre-treatment)
- Assayed target values are supplied for HPLC
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 30 days at 2°C to 8°C

Description	Size	Cat. No.
Liquid HbA1c Control Level 1	6 x 1 ml	HA10224
Liquid HbA1c Control Level 2	6 x 1 ml	HA10225
Liquid HbA1c Control Set	2 x 2 x 0.5 ml	HA10155

G-6-PDH (Glucose-6-Phosphate Dehydrogenase) Control

The Randox Acusera G-6-PDH control is designed specifically to monitor the accuracy and precision of G-6-PDH assays. Two levels of control are available covering both normal and deficient concentration ranges.

- Lyophilised for enhanced stability
- Stabilised red cell haemolysate
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 5 days at 2°C to 8°C

Description	Size	Cat. No.
G-6-PDH Control Deficient	6 x 0.5 ml	PD2617
G-6-PDH Control Normal	6 x 0.5 ml	PD2618

DIABETES AND WHOLE BLOOD

Fructosamine Control and Calibrator

The Acusera Fructosamine control is specifically designed to monitor the accuracy and precision of fructosamine assays. An extended reconstituted stability of 28 days at 2°C – 8°C keeps waste to a minimum and helps to reduce costs.

- Lyophilised for enhanced stability
- Aqueous Based Material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 28 days at 2°C to 8°C
- Single point calibrator

Description	Size	Cat. No.
Fructosamine Control Level 1	3 x 1 ml	FR2994
Fructosamine Control Level 3	3 x 1 ml	FR2996
Fructosamine Calibrator	3 x 1 ml	FR2993

IMMUNOASSAY CONTROLS

As one of the most comprehensive control ranges on the market, the Acusera Immunoassay offering from Randox will streamline QC in any laboratory. With multiple immunoassay controls to choose from, combining up to 54 analytes in a single vial, choice and flexibility is guaranteed. Our unique combination of analytes enables complete test menu consolidation, ultimately reducing costs without compromising on quality or performance. All controls in our Immunoassay range are manufactured from 100% human serum. This matrix ensures the test system will react to the control in the same manner as a patient sample, therefore meeting ISO 15189:2012 requirements while also eliminating shifts in QC target values when reagent batch is changed.

Immunoassay Product Range			
Product Description	Size	Cat. No.	Page No.
Liquid Immunoassay Premium Tri-Level	4 x 3 x 5 ml	LIA3108	36
PTH Control Level 1	3 x 3 ml	PTH10110	36
PTH Control Level 2	3 x 3 ml	PTH10111	36
PTH Control Level 3	3 x 3 ml	PTH10112	36
Immunoassay Premium Level 1	12 x 5 ml	IA2638	37
Immunoassay Premium Level 2	12 x 5 ml	IA2639	37
Immunoassay Premium Level 3	12 x 5 ml	IA2640	37
Immunoassay Premium Tri-Level	4 x 3 x 5 ml	IA2633	37
Immunoassay Premium Plus Level 1	12 x 5 ml	IA3109	38
Immunoassay Premium Plus Level 2	12 x 5 ml	IA3110	38
Immunoassay Premium Plus Level 3	12 x 5 ml	IA3111	38
Immunoassay Premium Plus Tri-Level	4 x 3 x 5 ml	IA3112	38
Immunoassay Speciality I Level 1	5 x 2 ml	IAS3113	39
Immunoassay Speciality I Level 2	5 x 2 ml	IAS3114	39
Immunoassay Speciality I Level 3	5 x 2 ml	IAS3115	39
Immunoassay Speciality II Level 1	5 x 1 ml	IAS3117	39
Immunoassay Speciality II Level 2	5 x 1 ml	IAS3118	39
Immunoassay Speciality II Level 3	5 x 1 ml	IAS3119	39
Tumour Marker Control Level 2	3 x 2 ml	TU5002	40
Tumour Marker Control Level 3	3 x 2 ml	TU5003	40
Maternal Screening Control Level 1	3 x 1 ml	MSS5024	40
Maternal Screening Control Level 2	3 x 1 ml	MSS5025	40
Maternal Screening Control Level 3	3 x 1 ml	MSS5026	40



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

Liquid Immunoassay Premium Control

Analytes			
17-OH-Progesterone	Ethosuximide	Paracetamol	T3 (Free)
α-Fetoprotein (AFP)	Ferritin	Phenobarbitone	T3 (Total)
Aldosterone	Folate	Phenytoin	T4 (Free)
Amikacin	FSH	Primidone	T4 (Total)
β-2-Microglobulin	Gentamicin	Progesterone	Testosterone
Carbamazepine	Growth Hormone (GH)	Prolactin	Theophylline
CEA	hCG	PSA (Free)	Tobramycin
Cortisol	Immunoglobulin E (IgE)	PSA (Total)	TSH
DHEA-Sulphate	Insulin	Salicylate	Valproic Acid
Digoxin	Luteinising Hormone (LH)	Sex Hormone Binding Globulin (SHBG)	Vancomycin
Estriol	Oestradiol	T Uptake	Vitamin B ₁₂

The Liquid Immunoassay Premium Control has been designed for use in the routine monitoring of accuracy and precision of multiple instruments. Consolidating up to 44 analytes in a single vial, employing this control can reduce the number of controls required to cover your complete test menu, saving time and money. As a true third party control, assayed values are available for most immunoassay platforms and a wide range of analytes, including hormones, therapeutic drugs and vitamins.

- Liquid frozen
- 100% human serum
- Ferritin and Vitamin B₁₂ levels suitable for Anaemia monitoring
- Stable to expiry date at -20°C to -70°C
- Open vial stability of up to 7 days at 2°C to 8°C

Description	Size	Cat. No.
Liquid Immunoassay Premium Tri-Level	4 x 3 x 5 ml	LIA3108

PTH Control

The Acusera PTH Control is an assayed, true third party control designed to complement our Immunoassay range, delivering an unbiased, independent assessment of analytical performance. With an open vial stability of 30 days, waste is kept to a minimum.

- Liquid frozen
- 100% human serum
- Assayed target values and ranges for a wide range of immunoassay systems
- Stable to expiry date at -20°C to -70°C
- Open vial stability of 30 days at 2°C to 8°C

Description	Size	Cat. No.
PTH Control Level 1	3 x 3 ml	PTH10110
PTH Control Level 2	3 x 3 ml	PTH10111
PTH Control Level 3	3 x 3 ml	PTH10112

IMMUNOASSAY

Immunoassay Premium Control

Analytes			
17-OH-Progesterone	DHEA-Sulphate	Oestradiol	T3 (Total)
1-25-(OH) ₂ -Vitamin D	Digoxin	Paracetamol	T4 (Free)
25-OH-Vitamin D	Estriol	Phenobarbitone	T4 (Total)
α-Fetoprotein (AFP)	Ethosuximide	Phenytoin	Testosterone
ACTH ⁺	Ferritin	Primidone	Testosterone (Free)
Aldosterone	Folate	Progesterone	Theophylline
Amikacin	FSH	Prolactin	Thyroglobulin
Androstenedione	Gentamicin	PSA (Free)	Tobramycin
β-2-Microglobulin	Growth Hormone (GH)	PSA (Total)	TSH
C-Peptide	hCG	Salicylate	Valproic Acid
Carbamazepine	Immunoglobulin E (IgE)	Sex Hormone Binding Globulin (SHBG)	Vancomycin
CEA	Insulin	T Uptake	Vitamin B ₁₂
Cortisol	Luteinising Hormone (LH)	T3 (Free)	

Efficiently combining 51 analytes in total, the Immunoassay Premium Control is designed to cover routine immunoassay testing in a single vial. The additional benefit of clinically relevant concentrations will not only ensure accurate performance at key decision levels, but will also eliminate the need for additional low/high controls at extra expense. As an assayed control, instrument specific target values and ranges are provided for up to 48 analytes, including fertility, thyroid & steroid hormones, kidney function tests, therapeutic drugs and vitamins, saving you time assigning these in-house. Manufactured using 100% human serum, this control is designed to directly mimic a patient sample, reducing costly shifts when reagent batch is changed.

- Lyophilised for enhanced stability
- 100% human serum
- Ferritin and Vitamin B₁₂ levels suitable for Anaemia monitoring
- Ultra low TSH levels in the level 1 control
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 7 days at 2°C to 8°C, or up to 28 days at -20°C

Description	Size	Cat. No.
Immunoassay Premium Level 1	12 x 5 ml	IA2638
Immunoassay Premium Level 2	12 x 5 ml	IA2639
Immunoassay Premium Level 3	12 x 5 ml	IA2640
Immunoassay Premium Tri-level	4 x 3 x 5 ml	IA2633

*Values may not be provided for all levels

Immunoassay Premium Plus Control

Analytes			
17-OH-Progesterone	CEA	Luteinising Hormone (LH)	T3 (Total)
1-25-(OH) ₂ -Vitamin D	Cortisol	Oestradiol	T4 (Free)
25-OH-Vitamin D	DHEA-Sulphate	Paracetamol	T4 (Total)
α-Fetoprotein (AFP)	Digoxin	Phenobarbitone	Testosterone
ACTH*	Estriol	Phenytoin	Testosterone (Free)
Aldosterone	Ethosuximide	Primidone	Theophylline
Amikacin	Ferritin	Progesterone	Thyroglobulin
Androstenedione	Folate	Prolactin	Tobramycin
β-2-Microglobulin	FSH	PSA (Free)	TSH
C-Peptide	Gentamicin	PSA (Total)	Valproic Acid
CA 15-3	Growth Hormone (GH)	Salicylate	Vancomycin
CA 19-9	hCG	Sex Hormone Binding Globulin (SHBG)	Vitamin B ₁₂
CA 125	Immunoglobulin E (IgE)	T Uptake	
Carbamazepine	Insulin	T3 (Free)	

Impressively covering 54 analytes including tumour markers, therapeutic drugs and routine immunoassay tests, the Acusera Immunoassay Premium Plus control has been uniquely designed to eliminate the need for four or more controls, dramatically reducing costs and time. The added advantage of ultra low levels of Ferritin, Vitamin B₁₂ and TSH will ensure accurate performance at key decision levels and further reduce the number of controls required. Assayed target values are supplied for 51 analytes in this true third party control. Manufactured using 100% human serum, this control is designed to directly mimic a patient sample, reducing costly shifts when reagent batch is changed.

- Lyophilised for enhanced stability
- 100% human serum
- Ferritin and Vitamin B₁₂ levels suitable for Anaemia monitoring
- Ultra low TSH levels in the level 1 control
- Contains routinely run tumour markers: AFP / CA15-3 / CA19-9 / CA-125 / CEA / PSA / Free-PSA
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 7 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Immunoassay Premium Plus Level 1	12 x 5 ml	IA3109
Immunoassay Premium Plus Level 2	12 x 5 ml	IA3110
Immunoassay Premium Plus Level 3	12 x 5 ml	IA3111
Immunoassay Premium Plus Tri-level	4 x 3 x 5 ml	IA3112

*Values may not be provided for all levels

IMMUNOASSAY

Immunoassay Speciality I Control

Analytes			
1-25-(OH) ₂ -Vitamin D 25-OH-Vitamin D Anti-Thyroglobulin (Anti-TG)	Anti-Thyropoxidase (Anti-TPO) C-Peptide Insulin	Insulin Like Growth Factor-1(IGF-1) Intact PTH (Parathyroid Hormone) Osteocalcin	Procalcitonin

Covering 10 specialised analytes, the Acusera Immunoassay Speciality I control is designed to complement our standard immunoassay control, meeting the demands of today's modern laboratory. Assayed target values are supplied for all 10 analytes in this true third party control.

- Lyophilised for enhanced stability
- 100% human serum
- Assayed target values and ranges for a wide range of immunoassay systems
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 5 days at 2°C to 8°C or 28 days at -20°C. C-Peptide and Procalcitonin are stable for 1 day at 2°C to 8°C. IGF-1 is stable for 8 hours at 2°C to 8°C.

Description	Size	Cat. No.
Immunoassay Speciality I Level 1	5 x 2 ml	IAS3113
Immunoassay Speciality I Level 2	5 x 2 ml	IAS3114
Immunoassay Speciality I Level 3	5 x 2 ml	IAS3115

Immunoassay Speciality II Control

Analytes			
Calcitonin	Gastrin	Procalcitonin	Renin

Designed for the routine monitoring of more complex, specialised analytes, the Acusera Immunoassay Speciality II control complements our standard immunoassay controls. As a true third party control, assayed target values are supplied and unbiased performance assessment guaranteed.

- Lyophilised for enhanced stability
- 100% human serum
- Assayed target values and ranges for a wide range of immunoassay systems
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 5 days at 2°C to 8°C for Renin, 1 day at 2°C to 8°C for Procalcitonin and 8 hours at 2°C to 8°C for Gastrin and Calcitonin. Stable for 28 days at -20°C

Description	Size	Cat. No.
Immunoassay Speciality II Level 1	5 x 1 ml	IAS3117
Immunoassay Speciality II Level 2	5 x 1 ml	IAS3118
Immunoassay Speciality II Level 3	5 x 1 ml	IAS3119

Tumour Marker Control 

Analytes			
α-Fetoprotein (AFP) β-2-Microglobulin CA 15-3 CA 19-9	CA 72-4 CA 125 Calcitonin CEA	CYFRA 21-1 Ferritin hCG NSE	PSA (Free) PSA (Total) Thyroglobulin

The multi-analyte Acusera Tumour Marker control has been designed for use in the daily monitoring of 15 routine and specialised tumour markers. This true third party control is provided with assayed target values and ranges for all analytes, ensuring an unbiased assessment of performance for a wide range of immunoassay instruments.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 14 days at 2°C to 8°C

Description	Size	Cat. No.
Tumour Marker Control Level 2	3 x 2 ml	TU5002
Tumour Marker Control Level 3	3 x 2 ml	TU5003

Maternal Screening Control 

Analytes			
α-Fetoprotein (AFP) Free β-hCG	Inhibin A PAPP-A	Total β-hCG	Unconjugated Oestriol

Delivering an assayed, multi-analyte QC solution for laboratories carrying out maternal screening, the Acusera Maternal Screening control covers a unique combination of analytes, ensuring suitability for both First and Second Trimester screening of Down's syndrome & Spina Bifida. By employing our Maternal Screening Control you could replace up to three competitor controls, ultimately improving efficiency, while reducing costs and preparation time.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C

Description	Size	Cat. No.
Maternal Screening Control Level 1	3 x 1 ml	MSS5024
Maternal Screening Control Level 2	3 x 1 ml	MSS5025
Maternal Screening Control Level 3	3 x 1 ml	MSS5026

IMMUNOLOGY/ PROTEIN CONTROLS

The Acusera range of Immunology/Protein Controls has been designed to be both cost effective and convenient. Requiring no preparation or thawing, the liquid ready-to-use format will increase productivity and efficiency in even the most demanding laboratories. Furthermore, an open vial stability of thirty days for all analytes, with no exceptions, will reduce costs and keep waste to a minimum.*

* Our Acusera CSF Control comes in a lyophilised format and requires reconstitution. It has a 14 day reconstituted stability.

Immunology/Protein Product Range			
Product Description	Size	Cat. No.	Page No.
Specific Protein Control Level 1	3 x 1 ml	PS2682	43
Specific Protein Control Level 2	3 x 1 ml	PS2683	43
Specific Protein Control Level 3	3 x 1 ml	PS2684	43
Specific Protein Control Level 1	6 x 3 ml	PS10221	43
Specific Protein Control Level 2	6 x 3 ml	PS10222	43
Specific Protein Control Level 3	6 x 3 ml	PS10223	43
Specific Protein Calibrator (Liquid)	5 x 1 ml	IT2691	43
Specific Protein Calibrator (Liquid)	5 x 1 ml	IT2692	44
Liquid CRP Control Level 2	10 x 1 ml	CP2480	44
Liquid CRP Control Level 3	10 x 1 ml	CP2481	44
High Sensitivity CRP Control Level 1	10 x 1 ml	CP2476	44
High Sensitivity CRP Control Level 2	10 x 1 ml	CP2477	44
High Sensitivity CRP Calibrator Series	6 x 2 ml	CP2478	44
CRP Full Range Calibrator	6 x 1 ml	CP2499	44
Canine CRP Control Level 2	3 x 1 ml	CP2803	44
Canine CRP Control Level 3	3 x 1 ml	CP2804	44
CSF Control Level 2	10 x 3 ml	CF1500	45
CSF Control Level 3	10 x 3 ml	CF1501	45
Liquid CSF Control Level 1	10 x 3 ml	CF10138	45
Liquid CSF Control Level 2	10 x 3 ml	CF10139	45
β -2-Microglobulin Calibrator	3 x 1 ml	BM10444	45
Cystatin C Control Level 2	3 x 2 ml	CYS10446	46
Cystatin C Control Level 3	3 x 2 ml	CYS10447	46
Cystatin C Calibrator	5 x 2 ml	CYS10445	46
Immunoglobulin Liquid Protein Calibrator	3 x 1 ml	IT3861	46
IgE Calibrator Series	6 x 1 ml	IE2492	46
sTfR Control Level 1 & 2	3 x 2 x 1 ml	TF10162	47
sTfR Calibrator	6 x 1 ml	TF10161	47



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

IMMUNOLOGY/PROTEIN

Specific Protein Control

Analytes			
<ul style="list-style-type: none"> α-1-Acid Glycoprotein α-1-Antitrypsin α-2-Macroglobulin α-Fetoprotein (AFP) Albumin Anti-Streptolysin O (ASO) Anti-Thrombin III (AT III) 	<ul style="list-style-type: none"> β-2-Microglobulin Ceruloplasmin Complement C3 Complement C4 CRP Ferritin Haptoglobin 	<ul style="list-style-type: none"> Immunoglobulin A (IgA) Immunoglobulin E (IgE) Immunoglobulin G (IgG) Immunoglobulin M (IgM) Kappa Light Chain Lambda Light Chain Lambda Light Chain (Free)* 	<ul style="list-style-type: none"> Prealbumin Protein (Total) Retinol Binding Protein (RBP) Rheumatoid Factor (RF) Transferrin

Covering a unique combination of 26 serum proteins, including; Total Kappa and Lambda Light Chains, the Acusera Specific Protein Control could replace as many as three separate controls. Supplied in a user-friendly liquid ready-to-use format with a 30 day open vial stability for all analytes, waste and preparation time are kept to a minimum. Manufactured using 100% human serum, this control is designed to directly mimic a patient sample, reducing costly shifts when reagent batch is changed and ensuring accurate patient testing. Assayed target values and ranges are provided for this true third party control.

- Liquid ready-to-use
- 100% human serum
- Contains both Total Kappa and Lambda Light Chains
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 30 days at 2°C to 8°C

Description	Size	Cat. No.
Specific Protein Control Level 1	3 x 1 ml	PS2682
Specific Protein Control Level 2	3 x 1 ml	PS2683
Specific Protein Control Level 3	3 x 1 ml	PS2684
Specific Protein Control Level 1	6 x 3 ml	PS10221
Specific Protein Control Level 2	6 x 3 ml	PS10222
Specific Protein Control Level 3	6 x 3 ml	PS10223

*Not for use in USA.

Specific Protein Calibrator

Analytes			
<ul style="list-style-type: none"> Anti-Streptolysin O (ASO) Ceruloplasmin Complement C3 Complement C4 	<ul style="list-style-type: none"> CRP Ferritin Haptoglobin 	<ul style="list-style-type: none"> Immunoglobulin A (IgA) Immunoglobulin G (IgG) Immunoglobulin M (IgM) 	<ul style="list-style-type: none"> Prealbumin Rheumatoid Factor (RF) Transferrin

Multi-analyte calibrator designed for use in the routine calibration of 13 serum proteins including Ferritin, IgA, IgG and IgM. Supplied in a convenient, liquid ready-to-use format with a working stability of 30 days, waste and time are kept to a minimum.

- Liquid ready-to-use
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 30 days at 2°C to 8°C
- Multi-point calibrator

Description	Size	Cat. No.
Specific Protein Calibrator (Liquid)	5 x 1 ml	IT2691

FOR USE WITH SAMPLES THAT DO NOT REQUIRE PRE-DILUTION

Specific Protein Calibrator - Requires pre-dilution

Analytes		
Immunoglobulin A (IgA)	Immunoglobulin G (IgG)	Immunoglobulin M (IgM)

Multi-analyte calibrator designed for use in the routine calibration of 3 serum proteins. Supplied in a convenient, liquid ready-to-use format with a working stability of 30 days, waste and time are kept to a minimum.

- **Liquid ready-to-use**
- **100% human serum**
- **Stable to expiry date at 2°C to 8°C**
- **Open vial stability of 30 days at 2°C to 8°C**
- **Multi-point calibrator**

Description	Size	Cat. No.	
Specific Protein Calibrator (Liquid)	5 x 1 ml	IT2692	FOR USE WITH SAMPLES THAT REQUIRE PRE-DILUTION

CRP Controls and Calibrator

A choice of two dedicated CRP controls is available, covering elevated and highly sensitive levels of CRP. As true third party controls, assayed target values are provided, ensuring unbiased performance assessment with any instrument or method. Conveniently supplied in a liquid ready-to-use format, no preparation is required.

- **Liquid ready-to-use**
- **100% human material**
- **Stable to expiry date at 2°C to 8°C**
- **Open vial stability of 30 days at 2°C to 8°C**
- **Multi-point calibrator**

Description	Size	Cat. No.
Liquid CRP Control Level 2	10 x 1 ml	CP2480
Liquid CRP Control Level 3	10 x 1 ml	CP2481
High Sensitivity CRP Control Level 1	10 x 1 ml	CP2476
High Sensitivity CRP Control Level 2	10 x 1 ml	CP2477
High Sensitivity CRP Calibrator Series	6 x 2 ml	CP2478
CRP Full Range Calibrator	6 x 1 ml	CP2499

Canine CRP Control

Dedicated CRP control uniquely designed for use in the quality control of the Randox Canine CRP assay. Supplied in a convenient, liquid ready-to-use format and stable to expiry date, waste and preparation time is kept to an absolute minimum.

- **Liquid ready-to-use**
- **Human CRP in a stabilised protein matrix**
- **Stable to expiry date at 2°C to 8°C**
- **Once opened stable to expiry date at 2°C to 8°C**

Description	Size	Cat. No.
Canine CRP Control Level 2	3 x 1 ml	CP2803
Canine CRP Control Level 3	3 x 1 ml	CP2804

IMMUNOLOGY/PROTEIN

CSF Control

Analytes			
α -1-Globulin (Electrophoresis)*	β -Globulin (Electrophoresis)*	Glucose	Protein (Total)
α -2-Globulin (Electrophoresis)*	Chloride	Immunoglobulin G (IgG)	Sodium
Albumin (Electrophoresis)*	γ -Globulin (Electrophoresis)*	Lactate	

Multi-analyte CSF control designed for use in the routine monitoring of both accuracy and precision. As a true third party control, it is compatible for use with a wide range of clinical analysers. Assayed target values are provided, eliminating the need to assign in-house.

- Lyophilised for enhanced stability
- Human based material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 14 days at 2°C to 8°C

Description	Size	Cat. No.
CSF Control Level 2	10 x 3 ml	CF1500
CSF Control Level 3	10 x 3 ml	CF1501

*No claims are made regarding values or stability.

Liquid CSF Control

Analytes			
α -1-Globulin (Electrophoresis)*	Chloride	High Sensitivity Immunoglobulin G (hslgG)	Microalbumin
α -2-Globulin (Electrophoresis)*	γ -Globulin (Electrophoresis)*	High Sensitivity Immunoglobulin M	Protein (Total)
Albumin (Electrophoresis)*	Glucose	(hslgM)*	Sodium
β -Globulin (Electrophoresis)*	High Sensitivity Immunoglobulin A (hslgA)*	Lactate	

Providing a true third party solution for the measurement of 14 analytes in Cerebrospinal Fluid (CSF), the new Acusera Liquid CSF Control is designed to deliver an unbiased, independent assessment of analytical performance, helping to ensure accurate and reliable patient testing. With an extended open vial stability of 30 days at 2°C to 8°C, this control will reduce waste, while remaining easy and convenient to use. Two distinct levels are available covering clinically significant ranges.

- Liquid ready-to-use
- Human based material
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 30 days at 2°C to 8°C

Description	Size	Cat. No.
Liquid CSF Control Level 1	10 x 3 ml	CF10138
Liquid CSF Control Level 2	10 x 3 ml	CF10139

*No claims are made regarding values or stability.

β -2-Microglobulin Calibrator

Our dedicated β -2-Microglobulin calibrator is designed for use in the calibration of β -2-Microglobulin assays. With an excellent working stability of 30 days at 2°C to 8°C, waste is kept to a minimum.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 30 days at 2°C to 8°C or 3 months at -20°C
- Single point calibrator

Description	Size	Cat. No.
β -2-Microglobulin Calibrator	3 x 1 ml	BM10444

Cystatin C Control and Calibrator

Dedicated Cystatin C control designed for use in the routine monitoring of both accuracy and precision. Supplied in a convenient, liquid ready-to-use format, no preparation is required. Assayed target values and ranges are provided for this true third party control.

- Liquid ready-to-use
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 30 days at 2°C to 8°C
- Multi-point calibrator

Description	Size	Cat. No.
Cystatin C Control Level 2	3 x 2 ml	CYS10446
Cystatin C Control Level 3	3 x 2 ml	CYS10447
Cystatin C Calibrator	5 x 2 ml	CYS10445

Immunoglobulin Liquid Protein Calibrator

Analytes		
Immunoglobulin A (IgA)	Immunoglobulin G (IgG)	Immunoglobulin M (IgM)

Calibrator series designed for use in the calibration of IgA, IgG and IgM immunoturbidimetric assays. Suitable for use with the Randox immunoglobulin assays.

- Liquid ready-to-use
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 30 days at 2°C to 8°C
- Single point calibrator

Description	Size	Cat. No.
Immunoglobulin Liquid Protein Calibrator	3 x 1 ml	IT3861

IgE Calibrator

Comprising 6 levels, our IgE calibrator series is designed for use in the calibration of IgE immunoturbidimetric assays. With an excellent working stability of 28 days at 2°C to 8°C, waste is kept to a minimum.

- Lyophilised for enhanced stability
- Human IgE in a stabilised matrix
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 28 days at 2°C to 8°C
- Multi-point calibrator

Description	Size	Cat. No.
IgE Calibrator Series	6 x 1 ml	IE2492

IMMUNOLOGY/PROTEIN

Soluble Transferrin Receptor (sTfR) Control and Calibrator Series

Providing a true third party solution for the measurement of Soluble Transferrin Receptor (sTfR), the Acusera control will deliver an unbiased, independent assessment of analytical performance. Designed for use with sTfR assays, this single analyte control saves money on wasted material.

- Lyophilised control
- Human based material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 28 days at 2°C to 8°C
- Multi-point calibrator

Description	Size	Cat. No.
sTfR Control Level 1 & 2	3 x 2 x 1 ml	TF10162
sTfR Calibrator	6 x 1 ml	TF10161

INFECTIOUS DISEASE CONTROLS (SEROLOGY)

The Acusera range of serology controls is designed to deliver a cost effective, high quality solution for the analysis of infectious diseases using our multi-marker controls that cover a wide range of testing. These liquid ready-to-use controls come with an unrivalled 60 day open-vial stability whilst helping laboratories save time and money with added consolidation. Negative controls are also available within our Serology Controls portfolio.

INFECTIOUS DISEASE (SEROLOGY)

Infectious Disease (Serology) Product Range

Product Description	Size	Cat. No.	Page No.
Anti SARS-CoV-2 Controls	2 x 2 x 4 ml	COV10460	50
EBV Positive Control	1 x 5 ml	SR10350	50
Lyme Disease Negative Control	1 x 5 ml	SR10345	50
Lyme Disease Positive Control	1 x 5 ml	SR10346	50
Serology Negative Control	6 x 5 ml	SR10351	51
Serology I Positive Control	3 x 5 ml	SR10352	51
Serology II Positive Control	3 x 5 ml	SR10353	51
Serology III Positive Control	3 x 5 ml	SR10354	51
ToRCH Negative Control	6 x 5 ml	SR10347	51
ToRCH IgG Positive Control	3 x 5 ml	SR10348	51
ToRCH IgM Positive Control	3 x 5 ml	SR10349	51



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

INFECTIOUS DISEASE (SEROLOGY)

Anti-SARS-CoV-2 Controls

Comprising both reactive and non-reactive controls for SARS-CoV-2 total antibodies, the Acusera range is designed to assess the precision of serological assays for COVID-19. As a true third party control, independent performance assessment is guaranteed.

- Liquid ready-to-use
- 100% human plasma
- Reactive and non-reactive controls available
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 30 days at 2°C to 8°C

Description	Size	Cat. No.
Anti-SARS-CoV-2 Controls	2 x 2 x 4 ml	COV10460

Epstein Barr Virus (EBV) Control

Analytes

Epstein Barr Virus (EBV) EBNA IgG

Epstein Barr Virus (EBV) VCA IgG

Epstein Barr Virus (EBV) IgM

The Acusera EBV control is conveniently supplied as liquid ready-to-use and is suitable for use with most immunoassay analysers.

- Liquid ready-to-use
- Human based serum
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 60 days at 2°C to 8°C
- Suitable for use with most immunoassay analysers

Description	Size	Cat. No.
EBV Positive Control	1 x 5 ml	SR10350

Lyme Disease (*Borrelia burgdorferi*) Control

Analytes

Borrelia burgdorferi IgG

Borrelia burgdorferi IgM

Our control delivers a true third-party solution for the detection of Lyme Disease on most immunoassay analysers. All samples are conveniently supplied in a user-friendly, liquid ready-to-use format.

- Liquid ready-to-use
- 100% human plasma
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 60 days at 2°C to 8°C
- Suitable for use with most immunoassay analysers

Description	Size	Cat. No.
Lyme Disease Negative Control	1 x 5 ml	SR10345
Lyme Disease Positive Control	1 x 5 ml	SR10346

INFECTIOUS DISEASE (SEROLOGY)

Serology Controls

Analytes			
Serology Negative Anti-HAV Anti-HBc Anti-HBe Anti-HBs Anti-HCV Anti-HIV 1 / 2 Anti-HTLV 1 / 2 HAV IgM	HBc IgM HBeAg HBsAg HIV P24Ag <i>Treponema pallidum</i> (Syphilis) IgG Serology I Positive Anti-HBc	Anti-HCV Anti-HIV 1 / 2 Anti-HTLV 1 / 2 HBsAg <i>Treponema pallidum</i> (Syphilis) IgG Serology II Positive Anti-HAV	Anti-HBc Anti-HBe Anti-HBs Serology III Positive HAV IgM HBc IgM

The Acusera Serology control range comprises both positive and negative controls for a wide range of pathogens including HIV & Hepatitis, are supplied as liquid ready-to-use and are suitable for use on most immunoassay analysers.

- Liquid ready-to-use
- 100% human plasma
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 60 days at 2°C to 8°C
- Suitable for use with most immunoassay analysers

Description	Size	Cat. No.
Serology Negative Control	6 x 5 ml	SR10351
Serology I Positive Control	3 x 5 ml	SR10352
Serology II Positive Control	3 x 5 ml	SR10353
Serology III Positive Control	3 x 5 ml	SR10354

ToRCH Controls

Analytes		
ToRCH Negative Cytomegalovirus (CMV) IgG Cytomegalovirus (CMV) IgM Epstein Barr Virus (EBV) EBNA IgG Epstein Barr Virus (EBV) VCA IgG Epstein Barr Virus (EBV) IgM <i>Helicobacter pylori</i> IgG Herpes Simplex Virus 1 (HSV-1) IgG Herpes Simplex Virus 1 (HSV-1) IgM Herpes Simplex Virus 2 (HSV-2) IgG Herpes Simplex Virus 2 (HSV-2) IgM Measles IgG Mumps IgG	Rubella IgG Rubella IgM Toxoplasma <i>gondii</i> IgG Toxoplasma <i>gondii</i> IgM <i>Treponema pallidum</i> (Syphilis) IgG Varicella Zoster Virus (VZV) IgG ToRCH IgG Positive Cytomegalovirus (CMV) IgG <i>Helicobacter pylori</i> IgG Herpes Simplex Virus 1 (HSV-1) IgG Herpes Simplex Virus 2 (HSV-2) IgG Measles IgG	Mumps IgG Rubella IgG Toxoplasma <i>gondii</i> IgG <i>Treponema pallidum</i> (Syphilis) IgG Varicella Zoster Virus (VZV) IgG ToRCH IgM Positive Cytomegalovirus (CMV) IgM Herpes Simplex Virus 1 (HSV-1) IgM Herpes Simplex Virus 2 (HSV-2) IgM Rubella IgM Toxoplasma <i>gondii</i> IgM

Our ToRCH portfolio includes positive controls for both IgG and IgM antibodies in addition to a negative control. Each control is manufactured using human plasma and is suitable for use with most immunoassay analysers. The availability of liquid ready-to-use samples helps to reduce preparation time and the potential for human error.

- Liquid ready-to-use
- Human based serum
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 60 days at 2°C to 8°C
- Suitable for use with most immunoassay analysers

Description	Size	Cat. No.
ToRCH Negative Control	6 x 5 ml	SR10347
ToRCH IgG Positive Control	3 x 5 ml	SR10348
ToRCH IgM Positive Control	3 x 5 ml	SR10349

LIPID CONTROLS

Our Acusera Lipid quality controls have been manufactured from 100% human serum to ensure they are commutable, performing in the same manner as a patient sample with minimal lot to lot value shifts. All of our Lipid Controls contain no stabilisers or preservatives, which may affect the overall performance of the controls. The multi-analyte controls enable test menu consolidation which, along with a four year shelf life from the date of manufacture, ensures minimal waste and helps to reduce costs.

LIPIDS

Lipid Product Range			
Product Description	Size	Cat. No.	Page No.
Lipid Control Level 1	5 x 1 ml	LE2668	54
Lipid Control Level 2	5 x 1 ml	LE2669	54
Lipid Control Level 3	5 x 1 ml	LE2670	54
Lipid Control Level 1	5 x 3 ml	LE2661	54
Lipid Control Level 2	5 x 3 ml	LE2662	54
Lipid Control Level 3	5 x 3 ml	LE2663	54
Direct HDL/LDL Cholesterol Calibrator (Clearance)	3 x 1 ml	CH2673	54
Apolipoprotein Control Level 1	3 x 1 ml	LE5016	55
Apolipoprotein Control Level 2	3 x 1 ml	LE5017	55
Apolipoprotein Control Level 3	3 x 1 ml	LE5018	55
Apolipoprotein Calibrator	3 x 1 ml	LP3023	55
Apolipoprotein Calibrator 2	3 x 1 ml	LP5047	55
Lipoprotein (a) Control Level 3	3 x 1 ml	LP3406	55
Lipoprotein (a) Calibrator Series	5 x 1 ml	LP3404	55
sLDL Control Level 1	3 x 1 ml	LE5013	56
sLDL Control Level 2	3 x 1 ml	LE5014	56
sLDL Control Level 3	3 x 1 ml	LE5015	56
sLDL Calibrator	3 x 1 ml	CH5050	56



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

Lipid Control

Analytes			
Apolipoprotein A-1 Apolipoprotein B	Cholesterol (HDL) Cholesterol (LDL)	Cholesterol (Total) Lipoprotein (a)	Triglycerides

The Randox Acusera Lipid control is supplied with assayed method specific target values and ranges for 7 analytes, covering the complete lipid profile. Unlike with many manufacturers, the material used in the production of the Randox lipid control does not contain preservatives such as Sodium Azide. This ensures a matrix that is compatible with the patient sample and prevents interference with clearance methods of HDL and LDL. Two flexible and convenient pack sizes are available, providing a true third party solution for laboratories of all sizes.

- Lyophilised for enhanced stability
- 100% human serum
- Sodium Azide is not present - no interference occurs with clearance methods
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of up to 7 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Lipid Control Level 1	5 x 1 ml	LE2668
Lipid Control Level 2	5 x 1 ml	LE2669
Lipid Control Level 3	5 x 1 ml	LE2670
Lipid Control Level 1	5 x 3 ml	LE2661
Lipid Control Level 2	5 x 3 ml	LE2662
Lipid Control Level 3	5 x 3 ml	LE2663

Direct LDL/HDL Cholesterol Calibrator

Analytes	
Cholesterol (HDL)	Cholesterol (LDL)

The Acusera Direct LDL/HDL Cholesterol Calibrator has been designed for use in the calibration of HDL and LDL Clearance assays on clinical chemistry analysers.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 5 days at 2°C to 8°C and 1 month at -20°C
- Single point calibrator

Description	Size	Cat. No.
Direct LDL/HDL Cholesterol Calibrator (Clearance)	3 x 1 ml	CH2673

LIPIDS

Apolipoprotein Control and Calibrators

Analytes		
Apolipoprotein Control Apolipoprotein A-II Apolipoprotein C-II Apolipoprotein C-III Apolipoprotein E	Apolipoprotein Calibrator Apolipoprotein A-I Apolipoprotein B	Apolipoprotein Calibrator 2 Apolipoprotein A-II Apolipoprotein C-II Apolipoprotein C-III Apolipoprotein E

The Acusera Apolipoprotein control has been designed for the routine monitoring of 4 esoteric Apolipoprotein analytes. Complementing our Acusera Apolipoprotein control is the Acusera Apolipoprotein Calibrator, which has been designed for use in the calibration of 6 Apolipoprotein assays on a wide range of clinical chemistry analysers.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Control - reconstituted stability of 7 days at 2°C to 8°C for Apolipoprotein A-II and Apolipoprotein C-II, Apolipoprotein E is stable for 8 hours at 2°C to 8°C. All analytes are stable for 4 weeks at -20°C
- Calibrator - reconstituted stability of 7 days at 2°C to 8°C for Apolipoprotein A-II and Apolipoprotein C-II, Apolipoprotein E is stable for 8 hours at 2°C to 8°C. All analytes are stable for 4 weeks at -20°C
- Multi-point calibrator

Description	Size	Cat. No.
Apolipoprotein Control Level 1	3 x 1 ml	LE5016
Apolipoprotein Control Level 2	3 x 1 ml	LE5017
Apolipoprotein Control Level 3	3 x 1 ml	LE5018
Apolipoprotein Calibrator	3 x 1 ml	LP3023
Apolipoprotein Calibrator 2	3 x 1 ml	LP5047

Lipoprotein (a) Control and Calibrator

The Acusera Lipoprotein (a) control has been designed for the routine monitoring of the Randox Lipoprotein (a) assay. The Acusera Lipoprotein (a) calibrator has been designed to calibrate Lipoprotein (a) assays on clinical chemistry analysers.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 14 days at 2°C to 8°C
- Multi-point calibrator

Description	Size	Cat. No.
Lipoprotein (a) Control Level 3	3 x 1 ml	LP3406
Lipoprotein (a) Calibrator Series	5 x 1 ml	LP3404

sLDL Control and Calibrator

The Acusera sLDL Control and Calibrator have been designed for the use in the routine monitoring of both accuracy and precision.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 5 days at 2°C to 8°C
- Single point calibrator

Description	Size	Cat. No.
sLDL Control Level 1	3 x 1 ml	LE5013
sLDL Control Level 2	3 x 1 ml	LE5014
sLDL Control Level 3	3 x 1 ml	LE5015
sLDL Calibrator	3 x 1 ml	CH5050

SPECIALITY AND RESEARCH CONTROLS

Our Speciality and Research Quality Controls cover a wide range of assays employed by universities, pharmaceutical companies, forensic laboratories and so on. Available in various formats and pack sizes, our multi-analyte Speciality and Research controls cover a range of specialised assays.

SPECIALITY AND RESEARCH

Speciality and Research Product Range

Product Description	Size	Cat. No.	Page No.
Antimicrobial Control II	3 x 1 ml	AMC5035	59
Antimicrobial Control III	3 x 1 ml	AMC5036	59
Growth Promoter Control	3 x 1 ml	GP5003	59
Adhesion Molecules Tri-Level Control	3 x 3 x 1 ml	EV3569	60
Adhesion Molecules Calibrator Series	9 x 1 ml	EV3568	60
Cerebral Array II Tri-Level Control	3 x 3 x 0.5 ml	CBB5009	60
Cytokine Array I Tri-Level Control	3 x 3 x 1 ml	CY5006	61
High Sensitivity Cytokine Array Tri-Level Control	3 x 3 x 2 ml	CY5005	61
Cytokine Array Calibrator Series	9 x 1 ml	EV3561	61
Cytokine Array III Tri-Level Control	3 x 3 x 1 ml	CY5012	61
Cytokine Array IV Tri-Level Control	3 x 3 x 1 ml	CY5011	62
Evidence Immunoassay Control	4 x 3 x 5 ml	EV3570	62
Synthetic Steroids Control	3 x 1 ml	EV3709	63
Synthetic Steroids Calibrator	9 x 1 ml	EV3708	63
Metabolic Syndrome Array I Control	3 x 3 x 1 ml	EV3757	63
Metabolic Syndrome Array I Calibrator	9 x 1 ml	EV3756	63
Metabolic Syndrome Array II Control	3 x 3 x 1 ml	EV3761	64
Metabolic Syndrome Array II Calibrator	9 x 1 ml	EV3760	64
Thyroid Total Calibrator Series	9 x 1 ml	EV3555	64
Thyroid Free Calibrator Series	9 x 1 ml	EV3563	64



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

SPECIALITY AND RESEARCH

Antimicrobial Control II

Analytes			
Ceftiofur Quinolones (Generic)	Streptomycin Tetracyclines (Generic)	Thiamphenicol	Tylosin

A multi-analyte control supplied with values for 6 different antimicrobial agents used extensively in veterinary medicine.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 24 hours at 2°C to 8°C or 14 days at -20°C

Description	Size	Cat. No.
Antimicrobial Control II	3 x 1 ml	AMC5035

Antimicrobial Control III

Analytes			
AHD AMOZ	AOZ	Chloramphenicol	Semicarbazine (SEM)

Multi-analyte control containing values for 5 different antimicrobial agents.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 28 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Antimicrobial Control III	3 x 1 ml	AMC5036

Growth Promoter Control

Analytes			
β -Agonists (Clenbuterol) Boldenone Corticosteroids	Nandrolone Ractopamine	Stanozolol Stilbenes	Trenbolone Zeranol

A multi-analyte control provided with accurately assigned target values and ranges for 9 different growth promoters.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 14 days at 2°C to 8°C

Description	Size	Cat. No.
Growth Promoter Control	3 x 1 ml	GP5003

Adhesion Molecules Control and Calibrator

Analytes

E-Selectin (E-SEL)
Intercellular Adhesion Molecule-1 (ICAM-1)
L-Selectin (L-SEL)

P-Selectin (P-SEL)
Vascular Cell Adhesion Molecule-1 (VCAM-1)

A multi-analyte control with target values and ranges supplied for 5 different adhesion molecules.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human recombinant material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 24 hours at 2°C to 8°C or 7 days at -20°C

Description	Size	Cat. No.
Adhesion Molecules Tri-Level Control	3 x 3 x 1 ml	EV3569
Adhesion Molecules Calibrator Series	9 x 1 ml	EV3568

Cerebral Array II Control

Analytes

CRP
D-dimer
Neuron Specific Enolase (NSE)

Neutrophil Gelatinase-associated Lipocalin (NGAL)
Soluble Tumour Necrosis Factor Receptor I (sTNFRI)
Thrombomodulin (TM)

A multi-analyte control with target values and ranges provided for 6 analytes.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 8 hours at 2°C to 8°C or 14 days at -80°C

Description	Size	Cat. No.
Cerebral Array II Tri-Level Control	3 x 3 x 0.5 ml	CBB5009

SPECIALITY AND RESEARCH

Cytokine Array I and High Sensitivity Cytokine Array I Controls and Calibrator



Analytes	
Epidermal Growth Factor (EGF) Interferon g (IFNg) Interleukin-1 α (IL-1 α) Interleukin-1 β (IL-1 β) 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 α (TNF α) Vascular Endothelial Growth Factor (VEGF)

Multi-analyte controls with target values and ranges provided for 12 different cytokines.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human recombinant material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 10-12 hours at 2°C to 8°C or 14 days at -20°C
- High sensitivity - Reconstituted stability of 4 hours at 2°C to 8°C or 7 days at -20°C

Description	Size	Cat. No.
Cytokine Array I Tri-Level Control	3 x 3 x 1 ml	CY5006
High Sensitivity Cytokine Array I Tri-Level Control	3 x 3 x 2 ml	CY5005
Cytokine Array Calibrator Series	9 x 1 ml	EV3561

Cytokine Array III Control



Analytes	
GM-CSF Interleukin-5 (IL-5)	Interleukin-15 (IL-15) Macrophage Inflammatory Protein-1 α (MIP-1 α)

A multi-analyte control with target values and ranges provided for 4 analytes.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 24 hours at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Cytokine Array III Tri-Level Control	3 x 3 x 1 ml	CY5012

Cytokine Array IV Control

Analytes

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

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

A multi-analyte control with target values and ranges provided for 5 analytes.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Cytokine Array IV Tri-Level Control	3 x 3 x 1 ml	CY5011

Evidence Immunoassay Control

Analytes

CEA
FSH
Luteinising Hormone (LH)
Oestradiol

Progesterone
Prolactin
PSA (Free)
PSA (Total)

T3 (Free)
T3 (Total)
T4 (Free)
T4 (Total)

Testosterone
TSH

Multi-analyte immunoassay control designed for use in the routine monitoring of the Randox Fertility, Thyroid and Tumour Marker Arrays.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Evidence Immunoassay Control	4 x 3 x 5 ml	EV3570

SPECIALITY AND RESEARCH

Synthetic Steroids Control and Calibrator

Analytes			
17 β -Clostebol Ethinylestradiol	Gestagens (Generic)	Methandriol	Methyltestosterone

Human based control designed for use in the routine monitoring of both accuracy and precision. Assayed target values and ranges are provided for 5 different synthetic steroids.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 3 days at 2°C to 8°C or 14 days at -20°C

Description	Size	Cat. No.
Synthetic Steroids Control	3 x 1 ml	EV3709
Synthetic Steroids Calibrator	9 x 1 ml	EV3708

Metabolic Syndrome Array I Control and Calibrator

Analytes			
C-Peptide Ferritin Insulin	Interleukin-1 α (1L-1 α) Interleukin-6 (1L-6) Leptin	Plasminogen Activator Inhibitor-1 Resistin	Tumour Necrosis Factor α (TNF α)

A multi-analyte control with target values and ranges provided for 9 analytes associated with metabolic syndrome.

- Assayed values available for Randox Biochip systems
- 100% human material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 72 hours at 2°C to 8°C and 7 days at -20°C

Description	Size	Cat. No.
Metabolic Syndrome Array I Control	3 x 3 x 1 ml	EV3757
Metabolic Syndrome Array I Calibrator	9 x 1 ml	EV3756

SPECIALITY AND RESEARCH

Metabolic Syndrome Array II Control and Calibrator

Analytes		
Adiponectin	CRP	Cystatin C

A multi-analyte control with target values and ranges provided for 3 analytes associated with metabolic syndrome.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 8 hours at 2°C to 8°C and 28 days at -20°C

Description	Size	Cat. No.
Metabolic Syndrome Array II Control	3 x 3 x 1 ml	EV3761
Metabolic Syndrome Array II Calibrator	9 x 1 ml	EV3760

Thyroid Total Calibrator

Analytes		
T3 (Total)	T4 (Total)	TSH

A comprehensive multi analyte calibrator designed for use in the calibration of the Randox Thyroid Total Array on Randox Biochip systems.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C and 28 days at -20°C

Description	Size	Cat. No.
Thyroid Total Calibrator Series	9 x 1 ml	EV3555

Thyroid Free Calibrator

Analytes		
T3 (Free)	T4 (Free)	TSH

A comprehensive multi analyte calibrator designed for use in the calibration of the Randox Thyroid Free Array on Randox Biochip systems.

- Lyophilised for enhanced stability
- Assayed values available for Randox Biochip systems
- 100% human material
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C and 28 days at -20°C

Description	Size	Cat. No.
Thyroid Free Calibrator Series	9 x 1 ml	EV3563

THERAPEUTIC DRUG CONTROLS

Patients absorb and metabolise medication at different rates. As a result, it is simply not acceptable to administer a standard volume to each one. Due to the problems that over and under prescribing medication can cause, it is vital that levels are closely monitored and medical personnel can trust that the test results they receive are accurate and reliable. Our Therapeutic Drug Controls are manufactured from 100% human serum and have a reconstituted stability of 4 weeks, ensuring minimal waste, thus saving your laboratory money.

Therapeutic Drug Product Range

Product Description	Size	Cat. No.	Page No.
Therapeutic Drug Control Level 1	20 x 5 ml	HD1667	67
Therapeutic Drug Control Level 2	20 x 5 ml	HD1668	67
Therapeutic Drug Control Level 3	20 x 5 ml	HD1669	67
Therapeutic Drug Calibrator	6 x 3 ml	TD3417	67



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

THERAPEUTIC DRUG

Therapeutic Drug Control

Analytes			
Amikacin	Ethosuximide	Phenobarbitone	Tobramycin
Caffeine	Gentamicin	Phenytoin	Valproic Acid
Carbamazepine	Lithium	Primidone	Vancomycin
Cyclosporine	Methotrexate	Salicylate	
Digoxin	Paracetamol	Theophylline	

Multi-analyte therapeutic drug control covering 18 analytes at three clinically relevant levels. Method specific target values and ranges are supplied for this true third party control. With an extended reconstituted stability of 28 days, waste is kept to a minimum.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 28 days at 2°C to 8°C

Description	Size	Cat. No.
Therapeutic Drug Control Level 1	20 x 5 ml	HD1667
Therapeutic Drug Control Level 2	20 x 5 ml	HD1668
Therapeutic Drug Control Level 3	20 x 5 ml	HD1669

Therapeutic Drug Calibrator

Analytes			
Carbamazepine	Phenobarbitone	Phenytoin	Valproic Acid
Digoxin			

The Acusera Therapeutic Drug calibrator has been designed for use in the calibration of 5 therapeutic drug assays on clinical chemistry analysers. An extended stability of 28 days will help to reduce waste and costs.

- Lyophilised for enhanced stability
- 100% human serum
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 28 days at 2°C to 8°C or 8 weeks at -20°C
- Multi-point calibrator

Description	Size	Cat. No.
Therapeutic Drug Calibrator	6 x 3 ml	TD3417

TOXICOLOGY CONTROLS

The detection and treatment of toxic substances can mean life or death for a patient. As a result, it is essential to ensure that the results you are releasing are accurate and reliable. Our controls are available in both liquid and lyophilised formats and in a variety of matrices, providing you with the flexibility to choose a control to suit your needs.

Toxicology Product Range			
Product Description	Size	Cat. No.	Page No.
Ethanol Calibrator/Control Set	4 x 10 ml	DA2703	70
Drugs of Abuse Array 1 Plus (Urine) Controls	4 x 2 x 1 ml	EV3745	70
Drugs of Abuse Array 1 Plus (Urine) Calibrators	9 x 1 ml	EV3744	70
Drugs of Abuse Array 1 Plus (Whole Blood) Controls	4 x 2 x 1 ml	EV3750	70
Drugs of Abuse Array 1 Plus (Whole Blood) Calibrators	9 x 1 ml	EV3749	70
Drugs of Abuse Array II (Urine) Controls	4 x 2 x 1 ml	EV3657	70
Drugs of Abuse Array II (Whole Blood) Controls	4 x 2 x 1 ml	EV3682	70
Drugs of Abuse Array II (Urine) Calibrator Series	9 x 1 ml	EV3656	70
Drugs of Abuse Array II (Whole Blood) Calibrator Series	9 x 1 ml	EV3687	70
Drugs of Abuse Array III (Urine) Control	4 x 2 x 1 ml	EV3830	71
Drugs of Abuse Array III (Urine) Calibrator Series	9 x 1 ml	EV3829	71
Drugs of Abuse Array III (Whole Blood) Control	4 x 2 x 1 ml	EV3794	71
Drugs of Abuse Array III (Whole Blood) Calibrator Series	9 x 1 ml	EV3797	71
Drugs of Abuse Array IV (Urine) Control	4 x 2 x 1 ml	EV3835	71
Drugs of Abuse Array IV (Urine) Calibrator Series	9 x 1 ml	EV3834	71
Drugs of Abuse Array IV (Whole Blood) Control	4 x 2 x 1 ml	EV3809	71
Drugs of Abuse Array IV (Whole Blood) Calibrator Series	9 x 1 ml	EV3808	71
Drugs of Abuse Array V (Urine) Control	4 x 2 x 1 ml	EV3814	72
Drugs of Abuse Array V (Urine) Calibrator Series	9 x 1 ml	EV3815	72
Drugs of Abuse Array V (Whole Blood) Control	4 x 2 x 1 ml	EV3848	72
Drugs of Abuse Array V (Whole Blood) Calibrator Series	9 x 1 ml	EV3847	72



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

Ethanol Calibrator/Control Set

Dedicated calibrator and control set designed for the calibration and quality control of the Randox Ethanol assay.

- Liquid ready-to-use
- Human urine
- Stable to expiry date when capped and stored at 2°C to 8°C
- Open vial stability of 28 days at 2°C to 8°C

Description	Size	Cat. No.
Ethanol Calibrator/Control Set	4 x 10 ml	DA2703

Drugs of Abuse Array 1 Plus Controls and Calibrators

Analytes			
Amphetamine Barbiturates Benzodiazepine 1 Benzodiazepine 2	Benzoylcegonine (Cocaine) Buprenorphine Cannabinoids Creatinine	MDMA Methadone Methamphetamine	Opiates Phencyclidine Tricyclic Antidepressants

Assayed control for use in monitoring the accuracy and precision on Randox Biochip systems. Two levels of control are provided, covering the cut-off range.

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Urine - Reconstituted stability of 14 days at 2°C to 8°C
- Whole Blood – Reconstituted stability of 7 days at 2°C to 8°C or 14 days at -20°C

Description	Size	Cat. No.
Drugs of Abuse Array 1 Plus (Urine) Controls	4 x 2 x 1 ml	EV3745
Drugs of Abuse Array 1 Plus (Urine) Calibrators	9 x 1 ml	EV3744
Drugs of Abuse Array 1 Plus (Whole Blood) Controls	4 x 2 x 1 ml	EV3750
Drugs of Abuse Array 1 Plus (Whole Blood) Calibrators	9 x 1 ml	EV3749

Drugs of Abuse Array II Controls and Calibrators

Analytes			
Buprenorphine Creatinine Fentanyl	Ketamine LSD Methaqualone	MDMA Opiates Oxycodone I	Oxycodone II Propoxyphene

A comprehensive control designed for use in the routine monitoring of accuracy and precision on Randox Biochip systems. Assayed values are provided for 11 analytes.

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Urine - Reconstituted stability of 7 days at 2°C to 8°C or 28 days at -20°C
- Whole Blood - Reconstituted stability of 7 days at 2°C to 8°C or 28 days at -20°C

Description	Size	Cat. No.
Drugs of Abuse Array II (Urine) Controls	4 x 2 x 1 ml	EV3657
Drugs of Abuse Array II (Whole Blood) Controls	4 x 2 x 1 ml	EV3682
Drugs of Abuse Array II (Urine) Calibrator Series	9 x 1 ml	EV3656
Drugs of Abuse Array II (Whole Blood) Calibrator Series	9 x 1 ml	EV3687

TOXICOLOGY

Drugs of Abuse Array III Controls and Calibrators

Analytes			
7-amino Flunitrazepam Chloral Hydrate Metabolite Creatinine	Ethyl Glucuronide Fentanyl Ketamine	Meperidine Meprobamate Zaleplon	Zolpidem Zopiclone

Assayed control for use in monitoring the accuracy and precision of the analytes above on Randox Biochip systems. Two levels of control are provided covering the cut-off range.

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C

Description	Size	Cat. No.
Drugs of Abuse Array III (Urine) Control	4 x 2 x 1 ml	EV3830
Drugs of Abuse Array III (Urine) Calibrator Series	9 x 1 ml	EV3829
Drugs of Abuse Array III (Whole Blood) Control	4 x 2 x 1 ml	EV3794
Drugs of Abuse Array III (Whole Blood) Calibrator Series	9 x 1 ml	EV3797

Drugs of Abuse Array IV Controls and Calibrators

Analytes			
Creatinine Dextromethorphan Escitalopram Fluoxetine	Haloperidol Ibuprofen Methylphenidate Paracetamol	Salicylate Salicylic Acid Sertraline Tramadol	Trazodone Tricyclic Antidepressants

Assayed control for use in monitoring the accuracy and precision of the analytes above on Randox Biochip systems. Two levels of control are provided covering the cut-off range.

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C

Description	Size	Cat. No.
Drugs of Abuse Array IV (Urine) Control	4 x 2 x 1 ml	EV3835
Drugs of Abuse Array IV (Urine) Calibrator Series	9 x 1 ml	EV3834
Drugs of Abuse Array IV (Whole Blood) Control	4 x 2 x 1 ml	EV3809
Drugs of Abuse Array IV (Whole Blood) Calibrator Series	9 x 1 ml	EV3808

Drugs of Abuse Array V Controls and Calibrators

Analytes			
Bath Salts 1 Bath Salts 2 Benzylpiperazines	Mescaline Phenylpiperazines Salvinorin	Synthetic Cannabinoids 1 Synthetic Cannabinoids 2 Synthetic Cannabinoids 3	Synthetic Cannabinoids 4

Assayed control for use in monitoring the accuracy and precision of the analytes above on Randox Biochip systems. Two levels of control are provided covering the cut-off range.

- Lyophilised for enhanced stability
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 7 days at 2°C to 8°C

Description	Size	Cat. No.
Drugs of Abuse Array V (Urine) Control	4 x 2 x 1 ml	EV3814
Drugs of Abuse Array V (Urine) Calibrator Series	9 x 1 ml	EV3815
Drugs of Abuse Array V (Whole Blood) Control	4 x 2 x 1 ml	EV3848
Drugs of Abuse Array V (Whole Blood) Calibrator Series	9 x 1 ml	EV3847

URINE CONTROLS

Our Acusera Urine Chemistry Controls are available in a choice of lyophilised and liquid ready-to-use formats, covering the full range of clinical testing. With flexible options available, we have a urine control to suit all laboratory sizes and budgets.

Urine Product Range

Product Description	Size	Cat. No.	Page No.
Assayed Urine Control Level 2	12 x 10 ml	AU2352	75
Assayed Urine Control Level 3	12 x 10 ml	AU2353	75
Liquid Urine Control Level 2	10 x 10 ml	UC5074	75
Liquid Urine Control Level 3	10 x 10 ml	UC5075	75
Urinalysis Control Level 1	12 x 12 ml	UC5033	76
Urinalysis Control Level 2	12 x 12 ml	UC5034	76
Microalbumin Calibrator Series	6 x 2 ml	MA1567	76



Liquid
ready-to-use



Liquid
frozen



Lyophilised for
enhanced stability



Assayed target
values provided



100% human
matrix

URINE

Assayed Urine Control

Analytes			
5-HIAA*	Creatinine	Microalbumin	Potassium
Amylase	Dopamine*	Norepinephrine*	Protein (Total)
Calcium	Epinephrine*	Normetanephrine	Sodium
Chloride	Glucose	Osmolality	Urea
Copper*	Magnesium	Oxalate*	Uric Acid (Urate)
Cortisol	Metanephrine	Phosphate (Inorganic)	Vanillylmandelic Acid (VMA)*

Comprising 24 urine chemistry analytes in a single multi-analyte control, the Acusera Assayed Urine Control is designed to cover your complete test menu, reducing costs and preparation time. Our unique 100% human urine matrix will mirror the performance of patient samples and ensure target values don't shift after changing reagent batch. Assayed target values and ranges are provided for this true third party control.

- Lyophilised for enhanced stability
- 100% human urine
- Stable to expiry date at 2°C to 8°C
- Reconstituted stability of 5 days at 2°C to 8°C or 14 days at -20°C

Description	Size	Cat. No.	
Assayed Urine Control Level 2	12 x 10 ml	AU2352	
Assayed Urine Control Level 3	12 x 10 ml	AU2353	*No claims are made regarding stability.

Liquid Urine Control

Analytes			
Amylase	Glucose	pH	Specific Gravity
Calcium	hCG	Phosphate (Inorganic)	Urea
Chloride	Magnesium	Potassium	Uric Acid (Urate)
Cortisol	Microalbumin	Protein (Total)	
Creatinine	Osmolality	Sodium	

Our Acusera Liquid Urine Control has been designed to consolidate up to 18 commonly used urine chemistry analytes in a single vial, reducing the number of controls required to cover your complete test menu. Supplied in a user-friendly liquid ready-to-use format with an open vial stability of 30 days, waste and time is kept to a minimum. Assayed target values and ranges are provided for this true third party control.

- Liquid ready-to-use
- 100% human urine
- Stable to expiry date at 2°C to 8°C
- Open vial stability 30 days at 2°C to 8°C
- Multi-point calibrator

Description	Size	Cat. No.
Liquid Urine Control Level 2	10 x 10 ml	UC5074
Liquid Urine Control Level 3	10 x 10 ml	UC5075

Urinalysis Control

Analytes				
Albumin	Glucose	Nitrite	Urobilinogen	
Bilirubin	hCG	pH		
Blood	Ketones	Protein (Total)		
Creatinine	Leukocytes	Specific Gravity		

The Acusera Urinalysis Control has been specifically designed for use in the quality control of urine test strips. Our user-friendly liquid ready-to-use format will dramatically reduce preparation time while a stability of 30 days will keep waste to a minimum. Assayed values are provided for 13 analytes covering a range of test strip manufacturers.

- Liquid ready-to-use
- 100% human urine
- Suitable for use in POCT
- Stable to expiry date at 2°C to 8°C
- Open vial stability of 30 days or 20 immersions at 2°C to 25°C

Description	Size	Cat. No.
Urinalysis Control Level 1	12 x 12 ml	UC5033
Urinalysis Control Level 2	12 x 12 ml	UC5034

Microalbumin Calibrator

Our Acusera Microalbumin Calibrator have been developed for use in the calibration and monitoring of microalbumin immunoturbidimetric assays. Our unique 100% human urine matrix ensures it behaves like a patient sample and reduces costly shifts when reagent batch is changed. As a true third party calibrator, it is compatible for use on a wide range of clinical analysers.

- Liquid ready-to-use
- 100% human urine
- Stable to expiry date at 2°C to 8°C
- Once opened stable to expiry date at 2°C to 8°C

Description	Size	Cat. No.
Microalbumin Calibrator Series	6 x 2 ml	MA1567

CUSTOMISED QUALITY CONTROL SERA

Don't see what you are looking for? No problem! Randox Quality Control can work with you to develop a customised quality control for your laboratory. With our custom sera, you can select the analytes, levels, format and vial size required by your laboratory, ensuring the final product meets all your needs and guarantees you can continue to produce accurate and reliable patient results.

CUSTOMISED QUALITY CONTROL SERA

For over 40 years, laboratories, EQA scheme organisers and other diagnostic companies have looked to Randox to provide their QC needs. Randox Laboratories manufactures a full portfolio of quality controls, calibrators and standards for over 400 analytes. In addition to 'off the shelf' quality control products, Randox is the world's leading provider of customised control materials. Customising control materials can involve adding/removing analytes, specifying concentrations or choosing alternative vial sizes.

Our principal control products are:

- Antioxidants
- Cardiac Markers
- Clinical Chemistry
- Coagulation and Haematology
- Diabetes and Whole Blood
- Immunoassay
- Immunology/Proteins
- Infectious Disease (Serology)
- Lipids
- Tumour Markers
- Therapeutic Drugs and Toxicology
- Urine Chemistry
- Specialist and Research controls such as Cytokines, Growth Promoters, Antimicrobials, Cerebral Markers and a variety of single-analyte control products

Randox also produces custom sera for EQA schemes and specialised controls for research projects.

Quality is our focus during the manufacturing process, as all control products are produced to the same high specifications using procedures complying with ISO 13485 for medical devices. State of the art clinical chemistry and immunoassay analysers are used during the manufacturing and quality control processes.

To enable us to identify and fulfil your needs, please discuss your requirements with your Randox representative. We are happy to consider any requirements you may have.

Consolidation

Randox will **significantly consolidate your existing controls**. An average laboratory may rationalise from 7 individual controls to a single control product

Tailor Made

Specify the analytes and levels you require. We can provide the levels tailored to your cut off values

Stability

Randox lyophilised controls are **stable for up to 4 years, reducing costly lot changes** and enabling use of the same lot over an extended period

Options

Customised controls are available in different matrices e.g. serum, urine, aqueous

Flexibility

Batch sizes manufactured between **50 – 250,000 vials**. Randox can provide a wide range of **vial sizes from 1 ml to 10 ml**

Quality

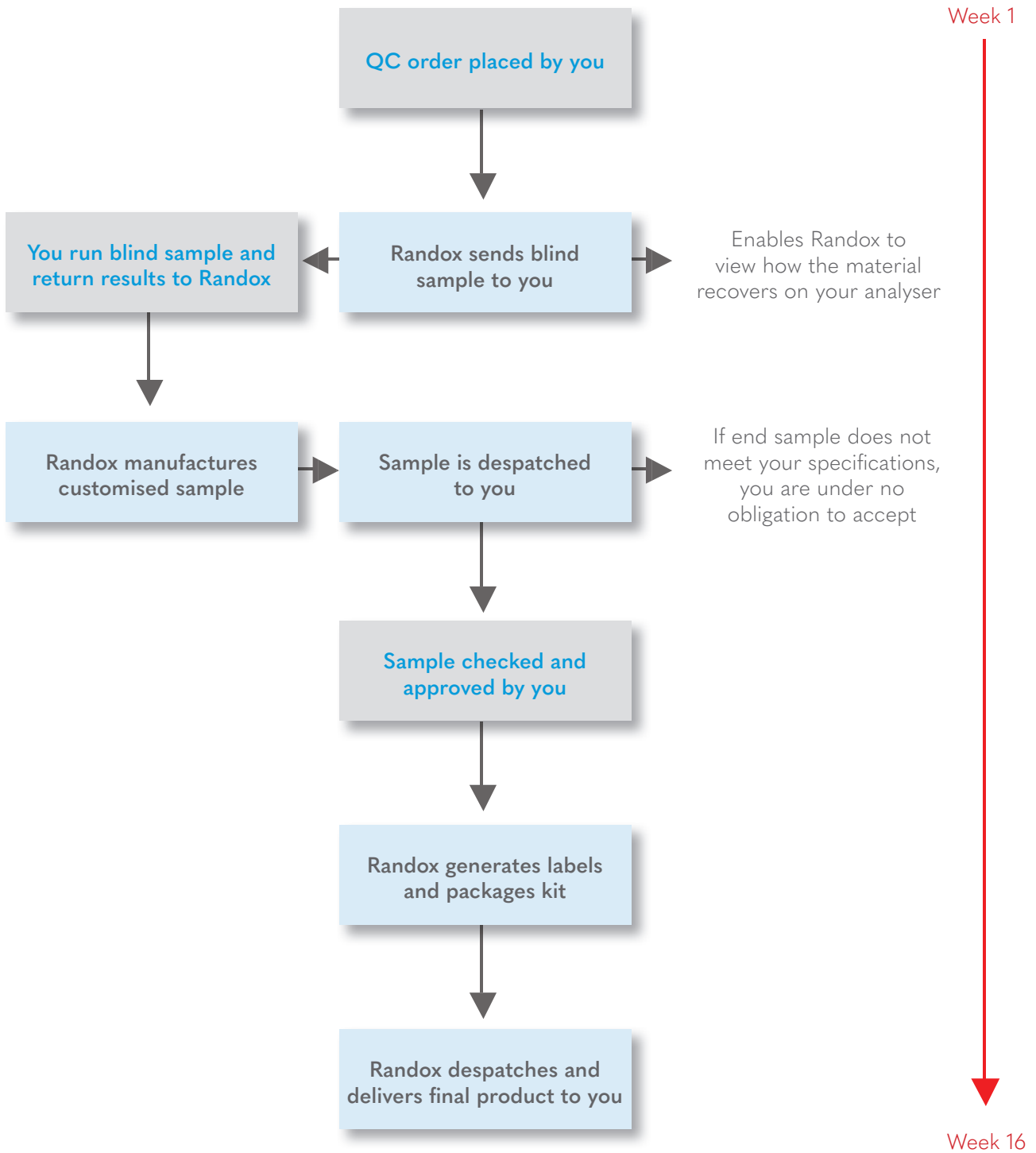
All controls are **produced to high quality specification**, fully compliant with ISO 13485

Choice

3 different formats – lyophilised/liquid/liquid frozen

CUSTOMISED QUALITY CONTROL SERA

Custom Control Timeline



INTER- LABORATORY DATA MANAGEMENT

Compatible for use with the Acusera range of third party controls, the Acusera 24•7 software is designed to help laboratories monitor and interpret their QC data. Access to an impressive range of features including interactive charts and real-time peer group data generated from our extensive database of laboratory participants, ensures Acusera 24•7 is the most comprehensive package available.

WHAT IS ACUSERA 24•7?

ACUSERA ^{24•7}

Acusera 24•7 is an interlaboratory data management and peer group reporting package designed to complement the **Acusera** range of third party controls. Using **Acusera 24•7** will help you to improve error detection, reduce false rejections and ensure accurate patient test results.

Why run a peer group reporting program?

- Quickly identify trends, system errors and reagent issues, minimising expensive repeat tests
- Bridge the gap between daily quality control and external quality assessment
- Improve EQA performance by eliminating any undetected bias
- Facilitate regulatory compliance
- Reduce false rejections through the use of QC multi-rules
- Increase confidence in assigned QC target values
- Carry out rapid and effective troubleshooting leading to shorter delays in reporting

With **Acusera 24•7**, peer group data is uniquely updated live, in real-time, giving you access to the most up-to-date information available. Access to relevant peer group data enables rapid and effective troubleshooting, it may even help to identify errors earlier.

FEATURES



Dashboard

The unique Dashboard interface displays any alerted or rejected QC results that have fallen outside user-defined performance limits and multi-rules in the last seven days.

Acusera Advisor

Acusera Advisor is an optional tool designed to help you select an optimum QC strategy for each individual test in use. Not only will the advisor tool recommend a set of QC multi-rules, it will also suggest a minimum QC frequency based on the performance of the method in question.

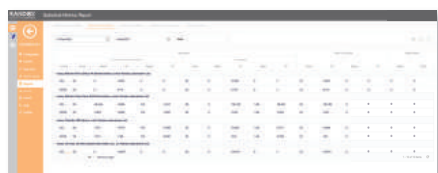


Interactive Charts

Levey-Jennings, Histogram and Performance Summary Charts are automatically generated by the software. The ability to combine multiple data sets enables you to identify and assess trends in QC data or a bias between instruments. It is also possible to record events such as instrument service/maintenance on Levey-Jennings Charts for faster troubleshooting.

Peer Group Statistics

Peer groups can be customised depending on your instrument, method or reagent supplier. Peer group reporting allows you to compare the performance of your own instrument and/or assay method against other laboratories using the same lot of control. Statistics are uniquely updated live, in real-time, and are generated from our extensive database of laboratory participants.



Advanced Statistical Analysis

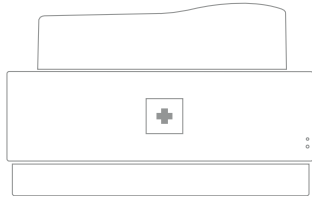
The Statistical Metrics Report incorporates %Bias, Total Error and a Sigma score for optimum QC strategy design while the Uncertainty of Measurement Report helps to meet ISO15189:2012 requirements.

DATA ENTRY OPTIONS

There are three options for QC data entry with Acusera 24•7

Manual result entry

Easily create custom panels for faster result entry of multiple tests at once, with the option to enter single or summarised data for each test or panel.



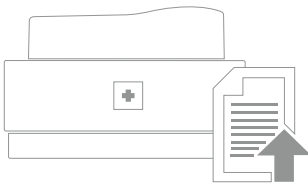
1. Analyser generates QC result.



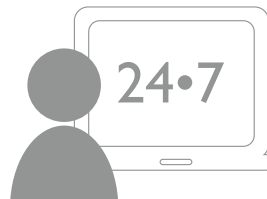
2. QC result is manually entered by the user into the Acusera 24•7 software.

Semi-automated result entry via EDI

EDI is the ideal solution for laboratories that don't want the hassle of manual data input but still want to benefit from a reduction in time and elimination of transcription errors.



1. An export file containing the QC result and associated information is generated by the analyser, LIMS or Middleware.



2. The user imports the EDI file into the Acusera 24•7 software at their desired frequency.

Note: First time users must create a new configuration for the EDI file and carry out EDI mapping.

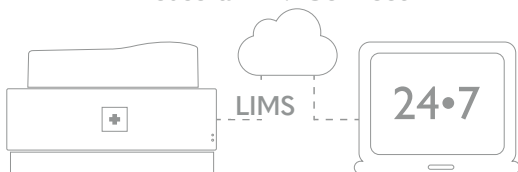
Fully automated import of QC data direct from your LIMS/Middleware

Automatically capture data directly from your LIMS/Middleware with Acusera 24•7 Connect and import into Acusera 24•7 without the need to import files or manually input data.

- Reduce workload by eliminating manual data entry or file import
- Eliminate transcription errors
- Secure real-time connection without disruption to the laboratory workflow

Several options are available for automated data entry, our Acusera 24•7 Connect team will work directly with you and your IT team to implement the best solution for your lab's requirements.

Acusera 24•7 Connect



1. An export file containing the QC result and associated information is generated by the LIMS/Middleware. The Acusera 24•7 Connect software will then securely collect and process QC data directly from the LIMS/Middleware and import to Acusera 24•7.

Note: First time users must create a new configuration for the EDI file and carry out EDI mapping.

OPTIONS FOR PARTICIPATION

Randox offers several options for participation in the Acusera 24•7 program ranging from basic to advanced user options. The table below is designed to help determine the best solution for your laboratory.

FEATURES	PLATINUM	GOLD	SILVER
Global Peer Data			
Access to real-time peer group data	✓	✓	✓
Users			
Multiple levels of user access	✓	✓	✗
Unlimited number of registered users	✓	✗	✗
Configuration			
Custom Multi-Rules	✓	✗	✗
Ability to use other manufacturer controls or custom controls	✓	✗	✗
Data Entry			
Data import via Acusera 24•7 Connect *	✓	✓	✓
Manual data entry by panel	✓	✓	✗
Semi automated data entry via EDI	✓	✓	✓
Recording of instrument events	✓	✗	✗
Result History			
Automatic calculation of Mean, SD and %CV	✓	✓	✓
Result History	✓	✓	✓
Automatic calculation of %Bias and Total Error	✓	✓	✗
Automatic calculation of Inter-Precision, Sigma Scores, Uncertainty of Measurement and Expanded Uncertainty	✓	✗	✗
Reports			
Statistical Analysis Report	✓	✓	✓
Peer Group Statistics Report	✓	✓	✓
Exception Report	✓	✓	✗
Statistical Metrics Report	✓	✗	✗
Uncertainty of Measurement Report	✓	✗	✗
Charts			
Levey-Jennings Chart	✓	✓	✓
Histogram Chart	✓	✓	✓
Performance Summary Chart	✓	✓	✓
Multi-Levey Jennings/Histogram Charts	✓	✓	✗
Utilities			
Dashboard	✓	✓	✗
Audit Trail	✓	✗	✗
Advisor Tool	✓	✗	✗
Data Review	✓	✓	✓
ORDERING DETAILS			
Description	Cat. No.	Description	Cat. No.
Acusera 24•7 Platinum (1 - year licence)	QC4218	Acusera 24•7 Connect Box	QC4227
Acusera 24•7 Gold (1 - year licence)	QC10232	Acusera 24•7 Cloud Connect	QC4228
Acusera 24•7 Silver (1 - year licence)	QC10233	Installation of Randox Connect Box (Onsite)	QC4229
Acusera 24•7 Configuration/Mapping	QC4224	Installation of Customer Connect Box (Onsite)	QC4230
Acusera 24•7 Training (on-site)	QC4225	Installation of Customer Connect Box (Remote)	QC4231
Acusera 24•7 Training (remote)	QC4226	Acusera 24•7 End User Cloud Connect*	QC4232

* 1 connection

Bias%

Bias%

In Acusera 24•7, Bias is the difference between the Peer Group Mean and the observed value.

$$\text{Bias\%} = \frac{\text{Laboratory Mean} - \text{Peer Group Mean}}{\text{Peer Group Mean}} \times 100$$

CVI

Coefficient of Variation Index (CVI)

The CVI compares the precision from your laboratory to the precision of other laboratories in your chosen peer group.

$$\text{CVI} = \frac{\text{Laboratory CV}}{\text{Peer Group CV}}$$

SDI

Standard Deviation Index (SDI)

SDI provides an indication of how well your Mean compares to the Peer Group Mean for a given assay and control lot.

$$\text{SDI} = \frac{\text{Laboratory Mean} - \text{Peer Group Mean}}{\text{Peer Group Standard Deviation}}$$

TE

Total Error (TE)

Total Error represents the overall error in a test result that is attributed to imprecision (%CV) and inaccuracy (Bias%).

$$\text{TE} = \text{Bias\%} + (1.96 \times \%CV)$$

σ

Sigma

Sigma looks at the number of standard deviations (SD) or 'sigmas' that fit within the quality specifications of the process. In the laboratory, the quality specifications relate to the Total Allowable Error (TEa). The higher the number of standard deviations that fit between these limits, the higher the sigma score and the more robust the process or method is.

$$\text{Sigma} = \frac{\text{TEa\%} - \text{Bias\%}}{\%CV}$$

UM

Uncertainty of Measurement (UM)

With every result generated in the laboratory, there will always be a degree of error. Uncertainty of Measurement (UM) looks at the doubt that exists for the result of any measurement.

$$u = \sqrt{A^2 + B^2}$$

$$U = 2 \times u$$

Where:

A = SD or SEM of the Intra-assay precision

B = SD of the Inter-assay precision

u = Standard Uncertainty

U = Expanded Uncertainty

EXTERNAL QUALITY ASSESSMENT

EQA is an effective partner to your IQC plans. An EQA scheme, such as RIQAS, utilises 'blind' samples to measure a laboratory's accuracy. These 'blind' samples are analysed by the laboratory as though they are patient samples and the results returned to the scheme organiser for statistical analysis. When the analysis is complete, each participant receives a report enabling them to compare the performance of their laboratory to other participants within their method and instrument groups.

FEATURES AND BENEFITS

Randox International Quality Assessment Scheme RIQAS

RIQAS is the largest international EQA scheme, used by more than 55,000 laboratory participants in over 134 countries worldwide. This large number of participants ensures an extensive database of results for many analytical methods, directly increasing statistical validity as a result.

Benefits

Large Database of Users

- A high level of participation means peer group numbers are maximised whilst ensuring availability of data for a wide range of instruments and methods.

User-friendly Reports

- Simple one page per parameter format enables at-a-glance performance assessment, saving valuable laboratory time.
- Complimentary multi-instrument and interlaboratory reports allow comparative performance assessment of all laboratory systems and multiple connected laboratories.
- End-of-Cycle reports summarising performance compared to the previous cycle allow you to identify improvements in quality over time.

Cost Effective

- Our extensive range of multi-analyte programmes will reduce the number of individual programmes required to cover your test menu, saving both time and money.
- Reduced parameter options for selected programmes offer greater flexibility, ensuring suitability for laboratories of all sizes and budgets.
- Register up to five instruments per programme at no extra cost for comparative performance assessment.

Frequency

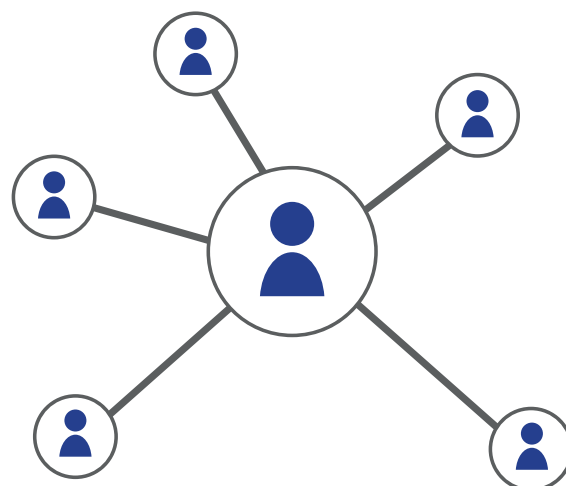
- Frequent reporting allows early identification of system errors and implementation of any necessary corrective actions with minimum disruption to the lab.
- With a turnaround of less than 72 hours for most reports, corrective action can be taken immediately reducing the time spent performing expensive re-tests.

High Quality Samples

- Samples spanning clinically relevant levels, allows identification of concentration related biases and ensures accurate instrument performance.
- Human samples free from interfering preservatives increase confidence that EQA performance mirrors the performance of patient samples.
- Reference method values are provided in the Clinical Chemistry and Immunosuppressant programmes for selected parameters and lots.

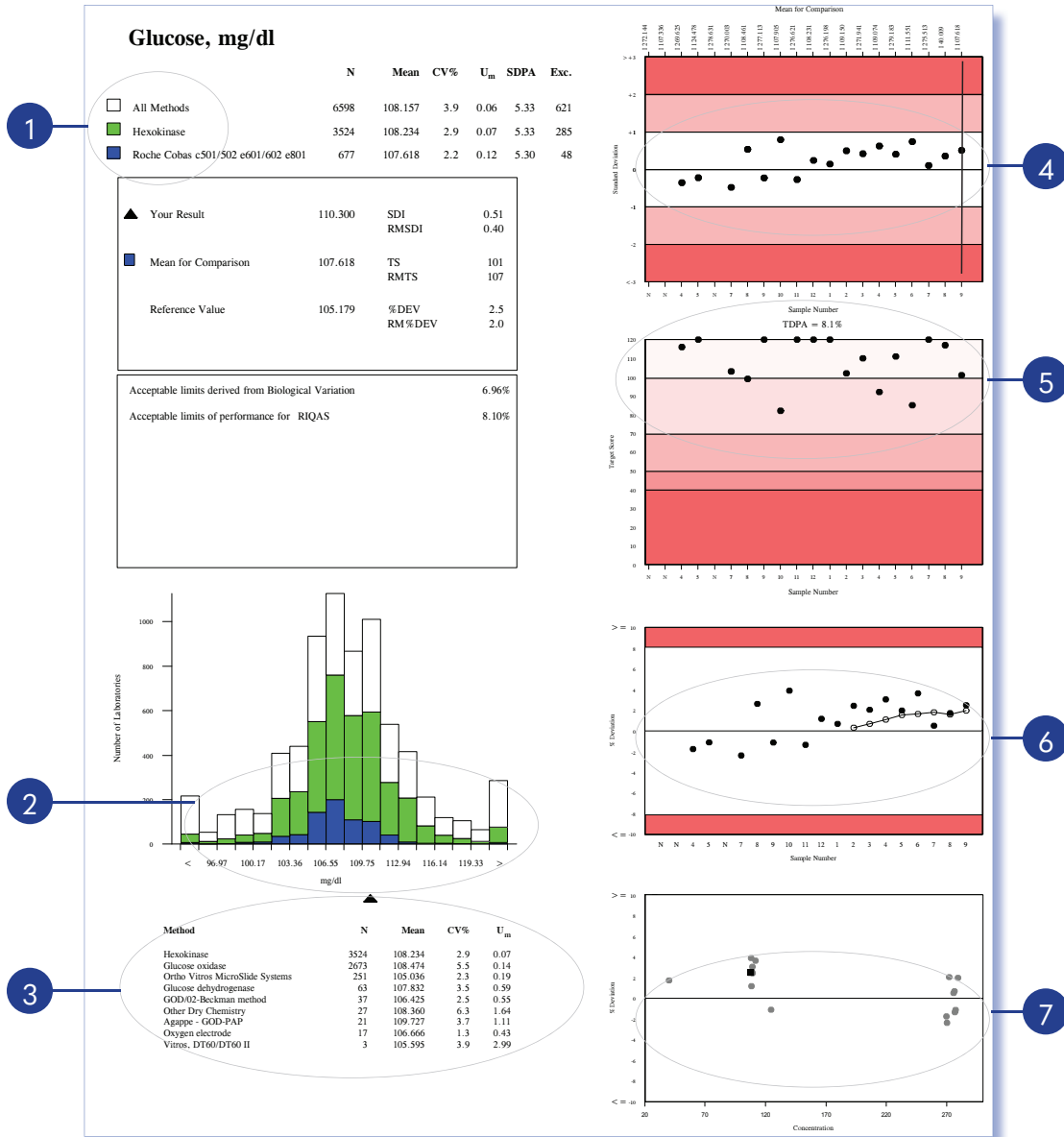
Highly Accredited

- Programmes accepted by National and International accreditation bodies worldwide.
- Participant certificates provide evidence of participation in a reputable EQA scheme.



STANDARD REPORT

Performance data is presented in a one page per parameter format, with up to seven sub-reports.



- 1 **Text Section:** Statistics for all methods, your method and instrument group (programme specific).
- 2 **Histogram:** Method and instrument comparison.
- 3 **Multi-Method Stat Section:** Enables assessment of the performance of each method.
- 4 **Levey-Jennings Chart:** Details features of your laboratory's performance.
- 5 **Target Score:** This unique chart provides a numerical index of performance, allowing at-a-glance assessment.
- 6 **%Deviation by Sample:** Helps to identify trends and shifts in performance.
- 7 **%Deviation by Concentration:** Rapid assessment of concentration related biases.

Note: This example is for quantitative programmes. Other types of report are also available.

Ammonia/Ethanol Programme *With target scoring*

RQ9164 (2 ml)
2 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

Ammonia Ethanol

Anti-TSH Receptor Programme+ *With target scoring*

RQ9174 (1 ml)
1 Parameter
Samples every month, 1 x 12 month cycle, 12 month subscription

Anti-TSH Receptor (TRAb)

Blood Gas Programme *With target scoring*

RQ9134 (1.8 ml) First registered instrument 11 Parameters Samples every month, 1 x 12 month cycle, 12 month subscription	RQ9134/A (1.8 ml) Subsequent instruments 11 Parameters
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Bicarbonate	CO ₂ (Total)	K+	pH
Ca ⁺⁺	Glucose	Na+	pO ₂
Cl-	Lactate	pCO ₂	

BNP Programme+ *With target scoring*

RQ9165 (1 ml)
1 Parameter
Samples every month, 1 x 12 month cycle, 12 month subscription

BNP

Cardiac Programme *With target scoring*

RQ9127/a (1 ml) 2 Parameters only (choose from 7) Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription	RQ9127/b (1 ml) Full 7 Parameters	RQ9186 (1 ml) Full 7 Parameters Samples every month, 1 x 12 monthly cycle, 12 month subscription
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CK, Total	CK-MB (Mass)	Myoglobin	Troponin T
CK-MB (Activity)	Homocysteine	Troponin I	

Cardiac Plus Programme *With target scoring*

RQ9190 (3 ml)
11 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

CK, Total	D-dimer	hsCRP	Troponin I
CK-MB Activity	Digoxin	Myoglobin	Troponin T
CK-MB Mass	Homocysteine	NT proBNP	

Cerebrospinal Fluid Programme+ *With target scoring*

RQ9168 (3 ml)
7 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

Albumin	Glucose	Lactate	Sodium
Chloride	IgG	Protein (Total)	

RIQAS PROGRAMMES

Coagulation Programme *With target scoring*

RQ9135/a (1 ml)
5 Selected parameters only + 1 pilot
(aPTT, PT, TT, Fibrinogen, Antithrombin III)
Samples every month, 1 x 12 month cycle, 12 month subscription

aPTT
PT (including INR)
TT
Fibrinogen
Antithrombin III

RQ9135/b (1 ml)
Full 16 Parameters + 1 pilot

D-dimer*
Factor II
Factor V
Factor VII
Factor VIII

Factor IX
Factor X
Factor XI
Factor XII
Plasminogen

Protein C
Protein S

CO-Oximetry Programme+

RQ9177 (1.2 ml)
First registered instrument
7 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

Carboxyhaemoglobin (COHb / HbCO)
Deoxyhaemoglobin (HHb)

Methaemoglobin (MetHb)
Oxygen Content (O2CT)

Oxygen Saturation (sO2 / Vol O2)
Oxyhaemoglobin (O2Hb / HbO2)

Total Haemoglobin (tHb)

CYFRA 21-1 Programme+

RQ9175 (1 ml)
1 Parameter
Samples every month, 1 x 12 month cycle, 12 month subscription

CYFRA 21-1 (Cytokeratin 19)

Cytokines Programme+

RQ9195 (1 ml)
1 Parameter + 11 pilots
Samples every month, 1 x 12 month cycle, 12 month subscription

Epidermal Growth Factor (EGF)*
Interleukin – 1 alpha (IL-1α)*
Interleukin – 1 beta (IL-1β)*
Interleukin – 2 (IL-2)*

Interleukin – 4 (IL-4)*
Interleukin – 6 (IL-6)
Interleukin – 8 (IL-8)*
Interleukin – 10 (IL-10)*

Interferon gamma (INF-γ)*
Monocyte Chemoattractant Protein -1 (MCP-1)*
Tumour Necrosis Factor alpha (TNF-α)*

Vascular Endothelial Growth Factor (VEGF)*

ESR Programme+

RQ9163 (4.5 ml)
1 Parameter
2 samples per quarterly distribution, 1 x 12 month cycle, 12 month subscription

ESR (Erythrocyte Sedimentation Rate)

General Clinical Chemistry Programme *With target scoring*

RQ9112/a (5 ml)
10 Parameters + 4 pilots

Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription, reference method values

ACE (Angiotensin Converting Enzyme)
Acid Phosphatase (Prostatic)
Acid Phosphatase (Total)
Albumin
Alkaline Phosphatase
ALT (ALAT)
Amylase (Pancreatic)
Amylase (Total)
AST (ASAT)
Bicarbonate
Bile Acids
Bilirubin (Direct)
Bilirubin (Total)
Calcium

RQ9112/b (5 ml)
17 Parameters + 4 pilots

Calcium, Adjusted*
Calcium (Ionised)
Chloride
Cholesterol
Cholinesterase
CK, Total (CPK)
Copper
Creatinine
D-3-Hydroxybutyrate
eGFR (estimated glomerular filtration rate)*
Fructosamine
γGT
GLDH
Glucose

RQ9112/c (5 ml)
Full 52 Parameters + 4 pilots

HBDH
HDL-Cholesterol
Iron
Lactate
LD (LDH)
LDL-Cholesterol*
Lipase
Lithium
Magnesium
NEFA
Non-HDL Cholesterol*
Osmolality
Phosphate (Inorganic)
Potassium

RQ9128 (5ml)
Full 52 Parameters + 4 pilots

Samples every month, 1 x 12 monthly cycle, 12 month subscription

Protein (Total)
PSA
Sodium
TIBC
T₃ (Free)
T₃ (Total)
T₄ (Free)
T₄ (Total)
Triglycerides
TSH
UIBC
Urea
Uric Acid
Zinc

 = Liquid ready-to-use samples

 = Lyophilised samples

PURPLE = The only parameters available on RQ9135/a

+ = Not accredited

* = Pilot study ongoing

Glycated Haemoglobin Programme (HbA1c) *With target scoring*

RQ9129 (0.5ml)

2 Parameters

Samples every month, 1 x 12 month cycle, 12 month subscription

HbA1c

Total Haemoglobin

Haematology Programme *With target scoring*

RQ9118 (2 ml)

11 Parameters

Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription

Haematocrit (HCT)
Haemoglobin (Hb)
Mean Cell Haemoglobin (MCH)

Mean Cell Haemoglobin Concentration (MCHC)
Mean Cell Volume (MCV)

RQ9140 (2ml)

11 Parameters

Samples every month, 1 x 12 monthly cycle, 12 month subscription

Mean Platelet Volume (MPV)
Platelets (PLT)
Plateletcrit (PCT)

Red Blood Cell Count (RBC)
Red Cell Distribution Width (RDW)
Total White Blood Cell Count (WBC)

Human Urine Programme *With target scoring*

RQ9115 (10 ml)

25 Parameters

Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription

ACR
Albumin/Microalbumin
Amylase
Calcium
Chloride
Copper
Cortisol

Creatinine
Dopamine
Epinephrine
Glucose
Metanephrine
Norepinephrine

RQ9185 (10ml)

25 Parameters

Samples every month, 1 x 12 monthly cycle, 12 month subscription

Normetanephrine
Magnesium
Osmolality
Oxalate
Phosphate (Inorganic)
Potassium

Protein (Total)
Sodium
Urea
Uric Acid
VMA
5-HIAA

Immunoassay Programme *With target scoring*

RQ9125/a (5 ml)

4 Parameters only + 2 pilots

Samples every two weeks, 2 x 6 monthly cycles, 12 month subscription (RQ9125/a, RQ9125/b, RQ9125/c)

ACTH
AFP
Aldosterone
Amikacin
Androstenedione
 β -2-Microglobulin
CA125
CA15-3
CA19-9
Carbamazepine
CEA
Cortisol
C-Peptide

RQ9125/b (5 ml)

13 Parameters only + 2 pilots

DHEA-Sulphate
DHEA Unconjugated
Digoxin
Ferritin
Folate
FSH
Gentamicin
GH
hCG
IgE
Insulin
LH
Oestradiol

RQ9125/c (5 ml)

Full 49 Parameters + 2 pilots

17-OH-Progesterone
Paracetamol
Phenobarbital
Phenytoin
Progesterone
Prolactin
PSA (Free)
PSA (Total)
PTH
Salicylate
SHBG
 T_3 (Free)
 T_3 (Total)

RQ9130 (5 ml)

Full 49 Parameters + 2 pilots
Samples every month, 1 x 12 month cycle, 12 month subscription (RQ9130)

T_4 (Free)
 T_4 (Total)
Testosterone (Free)*
Testosterone (Total)
Theophylline
Thyroglobulin
TSH
Valproic Acid
Vancomycin
Vitamin B12
1-25-(OH) $_2$ -Vitamin D*
25-OH-Vitamin D

Immunoassay Speciality 1 Programme *With target scoring*

RQ9141 (2 ml)

9 Parameters + 1 pilot

Samples every month, 1 x 12 month cycle, 12 month subscription

1-25-(OH) $_2$ -Vitamin D*
25-OH-Vitamin D
C-Peptide

Anti-TG
Anti-TPO
IGF-1

Osteocalcin
Procalcitonin
PTH

Insulin

Immunoassay Speciality 2 Programme *With target scoring*

RQ9142 (1 ml)

5 Parameters

Samples every month, 1 x 12 month cycle, 12 month subscription

Calcitonin
Gastrin

Procalcitonin

Plasma Renin Activity

Renin (Direct Concentration)

RIQAS PROGRAMMES

Immunosuppressant Programme+

RQ9159 (2 ml)
4 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription, reference method values

Ciclosporin Everolimus Sirolimus Tacrolimus

Lipid Programme *With target scoring*

RQ9126/a (3 ml) RQ9126/b (3 ml)
3 Parameters only (choose from 7) Full 7 Parameters
Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription

Apolipoprotein A1 Cholesterol (Total) LDL-Cholesterol Triglycerides
Apolipoprotein B HDL-Cholesterol Lipoprotein (a)

Maternal Screening Programme *With target scoring*

RQ9137 (1 ml)
6 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

AFP Total hCG PAPP-A Unconjugated Oestriol
free β-hCG Inhibin A

Neonatal Bilirubin Programme+

RQ9191 (3 ml)
2 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

Direct Bilirubin Total Bilirubin

Serology (Anti-SARS-CoV-2) Programme+

RQ9193 (0.5 ml)
3 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

IgG IgM Total Antibodies

Serology (EBV) Programme+

RQ9153 (1 ml)
3 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription, Quantitative and Qualitative results

Anti-EBV VCA IgG Anti-EBNA IgG Anti-EBV VCA IgM

Serology (HIV-Hepatitis) Programme+

RQ9151 (1.8 ml)
16 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription, Quantitative and Qualitative results

Anti-CMV (Total) Anti-HBc IgM* Anti-HIV-1 Anti-HTLV II
Anti-HAV IgM* Anti-HBe (Total)* Anti-HIV-2 Anti-HTLV combined
Anti-HAV (Total)* Anti-HBs (Total)* Anti-HIV combined HBsAg
Anti-HBc Anti-HCV Anti-HTLV I P24*

Serology (Syphilis) Programme+

RQ9154 (1 ml)
1 Parameter
Samples every month, 1 x 12 month cycle, 12 month subscription, Quantitative and Qualitative results

Syphilis (Methods available include immunoassay RPR, VDRL and TPHA)

 = Liquid ready-to-use samples

 = Lyophilised samples

PURPLE = The only parameters available on RQ9135/a

+ = Not accredited

* = Pilot study ongoing

Serology (ToRCH) Programme+

RQ9152 (1 ml)
15 Parameters

Samples every month, 1 x 12 month cycle, 12 month subscription, Quantitative and Qualitative results

Anti-CMV IgG	Anti-HSV2 IgG	Anti-Measles IgG*	Anti-Toxoplasma IgG
Anti-CMV IgM	Anti-HSV2 IgM	Anti-Mumps IgG*	Anti-Toxoplasma IgM
Anti-HSV1 IgG	Anti-HSV1/2 IgG	Anti-Rubella IgG	Anti-VZV IgG*
Anti-HSV1 IgM	Anti-HSV1/2 IgM	Anti-Rubella IgM	

Serum Indices Programme+

RQ9194 (1 ml)
3 Indices Assessments
25 Parameters

RQ9194/A (1 ml)

Samples Bi-Monthly (9 samples per distribution), 2 distributions per cycle

Indices Assessment (Quantitative and Semi-Quantitative)

Haemolysis	Icteric	Lipaemic
------------	---------	----------

Parameter Assessment (Quantitative)

ALP	Cholesterol	Lactate	Sodium
ALT	CK NAC	LDH	Triglycerides
AST	Creatinine	Lipase	Urea
Bilirubin (Direct)	GGT	Magnesium	Uric Acid
Bilirubin (Total)	Glucose	Phosphate	
Calcium	HDL	Potassium	
Chloride	Iron	Protein (Total)	

Specific Proteins Programme *With target scoring*

RQ9114 (3 ml)
26 Parameters

Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription

RQ9187 (1ml)

26 Parameters

Samples every month, 1 x 12 monthly cycle, 12 month subscription

AFP	β -2-Microglobulin	IgA	Lambda Light Chain (Total)
Albumin	Ceruloplasmin	IgE	Prealbumin (Transthyretin)
α -1-Acid glycoprotein	Complement C ₃	IgG	Retinol Binding Protein
α -1-Antitrypsin	Complement C ₄	IgM	Rheumatoid Factor
α -2-Macroglobulin	C-Reactive Protein	Kappa Light Chain (Free)	Transferrin
Anti Streptolysin O	Ferritin	Kappa Light Chain (Total)	
Antithrombin III	Haptoglobin	Lambda Light Chain (Free)	

Sweat Testing Programme+

RQ9173 (2 ml)
2 Parameters

Samples every month, 1 x 12 month cycle, 12 month subscription

Chloride	Conductivity
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Therapeutic Drugs Programme *With target scoring*

RQ9111 (5 ml)
18 Parameters

Samples every 2 weeks, 2 x 6 monthly cycles, 12 month subscription, Weighed-in values

Amikacin	Ethosuximide	Phenobarbital	Tobramycin
Caffeine	Gentamicin	Phenytoin	Valproic Acid
Carbamazepine	Lithium	Primidone	Vancomycin
Ciclosporin	Methotrexate	Salicylic Acid	
Digoxin	Paracetamol (Acetaminophen)	Theophylline	

Trace Elements In Blood Programme+

RQ9172 (3 ml)
7 Parameters

Samples every month, 1 x 12 month cycle, 12 month subscription

Copper	Lead	Manganese	Zinc
Iodine	Magnesium	Selenium	

 = Liquid ready-to-use samples

 = Lyophilised samples

PURPLE = The only parameters available on RQ9135/a

+ = Not accredited

* = Pilot study ongoing

RIQAS PROGRAMMES

Trace Elements In Serum Programme+

RQ9170 (3 ml)
10 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

Aluminium	Copper	Manganese	Zinc
Chromium	Iodine	Nickel	
Cobalt	Lead	Selenium	

Trace Elements In Urine Programme+

RQ9171 (3 ml)
11 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

Cadmium	Copper	Magnesium	Nickel
Chromium	Iodine	Manganese	Thallium
Cobalt	Lead	Molybdenum	

Urinalysis Programme *With scoring*

RQ9138 (12 ml)
14 Parameters
Samples every 2 months, 1 x 12 month cycle, 12 month subscription

Albumin	Galactose	Leucocytes	Specific Gravity
Bilirubin	Glucose	Nitrite	Urobilinogen
Blood	hCG	pH	
Creatinine	Ketones	Protein	

Urine Toxicology Programme+

RQ9139 (5 ml)
20 Parameters
Samples every month, 1 x 12 month cycle, 12 month subscription

Benzoylcegonine	d-Methamphetamine	MDMA	Phenobarbital
Buprenorphine	EDDP	Methadone	Secobarbital
Cannabinoids (THC)	Ethanol	Nortriptyline	
Cotinine	Free Morphine	Norpropoxyphene	
Creatinine	Lorazepam	Oxazepam	
d-Amphetamine	LSD	Phencyclidine	

 = Liquid ready-to-use samples

 = Lyophilised samples

PURPLE = The only parameters available on RQ9135/a

+ = Not accredited

* = Pilot study ongoing

Whilst every attempt is made to ensure that information is accurate and up-to-date, some information is subject to change, please contact RIQAS for current details.

CALIBRATION VERIFICATION SETS

Specifically designed with convenience in mind, the Acusera Verify range of linearity sets will help you to easily meet CLIA requirements for calibration verification and assessment of linearity.

WHAT IS ACUSERA VERIFY?

ACUSERA VERIFY

Our linearity verifiers are supplied in varying levels and are available in multiple configurations to meet the specific requirements of Roche Cobas and Beckman analysers while challenging the complete reportable range. All linearity sets are supplied with complimentary data reduction software, providing instant access to reports and real-time peer group data.

Benefits

Consolidation

- Reduce costs, storage space and the number of individual products required to cover your test menu with our comprehensive, multi-analyte Calibration Verifiers.

Format

- Many of our samples are provided in a user-friendly, liquid format significantly reducing preparation time and the risk of pipetting errors.

Clinically Relevant Levels

- Specifically designed to challenge the complete Analytical Measuring Range (AMR), helping to ensure accurate and reliable instrument performance. A minimum of 5 levels eliminates the need for manual dilution and allows for more comprehensive assessment than the minimum requirement of 3 levels set by CLIA.

Instrument Dedicated

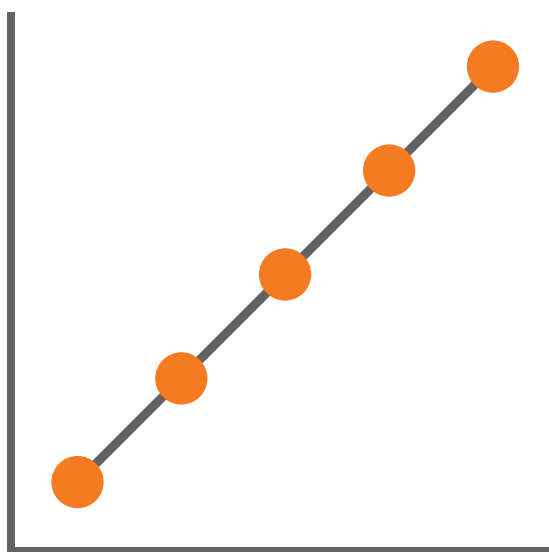
- Help to ensure specific instrument requirements are met with the availability of dedicated solutions for Roche Cobas and Beckman systems.

Stability

- An extended open vial stability keeps waste to a minimum and ensures availability of product for troubleshooting.

Data Reduction Software

- Complimentary data reduction software is provided delivering an immediate indication of performance.



In order to ensure the highest possible standards in laboratory testing, CLIA has recommended that laboratories perform and document calibration verification procedures at least twice per year and/or in the event of the following;

- Change of reagents
 - Instrument maintenance
 - Poor QC results
 - New instrument
-

SOLUTIONS FOR ROCHE COBAS ANALYSERS

Apolipoprotein A-1 (Apo A-1) & Apolipoprotein B (Apo B) Linearity Verifier (Roche Cobas)

Analytes	
Apolipoprotein A-1 (Apo A-1)	Apolipoprotein B (Apo B)

Dedicated Linearity Verifier for measuring Apo A-1 and Apo B on Roche Cobas analysers. Supplied in a liquid frozen format this linearity verifier will objectively verify calibration of the instrument whilst remaining convenient and easy to use. Five levels are provided spanning the instrument's reportable range.

- Convenient, liquid frozen format
- 5 levels provided
- Open vial stability of 14 days at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Apolipoproteins Linearity Verifier	5 x 3 ml	LV10357

Bilirubin Linearity Verifier (Roche Cobas)

Analytes	
Direct Bilirubin	Total Bilirubin

Our Bilirubin verifier contains both Direct Bilirubin and Total Bilirubin so testing is fully covered. Dedicated for use on Roche Cobas systems, this verifier spans five levels ensuring the instruments entire reportable range is measured.

- Lyophilised for enhanced stability
- 5 levels provided
- Open vial stability of 10 days at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Bilirubin Linearity Verifier	5 x 3 ml	LV10356

C-Reactive Protein (CRP) Linearity Verifiers (Roche Cobas)

This dedicated CRP Linearity Verifier is supplied in a liquid ready-to-use format, specifically for use on Roche Cobas analysers. This verifier is designed to objectively verify calibration whilst remaining convenient and easy to use. There are five distinct levels provided that span the instrument's complete reportable range.

- Convenient, liquid ready-to-use format
- 5 levels provided
- 14 day stability when stored at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
CRP Linearity Verifier	5 x 1 ml	LV10334

SOLUTIONS FOR ROCHE COBAS ANALYSERS

Clinical Chemistry Linearity Verifier (Roche Cobas)

Analytes			
Albumin	Creatinine	Magnesium	Triglycerides
BUN	Glucose	Phosphate	Uric Acid
Calcium	Iron	Potassium	
Chloride	Lactate	Protein (Total)	
Cholesterol (Total)	Lithium	Sodium	

This Chemistry verifier for use on Roche Cobas analysers, comes in a liquid frozen format. Designed to objectively verify calibration of the instrument, the five levels available span the complete measuring range.

- Convenient, liquid for ease of use format
- 5 levels provided
- 7 day stability when stored at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Clinical Chemistry Linearity Verifier	5 x 5 ml	LV10390

CO₂ and Electrolytes Linearity Verifier (Roche Cobas)

Analytes			
CO ₂	Sodium	Potassium	Chloride

Dedicated Linearity Verifier for the measurement of CO₂ and electrolytes on Roche Cobas analysers. This verifier is supplied in a liquid ready-to-use format and can be used to objectively verify calibration of the instrument. Five levels are available spanning the instrument's complete reportable range.

- Convenient, liquid ready-to-use format
- 5 levels provided
- 7 day stability when stored at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
CO ₂ and Electrolytes Linearity Verifier	5 x 5 ml	LV10362

Enzyme Linearity Verifier (Roche Cobas)

Analytes			
ALT	Amylase (Pancreatic)	CKMB	Lipase
ALP	AST	γGT	
α-Amylase	CK	LDH	

Our Enzyme Linearity Verifier contains 10 commonly tested enzymes in one unique multi-marker verifier allowing you to consolidate testing. Spanning 5 clinical levels, this verifier ensures the systems entire reportable range is measured. Designed specifically for use with Roche Cobas systems, our Verifier is available in a convenient liquid frozen format.

- Convenient, liquid frozen format
- 5 levels provided
- Open vial stability of 10 days at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Enzyme Linearity Verifier	5 x 3 ml	LV10366

SOLUTIONS FOR ROCHE COBAS ANALYSERS

Esoterics Linearity Verifier (Roche Cobas)

Analytes		
Acetaminophen Ammonia	Ethanol Microalbumin	Protein (Urinary) Salicylate

Our Esoterics Linearity Verifier comprises 6 analytes and is supplied in a liquid ready-to-use format specifically for use on Roche Cobas analysers. Designed to objectively verify calibration whilst remaining convenient and easy to use, there are five distinct levels provided that span the instrument's complete reportable range.

- Convenient, liquid ready-to-use format
- 5 levels provided
- 14 day stability when stored at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Esoterics Linearity Verifier	5 x 3 ml	LV10336

High Sensitivity C-Reactive Protein (hsCRP) Linearity Verifier (Roche Cobas)

Dedicated hsCRP Linearity Verifier supplied in a liquid ready-to-use format specifically for use on Roche Cobas analysers. Designed to objectively verify calibration whilst remaining convenient and easy to use, there are five distinct levels provided that span the instrument's complete reportable range.

- Convenient, liquid ready-to-use format
- 5 levels provided
- 14 day stability when stored at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
hsCRP Linearity Verifier	5 x 1 ml	LV10335

Lipids Linearity Verifier (Roche Cobas)

Analytes			
Cholesterol (HDL)	Cholesterol (LDL)	Cholesterol (Total)	Triglycerides

Our Lipids Linearity Verifier comprises 4 common lipid assays and is specifically designed for use on Roche Cobas analysers. Five levels are available and span the instrument's complete reportable range. Designed in a liquid frozen format, this linearity verifier will objectively verify calibration of the instrument whilst remaining convenient and easy to use.

- Convenient, liquid frozen format
- 5 levels provided
- Open vial stability of 14 days at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Lipids Linearity Verifier	5 x 3 ml	LV10344

SOLUTIONS FOR ROCHE COBAS ANALYSERS

Rheumatoid Factor (RF) Linearity Verifier (Roche Cobas)

Dedicated Rheumatoid Factor (RF) Linearity Verifier supplied in a liquid ready-to-use format specifically for use on Roche Cobas analysers. Designed to objectively verify calibration whilst remaining convenient and easy to use, there are five distinct levels provided that span the instrument's complete reportable range.

- Convenient, liquid ready-to-use format
- 5 levels provided
- 14 day stability when stored at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Rheumatoid Factor (RF) Linearity Verifier	5 x 1 ml	LV10343

Therapeutic Drug Monitoring (TDM) Linearity Verifier (Roche Cobas)

Analytes			
Acetaminophen	Gentamicin	Phenytoin	Theophylline
Amikacin	Lithium	Procainamide	Tobramycin
Carbamazepine	N-Acetylprocainamide	Quinidine	Valproic Acid
Digoxin	Phenobarbitone	Salicylate	Vancomycin

Our Therapeutic Drug Monitoring (TDM) Linearity Verifier comprises 16 commonly tested drugs in a single vial. Dedicated for use on Roche Cobas systems, and available in a liquid frozen format, this verifier is convenient and easy to use. Five levels span the instrument's entire reportable range.

- Convenient, liquid frozen format
- 5 levels provided
- Open vial stability of 14 days at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Therapeutic Drug Monitoring Linearity Verifier	5 x 5 ml	LV10355

SOLUTIONS FOR BECKMAN ANALYSERS

Apolipoprotein A-1 (Apo A-1) & Apolipoprotein B (Apo B) Linearity Verifier (Beckman Coulter)

Analytes	
Apolipoprotein A-1	Apolipoprotein B

Dedicated Linearity Verifier for measuring Apo A-1 and Apo B on Beckman Coulter analysers. Spanning 5 levels designed to challenge the instruments reportable range, this verifier will objectively verify calibration of the instrument whilst remaining convenient to use.

- Convenient, liquid frozen format
- 5 levels provided
- Open vial stability of 14 days at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Apolipoproteins Linearity Verifier	5 x 3 ml	LV10363

Lipids Linearity Verifier (Beckman Coulter)

Analytes		
Cholesterol (HDL)	Cholesterol (LDL)	Triglycerides

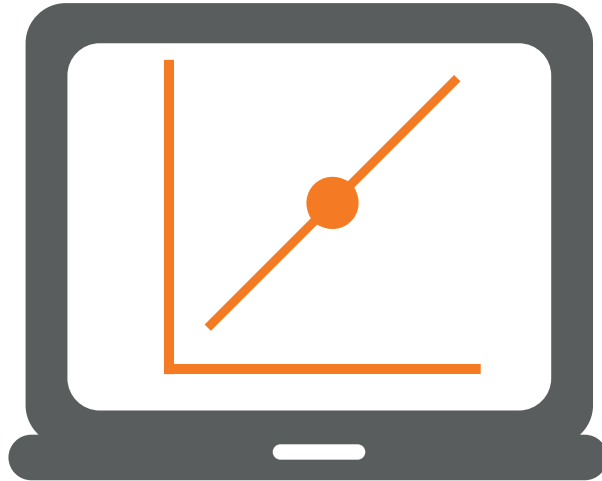
Our Lipids Linearity Verifier comprises 3 common lipid assays and is specifically designed for use on Beckman Coulter analysers. Five levels are available spanning the instrument's complete reportable range. Designed in a liquid frozen format, this linearity verifier will objectively verify calibration of the instrument whilst remaining convenient and easy to use.

- Convenient, liquid frozen format
- 5 levels provided
- Open vial stability of 14 days at 2°C to 8°C
- Shelf life up to 2 years from date of manufacture

Description	Size	Cat. No.
Lipids Linearity Verifier	5 x 3 ml	LV10364

DATA REDUCTION SOFTWARE

Complimentary data reduction software is available for use with all Randox calibration verification sets, delivering instant access to a wide range of functionality to make the data review process faster.



Providing instant access to automatically generated charts, statistics and real-time peer group data, the Acusera Verify software is designed to significantly reduce the time spent analysing data, facilitating immediate laboratory decisions.

- Cloud based software allowing convenient access from anywhere in the lab
- Intuitive user-friendly interface with simple data entry functionality
- Easy-to-interpret, interactive charts for at-a-glance performance assessment
- Automatically generated statistics
- Peer group data updated live in real-time for faster troubleshooting

Did you know you can manage both daily QC activities and calibration verification on one centralised platform?

Find out more at www.randoxqc.com

ANALYTE INDEX

Approximately 70% of clinical decisions are based on laboratory test results. Poor laboratory quality can result in unreliable test results, ultimately leading to misdiagnosis, inappropriate treatment and may even be potentially life threatening to your patient. Availability of comprehensive controls covering the full spectrum of laboratory tests is critical in order to assure quality of testing.

ANALYTE INDEX

- Antioxidant Controls
- Blood Gas Controls
- Cardiac Controls
- Clinical Chemistry Controls
- Coagulation & Haematology Controls
- Diabetes & Whole Blood Controls
- Immunoassay Controls
- Immunology/Protein Controls

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	Glutathione Peroxidase (Ransel) Control and Calibrator	Glutathione Reductase Control and Calibrator	Superoxide Dismutase (Ransod) Control	Total Antioxidant Status Control	Blood Gas Control	Cardiac Control	Tri-Level Cardiac Control	Troponin T Control	CK-MB Control and Calibrator	Precision Chemistry Premium Plus Control	Liquid Chemistry Premium Plus Control	Assayed Chemistry Premium Plus Control	Liquid Assayed Chemistry Premium Plus Control	Bovine Chemistry Assayed Control	Clinical Chemistry Calibrator Serum	Ammonia Ethanol Control	Aldolase Control and Calibrator	Liquid Bilirubin Control	Bilirubin Elevated Serum	Glycerol Control	Multi Control and Calibrator	Glutamine Control and Calibrator	Serum Indices Control	Coagulation Control	Haematology Control	HbA1c Control and Calibrator Series	Liquid HbA1c Control	G-6-PDH Control	Fructosamine Control and Calibrator	Liquid Immunoassay Premium Control	PTH Control	Immunoassay Premium Control	Immunoassay Premium Plus Control	Immunoassay Speciality I Control	Immunoassay Speciality II Control	Tumour Marker Control	Maternal Screening Control	Specific Protein Control	Specific Protein Calibrator			
U	Urea								x	x	x	x	x	x																												
	Uric Acid (Urate)								x	x	x	x	x	x																												
	Urobilinogen																																									
V	Valproic Acid								x	x		x																	x													
	Vancomycin								x	x		x																	x													
	Vanillylmandelic Acid (VMA)																																									
	Varicella Zoster Virus (VZV) IgG																																									
	Vascular Cell Adhesion Molecule-1 (VCAM-1)																																									
	Vascular Endothelial Growth Factor (VEGF)																																									
	Vitamin B ₁₂								x	x	x	x	x																x													
W	White Blood Cells (WBC)																							x																		
	White Blood Cells Differential (WBC-D)																							x																		
Z	Zaleplon																																									
	Zeronal																																									
	Zinc								x	x	x	x	x	x																												
	Zolpidem																																									
	Zopiclone																																									

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45	β-2-Microglobulin Calibrator	Immunology/Protein Controls
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71	Drugs of Abuse Array IV Controls and Calibrators	Toxicology Controls
72	Drugs of Abuse Array V Controls and Calibrators	Toxicology Controls
75	Assayed Urine Control	Urine Controls
75	Liquid Urine Control	Urine Controls
76	Urinalysis Control	Urine Controls
76	Microalbumin Calibrator	Urine Controls

Control Name	Category	U	V	W	Z
Urea	Immunology/Protein Controls	x			
Uric Acid (Urate)	Immunology/Protein Controls	x			
Urobilinogen	Immunology/Protein Controls			x	
Valproic Acid	Immunology/Protein Controls		x		
Vancomycin	Immunology/Protein Controls				x
Vanillylmandelic Acid (VMA)	Immunology/Protein Controls		x		
Varicella Zoster Virus (VZV) IgG	Immunology/Protein Controls				x
Vascular Cell Adhesion Molecule-1 (VCAM-1)	Immunology/Protein Controls				x
Vascular Endothelial Growth Factor (VEGF)	Immunology/Protein Controls				x
Vitamin B ₁₂	Immunology/Protein Controls				x
White Blood Cells (WBC)	Immunology/Protein Controls				x
White Blood Cells Differential (WBC-D)	Immunology/Protein Controls				x
Zaleplon	Immunology/Protein Controls			x	
Zeronal	Immunology/Protein Controls				x
Zinc	Immunology/Protein Controls				x
Zolpidem	Immunology/Protein Controls			x	
Zopiclone	Immunology/Protein Controls			x	

- Immunology/Protein Controls
- Infectious Disease Controls (Serology)
- Lipid Controls
- Speciality & Research Controls
- Therapeutic Drug Controls
- Toxicology Controls
- Urine Controls

RANDOX - A GLOBAL DIAGNOSTIC SOLUTIONS PROVIDER

Randox has been supplying laboratories worldwide with revolutionary diagnostic solutions for over 40 years. Our experience and expertise allow us to create a leading product portfolio of high quality diagnostic tools which offer reliable and rapid diagnosis. We believe that by providing laboratories with the right tools, we can improve healthcare worldwide.

RX SERIES



Renowned for quality and reliability, the RX series combines robust hardware and intuitive software with the world leading RX series test menu comprising an extensive range of high quality reagents including routine chemistries, specific proteins, lipids, therapeutic drugs, drugs of abuse, antioxidants and diabetes testing. The RX series offers excellence in patient care delivering unrivalled precision and accuracy for results you can trust, guaranteeing real cost savings through consolidation of routine and specialised tests onto one single platform.

REAGENTS



Randox offers an extensive range of third-party diagnostic reagents which are internationally recognised as being of the highest quality; producing accurate and precise results. At Randox, we re-invest significantly in R&D to ensure we meet the ever-changing needs of the laboratory. Consequently, Randox offer a range of novel and superior performance assays, including: sdLDL-C, Lipoprotein (a), Copper and Zinc. Applications are available detailing instrument-specific settings for the convenient use of Randox Reagents on numerous clinical chemistry analysers.

EVIDENCE SERIES



In 2002, Randox invented the world's first, Biochip Array Technology, offering highly specific tests, coupled to the highly sensitive chemiluminescent detection, providing quantitative results instantly changing the landscape of diagnostic testing forever. The Randox Evidence Series of multi-analyte immunoanalysers provide an unrivalled increase in patient information per sample offering diagnostic, prognostic and predictive solutions across a variety of disease areas with a highly advanced clinical and toxicology immunoassay test menu including cardiac, diabetes, drugs of abuse, metabolic and renal markers.

Contact us for more information on any of our products and services:

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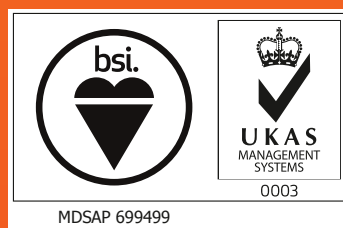
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RANDOX
QUALITY CONTROL



LT027 FEB22