



Quality Control Products & Services Catalog

BIO-RAD

Catalog Product Pages at a Glance

Product pages are designed to make it easier to find the information you need in the QC Products and Services Catalog.

Features in this edition include:

- 1. Family URLs** are listed at the top of every page to help you find content at bio-rad.com on a specific product family.
- 2. Ordering Information** is identified by a blue bar.
- 3. Analyte Lists** are identified by a green bar.
- 4. Packaging Configuration Options** are identified directly below the product ordering information.
- 5. Tips and References** to helpful information can be found throughout the catalog.

Chemistry Controls

www.bio-rad.com/chemistrycontrols

Liquichek Pediatric Control

Four Bilirubin parameters are available at two clinically significant levels for neonatal testing.

- Suitable for monitoring high Bilirubin levels important for adult liver disease
- Liquid
- 3 year shelf life at -20°C to -70°C
- 3 month stability when stored unopened at 2-8°C
- 14 day open-vial stability at 2-8°C

POCT Methods Listed

Analytes	Caffeine	Calcium	Chloride	Glucose	Magnesium	Phenylalanine	Potassium	Sodium	Theophylline
Bilirubin (Direct)									
Bilirubin (Indirect)									
Bilirubin (Neonatal)									
Bilirubin (Total)									

Ordering Information

Cat #	Description	Quantity
354	Level 1	6 x 5 mL
355	Level 2	6 x 5 mL
355K	Level MiniPak (1 of each level)	6 x 4 mL

For Dimension Vista vials, see page 87.

Liquichek Ethanol/Ammonia Control

- Normal, elevated and toxic concentrations of Ethanol and Ammonia to monitor precision across the clinical range
- 2 year shelf life at 2-8°C
- 20 day open-vial stability at 2-8°C

Ordering Information

Cat #	Description	Quantity
544	Level 1	6 x 3 mL
545	Level 2	6 x 3 mL
546	Level 3	6 x 3 mL
545K	Level MiniPak (1 of each level)	3 x 3 mL

For InteliQ Ethanol/Ammonia Control, see page 75.
For Dimension Vista vials, see page 95.

Analytes

Ammonia
Ethanol

Need an Alcohol control for mass spec?
Please review Liquichek Serum Volatiles Control on Page 113.

Refer to mybioassays.com or the package insert for currently available kits for specific analytes and stability claims.

www.bio-rad.com/catalog/chemistrycontrols | 25



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Powering Exceptional Labs

Bio-Rad harnesses independent QC to take your lab to the next level, so you can stand behind your results, minimize risk and costly errors, and improve your workflow to power exceptional performance for your laboratory.

We offer high-quality materials, insightful informatics systems and renowned customer support, including staff training, lot reservation and technical expertise. We go beyond just monitoring precision to help you improve performance in your laboratory. We demand and invest in quality—because the patients deserve nothing less.

Quality control isn't just. . .

A cost.

It's an
investment.



A task.

It's a
practice.



Something you do.

It's
everything
you do.



QCNet – The Leading QC Portal on the Internet

Learn more about the many QC tools and resources from Bio-Rad at www.QCNet.com



Unity Interlaboratory Reports

- Access your monthly Unity and InstantQC Reports in just a few quick clicks

QCNet International

- Visit your local QCNet portal to obtain specific information related to your country (where available)

Additional Online Tools

- Access to EQAS services
- Linearity Web
- Inserts XML
- My Inserts
- Barcode Label Generator
- Urinalysis Tools
- SDS
- Code Lists for Unity

Experience the Convenience of Electronic Inserts On-demand. Visit myinserts.com today.

Don't spend another minute tracking down your data through printed inserts. View it online with My Inserts



Customize Your QC Inserts

- Find instruments and methods quickly
- Select analytes of interest
- Choose the preferred units to be displayed on your data charts

Save Your Selections

- View, print or edit at any time
- Simply duplicate your selection to add a new lot of quality control product

Receive Prompt Email Notifications

- Register to receive automatic email notifications for insert data updates
- Only receive updates that apply to your selected instruments or methods

Work Smarter & Easier

- Fast, easy Internet access to the most current QC values
- Available in over 25 languages
- Large font sizes for easy readability
- Environmentally friendly with less wasted paper

Access Bio-Rad product literature online

For more detailed product information, visit our websites

QCNet.com—Click on the Product Sheets link in the Documents and Resources panel on the home page for access to all Quality Control literature.

bio-rad.com—Click on the Documents tab for a list of literature related to the specific product or product family.



EQAS Resources on QCNet.com

Use the EQAS tab for quick access to program essentials

Access program information, product inserts and user documentation through www.QCNet.com. This secure website allows registered participants access to training material, customer notifications and provides the ability to submit results with EQAS Online and view or print EQAS reports.

Quality Control values listed for Point of Care Instruments

Visit qcnet.com for more information

- Consolidate with one QC vendor
- Assigned values generated on POC Instruments are listed for select products
- Efficiently oversee and monitor QC with Unity QC Data Management Solutions
- Expand your education options with basic QC videos, case studies, and POCT related webinars



Support for Bio-Rad controls and software products does not end after you receive your products

These support groups are available to help you with your questions and needs.

By Phone within the U.S.

1-800-854-6737
Monday – Friday
5:00 AM to 5:00 PM
Pacific time (PT)

By Fax

1-949-598-1531

Quality Controls Technical Support

When you purchase control products from Bio-Rad, you receive the backing of a full-service Technical Support Department. Bio-Rad Technical Service Representatives are trained to handle your inquiries in a prompt, knowledgeable and professional manner.

Unity and EQAS Program Support

The QC Program Department at Bio-Rad offers you expert technical support and information for all Unity and EQAS reports. Our QC Program staff answers inquiries about the Unity Interlaboratory Program, QCNet enrollments, as well as EQAS enrollments, submission of data and cycle dates.

Additional benefits are provided with continuing education seminar programs in Basic Statistics of Quality Control. This is a worldwide program and in the United States, P.A.C.E. accreditation may be obtained. Contact your local Bio-Rad office for more information on continuing education programs.

Software and Connectivity Support

The Software and Connectivity Support Department is dedicated to helping your laboratory get up and running with the latest QC data management and connectivity solutions from Bio-Rad. With the help of our experts, we'll make sure your laboratory is able to capture, analyze and submit QC data successfully.



For Worldwide Customers

For service outside the United States, please refer to the inside back cover for the Bio-Rad location nearest you.



Education

Bio-Rad offers the educational tools and resources for tomorrow's QC experts

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Did You Know?

- **Our YouTube Channel** offers over 100 videos on a variety of educational topics; visit youtube.com/bioradqc



Bio-Rad Offers the Educational Tools and Resources for Tomorrow's QC Experts

Bio-Rad Laboratories has served clinical laboratories for over 35 years. Our commitment to improving patient care has made us a leader in laboratory quality control. And because leadership has its responsibilities, we are committed to providing you with the educational tools to help you produce reliable test results. That's why we continue to invest in webinars, regional and international educational events/workshops, and online training and education.

Whether you seek to begin with the fundamentals of QC theory, to continue building on the foundations of an existing program, or to develop advanced capabilities through leading-edge QC design, Bio-Rad has the educational tools and resources you need to succeed.

Visit our Education page at QCNet.com to learn more about our online training materials, videos and live customized training opportunities. You can view continuing education information and QC events along with an ever growing list of training materials in a variety of media to fit your learning style.

Bio-Rad Path to Quality—Become a Quality Expert

**Level
1**

Fundamentals

Establish a strong foundation for basic laboratory quality practices

- Basic QC Theory and Statistics
- QC and Risk Management Principles
- EQA and PT Programs
- QC and Interlaboratory Programs

**Level
2**

Practical Application

Apply theoretical knowledge and introduce new practices

- Understanding Levey-Jennings
- Practical Use of Statistics
- QC Troubleshooting

**Level
3**

Accreditation and Compliance

Reach your accreditation and compliance goals; reinforce your commitment to Quality

- CLIA Compliance
- Accreditation Requirements, CAP, TJC, and COLA
- Seeking Laboratory Accreditation Under ISO 15189
- Preparing for an Accreditation Audit

**Level
4**

Advanced QC Tools

Go beyond QC fundamentals and build on the informative power of statistical QC

- Interlaboratory Reports
- Meaningful QC Rule selection
- Quality Goals

**Level
5**

Quality Expert!

Advance Quality practices to the cutting edge using state-of-the-art QC theory and applications

- Statistical QC Design Theory
- Quality Indicators
- Traceability and Uncertainty
- Risk Based QC Planning

Online Educational Resources from Bio-Rad

Visit the Education tab on QCNet.com for access to innovative training tools

Bio-Rad continues to develop a growing library of educational materials for laboratories that are committed to achieving a higher standard of laboratory quality for improved patient care. **Check back often for updates.**

1. Online Product Videos

Need information on how to perform a specific task?
Video playlists provide instructions for common activities.

2. Bio-Rad Software User Guides

Complete user and reference guides for Bio-Rad software solutions. Each guide contains basic QC information, setup and configuration details and instructions for use.

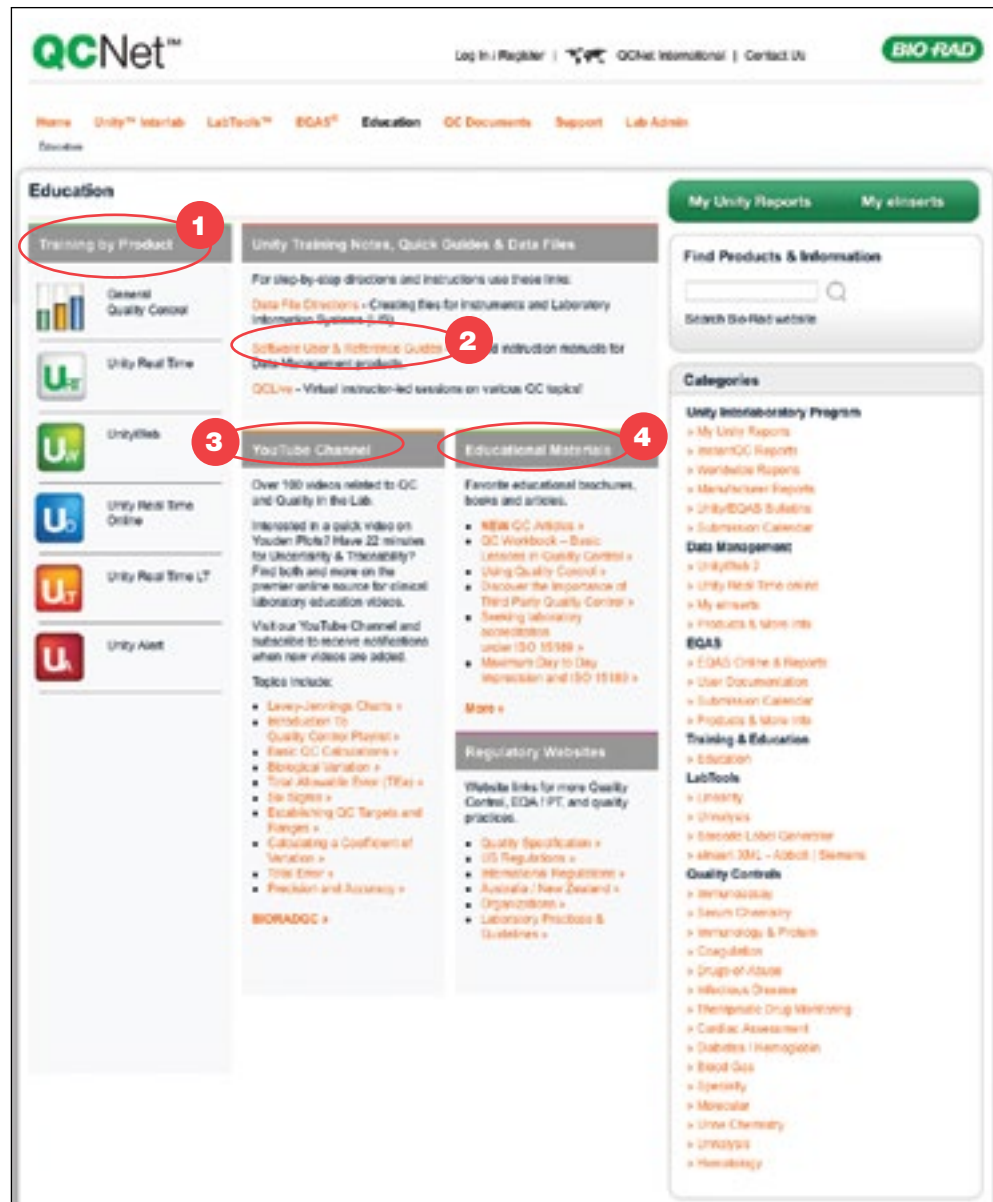
3. YouTube Channel

Our YouTube Channel has over 100 videos on a variety of topics. Videos are grouped into categories called 'Playlists' such as "Bio-Rad Unity Real Time Online", or quality control topics. Each playlist contains short videos, 2-8 minutes in length, designed to help you remember how to use or learn a new feature.

YouTube [youtube.com/bioradqc](https://www.youtube.com/bioradqc)

4. Links to Important Resources

Access brochures, articles, and links to regulatory websites from around the globe.



Actual website will vary by country and as new materials are added.



Live Training from Bio-Rad

QC Live

Online, highly interactive sessions with a Bio-Rad instructor in a less formal structure.

- Discover better ways to evaluate QC
- Improve software understanding
- Talk to experts

Customized, Instructor Led Training

Software training led by Bio-Rad technical trainers. Ideal for new users and those wanting to improve efficiency by using more functions and features of Bio-Rad software. Most courses offer P.A.C.E. credits.

Courses include, but are not limited to:

- **Unity Reports**
- **Unity Real Time 2.0 Bench Review**
 - How to check and document your daily QC data
- **Unity Real Time 2.0 Basic**
 - How to configure lots, test, rules, means and SDs
 - How to enter and submit your data to the Unity Interlaboratory Program
- **Unity Real Time 2.0 Advanced**
 - Reports, charts, Data Analysis Grid, Analytical Goals
- **UnityWeb 2.0**
 - Configuring the software, entering the data and submitting to the Unity Interlaboratory Program



For more information about our live training sessions, contact your Bio-Rad sales representative.



Blood Gas Controls

For blood gas analyzers with an expanded menu – electrolytes, glucose and lactate

Blood Gas Controls

Liquichek Blood Gas Control	10
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Did You Know?

- Bio-Rad offers aqueous controls for daily QC with the option of being stored at room temperature (up to 25°C)

For More Information

- www.bio-rad.com/bloodgascontrols

Liquichek Blood Gas Control



- Available in three distinct levels with values targeted at varying points within the clinical range
- Color coded matrix for easy identification
- Aqueous based matrix
- 4 year shelf life at 18–25°C
- Once opened, all analytes should be sampled immediately

POCT Methods Listed

Ordering Information

Cat #	Description
571	Level 1 30 x 1.7 mL
572	Level 2 30 x 1.7 mL
573	Level 3 30 x 1.7 mL
570X	Trilevel MiniPak (3 of each level) 9 x 1.7 mL

Analytes

pCO₂
pH
pO₂

Liquichek Blood Gas Plus E Control



- Designed to monitor precision of laboratory measurements on Blood Gas and Ion Selective Electrode (ISE) instrumentation
- Clear aqueous matrix
- 4 year shelf life at 2–25°C
- Once opened, pH and Blood Gas should be sampled immediately
- When used for Electrolytes only, product should be sampled within 10 minutes

POCT Methods Listed

Ordering Information

Cat #	Description
576	Level 1 30 x 1.7 mL
577	Level 2 30 x 1.7 mL
578	Level 3 30 x 1.7 mL
575X	Trilevel MiniPak (3 of each level) 9 x 1.7 mL

Analytes

Calcium (Ionized)
Chloride

pCO₂
pH

pO₂
Potassium

Sodium

Did you know. . .

Bio-Rad's Blood Gas Controls list assigned values for several near patient/point of care devices. Visit **qcnet.com** for more information.

Liquichek Blood Gas Plus EGL Control



- Expanded test menu including pH, Blood Gas, Electrolytes and Metabolites
- Aqueous, clear matrix
- 3 year shelf life at 2–8°C
- Can be stored for up to 12 months at 20–25°C
- Once opened, pH and Blood Gas should be sampled immediately
- When used for Electrolytes or Glucose/Lactate/Magnesium measurements, product should be sampled within 10 minutes

POCT Methods Listed

Ordering Information

Cat #	Description
511	Level 1 30 x 1.7 mL
512	Level 2 30 x 1.7 mL
513	Level 3 30 x 1.7 mL
510X	Trilevel MiniPak (3 of each level) 9 x 1.7 mL

Analytes

Calcium (Ionized)	Lactate (Lactic Acid)	pCO ₂	Potassium
Chloride	Lithium	pH	Sodium
Glucose	Magnesium	pO ₂	

Use Bio-Rad's Blood Gas Controls on these popular instruments

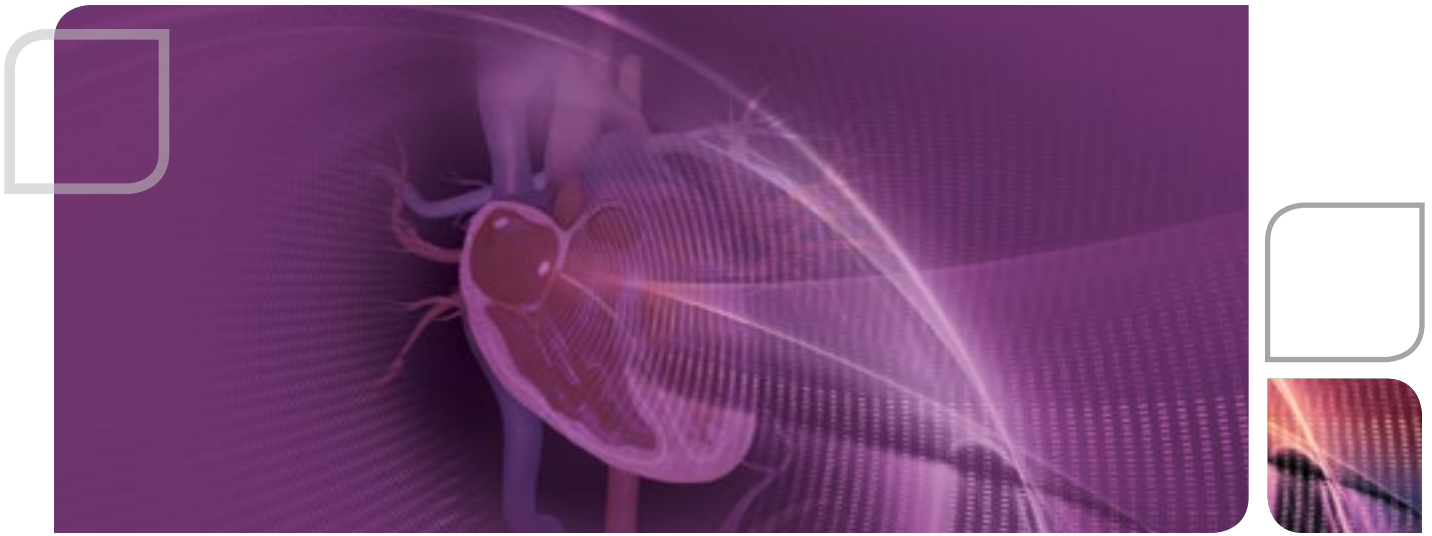
Manufacturer/Instrument(s)	Blood Gas	Blood Gas Plus E	Blood Gas Plus EGL
ESCHWEILER			
Combine	•	•	•
Combisys II	•	•	•
Ecolyte		•	•
Ecosys II	•	•	•
Modular Pro	•	•	•
Instrumentation Laboratory			
IL943			•
IL1610/1620	•	•	•
IL1630/1640/1650		•	•
IL GEM PREMIER	•	•	•
Nova Biomedical			
Stat Profile 1/2		•	•
Stat Profile 3	•	•	•
Stat Profile 4/5		•	•
Nova Stat Profile 6			•
Stat Profile 7/9/10			•
Nova 8/Stat Profile Ultra			•
Nova pHox	•	•	
Radiometer			
ABL 5	•	•	•
ABL 50		•	•
ABL 80 Series		•	
ABL 500/510/520	•	•	•
ABL 505		•	•
ABL 600	•	•	
ABL 610/620	•		
ABL 700 Series	•	•	
ABL 800 Series	•	•	
Roche Diagnostics			
AVL Compact Series	•	•	
AVL OMNI	•	•	
Cobas b 121		•	
Siemens			
238/248	•	•	•
348		•	
614/634/644		•	•
800 Series	•	•	•
RAPIDLab 1200		•	
Other			
POCT Methods	•	•	•

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.



Put your data to work—it may be more valuable than you think!

You may be eligible to become a partner in product development and evaluation of new control lots while earning extra money for your laboratory. To learn more visit QCNet.com/ProductStudies/



Cardiac Assessment Controls

Helping laboratories address the growing complexity of measuring multiple Cardiac Markers at increasingly sensitive levels

Cardiac Assessment Controls

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See Also

- **Page 27** for Liquichek D-dimer Control
- **Pages 73-78** IntelliQ Quality Control Products
- **Page 94** for Liquichek Cardiac Markers Plus Control LT in Dimension Vista vials

Did You Know?

- **Troponin I (TnI)** values are not standardized and the critical 99th-percentile upper reference limit is assay-specific
- **Bio-Rad** offers a full range of cardiac assessment controls that allows laboratories to select values of Troponin and other critical analytes best suited to their platform and patient population

For More Information

- **Brochure** Cardiac Assessment Controls (Q-1521)
- **Brochure** IntelliQ (Q-1665)

Liquichek Cardiac Markers Plus Control LT



- Choice of four Troponin levels (1, 1A, 1B, or 1C), with lower target values for all analytes
- Includes values for BNP, NT-proBNP and hs CRP
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 20 day open-vial stability at 2–8°C for most analytes

POCT Methods Listed

Ordering Information

Cat #	Description
146	Level 1 6 x 3 mL
27104	Level 1A 6 x 3 mL
27105	Level 1B 6 x 3 mL
27106	Level 1C 6 x 3 mL
147	Level 2 6 x 3 mL
148	Level 3 6 x 3 mL
149	Level Low 6 x 3 mL
146X	Level 1 MiniPak 1 x 3 mL
27104X	Level 1A MiniPak 1 x 3 mL
27105X	Level 1B MiniPak 1 x 3 mL
27106X	Level 1C MiniPak 1 x 3 mL
147X	Level 2 MiniPak 1 x 3 mL
148X	Level 3 MiniPak 1 x 3 mL
149X	Level Low MiniPak 1 x 3 mL



For Liquichek tube control, see page 77.

For Dimension Vista vials, see page 94.

Analytes

BNP
CK (Total)
CK-MB Isoenzyme

CRP
Digitoxin
Homocysteine*

Myoglobin
NT-proBNP

Troponin I
Troponin T

*No claim is made for expected value or stability.

Liquichek Cardiac Troponins Control



- Dedicated Troponins control
- Monitors the precision of hs (high sensitivity) or next generation assays near the 99th percentile upper reference limit and across the assay range
- Value assigned for major analyzer systems
- Convenience of a liquid control
- 18 month shelf life at -20°C to -70°C
- Open-vial stability at 2–8°C
 - Troponin I: 14 days
 - Troponin T: 25 days

Ordering Information

Cat #	Description
12001084	Level 1 6 x 3 mL
12006239	Level 2 6 x 3 mL
12006369	Level 3 6 x 3 mL
12001085	Level 1 MiniPak 1 x 3 mL
12006370	Level 2 MiniPak 1 x 3 mL
12006371	Level 3 MiniPak 1 x 3 mL

Analytes

Troponin I
Troponin T

Need a wider range of CRP values?

Refer to page 59 for an overview of CRP levels in Bio-Rad Controls.

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Cardiac Markers Plus Control



- Monitors precision of Troponin assays at higher levels
- Includes BNP and NT-proBNP
- Values provided for hs-CRP
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 20 day open-vial stability at 2–8°C for most analytes

POCT Methods Listed

Ordering Information

Cat #	Description
180	Trilevel (2 of each level) 6 x 3 mL
181	Level 1 6 x 3 mL
182	Level 2 6 x 3 mL
183	Level 3 6 x 3 mL
180X	Trilevel MiniPak (1 of each level) 3 x 3 mL

Analytes

BNP
CK (Total)
CK-MB Isoenzyme

CRP
Digitoxin
Homocysteine*

Myoglobin
NT-proBNP

Troponin I
Troponin T

*No claim is made for expected values or stability.

Liquichek Cardiac Markers Control LT



- Designed to monitor precision of Roche Troponin T GEN 4 assays
- Value assigned solely for Roche systems
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 10 day open-vial stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
645	Trilevel (2 of each level) 6 x 3 mL
646	Level 1 6 x 3 mL
647	Level 2 6 x 3 mL
648	Level 3 6 x 3 mL
645X	Trilevel MiniPak (1 of each level) 3 x 3 mL

Analytes

CK-MB Isoenzyme
Digitoxin

Homocysteine*
Myoglobin

NT-proBNP
Troponin I*

Troponin T

*No claim is made for expected values or stability.

Liquichek CK/LD Isoenzyme Control



- Monitors the precision of traditional and electrophoretic methods
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 10 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
671	Level 1 6 x 1 mL
672	Level 2 6 x 1 mL
670X	Bilevel MiniPak (1 of each level) 2 x 1 mL

Analytes

Albumin
CK (Total)
CK Electrophoresis

CK-MB Isoenzyme
Globulin

LD Electrophoresis
LDH

Protein (Total)
Protein Electrophoresis

Liquichek Homocysteine Control



- Designed to monitor Homocysteine precision across a wide range of target values
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
287	Level 1 6 x 1 mL
288	Level 2 6 x 1 mL
289	Level 3 6 x 1 mL
288X	Trilevel MiniPak (1 of each level) 3 x 1 mL



For IntelliQ Homocysteine Control, see page 75.

Analyte

Homocysteine

Use Bio-Rad's Cardiac Assessment Controls on these popular instruments

Manufacturer/Instrument(s)	Cardiac Markers Plus	Cardiac Markers Plus LT	Cardiac Markers LT	Cardiac Troponins	CK/LD Isoenzyme	Homocysteine
Abbott Diagnostics						
ARCHITECT Series	•	•			•	•
Beckman Coulter						
Access Series/LX i/UniCel DxI	•	•		•		•
AU Series	•	•			•	•
CX/LX/UniCel DxC Series	•	•			•	•
Immage	•	•				
BioMérieux						
VIDAS		•				
LSI Medience						
PATHFAST		•				
Ortho Clinical Diagnostics						
VITROS Series	•	•			•	•
VITROS ECI	•	•			•	
Roche Diagnostics						
Cobas 6000 Series/COBAS INTEGRA	•	•	•	•	•	•
Elecsys Systems	•	•	•	•		
Hitachi Systems	•	•	•	•	•	
MODULAR Systems	•	•	•	•	•	•
Siemens						
ADVIA Series	•	•			•	
ADVIA Centaur Series	•	•		•	•	•
Atellica Solution		•				•
BN Series	•	•				
Dimension Vista	•	•		•	•	•
Dimension Series	•	•		•	•	
IMMULITE Series	•	•				•
Stratus	•	•				
Tosoh						
AIA Series	•	•				•
Other						
Electrophoresis					•	
LC/LC-MS/HPLC						•
POCT Methods	•	•				

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.

Refer to myelnserts.com or the package insert of currently available lots for specific analyte and stability claims.



Chemistry Controls & Serum Indices

Maximum confidence, minimal hassle with clinical chemistry control solutions from Bio-Rad

Serum Chemistry Controls

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Lyphocheck Unassayed Chemistry Control (Human)	19
Liquichek Unassayed Chemistry Control (Human)	20
Liquichek Lipids Control	20
Liquichek Pediatric Control	21
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Urine Chemistry Controls

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See Also

- **Pages 73-78** IntelliQ Quality Control Products
- **Page 84** Liquid Assayed Multiquel Premium
- **Pages 93-98** QC products in Dimension Vista vials

Did You Know?

- **A single control with a broad mix of analytes** can save time, provide QC coverage for a maximum number of tests, and minimize use of assay and single analyte control products

For More Information

- **Brochure** Independent Quality Control (Q-1128)
- **Booklet** Bio-Rad Quality Control Products in Dimension Vista Vials (Q-1214)
- **Brochure** Premium Controls for Immunochemistry (Q-1215)
- **Brochure** Liquichek Serum Indices (Q-1652)
- **Brochure** IntelliQ (Q-1665)

Liquid Assayed and Unassayed Multiquel



- Provides a comprehensive range of general chemistry analytes for integrated and modular platforms
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 30 day unopened stability at 2–8°C for most analytes
- 14 day open-vial stability at 2–8°C for most analytes

POCT Methods Listed for Liquid Assayed Multiquel

Ordering Information

Cat # Description

Liquid Assayed Multiquel

694	Level 1	12 x 3 mL
695	Level 2	12 x 3 mL
696	Level 3	12 x 3 mL
695X	Trilevel MiniPak (1 of each level)	3 x 3 mL

Liquid Unassayed Multiquel

697	Level 1	12 x 10 mL
698	Level 2	12 x 10 mL
699	Level 3	12 x 10 mL
698X	Trilevel MiniPak (1 of each level)	3 x 10 mL



For IntelliQ Assayed Multiquel Control, see page 74.

For Liquid Assayed Multiquel Premium, see page 84.

For Dimension Vista vials, see page 94.

Analytes

Acetaminophen	Chloride	Immunoglobulin A (IgA)	Protein (Total)
Acid Phosphatase (Total)	Cholesterol (HDL)	Immunoglobulin G (IgG)	Salicylate
Albumin	Cholesterol (LDL)	Immunoglobulin M (IgM)	Sodium
Alkaline Phosphatase (ALP)	Cholesterol (Total)	Iron	T3 (Total)
Alpha-1-Antitrypsin	Cholinesterase	Iron (TIBC)	T3 Uptake/T-Uptake
Alpha-Hydroxybutyrate	CK-MB Isoenzyme*	Iron (UIBC)	T4 (Free)
Dehydrogenase (αHBDH)	CO ₂	Lactate (Lactic Acid)	T4 (Total)
ALT/SGPT	Complement C3	Lactate Dehydrogenase (LDH)	Theophylline
Amikacin	Complement C4	LAP Arylamidase	Tobramycin
Amylase	Copper	Lipase	Transferrin
Amylase (Pancreatic)	Cortisol	Lithium	Triglycerides
Apolipoprotein A-1	Creatine Kinase (CK)	Magnesium	TSH
Apolipoprotein B	Creatinine	Osmolality	Urea
AST/SGOT	Digoxin	PAP*	Urea Nitrogen
Bilirubin (Direct)	Ethanol	Phenobarbital	Uric Acid
Bilirubin (Neonatal)	Ferritin	Phenytoin	Valproic Acid
Bilirubin (Total)	Gentamicin	Phospholipids	Vitamin B ₁₂
Calcium (Ionized)	GGT	Phosphorus	Zinc
Calcium (Total)	Globulin	Potassium	
Carbamazepine	Glucose	Prealbumin	
Ceruloplasmin	Haptoglobin	Protein Electrophoresis**	

*No claim is made for expected value or stability.

**Albumin, α-1-Globulin, α-2-Globulin, β-Globulin, γ-Globulin.

Need higher Bilirubin values suitable for monitoring adult liver disease and neonatal testing?

Please review Liquichek Pediatric Control on page 21.

Lyphocheck Assayed Chemistry Control and Lyphocheck Unassayed Chemistry Control (Human)



- Includes a comprehensive list of claimed analytes for general chemistry testing
- Provides good stability for enzymes and CO₂
- No special diluents are required for reconstitution
- Human serum based
- 3 year shelf life at 2–8°C
- 30 day frozen reconstituted stability for most analytes
- 7 day open-vial reconstituted stability at 2–8°C for most analytes

POCT Methods Listed for Lyphocheck Assayed Chemistry Control

Ordering Information

Cat # Description

Assayed Chemistry Control

C-310-5	Level 1	12 x 5 mL
C-315-5	Level 2	12 x 5 mL
313X	Bilevel MiniPak (1 of each level)	2 x 5 mL

Unassayed Chemistry Control (Human)

731	Level 1	25 x 5 mL
732	Level 2	25 x 5 mL
730X	Bilevel MiniPak (1 of each level)	2 x 5 mL
C-320-10	Level 1	50 x 10 mL
C-325-10	Level 2	50 x 10 mL
323X	Bilevel MiniPak (1 of each level)	2 x 10 mL

Analytes

Acetaminophen	CEA	hCG-β Subunit	PSA ¹
Acid Phosphatase (Total)	Ceruloplasmin	Immunoglobulin A (IgA)	Salicylate
Albumin	Chloride	Immunoglobulin G (IgG)	Sodium
Alkaline Phosphatase (ALP)	Cholesterol (HDL)	Immunoglobulin M (IgM)	T3 (Free)
Alpha-1-Antitrypsin	Cholesterol (LDL)	Iron	T3 (Total)
Alpha-Hydroxybutyrate	Cholesterol (Total)	Iron (TIBC)	T3 Uptake/T-Uptake
Dehydrogenase (αHBDH)	Cholinesterase	Iron (UIBC)	T4 (Free)
Alphafetoprotein (AFP)	CO ₂	Lactate (Lactic Acid)	T4 (Total)
ALT/SGPT	Complement C3	Lactate Dehydrogenase (LDH)	TBG
Amylase	Complement C4*	LAP Arylamidase	Theophylline
Amylase (Alpha)	Copper	Lipase	Tobramycin
Amylase (Pancreatic)	Cortisol	Lithium	Transferrin
Apolipoprotein A-1	Creatine Kinase (CK)	Magnesium	Triglycerides
Apolipoprotein B	Creatinine	Osmolality	TSH
AST/SGOT	Digoxin	PAP	Urea
Bilirubin (Direct)	Gentamicin	Phenobarbital	Urea Nitrogen
Bilirubin (Indirect)	GGT	Phenytoin	Uric Acid
Bilirubin (Total)	GLDH	Phosphorus	Valproic Acid
Calcium	Globulin	Potassium	Vancomycin
Calcium (Ionized)	Glucose	Protein Electrophoresis	Vitamin B ₁₂
Carbamazepine	Haptoglobin	Protein (Total)	Zinc

¹Available in Lyphocheck Assayed Chemistry Control only.

*No claim is made for expected value or stability.

Liquichek Unassayed Chemistry Control (Human)



- Unassayed control with larger 10 mL fill size for more cost effective serum chemistry testing
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 15 day open-vial stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
691	Level 1 25 x 10 mL
692	Level 2 25 x 10 mL
690X	Bilevel MiniPak (1 of each level) 2 x 10 mL

Analytes

Acetaminophen	Cholesterol (Total)	Iron (TIBC)	Salicylate
Acid Phosphatase (Total)	CO ₂	Iron (UIBC)*	Sodium
Albumin	Copper	Lactate (Lactic Acid)	T3 (Free)*
Aldolase*	Cortisol	Lactate Dehydrogenase (LDH)	T3 (Total)
Alkaline Phosphatase (ALP)	Creatine Kinase (CK)	LAP Arylamidase*	T3 Uptake/T-Uptake
Alpha-Hydroxybutyrate Dehydrogenase (αHBDH)	Creatinine	Lipase	T4 (Free)*
ALT/SGPT	Digoxin	Lithium	T4 (Total)
Amylase	Ethanol	Magnesium	Theophylline
AST/SGOT	Folate	Osmolality	Tobramycin
Bilirubin (Direct)*	Gentamicin	PAP*	Transferrin
Bilirubin (Indirect)*	GGT	Phenobarbital	Triglycerides
Bilirubin (Total)	GLDH*	Phenytoin	TSH
Calcium	Globulin	Phospholipids	Urea Nitrogen
Calcium (Ionized)*	Glucose	Phosphorus	Uric Acid
Carbamazepine	Immunoglobulin A (IgA)	Potassium	Valproic Acid
Chloride	Immunoglobulin G (IgG)	Protein (Total)	Vancomycin
Cholesterol (HDL)*	Immunoglobulin M (IgM)	Protein Electrophoresis	Vitamin B ₁₂
	Iron	Pseudocholinesterase	Zinc*

*No claims are made regarding performance or stability.

Liquichek Lipids Control



- Contains C-Reactive Protein in levels optimized for hs-CRP assays
- Higher Triglycerides and Cholesterol values to monitor precision of the full assay range
- Provides values for direct HDL
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 14 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
641	Level 1 6 x 3 mL
642	Level 2 6 x 3 mL
640X	Bilevel MiniPak (1 of each level) 2 x 3 mL

Analytes

Apolipoprotein A-1	C-Reactive Protein	Cholesterol (LDL)	Lipoprotein (a)
Apolipoprotein B	Cholesterol (HDL)	Cholesterol (Total)	Triglycerides

Need a wider range of CRP values?

Refer to page 59 for an overview of CRP levels in Bio-Rad Controls.

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Pediatric Control



- Four Bilirubin parameters are available at two clinically significant levels for neonatal testing
- Suitable for monitoring high Bilirubin levels important for adult liver disease
- Liquid
- 3 year shelf life at -20°C to -70°C
- 3 month stability when stored unopened at 2–8°C
- 14 day open-vial stability at 2–8°C

POCT Methods Listed

Ordering Information

Cat #	Description
354	Level 1 6 x 4 mL
355	Level 2 6 x 4 mL
353X	Bilevel MiniPak (1 of each level) 2 x 4 mL



For Dimension Vista vials, see page 97.

Analytes

Bilirubin (Direct)
Bilirubin (Indirect)
Bilirubin (Neonatal)
Bilirubin (Total)

Caffeine
Calcium
Chloride
Glucose

Magnesium
Phenylalanine
Potassium

Sodium
Theophylline

Liquichek Ethanol/Ammonia Control



- Normal, elevated and toxic concentrations of Ethanol and Ammonia to monitor precision across the clinical range
- 2 year shelf life at 2–8°C
- 20 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
544	Level 1 6 x 3 mL
545	Level 2 6 x 3 mL
546	Level 3 6 x 3 mL
545X	Trilevel MiniPak (1 of each level) 3 x 3 mL



For IntelliQ Ethanol/Ammonia Control, see page 75.

For Dimension Vista vials, see page 95.

Analytes

Ammonia
Ethanol

Need an Alcohol control for mass spec?

Please review Liquichek Serum Volatiles Control on Page 111.

Lymphocheck Quantitative Urine Control



- Comprehensive analyte menu for quantitative assays that monitor the precision for general urine chemistry, hormones and esoteric testing including biogenic amines, metals and porphyrins
- Contains hCG
- Microalbumin available at levels found in early stages of proteinuria and associated nephropathy
- Value assigned for a comprehensive list of methods
- Human urine based
- 2 year shelf life at 2–8°C for most analytes
- 5 day reconstituted stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
376	Level 1, Normal 12 x 10 mL
377	Level 2, Abnormal 12 x 10 mL
375X	Bilevel MiniPak (1 of each level) 2 x 10 mL

Analytes

3-Methoxytyramine	Calcium	Hydroxyproline (Free)*	Potassium
5-Aminolevulinic Acid (ALA)	Chloride	Hydroxyproline (Total)	Pregnancy (Qualitative)
5-HIAA	Copper*	Iron	Pregnanetriol*
11-β-Hydroxy-Androsterone*	Coproporphyrin	Lead	Protein (Total)
11-β-Hydroxy-Etiocholanolone*	Cortisol	Magnesium	Sodium
17-Hydroxycorticosteroids	Creatine*	Mercury	Specific Gravity
11-Ketoandrosterone*	Creatinine	Metanephrine	Urea
11-Ketoetiocholanolone*	Cystine*	Metanephrine (Total)	Urea Nitrogen
17-Ketosteroids	Dehydroepiandrosterone (DHEA)*	Microalbumin	Uric Acid
17-Ketogenic Steroids	Dopamine	Norepinephrine	Uroporphyrins
Aldosterone	Epinephrine	Normetanephrine	Vanillylmandelic Acid (VMA)
AMP (Cyclic)*	Estriol (Total)*	Osmolality	Zinc*
Androsterone*	Etiocholanolone*	pH	
Arsenic	Glucose	Phosphorus	
Barbiturates*	Homovanillic Acid (HVA)	Porphyrins (Total)	

*No claims are made regarding performance or stability.

Liquichek Microalbumin Control



- Designed using human Albumin at levels found in early stage renal disease
- Values provided for a wide range of popular instrument platforms
- Liquid, human urine based
- 2 year shelf life at 2–8°C
- 90 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
378	Level 1 12 x 10 mL
379	Level 2 12 x 10 mL
374X	Bilevel MiniPak (1 of each level) 2 x 10 mL

Analytes

Creatinine
Microalbumin

Need additional analytes?

For more human urine analytes please refer to Liquichek Urine Chemistry Control on page 23.

Refer to myInserTs.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Urine Chemistry Control



- Provides assayed values for urine tests commonly performed on chemistry analyzers and some manual methods
- Includes hCG, Amylase and Creatinine
- Liquid, human urine based
- 2 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

POCT Methods Listed

Ordering Information

Cat #	Description
397	Level 1 12 x 10 mL
398	Level 2 12 x 10 mL
395X	Bilevel MiniPak (1 of each level) 2 x 10 mL



For Liquichek tube control see page 78.

For Dimension Vista vials, see page 98.

Analytes

Amylase
Calcium
Chloride
Cortisol
Creatinine

Glucose
Magnesium
Microalbumin
Osmolality
pH

Phosphorus
Potassium
Pregnancy (Qualitative)
Protein (Total)
Sodium

Specific Gravity
Urea
Urea Nitrogen
Uric Acid

Looking for additional analytes?

An extensive list of general and esoteric urine analytes are also included in Lyphocheck Quantitative Urine Control on page 22.

Use Bio-Rad's Chemistry Controls on these popular instruments

Manufacturer/Instrument(s)	Assayed & Unassayed Chemistry (Lyophilized)	Assayed & Unassayed Multiquel (Liquid)	Ethanol/Ammonia	Unassayed Chemistry (Liquid)	Lipids	Microalbumin	Pediatric	Quantitative Urine	Urine Chemistry
Abbott Diagnostics									
ARCHITECT Series	●	●	●	●	●	●	●	●	●
Beckman Coulter									
AU Series	●	●	●	●	●	●	●	●	●
Image Systems		●			●	●		●	●
Synchron/UniCel Dx C Series	●	●	●	●	●	●	●	●	●
Synchron/UniCel Dx I Series									●
Ortho Clinical Diagnostics									
VITROS Series	●	●	●	●	●	●	●	●	●
Roche Diagnostics									
cobas c Systems	●	●	●	●	●	●	●	●	●
COBAS INTEGRA	●	●	●	●	●	●	●	●	●
Elecsys Systems								●	●
Hitachi/MODULAR Systems	●	●	●	●	●	●	●	●	●
Siemens									
ADVIA Centaur Series	●	●						●	●
ADVIA Chemistry Series	●	●	●	●	●	●	●	●	●
Atellica Solution		●	●						●
BN Series	●	●			●	●		●	●
Dimension Series	●	●	●	●	●	●	●	●	●
Dimension Vista Systems	●	●	●	●	●	●	●	●	●
IMMULITE Series	●	●			●				
Other									
Enzymatic Method			●			●			
GC, GC-MS/GC-FID			●						
POCT Methods	●	●					●		●

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.

Refer to myInserTs.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Serum Indices



- Intended for use as part of laboratory interference testing to monitor instrument response in detecting hemolyzed, icteric or lipemic (HIL) samples to help improve detection of pre-analytical errors affecting clinical chemistry testing
- Prepared from human source material
- 2 year shelf life at -20°C to -70°C
- 30 day unopened stability at 2-8°C
- 14 day open-vial stability at 2-8°C
- 28 day frozen aliquot at -20°C to -70°C

Ordering Information

Cat #	Description
12009621	Hemolysis 6 x 4 mL
12009620	Icterus 6 x 4 mL
12009619	Lipemia 6 x 4 mL
12009618	Non-interfered 6 x 4 mL
12009617	MiniPak (1 of each Interferent) 4 x 4 mL

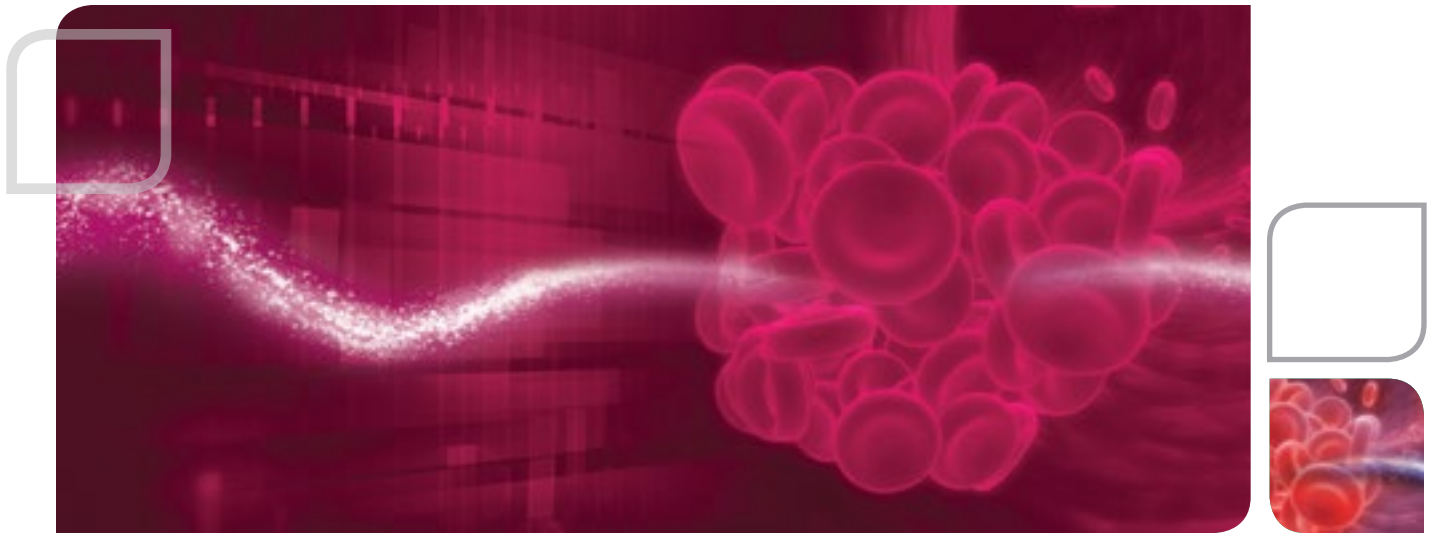
Interferent

Hemolysis
Icterus
Lipemia
Non-Interfered



Put your data to work—it may be more valuable than you think!

You may be eligible to become a partner in product development and evaluation of new control lots while earning extra money for your laboratory. To learn more visit QCNet.com/ProductStudies/



Coagulation Controls

Values for coagulation times, factors and fragments across a wide range of platforms

Coagulation Controls

Lyphochek Coagulation Control	26
Lyphochek Hemostasis Control	26
Liquichek D-dimer Control	27

Additional Information

Controls for Popular Instruments Chart	28
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See Also

- **Pages 13-16** for Cardiac Assessment Controls
- **Pages 41-48** for Hematology Controls

Did You Know?

- **Cost conscious** laboratories can take advantage of the 48 hour open-vial stability at 2–25°C for basic coagulation tests provided by Lyphochek Coagulation Control

For More Information

- **Booklet** Hematology and Coagulation Controls (Q-1523)

Lyphocheck Coagulation Control



- Extended open-vial stability reduces the cost of daily QC
- Three year shelf life allows laboratories to save money by performing fewer crossover studies
- Human based
- 3 year shelf life at 2–8°C
- 48 hour open-vial stability at 2–25°C

Ordering Information

Cat #	Description
744	Level 1 12 x 1 mL
745	Level 2 12 x 1 mL
746	Level 3 12 x 1 mL
745X	Trilevel MiniPak (1 of each level) 3 x 1 mL

Analytes

Activated Partial Thromboplastin Time (APTT)	Fibrinogen
Antithrombin III (AT III)	Prothrombin Time (PT)
	Thrombin Time (TT)

Lyphocheck Hemostasis Control



- Supplements basic parameters provided by Lyphocheck Coagulation Control with additional factors
- Provides QC for more specialized diagnostic testing
- Human based
- 3 year shelf life at 2–8°C
- 8 hour open-vial stability at 2–25°C, except for Protein S at 2–8°C

Ordering Information

Cat #	Description
597	Level 1 12 x 1 mL
598	Level 2 12 x 1 mL
599	Level 3 12 x 1 mL
598X	Trilevel MiniPak (1 of each level) 3 x 1 mL

Analytes

Activated Partial Thromboplastin Time (APTT)
Antithrombin III (AT III)
Factors II, V, VII, VIII, IX, X, XI and XII
Fibrinogen
Plasminogen

Protein C (Functional)
Protein S (Functional)
Prothrombin Time (PT)
Thrombin Time (TT)

Did you know . . .

To improve patient safety, it's a good idea to end the day of testing with a QC evaluation.

Liquichek D-dimer Control



- Four level control monitoring assay precision across the critical range used in diagnosis of thrombotic events on multiple platforms
- Liquid, human-plasma based
- 3 year shelf life at -20°C to -70°C
- 15 day open-vial stability at 2–8°C

POCT Methods Listed

Ordering Information

Cat #	Description
27100	Level Low. 6 x 1 mL
27101	Level 1 6 x 1 mL
27102	Level 2 6 x 1 mL
27103	Level 3 6 x 1 mL
27102X	Four Level MiniPak (1 of each level) 4 x 1 mL

Analyte

D-dimer

Liquichek D-dimer Control may be used with the following instruments and test methods

- Alere Triage
- BioMérieux VIDAS
- Diagnostica Stago STA Hemostasis System
- Instrumentation Laboratory (IL)
 - ACL ELITE/ELITE PRO
 - ACL TOP System
- Mitsubishi PATHFAST
- Roche Diagnostics
 - COBAS INTEGRA
 - Hitachi Systems
- Siemens
 - BCS/BCT
 - IMMULITE
 - Stratus CS
 - Sysmex CA Series
- POCT Methods

If your instrument model is not listed, please contact your nearest Bio-Rad office for current information.

Popular Instruments for D-dimer Assays

Instrument	Level Low	Level 1	Level 2	Level 3
bioMérieux	●	●	●	●
Biosite Triage Meter Pro		●	●	●
Diagnostica Stago	●	●	●	●
IL ACL	●	●	●	●
Mitsubishi PATHFAST	●	●	●	
Roche/Hitachi Cobas	●	●	●	●
Siemens BCS	●	●	●	●
Siemens Immulite 2000		●	●	●
Siemens Stratus	●	●	●	●
Sysmex CA Series	●	●	●	●

These are recommended levels.
Refer to package insert for complete instrument listing.

Target Levels

	D-dimer ng/mL (FEU)*
Level Low	250
Level 1	550
Level 2	1600
Level 3	3200

The values listed are approximate targets. The actual observed values will vary depending upon lot number, analyzer, reagent, method, and calibrator.

*Fibrinogen Equivalent Units (FEU) = twice the mass of the D-DU (D-dimer units).

Use Bio-Rad's Coagulation Controls with these popular reagents

	PT	aPTT	Fibrinogen	AT III
Manufacturer/reagent(s)				
Diagon				
Dia-PT	●			
Dia-PT R	●			
Dia-PT (INR)	●			
Dia-PT LIQUID (INR)	●	●		
Dia-PTT		●		
Dia-PTT-LIQUID		●		
Dia-FIB			●	
Diagnostica Stago				
STA-Neoplastine CI Plus (INR)	●			
STA-Neoplastine CI Plus	●			
STA PTT Automate		●		
STA-Stachrom AT III				●
STA Fibrinogen			●	
Instrumentation Laboratory (IL)				
HemosIL RecombiPlasTin 2G (INR)	●			
HemosIL RecombiPlasTin 2G	●			
HemosIL APTT-SP (Synthetic Phospholipids)		●		
HemosIL SynthASiL		●		
HemosIL Antithrombin III (Liquid)				●
HemosIL Fibrinogen C			●	
HemosIL Q.F.A. Thrombin (Bovine)			●	
HemosIL RecombiPlasTin 2G (Derived)			●	
Siemens				
Dade Innovin	●			
Thromborel S	●			
Dade Innovin (INR)	●			
Thromborel S (INR)	●			
Dade Actin FS		●		
Dade Actin FSL		●		
Pathromtin SL		●		
Berichrom Antithrombin III				●
INNOVANCE Antithrombin				●
Multifibren U			●	
Dade Innovin (Derived)			●	
Dade Thrombin			●	

If your reagent is not listed, please contact your nearest Bio-Rad office for current information.



Put your data to work—it may be more valuable than you think!

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Diabetes/Hemoglobin Controls

Monitor Hemoglobin A1C testing with superior Quality Controls from Bio-Rad

Diabetes/Hemoglobin Controls

Liquichek Diabetes Control	30
Lyphochek Diabetes Control	30
Lyphochek Hemoglobin A1C Linearity Set	30
Lyphochek Hemoglobin A2 Control	31
Meter Trax Control	31

Additional Information

Controls for Popular Instruments Chart	32
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See Also

- **Page 95** for Liquichek Diabetes Control in Dimension Vista vials

Did You Know?

- The Hemoglobin A1C values in our controls are listed in both NGSP (%) and IFCC (mmol/mol) units

For More Information

- **Booklet** Bio-Rad Quality Control Products in Dimension Vista Vials (Q-1214)
- **Brochure** Diabetes Controls and Lyphochek Hemoglobin A1C Linearity Set (Q-1520)

Liquichek Diabetes Control



- Designed to monitor the assay precision of Hemoglobin fractions associated with diabetes
- Liquid, human whole blood based
- 3 year shelf life at -10°C to -70°C
- 6 month shelf life at 2–8°C
- 14 day open-vial stability at 2–8°C

POCT Methods Listed

Ordering Information

Cat #	Description
171	Level 1 6 x 1 mL
172	Level 2 6 x 1 mL
173	Level 3 6 x 1 mL
172X	Trilevel MiniPak (1 of each level) 3 x 1 mL



For Dimension Vista vials, see page 95.

Analytes

Hemoglobin (Total)
Hemoglobin A1C

Lyphocheck Diabetes Control



- Lyophilized control available in two levels
- Human whole blood based control
- 3 year shelf life at 2–8°C
- 7 day reconstituted stability at 2–8°C

POCT Methods Listed

Ordering Information

Cat #	Description
740	Bilevel (3 of each level) 6 x 0.5 mL
740X	Bilevel MiniPak (1 of each level) 2 x 0.5 mL

Analytes

Hemoglobin (Total Glycated)* Hemoglobin A1C
Hemoglobin (Total) Hemoglobin F
Hemoglobin A1*

*No claims are made regarding performance or stability.

Lyphocheck Hemoglobin A1C Linearity Set



- Intended to verify linearity throughout the reportable range of Hemoglobin A1C assays
- Human whole blood based
- 3 year shelf life at 2–8°C
- 7 day reconstituted stability at 2–8°C

Linearity Web software available on QCNet.com

Ordering Information

Cat #	Description
12000070	Set (1 of each level) 6 x 0.5 mL

Analyte

Hemoglobin A1C

Assayed values available for common analyzers:

Bio-Rad Analyzers

- D-10
- VARIANT
- VARIANT II Turbo

Other Analyzers

- Beckman Coulter SYNCHRON Systems
- Siemens ADVIA
- Siemens Dimension Series
- Roche COBAS INTEGRA & Hitachi Systems
- Tosoh G7 & G8

Expected Values for Hemoglobin A1C (%NGSP)*

Level 1	2.7 - 3.8%
Level 2	4.1 - 5.1%
Level 3	5.5 - 6.5%
Level 4	8.4 - 10%
Level 5	12 - 15%
Level 6	16 - 22%

*Ranges reflect typical recovery values for this product. Exact values may vary depending on test/assay methodology, instruments, reagent, system calibrators or laboratory technique.

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

Lyphochek Hemoglobin A₂ Control



- Lyophilized
- Human whole blood based control
- 2 year shelf life at 2–8°C
- 21 day reconstituted stability at 2–8°C for most methods

Ordering Information

Cat #	Description
553	Bilevel (2 of each level) 4 x 0.5 mL
553X	Bilevel MiniPak (1 of each level) 2 x 0.5 mL

Assayed values available for common analyzers:

Bio-Rad

- D-10
- VARIANT
- VARIANT II

Other

- Sebia Hydragel
- Tosoh G7
- Trinity ultra 2

Analytes

Hemoglobin A₂
Hemoglobin F
Hemoglobin S

Meter Trax Control



- Easy-to-use control for Glucose, Hemoglobin and Hematocrit testing on point-of-care instruments
- Glucose and Hemoglobin stable for 31 days at 2–25°C after opening
- Hematocrit stable for 31 days at 2–8°C after opening
- 6 month shelf life at 2–8°C

POCT Methods Listed

Assayed values available for common analyzers:

- Abbott iSTAT
- BD Clay Adams
- Beckman StatSpin
- STI HemataSTAT
- HemoCue Hb
- i-SENS CareSens
- LifeScan OneTouch
- Nova StatStrip
- Roche Accu-Chek

Ordering Information

Cat #	Description
970	Trilevel (2 of each level) 6 x 2 mL
971	Low Level. 6 x 2 mL
972	Mid Level 6 x 2 mL
973	High Level 6 x 2 mL
970X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analytes

Glucose
Hematocrit (HCT)
Hemoglobin (Total)

Use Bio-Rad's Diabetes/Hemoglobin Controls on these popular instruments

Manufacturer/Instrument(s)	Diabetes (Liquid & Lyophilized)	Hemoglobin A1C Linearity	Hemoglobin A ₂	Meter Trax
Abbott Diagnostics				
ARCHITECT Series	•	•		
Beckman Coulter				
AU Series	•	•		
CX /LX/UniCel DxC Series	•	•		
Bio-Rad Laboratories				
VARIANT II Turbo	•	•		
VARIANT II	•	•	•	
D-10	•	•	•	
Ortho Clinical Diagnostics				
VITROS Series	•	•		
Roche Diagnostics				
Cobas 6000 Series/COBAS INTEGRA	•	•		
Hitachi Systems	•			
Sebia				
Hydragel			•	
Siemens				
ADVIA Series	•	•		
Dimension Vista	•	•		
Dimension Series	•	•		
Tosoh				
A1c	•			
G7	•	•	•	
Trinity Biotech				
ultra 2			•	
Other				
POCT Methods	•			•

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.



Put your data to work—it may be more valuable than you think!

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External Quality Assurance Services (EQAS)

Participate in an internationally recognized quality assessment program

EQAS Programs

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Did You Know?

- **Accredited to ISO/IEC 17043:2010** “Conformity assessment–General requirements for proficiency testing”
- **Convenient electronic reporting options** to choose from (EQAS Online and EQAS Mobile)
- **Reference Method Values** provided for select programs

For More Information

- **Booklet** EQAS Programs (Q-1557)
- **Flyer** EQAS Online (Q-1175)
- **Brochure** EQAS Programs for Blood Banks (Q-1646)
- **Poster** EQAS Troubleshooting Poster (Q-1640)
- **Flyer** EQAS Troubleshooting Checklist (Q-1641)
- **Booklet** EQAS Explained (Q-1649)
- **Infographic** EQAS Programs (Q-1654)

Blood Gas Program



- Liquid, aqueous samples
- Comprehensive menu for external assessment of laboratory test performance of Blood Gas, Electrolytes, Glucose, Lactate and Magnesium
- 12-month cycle

Ordering Information

Catalog #

BC31* 12 x 2.5 mL

Analytes

Calcium (Ionized)
Chloride
Glucose
Lactate (Lactic Acid)
Magnesium

pCO₂
pH
pO₂
Potassium
Sodium

Blood Typing Program



- Ideal for clinical lab, blood bank and transfusion center testing needs
- Barcoded and ready-to-use tubes for automated platforms
- 3 samples tested every 4 months
- Educational case studies with each shipment

Ordering Information

Catalog # Description

		Sample	Donor
12000837*	Shipment A	3 x 4 mL +	1 x 2 mL
12000838*	Shipment B	3 x 4 mL +	1 x 2 mL
12000839*	Shipment C	3 x 4 mL +	1 x 2 mL

Parameters

ABO Group
Antibody Identification
Antibody Screen
Compatibility (Cross-match)

DAT (Direct Antiglobulin Test)
Rh(D)
Pilot Analyte
Antigen Typing

Cardiac Markers Program



- Liquid, human plasma based
- Comprehensive menu of important cardiac assessment markers, plus D-dimer
- 12-month cycle

Ordering Information

Catalog #

BC39* 12 x 1.5 mL

Analytes

BNP
CK-MB
D-dimer
Homocysteine
hs-CRP

Myoglobin
NT-proBNP
Troponin I
Troponin T

*Aspects of the program are subcontracted from an approved supplier.

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

Clinical Chemistry (Monthly) Program



- Lyophilized, human serum based
- 12-month cycle
- Submit results for the appropriate sample every month
- **Reference Method Values** provided for select analytes

Ordering Information

Catalog #

BC50 12 x 5 mL

Analytes

Acid Phosphatase (Total)
 Alanine Aminotransferase (ALT/SGPT)
 Albumin
 Alkaline Phosphatase (ALP)
 Amylase (Pancreatic)
 Amylase (Total)
 Aspartate Aminotransferase (AST/SGOT)
 Bilirubin (Direct)
 Bilirubin (Indirect)
 Bilirubin (Total)
 Calcium (Ionized)
 Calcium (Total)
 Carbon Dioxide (CO₂)

Chloride
 Cholesterol (HDL)
 Cholesterol (LDL)
 Cholesterol (Total)
 Cholinesterase
 Copper
 Cortisol
 Creatine Kinase (CK)
 Creatinine
 Gamma Glutamyl Transferase (GGT)
 Glucose
 Iron
 Iron Binding Capacity, Total (TIBC)

Iron Binding Capacity, Unsaturated (UIBC)
 Lactate (Lactic Acid)
 Lactate Dehydrogenase (LDH)
 Lipase
 Lithium
 Magnesium
 Osmolality
 Phosphorus
 Potassium
 Protein (Total)
 Sodium
 Thyroid Stimulating Hormone (TSH)

Thyroxine (T4), Free
 Thyroxine (T4), Total
 Transferrin
 Triglycerides
 Triiodothyronine (T3), Free
 Triiodothyronine (T3), Total
 Urea
 Urea Nitrogen
 Uric Acid
 Zinc
Pilot Analyte
 Bile Acid

Coagulation Program



- Lyophilized, human plasma based
- 11 parameters for external assessment of laboratory coagulation test performance
- 12-month cycle

Ordering Information

Catalog #

BC34* 12 x 1 mL

Analytes

Antithrombin III (ATIII)
 APTT
 D-dimer

Factor VIII
 Fibrinogen
 INR

Protein C
 Protein S
 PT

Thrombin Time (TT)
 Von Willebrand Factor (vWF)

Ethanol/Ammonia Program



- Liquid, human serum based
- Clinically relevant levels of serum Ethanol and Ammonia
- 12-month cycle

Ordering Information

Catalog #

BC35* 12 x 3 mL

Analytes

Ammonia
 Ethanol

*Aspects of the program are subcontracted from an approved supplier.

Refer to myelnserts.com or the package insert of currently available lots for specific analyte and stability claims.

Hematology Program



- Liquid product with human RBCs
- Choice of 11 basic hematology parameters
- For use on manual or automated analyzers
- Convenience of primary pierceable tubes
- 12-month cycle consisting of 4 separate shipments
- Submit results for the appropriate sample every month

Ordering Information

Catalog #	Description
BC90A*	Shipment A 3 x 2 mL
BC90B*	Shipment B 3 x 2 mL
BC90C*	Shipment C 3 x 2 mL
BC90D*	Shipment D 3 x 2 mL

Parameters

Hematocrit (HCT)
Hemoglobin (HGB)
Mean Corpuscular Hemoglobin (MCH)
Mean Corpuscular Hemoglobin Concentration (MCHC)
Mean Corpuscular Volume (MCV)
Mean Platelet Volume (MPV)

Platelets (PLT)
Red Blood Cells (RBC)
Red Blood Cell Distribution Width (RDW)
Red Blood Cell Distribution Width-SD (RDW-SD)
White Blood Cells (WBC)

Hemoglobin Program



- Lyophilized, human whole blood based
- Includes HbA1C and HbA₂
- 12-month cycle
- Submit results for the appropriate sample every month
- **Reference Method Values** provided for Hemoglobin A1C

Ordering Information

Catalog #	Description
BC80	 12 x 0.5 mL

Analytes

Hemoglobin A1C	Hemoglobin (Total Glycated)
Hemoglobin A ₂	

HIV/Hepatitis Program



- Liquid, human source material
- Suitable for serological tests used to detect key HIV and Hepatitis viral antibodies and antigens
- Qualitative and quantitative results reporting available
- Submit results and view reports each month through EQAS Online

Ordering Information

Catalog #	Description
12000815	 12 x 2 mL

Analytes

Anti-HAV	Anti-HCV	Anti-HTLV-I	HBeAg
Anti-HBc	Anti-HIV-1	HAV IgG	HBsAg
Anti-HBe	Anti-HIV-1/2	HAV IgM	HIV-1 Ag
Anti-HBs	Anti-HIV-2	HBc IgM	

*Aspects of the program are subcontracted from an approved supplier.
Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

Immunoassay (Monthly) Program



- Lyophilized, human serum based
- Comprehensive menu of the most commonly tested immunoassay analytes
- 12-month cycle
- Submit results for the appropriate sample every month

Ordering Information

Catalog #

BC75 12 x 5 mL

Analytes

11-Deoxycortisol
17- α -OH-Progesterone
25-OH Vitamin D
 β -2 Microglobulin
ACE
ACTH
Aldosterone
Alphafetoprotein (AFP)
Androstenedione
C-Peptide
CA 15-3
CA 19-9
CA 27.29
CA 125
Carbamazepine
Carcinoembryonic Antigen (CEA)
Cortisol

DHEA
DHEA Sulfate
Digoxin
Estradiol
Estriol, Free (UE₃)
Ferritin
Folate
Follicle Stimulating Hormone (FSH)
Gastrin
hCG
hGH
Immunoglobulin E (IgE)
Insulin
Intact PTH
LH
NSE

Phenobarbital
Phenytoin
Plasma Renin Activity
Progesterone
Prolactin
PSA (Free)
PSA (Free/Total Ratio)
PSA (Total)
Renin
S100 Protein
Sex Hormone Binding Globulin (SHBG)
T3 Uptake
T-Uptake
Testosterone
Theophylline
Thyroglobulin (Tg)

Thyroid Stimulating Hormone (TSH)
Thyroxine Binding Globulin (TBG)
Thyroxine, Free (FT₄)
Thyroxine (T₄), Total
Transferrin
Triiodothyronine, Free (FT₃)
Triiodothyronine (T₃), Total
Valproic Acid
Vitamin B₁₂
Pilot Analytes
Calcitonin
Fructosamine
Testosterone (Free)

Lipids Program



- Liquid, human serum based
- Comprehensive menu of lipid profile analytes
- 12-month cycle
- Submit results for the appropriate sample every month

Ordering Information

Catalog #

BC47* 12 x 3 mL

Analytes

Apolipoprotein A-1
Apolipoprotein B
Cholesterol (HDL)
Cholesterol (LDL)
Cholesterol (Total)

Lipoprotein (a)
Triglycerides
Pilot Analyte
Cholesterol (non-HDL)

*Aspects of the program are subcontracted from an approved supplier.

Refer to myInserpts.com or the package insert of currently available lots for specific analyte and stability claims.

Serum Proteins Program



- Lyophilized, human serum based
- Comprehensive menu for external assessment of serum protein assays
- 12-month cycle
- Submit results for the appropriate sample every month

Ordering Information

Catalog #

BC23 12 x 1 mL

Analytes

α-1 Acid Glycoprotein
α-1 Antitrypsin
α-2 Macroglobulin
β-2 Microglobulin
Albumin
Antistreptolysin O (ASO)

C-Reactive Protein (CRP)
Ceruloplasmin
Complement C3
Complement C4
Haptoglobin
Immunoglobulin A (IgA)

Immunoglobulin E (IgE)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)
Kappa Light Chain
Lambda Light Chain
Prealbumin

Protein (Total)
Rheumatoid Factor (RF)
Transferrin
Pilot Analyte
Anti-DNase B

Syphilis/Chagas Program



- Liquid, human source material
- Suitable for serological tests detecting *Treponema pallidum*, Non-Treponemal and *Trypanosoma cruzi* antibodies
- 12-month cycle
- Qualitative and quantitative results reporting available
- Submit results and view reports each month through EQAS Online

Ordering Information

Catalog #

12000833 12 x 1.5 mL

Analytes

Non-Treponemal Antibodies
Treponema pallidum IgG

Treponema pallidum Antibodies
Trypanosoma cruzi Antibodies

Therapeutic Drug Monitoring Program



- Lyophilized, human serum based
- Analytes targeted at therapeutic, sub-therapeutic and toxic levels
- 12-month cycle
- Submit results for the appropriate sample every month
- **Weighed-in Values** provided for select analytes at end of cycle

Ordering Information

Catalog #

BC10 12 x 5 mL

Analytes

Acetaminophen
Amikacin
Amitriptyline
Caffeine
Carbamazepine
Cyclosporine

Digoxin
Ethosuximide
Gentamicin
Lithium
Methotrexate
Nortriptyline

Phenobarbital
Phenytoin
Primidone
Salicylate
Theophylline
Tobramycin

Tricyclic Antidepressants (TCA)
Screen
Valproic Acid
Vancomycin

ToRCH/EBV/MuMZ Program



- Liquid, human source material
- Suitable for serological tests used to detect pediatric diseases and congenital infections
- Qualitative and quantitative results reporting available
- Submit results and view reports each month through EQAS Online

Ordering Information

Catalog #

12000825. 12 x 2 mL

Analytes

Cytomegalovirus (CMV) IgG
Cytomegalovirus (CMV) IgM
Epstein-Barr Virus (EBNA) IgG
Epstein-Barr Virus (VCA) IgG
Epstein-Barr Virus (VCA) IgM
Herpes Simplex Virus (HSV-1) IgG
Herpes Simplex Virus (HSV-1/2) IgG
Herpes Simplex Virus (HSV-2) IgG

Measles Virus (Rubeola) IgG
Mumps Virus IgG
Rubella Virus IgG
Rubella Virus IgM
Toxoplasma gondii (Toxo) IgG
Toxoplasma gondii (Toxo) IgM
Varicella Zoster Virus (VZV) IgG

Urinalysis Program



- Liquid matrix
- Suitable for manual and automated dipstick analysis in both clinical and point-of-care testing (POCT)
- Submit qualitative results and view reports each month through EQAS Online

Ordering Information

Catalog #

12000810. 12 x 12 mL

Analytes

Albumin
Albumin-to-Creatinine Ratio
Bilirubin
Blood/Hemoglobin
Creatinine
Glucose
Ketones
Leukocytes

Nitrite
pH
Pregnancy (hCG)
Protein (Total)
Protein-to-Creatinine Ratio
Specific Gravity
Urobilinogen

Urine Chemistry Program



- Lyophilized, human urine based
- Matrix appropriate samples include basic and specialty urine chemistry analytes
- 12-month cycle
- Submit results for the appropriate sample every month

Ordering Information

Catalog #

BC45. 12 x 10 mL

Analytes

5-Hydroxyindoleacetic Acid (5-HIAA)
Calcium (Total)
Chloride
Cortisol (Free)
Creatinine
Dopamine

Epinephrine
Glucose
Homovanillic Acid (HVA)
Magnesium
Metanephrine
Microalbumin (Albumin)
Norepinephrine

Normetanephrine
Osmolality
Phosphorus
Potassium
Protein (Total)
Sodium

Urea Nitrogen
Uric Acid
Vanillylmandelic Acid (VMA)
Pilot Analyte
Urea

Refer to myInserTs.com or the package insert of currently available lots for specific analyte and stability claims.

Participants receive twelve sample reports and one end-of-cycle report over each program cycle. These detailed reports are presented in an easy-to-read graphic format. Sample reports are available online within three days of the statistical analysis. Additional special reports (Quality Specification, Subgroup and Instrument/Method Summary) are available to registered participants.

Lab 585555
 58555 LAB
 555 555 5555
 55555 555
 55555

BIO-RAD

Glucose Report
 Chemistry (Monthly) Program

Cycle 12
 Jul 2014 - Jul 2015
 Sample No: 11
 Sample Date: 26 Apr 14
 Lot: 7601 123456

EQAS
 European Quality Assessment Scheme

Glucose Dimension Series

Your Result
602 mg/dL

Comparative Statistics

	N	Mean	SD	CV	U ²
All Results	1044	599	39.2	6.5%	1.57
Your Method	2705	617	20.2	3.3%	1.96
Your Peer	475	596	15.6	2.6%	1.82

Your Deviation

Z-score	RM	%
0.29	0.59	0.67%
-0.99	1.36	-0.37%
0.24	0.49	0.43%

PEER
 Your Result

METHOD
 Your Result

ALL RESULTS
 Your Result

Count

mg/dL

N Mean CV U²

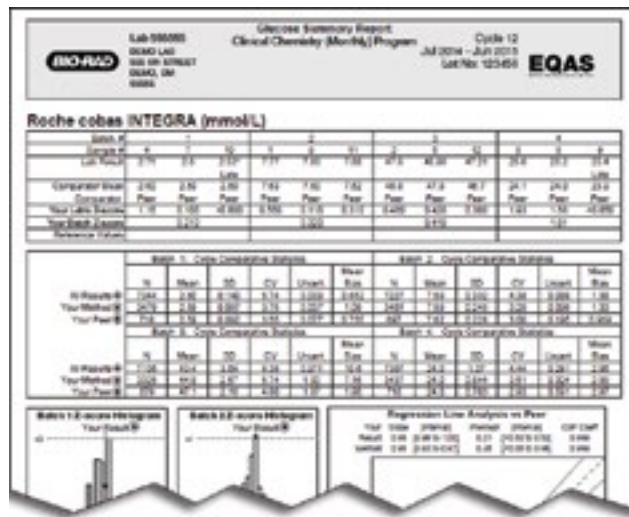
Method codes: 555555555 555555555
 Method: 555555555
 Method: 555555555
 555555555 555555555 555555555

Glucose Dimension Series

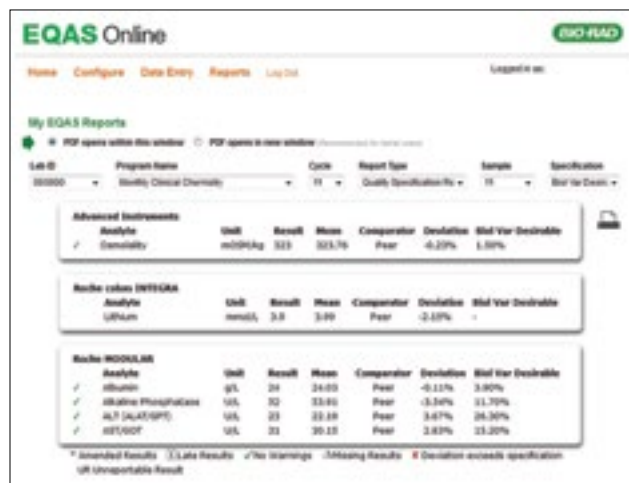
Detailed individual statistical analyses and peer group comparisons are provided.

[illegible]

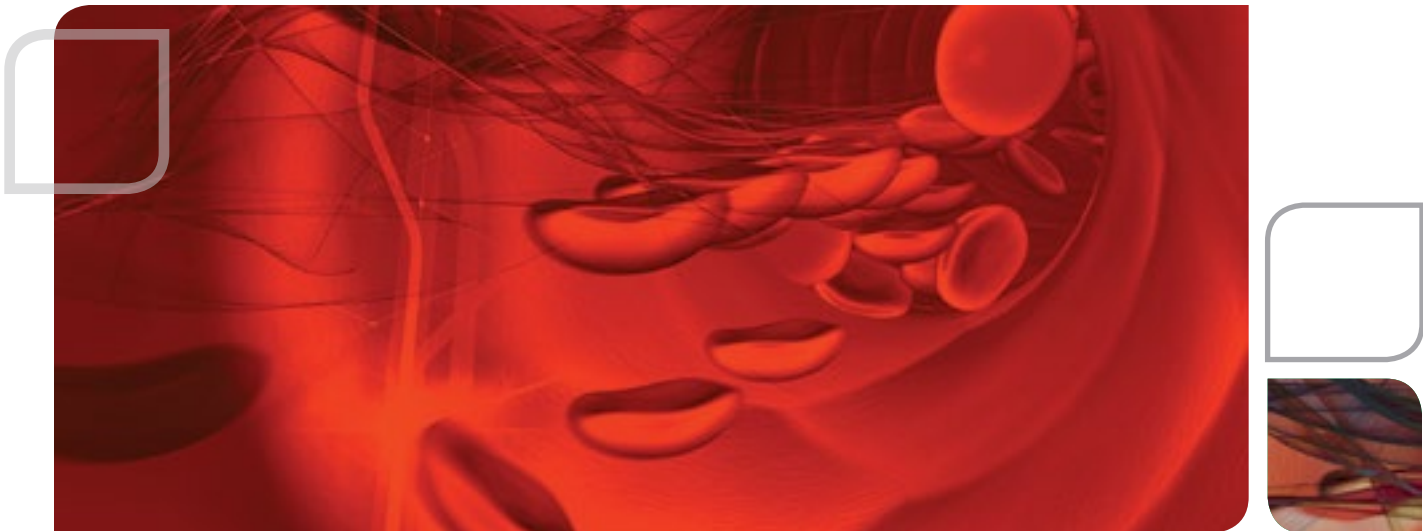
These reports provide clear and concise information about your qualitative test laboratory performance in the form of histograms and modified Levey-Jennings charts. They include detailed information about the distribution of the qualitative responses and the peer group consensus.



An overall assessment of laboratory performance over the entire cycle in terms of bias among participating laboratories is presented.



An evaluation, in terms of percentage deviation, against set performance criteria from key regulatory and scientific organizations (ex. CLIA, BV, RCPA, IQMH, GOST and RiliBÄK), is available online for each sample analyte.



Hematology Controls

Hematology controls for multi-parameter analysis across a wide variety of instrument platforms

Hematology Controls

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Did You Know?

- **Bio-Rad offers** Hematology controls optimized for Abbott, Beckman Coulter, Siemens and Sysmex test systems

For More Information

- **Booklet** Hematology and Coagulation Controls (Q-1523)

Liquichek Hematology Control (A)



- Provides assayed values for the Abbott CELL-DYN 3200, 3500, and CELL-DYN Ruby analyzers with 3-part and 5-part differential technology
- Blood cells in plasma-like fluid
- 78 day shelf life at 2–8°C
- 8 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
865	Trilevel (4 of each level) 12 x 3 mL
866	Low 4 x 3 mL
867	Normal 4 x 3 mL
868	High 4 x 3 mL
865X	Trilevel MiniPak (1 of each level) 3 x 3 mL

Parameters

Basophils (BASO)
 % Basophils
 Eosinophils (EOS)
 % Eosinophils
 Granulocytes (GRAN)
 Hematocrit (HCT)
 Hemoglobin (Total)
 Lymphocytes (LYMPH)
 % Lymphocytes
 Mean Corpuscular Hemoglobin (MCH)
 Mean Corpuscular Hemoglobin Concentration (MCHC)
 Mean Corpuscular Volume (MCV)
 Mean Platelet Volume (MPV)
 MID
 Monocytes (MONO)
 % Monocytes

Neutrophils (NEUT)
 % Neutrophils
 Nucleated Red Blood Cells (NRBC)
 Nucleated Red Blood Cells/100 WBC (NRBC/WBC%)
 Plateletcrit (PCT)*
 Platelet Volume Distribution Width (PDW)*
 Platelets (PLT)
 Platelets Impedance Method (PLTi)
 Red Blood Cell Distribution Width (RDW)
 Red Blood Cells (RBC)
 Red Blood Cells, Optical (RBCo)
 White Blood Cells (WBC)
 - White Optical Count (WOC)
 - White Impedance Count (WIC)
 - Nucleated Optical Count (NOC)

*Values reported by the analyzer are not for diagnostic use



Liquichek Reticulocyte Control (A)

- Assayed whole blood reticulocyte control for use with the Abbott CELL-DYN 3200 analyzers
- Assayed values also included for manual methods
- Red cells suspended in plasma-like fluid
- 75 day shelf life at 2–8°C
- 16 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
854	Level 1 4 x 3 mL
855	Level 2 4 x 3 mL
855X	Bilevel MiniPak (1 of each level) 2 x 3 mL



Liquichek Reticulocyte Control (A-I)

- Assayed reticulocyte control for use with the CELL-DYN Sapphire hematology analyzer
- Assayed values also provided for manual methods
- Red cells suspended in plasma-like fluid
- 78 day shelf life at 2–8°C
- 14 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
916	Level 1 4 x 3 mL
917	Level 2 4 x 3 mL
915X	Bilevel MiniPak (1 of each level) 2 x 3 mL

Parameters for Liquichek Reticulocyte Control (A) and Liquichek Reticulocyte Control (A-I)

Immature Reticulocyte Fraction (IRF)
 Red Blood Cells (RBC)*
 Reticulocyte (Retic)

*Available in Liquichek Reticulocyte Control (A-I) only.

Refer to myInserTs.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Hematology Control (C)



- Assayed hematology control for monitoring values obtained on Beckman Coulter hematology analyzers with complete CBC and VCS 5-part differential technology
- Assayed values for the UniCel DxH 600/800, LH 500 and LH 700 analyzers
- Blood cells suspended in plasma-like fluid
- 105 day shelf life at 2–8°C
- 14 day open-vial stability at 2–8°C or 14 thermal cycles, whichever comes first

Ordering Information

Cat #	Description
904	Trilevel (4 of each level) 12 x 5 mL
905	Low 4 x 5 mL
906	Normal 4 x 5 mL
907	High 4 x 5 mL
904X	Trilevel MiniPak (1 of each level) 3 x 5 mL

Parameters

Basophils (BA)
Eosinophils (EO)
Hematocrit (HCT)
Hemoglobin (HGB)
Lymphocytes (LY)
Mean Corpuscular Hemoglobin (MCH)
Mean Corpuscular Hemoglobin Concentration (MCHC)
Mean Corpuscular Volume (MCV)
Mean Platelet Volume (MPV)

Monocytes (MO)
Neutrophils (NE)
Platelecrit (PCT)*
Platelet Distribution Width (PDW)*
Platelets (PLT)
RDW-SD¹
Red Blood Cell Distribution Width (RDW)
Red Blood Cells (RBC)
White Blood Cells (WBC)

*Values reported by analyzer are not for diagnostic use.
¹For Beckman Coulter LH and UniCel DxH 600/800 only.

Liquichek Reticulocyte Control (C)



- Assayed hematology control for monitoring values obtained on Beckman Coulter analyzers using VCS technology.
- Red cells suspended in plasma-like fluid
- 14 day open-vial stability at 2–8°C
- 75 day shelf life at 2–8°C

Ordering Information

Cat #	Description
826	Level 1 4 x 4 mL
827	Level 2 4 x 4 mL
828	Level 3 4 x 4 mL
827X	Trilevel MiniPak (1 of each level) 3 x 4 mL

Parameters

Immature Reticulocyte Fraction (IRF)
Mean Reticulocyte Volume (MRV)
Red Blood Cells (RBC)
Reticulocyte (Retic)

Why use a Combination Hematology/Reticulocyte control if you really don't need it?

Use one of Bio-Rad's separate Liquichek Reticulocyte Controls when you need one.

Liquichek Hematology Control (S)



- An assayed hematology control for monitoring values obtained on Siemens analyzers with 3-part and 5-part differential technology
- Blood cells suspended in plasma-like fluid
- 80 day shelf life at 2–8°C
- 14 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
449	Trilevel (4 of each level) 12 x 3.5 mL
449X	Trilevel MiniPak (1 of each level) 3 x 3.5 mL

Parameters

Basophils (BASO)
 Cellular Hemoglobin Concentration Mean (CHCM)
 Eosinophils (EOS)
 Hematocrit (HCT)
 Hemoglobin (HGB)
 Hemoglobin Concentration Distribution Width (HDW)
 Large Unstained Cells (LUC)
 Lymphocytes (LYMPH)
 Mean Corpuscular Hemoglobin (MCH)
 Mean Corpuscular Hemoglobin Concentration (MCHC)
 Mean Corpuscular Volume (MCV)

Mean Platelet Volume (MPV)
 Monocytes (MONO)
 NEUT X
 NEUT Y
 Neutrophils (NEUT)
 Platelets (PLT)
 Red Blood Cell Distribution Width (RDW)
 Red Blood Cells (RBC)
 White Blood Cells (WBC)
 White Blood Cells Counts Measured in Perox Channel (WBCP Perox)

Liquichek Reticulocyte Control (S)



- Assayed hematology control monitoring values obtained on Siemens analyzers with automated reticulocyte counting methods
- Red cells suspended in plasma-like fluid
- 80 day shelf life at 2–8°C
- 14 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
921	Level 1 4 x 4 mL
922	Level 2 4 x 4 mL
923	Level 3 4 x 4 mL
922X	Trilevel MiniPak (1 of each level) 3 x 4 mL

Parameters

Cellular Hemoglobin Concentration Mean of Gated Red Blood Cells (CHCMg)
 Cellular Hemoglobin Concentration Mean of Reticulocytes (CHCMr)
 Mean Corpuscular Volume of Gated Red Blood Cells (MCVg)
 Mean Corpuscular Volume of Reticulocytes (MCVr)

Mean Hemoglobin Content of All Gated Red Cells (CHg)
 Mean Hemoglobin Content of Reticulocytes (CHr)
 Reticulocyte (Retic)
 Total Red Blood Cell Counts in Retic Channel (Retic RBC)

Liquichek Hematology Control (X)



- An assayed hematology control for use with Sysmex hematology analyzers with 5-part differential technology
- Blood cells in plasma-like fluid
- 80 day shelf life at 2–8°C
- Stable for 15 days open-vial or 15 samplings, whichever comes first, when stored at 2–8°C

Ordering Information

Cat #	Description
487	Trilevel (4 of each level) 12 x 4.5 mL
487X	Trilevel MiniPak (1 of each level) 3 x 4.5 mL

Parameters

Basophils (BASO)
Eosinophils (EOS)
Hematocrit (HCT)
Hemoglobin (HGB)
Lymphocytes (LYMPH)
Mean Corpuscular Hemoglobin (MCH)
Mean Corpuscular Hemoglobin Concentration (MCHC)
Mean Corpuscular Volume (MCV)
Mean Platelet Volume (MPV)

Monocytes (MONO)
Neutrophils (NEUT)
Nucleated Red Blood Cells (NRBC)*
Platelets (PLT)
Platelets, Optical Count (PLT-o)*
Red Blood Cell Distribution Width-CV (RDW-CV)
Red Blood Cell Distribution Width-SD (RDW-SD)
Red Blood Cells (RBC)
White Blood Cells (WBC)

*No claims made for expected value or stability.

Liquichek Reticulocyte Control (X)



- Assayed reticulocyte control for use with Sysmex hematology analyzers with automated reticulocyte counting methods
- Red cells suspended in plasma-like fluid
- 80 day shelf life at 2–8°C
- Stable for 15 days open-vial or 15 samplings, whichever comes first, when stored at 2–8°C

Ordering Information

Cat #	Description
926	Level 1 4 x 3 mL
927	Level 2 4 x 3 mL
928	Level 3 4 x 3 mL
927X	Trilevel MiniPak (1 of each level) 3 x 3 mL

Parameters

Immature Reticulocyte Fraction (IRF)
Red Blood Cells (RBC)
Reticulocyte (Retic)

Liquichek Hematology-16 Control



- Specifically designed for use on most hematology analyzers that measure up to 16 parameters and 3-part white blood cell differentials
- Can be used on either manual sampling or automatic cap-piercing instruments
- Assayed for most 2-16 parameter instruments
- Blood cell suspension
- 160 day shelf life at 2–8°C
- 21 day open-vial stability at 2–8°C

POCT Methods Listed

Ordering Information

Cat #	Description
760	Trilevel (2 of each level) 6 x 3 mL
761	Low 6 x 3 mL
762	Normal 6 x 3 mL
763	High 6 x 3 mL
760X	Trilevel MiniPak (1 of each level) 3 x 3 mL

Parameters

Granulocytes (GRAN)	Mean Platelet Volume (MPV)
Hematocrit (HCT)	Mid-Sized Cells (MID)
Hemoglobin (HGB)	Monocytes (MONO)
Lymphocytes (LYMPH)	Platelets (PLT)
Mean Corpuscular Hemoglobin (MCH)	Red Blood Cell Distribution Width (RDW)
Mean Corpuscular Hemoglobin Concentration (MCHC)	Red Blood Cells (RBC)
Mean Corpuscular Volume (MCV)	White Blood Cells (WBC)

Liquichek Hematology-16T Control



- A hematology reference control used in monitoring determinations of blood cell values on Sysmex and Abbott 3-part differential hematology analyzers
- Blood cells in plasma-like fluid
- 105 day shelf life at 2–8°C
- 14 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
144	Trilevel (4 of each level) 12 x 2.5 mL
144X	Trilevel MiniPak (1 of each level) 3 x 2.5 mL

Parameters

Granulocytes (GRAN)	MXD (W-MCC & W-MCR)
Hematocrit (HCT)	NEUT (W-LCC & W-LCR)
Hemoglobin (Total)	Platelets (PLT)
LYMPH (W-SCC & W-SCR)	Red Blood Cell Distribution Width (RDW)
Lymphocytes (LYMPH)	Red Blood Cell Distribution Width-CV (RDW-CV)
Mean Corpuscular Hemoglobin (MCH)	Red Blood Cell Distribution Width-SD (RDW-SD)
Mean Corpuscular Hemoglobin Concentration (MCHC)	Red Blood Cells (RBC)
Mean Corpuscular Volume (MCV)	Spun Hematocrit (Spun HCT)
Mean Platelet Volume (MPV)	White Blood Cells (WBC)
MID	

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Sedimentation Rate Control



- Bilevel, human whole blood control designed to monitor the precision of both manual and automated methods for measuring erythrocyte sedimentation rates
- Assayed for over 20 automated and manual methods, including Westergren and Wintrobe
- Stabilized human red blood cells in suspensions
- 31 day open-vial stability at 18–30°C
- 540 day shelf life at 18–30°C

Ordering Information

Cat #	Description
514	Level 1 4 x 9 mL
515	Level 2 4 x 9 mL
514X	Bilevel MiniPak (1 of each level) 2 x 9 mL

Parameter

Erythrocyte Sedimentation Rate (ESR)

Liquichek Sedimentation Rate Control may be used with the following instruments and test methods

- BD Seditainer
- Diesse Mini-Ves
- Diesse Ves-Matic 10
- Diesse Ves-Matic 20/20 Plus
- Diesse Ves-Matic 30/30 Plus
- Diesse Ves-Matic 60/60 Plus
- Diesse Ves-Matic Cube 30
- Diesse Ves-Matic Cube 80/200
- Kimble-Chase Disposable Westergren Tubes
- Vital Diagnostics Excyte M, 10, 20, 40
- Vital Diagnostics Excyte Mini
- Vital Diagnostics MICROsed-System
- Vital Diagnostics Monitor Series
- Polymedco Sedimat 60
- Polymedco Sediplast
- RR Mechatronics StaRRsed
- Sarstedt S-Sedivette
- Streck ESR-Auto Plus
- Westergren (Modified)
- Wintrobe

If your instrument model is not listed, please contact your nearest Bio-Rad office for current information.

Use Bio-Rad's Hematology Controls on these popular instruments

- Use for CBC and 5-Part Differential Parameters
- ▲ Use for CBC and 3-Part Differential Parameters
- ◆ Use for Reticulocyte Counts
- ▷ Use for CBC Parameters Only
- ❖ Use for Manual Methods
- ✓ POCT Methods Available

Manufacturer/Instrument(s)	Hematology (A)	Reticulocyte (A)	Reticulocyte (A-I)	Hematology (C)	Reticulocyte (C)	Hematology (S)	Reticulocyte (S)	Hematology (X)	Reticulocyte (X)	Hematology-16	Hematology-16T
Abbott Diagnostics											
CELL-DYN 1800											▲
CELL-DYN 3000/ 3200	■	◆									
CELL-DYN 3500/3700	■										
CELL-DYN Ruby	■	◆									
CELL-DYN Sapphire	■		◆								
CELL-DYN Emerald	■									▲	
HORIBA ABX Diagnostics											
Micros 60										▲	
Beckman Coulter											
AcT DIFF/AcT DIFF2				■						▲	
AcT 5DIFF/UniCell DxH 600/800				■	◆						
LH 500/700 Series				■	◆					▷	
ERMA											
PCE 210										▲	
FORTRESS											
CELLDIFF-3										▲	
Medonic											
M-Series										▲	
Mindray											
BC-2600/2800										▲	
BC-3000CT/3200/3000 PLUS										▲	
Samsung											
Geo										▲	
Siemens											
ADVIA 60						▲					
ADVIA 120/2120/2120i						■	◆				
Sysmex											
KX-21											▲
XE-2100/XE-5000								■	◆	▷	
XN Series								■	◆		
XS-800i/XS-1000i								■	◆	▷	
XT-4000i								■	◆	▷	
XT-1800i/XT 2000i								■		▷	
Other											
Manual Methods	❖		❖			❖				❖	❖
POCT Methods										✓	

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.



Immunoassay Controls

Bio-Rad Immunoassay Controls offer over 200 analytes for routine and specialty assays

Immunoassay Controls

Liquichek Immunoassay Plus Control	50
Lyphocheck Immunoassay Plus Control	51
Liquichek Specialty Immunoassay Control	52
Lyphocheck Specialty Immunoassay Control	52
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Additional Information

Controls for Popular Instruments Chart	56
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See Also

- **Pages 73-78** IntelliQ Quality Control Products
- **Page 85** Liquichek Immunoassay Premium Control
- **Pages 93-98** QC Products in Dimension Vista Vials

Did You Know?

- **Many Bio-Rad** multi-analyte immunoassay controls have analyte target values at or near clinical decision levels

For More Information

- **Brochure** Independent Quality Control (Q-1128)
- **Booklet** Bio-Rad Quality Control Products in Dimension Vista Vials (Q-1214)
- **Brochure** Premium Controls for Immunochemistry (Q-1215)
- **Brochure** Tumor Marker Controls (Q-1556)
- **Brochure** IntelliQ (Q-1665)

Liquichek Immunoassay Plus Control



- Offers a vast array of popular routine immunoassay analytes
- Assigned values are available for all major automated analyzers
- Provides a highly efficient solution for laboratories that focus on routine tests
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 14 day open-vial stability at 2-8°C for most analytes

POCT Methods Listed

Ordering Information

Cat #	Description
360	Trilevel (4 of each level) 12 x 5 mL
361	Level 1 12 x 5 mL
362	Level 2 12 x 5 mL
363	Level 3 12 x 5 mL
360X	Trilevel MiniPak (1 of each level) 3 x 5 mL



For Liquichek tube control, see page 77.

For Liquichek Immunoassay Premium Control, see page 85.

For Dimension Vista vials, see page 96.

Analytes

11-Deoxycortisol*	DHEA Sulfate	Insulin	SHBG (Sex Hormone Binding Globulin)
17- α -Hydroxyprogesterone**	Digoxin	Iron	Somatomedin-C*
25-Hydroxy Vitamin D*	Disopyramide**	Iron (TIBC)*	T3 (Free)
Acetaminophen	Estradiol	LH	T3 (Total)
Aldosterone	Estriol (Free)	Lidocaine	T3 Uptake/T-Uptake
Alphafetoprotein (AFP)	Estriol (Total)*	Lithium	T4 (Free)
Amikacin	Estrogen (Total)**	N-Acetylprocainamide (NAPA)	T4 (Total)
Amiodarone*	Ethosuximide	Netilmicin*	TBG
Amitriptyline*	Ferritin	Nortriptyline	Testosterone
Androstenedione	Flecainide**	PAP	Testosterone (Free)
Angiotensin I*	Folate	Phenobarbital	Theophylline
Anti-Thyroglobulin (Anti-Tg)*	Fructosamine**	Phenytoin	Thyroglobulin (Tg)*
Anti-Thyroperoxidase (Anti-TPO)*	FSH	Phenytoin (Free)**	Tobramycin
Caffeine	Gentamicin	Primidone	Tricyclic Antidepressants (TCA) Screen
Carbamazepine	hCG	Procainamide**	TSH
Carbamazepine (Free)**	hCG- β Subunit	Progesterone	Valproic Acid**
CEA	hGH	Prolactin	Valproic Acid (Free)
Chloramphenicol**	Ibuprofen	Propranolol	Vancomycin
CK-MB Isoenzyme	Imipramine*	PSA	Vitamin B ₁₂
Cortisol	Immunoglobulin A (IgA)	PSA (Free)	
Cyclosporine	Immunoglobulin E (IgE)	PTH-MM*	
Dehydroepiandrosterone (DHEA)*	Immunoglobulin G (IgG)	Quinidine	
Desipramine**	Immunoglobulin M (IgM)	Salicylate	

*No claims are made regarding performance or stability.

**Values are not provided.

Did you know. . .

Liquichek Immunoassay Plus Control has value assignment data available for all major instruments. It also offers a large worldwide peer group for interlaboratory comparison.

Lyphocheck Immunoassay Plus Control



- Offers a vast array of popular routine immunoassay analytes
- Assigned values are available for all major automated analyzers
- Provides a highly efficient solution for laboratories that focus on routine tests
- Human serum based
- 3 year shelf life at 2–8°C
- 7 day reconstituted stability at 2–8°C for most analytes

POCT Methods Listed

Ordering Information

Cat #	Description
370	Trilevel (4 of each level) 12 x 5 mL
371	Level 1 12 x 5 mL
372	Level 2 12 x 5 mL
373	Level 3 12 x 5 mL
370X	Trilevel MiniPak (1 of each level) 3 x 5 mL

Analytes

25-Hydroxy Vitamin D	Desipramine**	Immunoglobulin M (IgM)	Salicylate
11-Deoxycortisol	DHEA Sulfate	Immunoreactive Trypsinogen (IRT)*	SHBG (Sex Hormone Binding Globulin)*
17- α -Hydroxyprogesterone	Digoxin	Insulin	Somatomedin-C
Acetaminophen	Disopyramide	Iron	T3 (Free)
ACTH	Estradiol	Iron (TIBC)	T3 (Total)
Aldosterone	Estriol (Free)	LH	T3 Uptake/T-Uptake
Alphafetoprotein (AFP)	Estriol (Total)*	Lidocaine	T4 (Free)
Amikacin	Estrogen (Total)	Lithium	T4 (Total)
Amiodarone*	Ethosuximide	N-Acetylprocainamide (NAPA)	TBG
Amitriptyline	Ferritin	Netilmicin*	Testosterone
Androstenedione	Flecainide**	Nortriptyline	Testosterone (Free)
Angiotensin I	Folate	PAP	Theophylline
Anti-Thyroglobulin (Anti-Tg)*	Fructosamine**	Phenobarbital	Thyroglobulin (Tg)
Anti-Thyroperoxidase (Anti-TPO)*	FSH	Phenytoin	Tobramycin
C-Peptide	Gastrin	Phenytoin (Free)**	Tricyclic Antidepressants (TCA) Screen**
Caffeine	Gentamicin	Primidone	TSH
Calcitonin	Glucagon*	Procainamide	Valproic Acid
Carbamazepine	hCG	Progesterone	Valproic Acid (Free)**
Carbamazepine (Free)**	hCG- β Subunit	Prolactin	Vancomycin
CEA	hGH	Propranolol**	Vitamin B ₁₂
Chloramphenicol	Imipramine	PSA	
Cortisol	Immunoglobulin A (IgA)	PSA (Free)	
Cyclosporine*	Immunoglobulin E (IgE)	PTH (Intact)*	
Dehydroepiandrosterone (DHEA)	Immunoglobulin G (IgG)	Quinidine**	

*No claims are made regarding performance or stability.

**Values are not provided.

Did you know. . .

The Lyophilized form of this control provides convenience in transportation and a longer shelf life.

Liquichek Specialty Immunoassay Control



- Offers complex, high usage specialty immunoassay analytes for laboratories conducting specialty testing in support of operating/emergency rooms, hospitals and physician offices
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
359	Level LTA 6 x 5 mL
364	Level 1 6 x 5 mL
365	Level 2 6 x 5 mL
366	Level 3 6 x 5 mL
359X	Four Level MiniPak (1 of each level) 4 x 5 mL



For InteliQ Specialty Immunoassay Control, see page 76.

Analytes

25-Hydroxy Vitamin D
Anti-Thyroglobulin (Anti-Tg)
Anti-Thyroperoxidase (Anti-TPO)
C-Peptide

Erythropoietin (EPO)
Insulin Growth Factor I (IGF-I)
Intact PTH
Osteocalcin

Lyphocheck Specialty Immunoassay Control



- Includes popular analytes with increasing clinical utilization
- Human serum based
- 3 year shelf life at 2–8°C
- 30 day reconstituted stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
27124	Level 1 6 x 2 mL
27125	Level 2 6 x 2 mL
27126	Level 3 6 x 2 mL
27125X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analytes

25-Hydroxy Vitamin D
Erythropoietin (EPO)
Intact PTH

Procalcitonin
Sex Hormone Binding Globulin (SHBG)

Specialty Immunoassay Controls Analyte Comparison

	Liquid	Lyophilized
25-Hydroxy Vitamin D	●	●
Anti-Thyroglobulin (Anti-Tg)	●	
Anti-Thyroperoxidase (Anti-TPO)	●	
C-Peptide	●	
Erythropoietin (EPO)	●	●
Insulin Growth Factor I (IGF-I)	●	
Intact PTH	●	●
Osteocalcin	●	
Procalcitonin		●
SHBG (Sex Hormone Binding Globulin)		●

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Tumor Marker Control



- An assayed, multi-analyte control
- Includes low PSA levels for high sensitivity methods and high levels of cancer antigens and Ferritin
- Human based
- 2 year shelf life when stored frozen at -20°C to -70°C
- 30 day open-vial stability at 2–8°C for most analytes

Lyphocheck Tumor Marker Plus Control



- A comprehensive, assayed, multi-analyte control
- Ideal for monitoring both routine and esoteric tumor marker testing
- Human serum based
- 3 year shelf life at 2–8°C
- 14 day reconstituted stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
547	Level 1 6 x 2 mL
548	Level 2 6 x 2 mL
549	Level 3 6 x 2 mL
548X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Ordering Information

Cat #	Description
367	Level 1 6 x 2 mL
368	Level 2 6 x 2 mL
369	Level 3 6 x 2 mL
368X	Trilevel MiniPak (1 of each level) 3 x 2 mL



For InteliQ Tumor Marker Control, see page 76.

For Dimension Vista vials, see page 98.

Analytes for Liquichek Tumor Marker and Lyphocheck Tumor Marker Plus Controls

	Liquid	Lyophilized
β-2-Microglobulin	●	●
ACTH		●
Aldosterone		●
Alphafetoprotein (AFP)	●	●
CA 15-3	●	●
CA 19-9	●	●
CA 27.29	●	●
CA 50*		●
CA 72-4*	●	●
CA 125	●	●
Calcitonin		●
Carcinoembryonic Antigen (CEA)	●	●
CASA* ¹		●
Cyfra 21-1*	●	●
Ferritin	●	●
hCG	●	●
hCG-β Subunit	●	●
HE4	●	
HER2/neu	●	
Insulin Growth Factor I (IGF-I)	●	
Neuron Specific Enolase (NSE)*		●
PAP	●	●
ProGRP*	●	
Prolactin	●	●
PSA	●	●
PSA (Free)	●	●
S-100*		●
SCC*	●	
Thyroglobulin (Tg)	●	●

*International use only. Not available for diagnostic use in the United States.

¹No claim is made for expected values or stability.

Liquichek AMH Control



- Liquid convenience to reduce handling errors
- Three levels targeted at low, medium and high clinically-relevant ranges
- Human base to more closely resemble a patient sample
- 26 month shelf life at -20°C to -70°C
- 14 day open-vial stability at 2-8°C

Ordering Information

Catalog #	Description
12006327	Trilevel (2 of each level) 6 x 2 mL

Analyte

Anti-Mullerian Hormone

Lyphocheck Fertility Control



- Designed to monitor the precision of tests performed for fertility or pregnancy
- Elevated hCG and hCG- β Subunit levels allow laboratories to monitor their dilution procedure
- Human serum based
- 3 year shelf life at 2-8°C
- 7 day reconstituted stability at 2-8°C

POCT Methods Listed

Ordering Information

Cat #	Description
480	Trilevel (4 of each level). 12 x 5 mL
481	Level 1 12 x 5 mL
482	Level 2 12 x 5 mL
483	Level 3 12 x 5 mL
480X	Trilevel MiniPak (1 of each level) 3 x 5 mL

Analytes

Alphafetoprotein (AFP)
Digitoxin
Estradiol

Estriol (Free)
Estriol (Total)*
Ferritin

FSH
hCG
hCG- β Subunit

LH
Progesterone
Testosterone

*No claims are made regarding performance or stability.

Liquichek Maternal Serum 1st Trimester Control



- Liquid, assayed quality control
- Designed to monitor the precision of immunoassay test methods used during maternal serum first trimester screening
- Includes clinically relevant levels of Free beta hCG and PAPP-A
- Human serum based
- 2 year shelf life at -20°C to -70°C
- 15 day open-vial stability at 2-8°C

Available outside the United States only

Ordering Information

Catalog #	Description
636	Trilevel (2 of each level) 6 x 1 mL
636X	Trilevel MiniPak (1 of each level) 3 x 1 mL

Analytes

hCG
hCG- β Subunit (Free)

PAPP-A

Liquichek Maternal Serum II Control



- Liquid, assayed quality control serum
- Analytes at clinically significant levels to monitor the precision of maternal serum analysis
- Human serum
- Includes the hormone Inhibin A
- Very elevated hCG
- Very low levels of Free Estriol and AFP

Ordering Information

Catalog #	Description
402	Level 1 6 x 2.5 mL
403	Level 2 6 x 2.5 mL
404	Level 3 6 x 2.5 mL
403X	Trilevel MiniPak (1 of each level) 3 x 2.5 mL

Analytes

AFP
hCG

Free Estriol
Inhibin A

Refer to myInserpts.com or the package insert of currently available lots for specific analyte and stability claims.

Lyphochek Anemia Control



- Monitors test precision at clinically significant low/deficient values for anemia-related analytes
- Human serum based
- 3 year shelf life at 2–8°C
- 14 day reconstituted stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
500	Single Level 6 x 3 mL
500X	MiniPak 1 x 3 mL

Analytes

Ferritin	Iron	Iron (UIBC)	TSH
Folate	Iron (TIBC)	Transferrin	Vitamin B ₁₂

Lyphochek Hypertension Markers Control



- Provides relevant values in monitoring precision for analytes specific to hypertension disorders
- Human serum based
- 2 year shelf life at 2–8°C
- 21 day reconstituted stability at 2–8°C for most analytes

Ordering Information

Catalog #	Description
600	Trilevel (2 of each level) 6 x 2 mL
600X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analytes

ACTH	Cortisol
ADH*	Renin
Aldosterone	

*No claims are made regarding performance or stability.

Lyphochek Endocrine Control



- Monitors the test precision of a unique set of endocrine-related analytes in serum-based matrix
- Human serum based
- 2 year shelf life at 2–8°C
- 3 day reconstituted stability at 2–8°C

Ordering Information

Catalog #	Description
535	Bilevel (6 of each level) 12 x 10 mL
535X	Bilevel MiniPak (1 of each level) 2 x 10 mL

Analytes

Dopamine
Epinephrine
Norepinephrine

Did you know. . .

That Lyphochek Anemia Control provides ultra low TSH values?

Lymphochek Urine Bone Markers Control



- Contains analytes in a urine based matrix for monitoring the precision of tests performed for osteoporosis bone resorption management
- Human urine based
- 3 year shelf life at 2–8°C
- 14 day reconstituted stability at 2–8°C

Ordering Information

Catalog #	Description
406	Bilevel (3 of each level) 6 x 2 mL
406X	Bilevel MiniPak (1 of each level) 2 x 2 mL

Analytes

β-2-Microglobulin*	N-Telopeptide (NTx)
C-Telopeptide (CTx)	Pyridinium Crosslinks (DPD + PYD)
Creatinine	Pyridinoline (PYD)*
Deoxypyridinoline (DPD)	

*No claims are made for expected values or stability.

Use Bio-Rad's Immunoassay Controls on these popular instruments

Manufacturer/Instrument(s)	AMH	Anemia	Fertility	Hypertension Markers	Immunoassay Plus (Liquid & Lyophilized)	Maternal Serum 1st Trimester	Maternal Serum II	Specialty Immunoassay (Liquid & Lyophilized)	Tumor Marker (Liquid)	Tumor Marker Plus (Lyophilized)
Abbott Diagnostics										
ARCHITECT Series		●	●		●		●	●	●	●
Beckman Coulter										
Access Series 2/2i/LX i/UniCel DxI/DxC	●	●	●		●	●	●	●	●	●
AU Series		●			●					
BioMérieux										
VIDAS	●				●			●	●	●
DiaSorin										
LIAISON/LIASON XL					●			●	●	●
Ortho Clinical Diagnostics										
VITROS Series		●			●			●		
VITROS ECi/Microwell Series		●	●		●		●	●		●
Roche Diagnostics										
Cobas 6000 Series/COBAS INTEGRA		●	●		●			●	●	●
Cobas e Systems	●									
e170	●									
Elecsys Systems	●	●	●		●	●	●	●	●	●
Hitachi Systems		●			●					
MODULAR Systems		●			●					
Siemens										
ADVIA Series		●			●			●		
ADVIA Centaur Series		●	●	●	●	●	●	●	●	●
Atellica Solution					●			●	●	
BN Series					●					
Dimension Vista		●	●		●		●		●	
Dimension Series		●	●		●				●	●
IMMULITE Series		●	●	●	●	●	●	●	●	●
Stratus			●							
Tosoh										
AIA Series		●	●		●			●	●	●
Other										
POCT Methods			●							

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.



Immunology/Protein Controls

Immunology/Protein assays: the more sample types you run, the more you'll want Bio-Rad QC

Immunology/Protein Controls

Liquichek Immunology Control	58
Lyphocheck Immunology Plus Control	58
Liquichek Elevated CRP Control	59
Liquichek Rheumatoid Factor Control	59
Liquichek Spinal Fluid Control	60
Lyphocheck Allergen sIgE Control	60
Liquichek Autoimmune Controls	61

Additional Information

Target CRP Levels in Bio-Rad Controls	59
Controls for Popular Instruments Chart	62

See Also

- **Pages 73-78** IntelliQ Quality Control Products
- **Pages 93-98** QC Products in Dimension Vista vials

Did You Know?

- **Immunological proteins** can indicate disorders of the immune system through either elevated or reduced concentrations
- **An intricate interaction** of multiple proteins plays a part in the pathology and clinical systems of a disorder

For More Information

- **Brochure** Comprehensive Quality Control for Immunology (Q-1220)
- **Booklet** Bio-Rad Quality Control Products in Dimension Vista Vials (Q-1214)
- **Brochure** IntelliQ (Q-1665)

Liquichek Immunology Control



- Provides assayed values for most major integrated immunoassay platforms
- Contains more than 30 serum proteins and analytes, including Anti-Cyclic Citrullinated Peptide (Anti-CCP) and Rheumatoid Factor
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2–8°C for most analytes

POCT Methods Listed

Ordering Information

Cat #	Description
591	Level 1 6 x 1 mL
592	Level 2 6 x 1 mL
593	Level 3 6 x 1 mL
590X	Trilevel MiniPak (1 of each level) 3 x 1 mL
594	Level 1 6 x 3 mL
595	Level 2 6 x 3 mL
596	Level 3 6 x 3 mL



For Liquichek tube control see page 78.

For Dimension Vista vials, see page 96.

Analytes

α -1-Acid Glycoprotein
 α -1-Antitrypsin
 α -2-Macroglobulin
 β -2-Microglobulin
 ADNase B
 Albumin
 Anti-Cyclic Citrullinated Peptide
 (Anti-CCP)
 Antistreptolysin O (ASO)

Antithrombin III (AT III)
 Apolipoprotein A-1
 Apolipoprotein B
 C1 Inhibitor
 Ceruloplasmin
 CH50*
 Complement C3
 Complement C4
 CRP

Cystatin C¹
 Ferritin
 Haptoglobin
 Hemopexin*
 Immunoglobulin A (IgA)
 Immunoglobulin E (IgE)
 Immunoglobulin G (IgG)
 Immunoglobulin G Subclasses 1–4
 Immunoglobulin M (IgM)

Kappa Light Chain
 Lambda Light Chain
 Lipoprotein (a)
 Prealbumin
 Properdin Factor B**
 Protein (Total)
 Retinol Binding Protein (RBP)
 Rheumatoid Factor
 Soluble Transferrin Receptor (sTfR)*
 Transferrin

*No claims are made regarding performance or stability.

**Values are not provided.

¹Endogenous levels only.

Lyphocheck Immunology Plus Control



- Contains 22 serum proteins and related analytes
- Lyophilized, human serum based
- 3 year shelf life at 2–8°C
- 15 day reconstituted stability at 2–8°C

POCT Methods Listed

Ordering Information

Cat #	Description
430	Bilevel (6 of each level) 12 x 1 mL
430X	Bilevel MiniPak (1 of each level) 2 x 1 mL

Analytes

α -1-Acid Glycoprotein
 α -1-Antitrypsin
 α -2-Macroglobulin
 β -2-Microglobulin
 Albumin
 Antistreptolysin O (ASO)

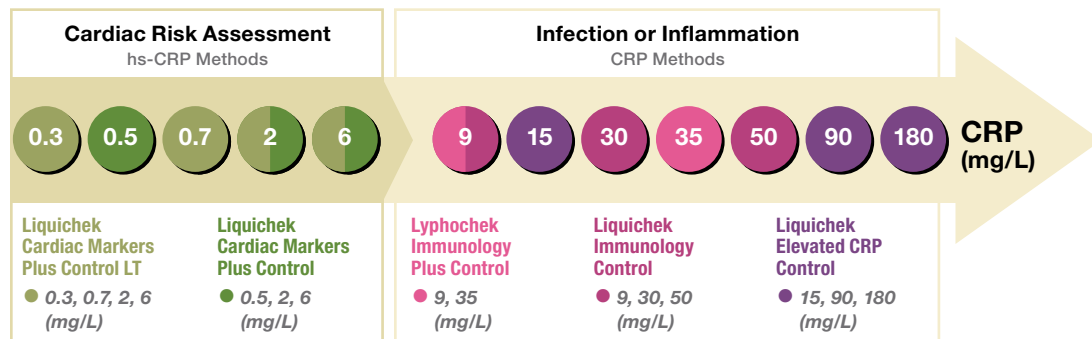
Ceruloplasmin
 Complement C1q*
 Complement C3
 Complement C4
 CRP
 Haptoglobin

Immunoglobulin A (IgA)
 Immunoglobulin E (IgE)
 Immunoglobulin G (IgG)
 Immunoglobulin M (IgM)
 Kappa Light Chain
 Lambda Light Chain

Prealbumin
 Retinol Binding Protein (RBP)
 Rheumatoid Factor
 Transferrin

*No claims are made regarding performance or stability.

Target CRP Levels in Bio-Rad Controls



Values reflect typical assayed values for these products. Recovered values may vary depending on methodology.

Liquichek Elevated CRP Control



- For monitoring the precision of C-Reactive Protein (CRP) assays as a general marker for infection and inflammation
- Target CRP levels of 15, 90 and 180 mg/L
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2-8°C

Ordering Information

Cat #	Description
254	Level 1 12 x 1 mL
255	Level 2 12 x 1 mL
256	Level 3 12 x 1 mL
255X	Trilevel MiniPak (1 of each level) 3 x 1 mL

Analyte

CRP

Liquichek Rheumatoid Factor Control



- For monitoring the precision of Rheumatoid Factor testing procedures including nephelometric and latex agglutination methods
- Target Rheumatoid Factor levels of 34, 79 and 150 U/mL
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2-8°C

Ordering Information

Cat #	Description
501	Level 1 6 x 2 mL
502	Level 2 6 x 2 mL
503	Level 3 6 x 2 mL
502X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analyte

Rheumatoid Factor

Liquichek Spinal Fluid Control



- Multi-analyte control with relevant concentrations for cerebrospinal fluid tests
- Level 2 positive for oligoclonal bands, used as an aid in diagnosing Multiple Sclerosis
- Liquid, human based
- 2 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
751	Level 1 6 x 3 mL
752	Level 2 6 x 3 mL
750X	Bilevel MiniPak (1 of each level) 2 x 3 mL



For Dimension Vista vials, see page 60.

Analytes

Albumin	Immunoglobulin A (IgA)	Lactate (Lactic Acid)	Protein Electrophoresis*
Chloride	Immunoglobulin G (IgG)	Lactate Dehydrogenase (LDH)	Sodium
Glucose	Immunoglobulin M (IgM)	Protein (Total)	

*Prealbumin, Albumin, α -1-Globulin, α -2-Globulin, β -Globulin, γ -Globulin.

Lyphocheck Allergen sIgE Control



- Multi-analyte control designed to monitor the precision of *in vitro* allergy test systems
- Provides assayed values for 15 commonly tested allergen-specific IgE antibodies
- Insert listings for fully-automated allergy diagnostic test systems
- Human sourced material
- 3 year shelf life at 2–8°C
- 28 day reconstituted stability at 2–8°C

Ordering Information

Cat #	Description
12000141	Negative 6 x 2 mL
12000142	Panel A 6 x 2 mL
12000143	Negative MiniPak 1 x 2 mL
12000144	Panel A MiniPak 1 x 2 mL

Analytes

D1 House Dust Mite (<i>Dermatophagoides pteronyssinus</i>)	G2 Bermuda Grass (<i>Cynodon dactylon</i>)
D2 House Dust Mite (<i>Dermatophagoides farinae</i>)	G3 Cocksfoot/Orchard Grass (<i>Dactylis glomerata</i>)
E1 Cat Dander (<i>Felis domesticus</i>)	G6 Timothy Grass (<i>Phleum pratense</i>)
E3 Horse Dander (<i>Equus caballus</i>)	M3 Mold (<i>Aspergillus fumigatus</i>)
E5 Dog Dander (<i>Canis familiaris</i>)	M6 Mold (<i>Alternaria tenuis</i>)
F1 Egg White (<i>Gallus spp.</i>)	T3 Birch (<i>Betula</i>)
F2 Cow Milk (<i>Bos. spp.</i>)	W6 Mugwort (<i>Artemisia vulgaris</i>)
F13 Peanut (<i>Arachis hypogaea</i>)	

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Autoimmune Controls



- Individual unassayed pattern and detection controls for monitoring indirect immunofluorescent testing of antinuclear antibodies (ANA) and autoantibodies associated with systemic autoimmune diseases
- Liquid, human serum based
- 2 year shelf life at 2–8°C
- 6 month open-vial stability at 2–8°C

Package Description

- Negative and weak positive controls packaged separately
- 0.5 mL per vial

Ordering Information

Cat #	Description
107	ANA Control, Homogeneous Pattern 3 x 0.5 mL
108	ANA Control, Speckled Pattern 3 x 0.5 mL
111	ANA Control, Nucleolar Pattern 3 x 0.5 mL
112	ANA Control, Centromere Pattern 3 x 0.5 mL
118	ANA Control, Mitotic Spindle Pattern 2 x 0.5 mL
113	Anti-SS-B Control 2 x 0.5 mL
114	Anti-SS-A Control 2 x 0.5 mL
115	Anti-Sm Control 2 x 0.5 mL
116	Anti-RNP Control 2 x 0.5 mL
117	Anti-Scl-70 Control 2 x 0.5 mL
119	Anti-nDNA Control 3 x 0.5 mL
127	Anti-Mitochondrial Control 3 x 0.5 mL
129	Anti-Smooth Muscle Control 3 x 0.5 mL
130	Autoimmune Negative Control 3 x 0.5 mL
131	ANA Controls Set, Positive 4 x 0.5 mL (Homogeneous, Speckled, Centromere and Nucleolar Patterns)

Use Bio-Rad's Immunology/Protein Controls on these popular instruments

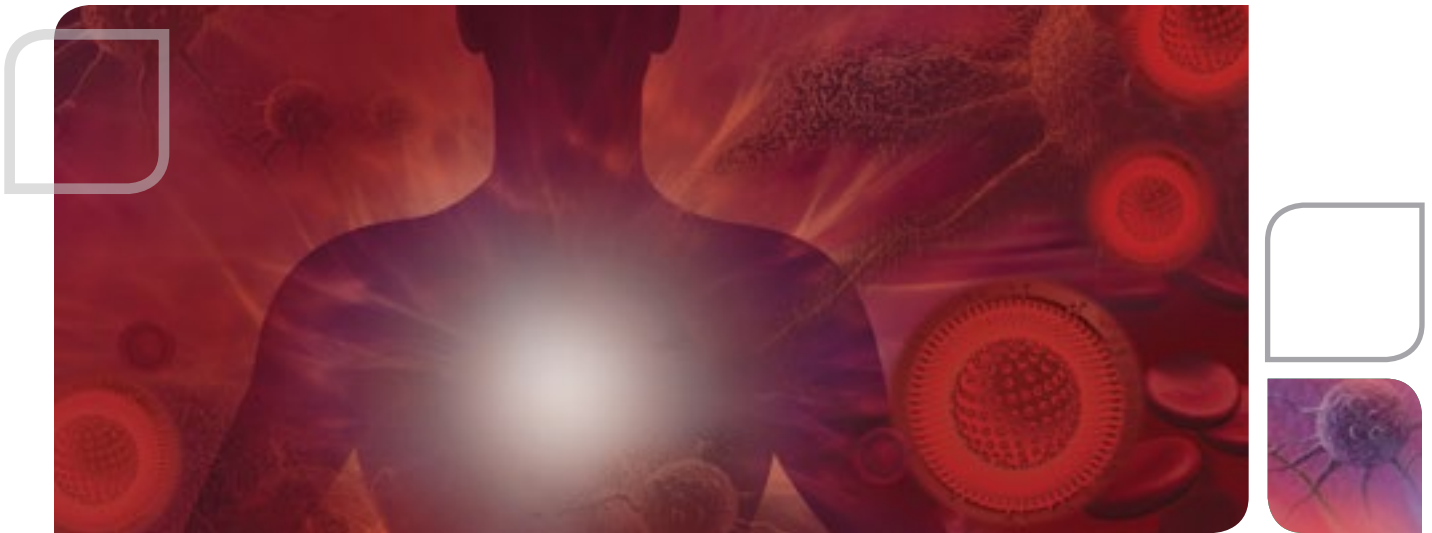
Manufacturer/Instrument(s)	Elevated CRP	Immunology (Liquid)	Immunology Plus (Lyophilized)	Rheumatoid Factor	Spinal Fluid
Abbott Diagnostics					
Aeroset			●		
ARCHITECT Series	●	●	●	●	●
Beckman Coulter					
AU Series	●	●	●	●	●
UniCel DxC Series	●	●	●		●
Image	●	●	●	●	●
Ortho Clinical Diagnostics					
VITROS Series	●	●	●	●	●
Roche Diagnostics					
Cobas 6000 Series/COBAS INTEGRA	●	●	●	●	●
Hitachi/MODULAR Systems	●	●	●	●	●
Siemens					
ADVIA Series	●	●	●	●	●
Atellica Solution		●			
BN Series	●	●	●	●	●
Dimension Vista	●	●			●
Dimension Series	●	●	●		●
IMMULITE Series		●			

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.



Put your data to work—it may be more valuable than you think!

You may be eligible to become a partner in product development and evaluation of new control lots while earning extra money for your laboratory. To learn more visit QCNet.com/ProductStudies/



Infectious Disease Controls

Multi-analyte controls that provide consolidation and simplify QC management practices

Hepatitis & Retrovirus

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VIOTROL IV	.65
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VIOTROL PLUS-R	.66
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Did You Know?

- **Our liquid** controls are ready-to-use
- **Our controls** offer an extended shelf-life at refrigerated temperatures and may reduce the number of crossover studies throughout the year

For More Information

- **Booklet** Infectious Disease Controls for Serology Testing (Q-1565)

VIROTROL I



- An unassayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C
- Available in multiple configurations and fill sizes

Ordering Information

Catalog #	Description
00100A	Single Level/Dropper Bottle. 1 x 5 mL
00100B	Single Level/Dropper Bottle. 1 x 5 mL
00100C	Single Level/Dropper Bottle. 1 x 5 mL
00100E	Single Level/Dropper Bottle. 1 x 5 mL
00100F	Single Level/Dropper Bottle. 1 x 5 mL
00100G	Single Level/Dropper Bottle. 1 x 5 mL
00100H	Single Level/Dropper Bottle. 1 x 5 mL
00101B	Single Level/Tube 10 x 4 mL
00101C	Single Level/Tube 10 x 4 mL
00101E	Single Level/Tube 10 x 4 mL
00101F	Single Level/Tube 10 x 4 mL
00102B	Single Level/Dropper Bottle. 2 x 20 mL
00102C	Single Level/Dropper Bottle. 2 x 20 mL

Analytes

Anti-CMV	Anti-HIV-1
Anti-HBc	Anti-HTLV-I
Anti-HCV	HBsAg

Assayed VIROTROL I-C Assayed VIROTROL I-E Assayed VIROTROL I-F



- Assayed quality controls
- Human serum based
- Values provided for popular automated methods
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Available outside the United States only.

Ordering Information

Cat #	Description
Assayed VIROTROL I-C	
00164	Single Level/Dropper Bottle. 1 x 5 mL
Assayed VIROTROL I-E	
00166	Single Level/Dropper Bottle. 1 x 5 mL
Assayed VIROTROL I-F	
00168	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Anti-CMV*	Anti-HIV-1
Anti-HBc	Anti-HTLV-I*
Anti-HCV	HBsAg

*Values not provided.

Did you know. . .

Over 35 million people are living with HIV worldwide.

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

VIROTROL II

- An unassayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C
- Available in multiple configurations and fill sizes

Ordering Information

Catalog #	Description
00104A	Single Level/Dropper Bottle. 1 x 5 mL
00104B	Single Level/Dropper Bottle. 1 x 5 mL
00115A	Single Level/Tube 10 x 4 mL
00115B	Single Level/Tube 10 x 4 mL

Analytes

Anti-HAV
Anti-HBs

Assayed VIROTROL II-B

- Assayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Available outside the United States only.

Ordering Information

Catalog #	Description
00152	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Anti-HAV
Anti-HBs

VIROTROL III

- An unassayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00110A	Single Level/Dropper Bottle. 1 x 5 mL
00110C	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Anti-HAV
HAV-IgM
HBc-IgM

VIROTROL IV

- An unassayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00111	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Anti-HBe

VIROTROL HIV-1 Ag



- An unassayed quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00108A	Single Level/Dropper Bottle. 1 x 5 mL
00108B	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

HIV-1 Ag

VIROTROL HIV-1 gO



- An unassayed control used to detect antibodies to HIV-1 group O
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00113	Single Level/Tube 5 x 4 mL
00113X	Single Level/Tube 1 x 4 mL

Analytes

Anti-HIV-1 group O

VIROTROL HIV-2



- An unassayed quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00105A	Single Level/Dropper Bottle. 1 x 5 mL
00105B	Single Level/Dropper Bottle. 1 x 5 mL
00105C	Single Level/Dropper Bottle. 1 x 5 mL

Analyte

Anti-HIV-2

VIROTROL PLUS-R



- An unassayed quality control
- Human serum based
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
12000538	Single Level/Tube 5 x 4 mL
12000539	Single Level/Tube 1 x 4 mL

Analytes

Anti-CMV	Anti HTLV I/II
Anti-HBc	Anti- <i>Treponema pallidum</i> (Syphilis)
Anti-HCV	HBsAg
Anti-HIV 1/2	

Refer to myInserTs.com or the package insert of currently available lots for specific analyte and stability claims.

VIROCLEAR



- An unassayed, non-reactive quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C
- Available in multiple configurations and fill sizes

Ordering Information

Cat #	Description
00106	Single Level/Dropper Bottle. 1 x 5 mL
00107	Single Level/Dropper Bottle. 2 x 20 mL
00112	Single Level/Tube 10 x 4 mL

Analytes

Non-reactive for:

Anti-CMV	Anti-HCV	HAV-IgM	Non-treponemal Antibodies
Anti-HAV	Anti-HIV-1	HBc-IgM	(Syphilitic Reagin)
Anti-HBc	Anti-HIV-2	HBeAg	<i>Treponema pallidum</i> (Syphilis) IgG
Anti-HBe	Anti-HTLV-I	HBsAg	<i>Treponema pallidum</i> (Syphilis) IgM
Anti-HBs	Anti-HTLV-II	HIV-1 Ag	<i>Treponema pallidum</i> (Syphilis) Total

VIROTROL HAV-IgM



- An unassayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00142A	Single Level/Dropper Bottle. 1 x 5 mL

Analyte

HAV-IgM

VIROTROL HBc-IgM



- An unassayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00143	Single Level/Dropper Bottle. 1 x 5 mL

Analyte

HBc-IgM

VIROTROL HBeAg



- An unassayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00144	Single Level/Dropper Bottle. 1 x 5 mL

Analyte

HBeAg

VIOTROL ToRCH



- An unassayed quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00109	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Cytomegalovirus (CMV) IgG	Rubella Virus IgG
Herpes Simplex Virus Type 1 (HSV-1) IgG	<i>Toxoplasma gondii</i> IgG
Herpes Simplex Virus Type 2 (HSV-2) IgG	

VIOTROL ToRCH-M



- An unassayed quality control
- Human serum based
- 18 month shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
00117A	Single Level/Dropper Bottle. 1 x 5 mL
00117B	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Cytomegalovirus (CMV) IgG	Herpes Simplex Virus Type 1 (HSV-1) IgG	Rubella Virus IgG	<i>Toxoplasma gondii</i> IgG
Cytomegalovirus (CMV) IgM	Herpes Simplex Virus Type 2 (HSV-2) IgG	Rubella Virus IgM	<i>Toxoplasma gondii</i> IgM

VIROCLEAR ToRCH



- An unassayed, non-reactive quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
00118	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Non-reactive for:

Cytomegalovirus (CMV) IgG	Herpes Simplex Virus Type 1 (HSV-1) IgM	Herpes Simplex Virus Type 2 (HSV-2) IgM	<i>Toxoplasma gondii</i> IgG
Cytomegalovirus (CMV) IgM	Herpes Simplex Virus Type 2 (HSV-2) IgG	Rubella Virus IgG	<i>Toxoplasma gondii</i> IgM
Herpes Simplex Virus Type 1 (HSV-1) IgG		Rubella Virus IgM	

Did you know. . .

Testing both IgG and IgM ToRCH analytes? VIROCLEAR ToRCH is non-reactive for all ToRCH IgG and IgM analytes.

Liquichek ToRCH Plus Control



- An unassayed, bilevel control used to monitor the precision of the most widely used serology test methods
- Liquid, human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C
- Positive and negative levels packaged separately

Ordering Information

Catalog #	Description
239	Positive 3 x 3 mL
239X	Positive MiniPak 1 x 3 mL
227	Positive* 3 x 3 mL
227X	Positive MiniPak* 1 x 3 mL
228	Negative 3 x 3 mL
228X	Negative MiniPak 1 x 3 mL

*Assayed control available outside the United States only.

Analytes

Cytomegalovirus (CMV) IgG
Epstein-Barr Virus (EBV) IgG
Helicobacter pylori IgG
Herpes Simplex Virus Type 1 (HSV-1) IgG
Herpes Simplex Virus Type 2 (HSV-2) IgG

Rubella Virus IgG
Syphilis RPR
Toxoplasma gondii IgG
Treponema pallidum (Syphilis) IgG
Varicella Zoster Virus (VZV) IgG

Liquichek ToRCH Plus IgM Control



- An unassayed control
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
229	Positive 3 x 2 mL
229PX	Positive MiniPak 1 x 2 mL

Analytes

Cytomegalovirus (CMV) IgM
Herpes Simplex Virus Type 1 (HSV-1) IgM
Herpes Simplex Virus Type 2 (HSV-2) IgM

Rubella Virus IgM
Toxoplasma gondii IgM

Refer to pages 146-147

The Molecular/Infectious Disease Analyte Control Index can help you choose the ToRCH control that's right for your lab.

VIROTROL MuMZ and VIROCLEAR MuMZ



- Unassayed quality controls
- Use VIROTROL MuMZ as a reactive control and VIROCLEAR MuMZ as a non-reactive control for the analytes listed at right
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
VIROTROL MuMZ	
00119	Single Level/Dropper Bottle. 1 x 5 mL
VIROCLEAR MuMZ	
00133	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Mumps Virus IgG
Rubeola Virus (Measles) IgG
Varicella Zoster Virus (VZV) IgG

VIROTROL Syphilis LR-A



- A low reactive (LR), unassayed quality control
- Human serum based
- 3 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
00171	Single Level/Tube 5 x 4 mL
00171X	Single Level/Tube 1 x 4 mL

Analyte

Anti-*Treponema pallidum* (Syphilis)

VIROTROL RPR Panel



- An unassayed quality control
- VIROTROL RPR Panel consists of one non-reactive member, one minimally reactive member, and one moderately to highly reactive titratable member
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
01400	Three Levels/Vial 3 x 1.5 mL

Analyte

Non-treponemal Antibodies (Syphilitic Reagin)

Did you know . . .

That Varicella Zoster Virus causes Chicken Pox as well as Shingles?

VIROTROL EBV

- An unassayed quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00128A	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

EBNA IgG
Epstein-Barr Virus (VCA) IgG
Epstein-Barr Virus (VCA) IgM

VIROCLEAR EBV

- An unassayed, non-reactive quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00131	Single Level/Dropper Bottle. 1 x 5 mL

Analytes**Non-reactive for:**

EBNA IgG
EBV EA IgG
Epstein-Barr Virus (VCA) IgG
Epstein-Barr Virus (VCA) IgM

PneumoTrol

- An unassayed quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00129	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Chlamydia trachomatis IgG
Mycoplasma pneumoniae IgG
Mycoplasma pneumoniae IgM

PyloriTrol

- An unassayed quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00121	Single Level/Dropper Bottle. 1 x 5 mL

Analyte

Helicobacter pylori IgG

VIOTROL Chagas



- An unassayed, reactive quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00125	Single Level/Tube 5 x 4 mL
00125X	Single Level/Tube 1 x 4 mL

Analyte

Trypanosoma cruzi (*T. cruzi*) Antibodies

VIOTROL Lyme



- An unassayed quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00132	Single Level/Dropper Bottle. 1 x 5 mL

Analyte

Borrelia burgdorferi IgG

VIOTROL WNV



- An unassayed quality control
- Human serum based
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00116	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

West Nile Virus IgG
West Nile Virus IgM

Did you know . . .

Chagas is transmitted by the triatomine bug and infects between 7 and 8 million people globally each year.

Did you know . . .

West Nile Virus is transmitted via mosquito? 80% of people infected will be asymptomatic, however, WNV can cause a fatal neurological disease.



InteliQ

Simplify your QC workflow with load-and-go-efficiency and robust data management

Quality Control Products

InteliQ Assayed Multiqual Control	74
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Additional Information

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See Also

- **Pages 142-145** Analyte Chart: InteliQ Controls

Did You Know?

- **Discover more about XML** value assignment for next generation platforms at www.qcnet.com/InteliQ

For More Information

- **Brochure** InteliQ (Q-1665)
- **Flyer** eInserts XML (Q-1662)
- **Flyer** Analyte Chart (Q-1228)
- **Website** www.qcnet.com/InteliQ

IntelIQ Assayed Multiquel Control



- Provides comprehensive range of 80 analytes to maximize testing efficiency for automated platforms
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 14 day open-vial stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
12008256	Level 1 12 x 3 mL
12008257	Level 2 12 x 3 mL
12008258	Level 3 12 x 3 mL
12008259	Trilevel MiniPak (1 of each level) 3 x 3 mL

Analytes

α-1-Antitrypsin	Bilirubin (Total)	Gentamicin	Potassium
α-1-Globulin	Calcium	Glucose	Prealbumin
α-2-Globulin	Calcium (Ionized)	Haptoglobin	Protein Serum (Total)
β-Globulin	Carbamazepine	Immunoglobulin A (IgA)	Salicylate
γ-Globulin	Carbon Dioxide (CO ₂)	Immunoglobulin G (IgG)	Sodium
γ-Glutamyltransferase (GGT)	Ceruloplasmin	Immunoglobulin M (IgM)	T3 (Total)
Acetaminophen	Chloride	Iron	T3 Uptake/T Uptake
Acid Phosphatase (Total)	Cholesterol (HDL)	Iron (TIBC)	T4 (Free)
Albumin	Cholesterol (LDL)	Iron (UIBC)	T4 (Total)
Albumin-to-Globulin Ratio	Cholesterol (Total)	Lactate (Lactic Acid)	Theophylline
Alkaline Phosphatase	Cholinesterase	Lactate Dehydrogenase (LDH)	Thyroid Stimulating Hormone (TSH)
ALT/SGPT	Complement C3	LAP Arylamidase	Tobramycin
Amikacin	Complement C4	Lipase	Transferrin
Amylase	Copper	Lithium	Triglycerides
Amylase (Pancreatic)	Cortisol	Magnesium	Urea
Apolipoprotein A-I	Creatine Kinase (CK)	Osmolality	Urea Nitrogen (BUN)
Apolipoprotein B	Creatinine	Phenobarbital	Uric Acid
AST/SGOT	Digoxin	Phenytoin	Valproic Acid
Bilirubin (Direct)	Ethanol	Phospholipids	Vitamin B ₁₂
Bilirubin (Neonatal)	Ferritin	Phosphorus	Zinc

IntelIQ provides enhanced workflow solutions for next generation automated platforms

IntelIQ Tubes 	- Eliminate manual pour-off with ready-to-use “load and go” convenience to minimize handling errors and improve efficiency - Reduce use of consumables and minimize laboratory waste - Conveniently store refrigerated on-board the analyzer*
IntelIQ Barcode Labels 	- Each IntelIQ tube is labeled with a unique sample identifier that provides traceability - Eliminates manual QC order entry and prevents handling errors for a simpler, more efficient workflow
eData 	- Import value assignment data to the analyzer via XML data files with Bio-Rad’s proprietary format for embedded data security - Eliminates manual data input and prevents transcription errors - Provides open-vial stability information for available analytes
Unity 	- Access the industry leading Unity data management program and global peer group comparisons for greater confidence in reliability of patient results - Use advanced Unity software tools to support your lab’s risk management program and simplify compliance reporting to achieve quality goals

*Optional Atellica Solution Sample Handler.

IntelIQ is compatible with next generation chemistry and immunoassay platforms, including Siemens Healthineers Atellica Solution.

Refer to myinserts.com or the package insert of currently available lots for specific analyte and stability claims.

InteliQ Ethanol/Ammonia Control



- Normal, elevated and toxic concentrations of Ethanol and Ammonia to monitor precision across the clinical range
- 2 year shelf life at 2-8°C
- 13 day open-vial stability at 2-8°C for Ammonia
- 3 day open-vial stability at 2-8°C for Ethanol

Ordering Information

Cat #	Description
12008299	Level 1 6 x 2 mL
12008300	Level 2 6 x 2 mL
12008301	Level 3 6 x 2 mL
12008302	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analytes

Ammonia
Ethanol

InteliQ Homocysteine Control



- Monitors precision of Homocysteine assays
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2-8°C

Ordering Information

Cat #	Description
12004309	Level 1 6 x 1 mL
12004310	Level 2 6 x 1 mL
12004311	Level 3 6 x 1 mL
12004312	Trilevel MiniPak (1 of each level) 3 x 1 mL

Analyte

Homocysteine



XML value assignment available for next generation platforms

My elnserts XML software creates an eXtensible Markup Language (XML) file based on the instrument, control product, and lot number you select. The XML file contains value assignment data for next generation platforms, such as the Siemens Healthineers Atellica Solution.

Please refer to the elnserts XML flyer for step-by-step instructions.

Visit www.myeinserts.com for easy access to your eData

InteliQ Specialty Immunoassay Control



- Multi-analyte control for monitoring the precision of specialty immunoassay testing
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
12008276	Level LTA 6 x 4 mL
12008277	Level 1 6 x 4 mL
12008278	Level 2 6 x 4 mL
12008279	Level 3 6 x 4 mL
12008280	Four Level MiniPak (1 of each level) 4 x 4 mL

Analytes

25-Hydroxy Vitamin D
Anti-Thyroglobulin (Anti-Tg)
Anti-Thyroperoxidase (Anti-TPO)
C-Peptide

Erythropoietin (EPO)
Insulin Growth Factor I (IGF-I)/Serratomedin C
Intact PTH
Osteocalcin

InteliQ Tumor Marker Control



- Comprehensive, assayed, multi-analyte control
- Monitors precision of immunoassay-based oncology testing procedures
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
12008289	Level 1 6 x 2 mL
12008290	Level 2 6 x 2 mL
12008291	Level 3 6 x 2 mL
12008292	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analytes

α-Fetoprotein (AFP)
β-2-Microglobulin
β-hCG
CA 15-3
CA 19-9
CA 27.29
CA 72-4*
CA 125
Carcinoembryonic Antigen (CEA)
Cyfra 21-1*
Ferritin
hCG

hCG (Total)
hCG (Intact)
HE4
Her-2/neu
Insulin Growth Factor I (IGF-I)
PAP
ProGRP*
Prolactin
PSA (Free)
PSA (Total)
SCC*
Thyroglobulin (Tg)

*International Use Only

Refer to myelinserts.com or the package insert of currently available lots for specific analyte and stability claims.

QC for Workflow Solutions

Liquichek Cardiac Markers Plus Control LT



- Designed to monitor precision of cardiac assessment assays
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 20 day open-vial stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
12004806	Level 1 6 x 3 mL
12004814	Level 1B 6 x 3 mL
12004808	Level 2 6 x 3 mL
12004810	Level 3 6 x 3 mL
12004807	Level 1 MiniPak 1 x 3 mL
12004815	Level 1B MiniPak 1 x 3 mL
12004809	Level 2 MiniPak 1 x 3 mL
12004811	Level 3 MiniPak 1 x 3 mL

Analytes

BNP
CK Total
CK-MB Isoenzyme
CRP
Digitoxin

Myoglobin
NT-proBNP
Troponin I

Liquichek Immunoassay Plus Control



- Offers a wide range of popular immunoassay analytes
- Provides an efficient solution for laboratories that focus on routine testing
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 14 day open-vial stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
12004319	Level 1 12 x 4 mL
12004320	Level 2 12 x 4 mL
12004321	Level 3 12 x 4 mL
12004322	Trilevel MiniPak (1 of each level) 3 x 4 mL

Analytes

Acetaminophen
AFP
Carbamazepine
CEA
CK-MB Isoenzyme
Cortisol
DHEA-Sulfate
Digoxin
Estradiol
Ferritin
Folate

FSH
Gentamicin
hCG
IgA
IgE
IgG
IgM
Insulin
Iron
Lithium
Luteinizing Hormone (LH)

Phenobarbital
Phenytoin
Progesterone
Prolactin
PSA
Salicylate
SHBG
T3 Free
T3 Total
T3 Uptake
T4 Free

T4 Total
Testosterone
Theophylline
TSH
Tobramycin
Valproic Acid
Vancomycin
Vitamin B₁₂

QC for Workflow Solutions

Liquichek Immunology Control



- Comprehensive menu of serum proteins and analytes, including Rheumatoid Factor
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
12003784	Level 1 6 x 3 mL
12003785	Level 2 6 x 3 mL
12003786	Level 3 6 x 3 mL
12003787	Trilevel MiniPak (1 of each level) 3 x 3 mL

Analytes

α -1-Acid Glycoprotein	Apolipoprotein B	Haptoglobin	Lipoprotein (a)
α -1-Antitrypsin	Ceruloplasmin	IgA	Prealbumin
β -2-Microglobulin	Complement C3	IgE	Protein (Total)
Albumin	Complement C4	IgG	Rheumatoid Factor
Antistreptolysin O (ASO)	CRP	IgM	Transferrin
Apolipoprotein A-1	Cystatin C	Kappa Light Chain	
	Ferritin	Lambda Light Chain	

Liquichek Urine Chemistry Control



- Monitors precision of general urine chemistry testing
- Human urine based
- Offers 19 analytes
- 2 year shelf life at 2-8°C
- 30 day open-vial stability at 2-8°C for all analytes

Ordering Information

Cat #	Description
12004329	Level 1 12 x 4 mL
12004330	Level 2 12 x 4 mL
12004331	Bilevel Minipak (1 of each level) 2 x 4 mL

Analytes

Amylase	Glucose	pH	Specific Gravity
Calcium	hCG (Qualitative)	Phosphorus	Urea
Chloride	Magnesium	Potassium	Urea Nitrogen (BUN)
Cortisol	Microalbumin	Protein (Total)	Uric Acid
Creatinine	Osmolality	Sodium	



Molecular Controls

Monitor the performance of *in vitro* nucleic acid amplification methods for commonly tested viral load assays, healthcare associated infections and sexually transmitted infections

Molecular Controls

Amplichek I	80
Amplichek II	81
Amplichek STI	81
AmpliTrol CT/GC	82
AmpliPROBE CT/GC	82
AmpliClear	82

Did You Know?

- **Our new Amplichek** quality controls contain intact pathogens to monitor the entire testing process, including cell lysis and extraction

For More Information

- **Booklet** Amplichek Molecular Quality Controls (Q-1643)
- **Website**
www.qcnet.com/molecular

Amplichek I



- Assayed multi-analyte quality control to monitor the performance of popular viral load assays
- Each control lot provides expected range for assays shown in the chart below
- Contains intact, inactivated viral particles to monitor the full NAT process from extraction to amplification and detection
- Convenient single use configuration to reduce contamination risk
- Liquid, human plasma matrix, similar to patient samples
- 12 month shelf life at -20°C to -70°C

Ordering Information

Catalog #	Description
12000527	Negative 10 x 1.2 mL
12000528	Level 1 10 x 1.2 mL
12000529	Level 2 10 x 1.2 mL
12000530	Level 3 10 x 1.2 mL
12000531	4 Level MiniPak (one of each level). 4 x 1.2 mL

Analytes

Hepatitis B Virus (HBV)
Hepatitis C Virus (HCV)
Human Immunodeficiency Virus Type 1 (HIV-1)

This product is not intended for use with blood donor screening assays in the U.S. or Canada.

Product Level Selection by Instrument

	Level	Negative	Level 1 (Low Positive)	Level 2 (Low Positive)	Level 3 (High Positive)
Roche					
COBAS AmpliPrep / COBAS TaqMan HBV Test v2.0		●	●		●
COBAS AmpliPrep / COBAS TaqMan HCV Test		●	●		●
COBAS AmpliPrep / COBAS TaqMan HIV-1 Test v2.0		●	●		●
Abbott Diagnostics					
m2000 RealTime HBV		●		●	●
m2000 RealTime HCV		●		●	●
m2000 RealTime HIV-1		●		●	●

See package insert for current assays and assigned ranges.

Guideline

" . . . Quality control materials should be different from the calibrator materials to ensure that the QC procedure provides an independent assessment of the measurement procedure's performance in its entirety, including the procedure for calibration of the measurement."

CLSI Guidance Document C24-A3, Statistical Quality Control for Quantitative Measurement Procedures: Principles and Definitions; Approved Guideline.

Amplichek II



- Liquid, multi-analyte quality control designed to monitor the performance of *in vitro* nucleic acid test systems for Healthcare Associated Infections (HAI)
- Use with multiple specimen types and sampling tools including swabs and transfer pipets
- Convenient single use configuration to minimize contamination
- Contains intact, inactivated bacteria to monitor the full NAT process from extraction to amplification and detection
- Negative, Levels 1 and 2 are suitable for Cepheid Xpert assays
- 2 year shelf life at 2-8°C

Contact your local Bio-Rad office for additional assay compatibility and Level selection information.

Ordering Information

Catalog #	Description	
12000201	Negative	10 x 0.2 mL
12000202	Level 1	10 x 0.2 mL
12000203	Level 2	10 x 0.2 mL
12000204	Level 3	10 x 0.2 mL
12000575	Negative MiniPak	1 x 0.2 mL
12000576	Level 1 MiniPak	1 x 0.2 mL
12000577	Level 2 MiniPak	1 x 0.2 mL
12000578	Level 3 MiniPak	1 x 0.2 mL

Analytes

Clostridium difficile (C diff.)
Methicillin-resistant *Staphylococcus aureus* (MRSA)
Methicillin-sensitive *Staphylococcus aureus* (MSSA)
Vancomycin-resistant *enterococci* (VRE or vanR)

Product Level Selection by Analyte

- Reactive
- Non-reactive

Analytes

	Level	Negative* (Non-reactive)	Level 1 (MSSA)	Level 2 (Low Positive)	Level 3 (High Positive)
<i>Clostridium difficile</i> (C diff.) genes: Toxin B, Binary Toxin, TcdC		●	●	●	●
Methicillin Resistant <i>Staphylococcus aureus</i> (MRSA) genes: SPA, SCCmec, mecA		●	●	●	●
Methicillin Sensitive <i>Staphylococcus aureus</i> (MSSA) gene: SPA		●	●		
Vancomycin Resistant <i>enterococci</i> (VRE or vanR) genes: vanA, vanB**		●	●	●	●

*Contains Methicillin Sensitive *Staphylococcus epidermidis* (MSSE).

**Not available in the USA.

Amplichek STI



- Liquid, multi-analyte quality control designed to monitor the performance of *in vitro* nucleic acid test systems for sexually transmitted infections (STI)
- Suitable for popular assays and a variety of specimen sample types
- Convenient single use configuration to minimize contamination
- Use to monitor multiple assay steps including lysis, nucleic acid extraction and amplification
- Positive level prepared from intact, inactivated bacteria and human cell lines containing high risk HPV genotypes 16, 18 and 68
- 2-year shelf life at -20 to -70°C

Ordering Information

Catalog #	Description	
12000991	Negative	10 x 0.2 mL
12000992	Positive	10 x 0.2 mL
12000993	Negative MiniPak	1 x 0.2 mL
12000994	Positive MiniPak	1 x 0.2 mL

Analytes

Chlamydia trachomatis (CT)
Human Papillomavirus (HPV)
Neisseria gonorrhoeae (NG or GC)

AmpliTrol CT/GC



- Unassayed quality control for DNA amplification assays
- Suitable for BD ProbeTec ET CT/NG
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
00126	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Chlamydia trachomatis (CT)
Neisseria gonorrhoeae (GC)

AmpliPROBE CT/GC



- Unassayed quality control for nucleic acid amplification assays
- Suitable for Hologic Aptima CT and NG assays
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
00138	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Chlamydia trachomatis (CT)
Neisseria gonorrhoeae (GC)

AmpliClear



- Unassayed, non-reactive quality control that serves as a companion to AmpliPROBE CT/GC and AmpliTrol CT/GC
- 2 year shelf life at 2–8°C
- 60 day open-vial stability at 2–8°C

Ordering Information

Catalog #	Description
00127	Single Level/Dropper Bottle. 1 x 5 mL

Analytes

Non-reactive for:
Chlamydia trachomatis (CT)
Neisseria gonorrhoeae (GC)

Did You Know. . .

ISO 15189 suggests that the 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.



Premium Controls

Consolidated controls address the complex needs of your multi-discipline laboratory

Premium Controls

Liquid Assayed Multiqual Premium	84
Liquichek Immunoassay Premium Control.	85

Additional Information

Controls for Popular Instruments Chart	86
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See Also

- **Page 53** for Liquichek Tumor Marker Control

Did You Know?

- **Our Premium Controls** contain cross-disciplinary analytes for simple, quick and efficient QC testing on integrated immunochemistry systems

For More Information

- **Brochure** Premium Controls for Immunochemistry (Q-1215)
- **Brochure** Independent and Complete Control for Immunoassay (Q-1219)

Liquid Assayed Multiquel Premium



- Combination of 96 analytes, including General Chemistry, Immunology and Therapeutic Drug Monitoring (TDM) analytes
- Introduces a new level of efficiency by combining multiple high-usage quality controls
- Reduces QC set-up time, eliminates waste and provides cost and labor savings
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 14 day open-vial stability at 2-8°C for most analytes
- 30 day unopened stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
284	Level 1 6 x 5 mL
285	Level 2 6 x 5 mL
286	Level 3 6 x 5 mL
285X	Trilevel MiniPak (1 of each level) 3 x 5 mL

Analytes

General Chemistry

Acid Phosphatase (Total)
Albumin
Alkaline Phosphatase (ALP)
Alpha-Hydroxybutyrate
Dehydrogenase (α HBDH)
ALT/SGPT
Amylase
Amylase (Pancreatic)
AST/SGOT
Bile Acids
Bilirubin (Direct)
Bilirubin (Neonatal)
Bilirubin (Total)
Calcium (Total)
Calcium (Ionized)
Carbon Dioxide (CO₂)
Chloride
Cholesterol (HDL)
Cholesterol (LDL)
Cholesterol (Total)
Cholinesterase
Copper
Creatine Kinase (CK)
Creatinine
Ethanol
GGT

Glucose
Glutamate Dehydrogenase
(GLDH)*
Iron
Iron (TIBC)
Iron (UIBC)
Lactate (Lactic Acid)
Lactate Dehydrogenase (LDH)
LAP Arylamidase
Lipase
Magnesium
Osmolality
Phosphorus
Phospholipids
Potassium
Protein (Total)
Sodium
Triglycerides
Urea
Urea Nitrogen (BUN)
Uric Acid
Zinc

Immunology

Alpha-1-Antitrypsin
Alpha-1-Acid Glycoprotein
(AAG)
Anti-CCP

ASO
Apolipoprotein A-1
Apolipoprotein B
 β -2-Microglobulin
Ceruloplasmin
C-Reactive Protein (CRP)
Complement C3
Complement C4
Cystatin C
Globulin
Haptoglobin
Immunoglobulin A (IgA)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)
Kappa Light Chain
Lambda Light Chain
Prealbumin
Protein Electrophoresis
Transferrin

TDM

Acetaminophen
Amikacin
Caffeine
Carbamazepine
Digoxin
Disopyramide
Gentamicin

Lidocaine
Lithium
Methotrexate
NAPA
Phenobarbital
Phenytoin
Procainamide
Quinidine
Salicylate
Theophylline
Tobramycin
Valproic Acid
Vancomycin

Immunoassay

Cortisol
Ferritin
T3 Uptake / T Uptake
T3 (Total)
T4 (Free)
T4 (Total)
TSH
Vitamin B₁₂

*Not available for diagnostic use in the United States.



Did you know . . .

You can optimize your core laboratory performance by using our family of Premium Controls.

Refer to myInserTs.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Immunoassay Premium Control



- Combination of 62 analytes including routine Immunoassay, Specialty Immunoassay, Therapeutic Drug Monitoring (TDM) and Tumor Marker analytes
- Introduces a new level of efficiency by combining multiple high-usage quality controls
- Reduces QC set-up time, eliminates waste and provides cost and labor savings
- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 14 day open-vial stability at 2-8°C for most analytes
- 28 day unopened stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
27110	Trilevel (2 of each level) 6 x 5 mL
27111	Level 1 6 x 5 mL
27112	Level 2 6 x 5 mL
27113	Level 3 6 x 5 mL
27110X	MiniPak (1 of each level). 3 x 5 mL

Analytes

Immunoassay

Acid Phosphatase (Prostatic)
AFP
Cortisol
DHEA-Sulfate
Estradiol
Estriol (Free)
Ferritin
Folate
FSH
hCG (Total Beta)
hGH
Insulin
LH
Progesterone
Prolactin
T3 Uptake/T Uptake
T3 (Free)
T3 (Total)

T4 (Free)

T4 (Total)

TBG

Testosterone

TSH

Vitamin B₁₂

Immunology

IgA

IgE

IgG

IgM

Specialty Immunoassay

25-Hydroxy Vitamin D (Total)
SHBG

TDM

Acetaminophen
Amikacin
Caffeine

Carbamazepine (Tegretol)

Digoxin

Disopyramide

Ethosuximide

Gentamicin

Lidocaine

Lithium

NAPA (N-Acetyl Procainamide)

Phenobarbital

Phenytoin

Phenytoin (Free)

Primidone

Procainamide

Quinidine

Salicylate

Theophylline

Tobramycin

Tricyclic Antidepressant (TCA)
Screen

Valproic Acid

Valproic Acid (Free)

Vancomycin

Tumor Marker

β-2-Microglobulin

CA 125

CA 15-3

CA 19-9

CEA (Carcinoembryonic Antigen)

Cyfra 21-1*

PSA (Free)

PSA (Total)

*Not available for diagnostic use in the United States.



Use Bio-Rad's Premium Controls on these popular instruments

Manufacturer/Instrument(s)	Liquid Assayed Multiquant Premium	Liquichek Immunoassay Premium
Abbott Diagnostics		
ARCHITECT cSystems	●	●
ARCHITECT iSystems	●	●
Beckman Coulter		
Access 2	●	●
AU Systems	●	●
Synchron DxC Systems	●	●
Unicel Dxl Series	●	●
Ortho Clinical Diagnostics		
VITROS Microslide & Microtip Series	●	●
VITROS Microwell Series		●
Roche Diagnostics		
cobas c Systems	●	●
Cobas E Systems	●	●
COBAS INTEGRA	●	●
Elecsys/E 170/E Systems	●	●
Hitachi/MODULAR Systems	●	●
Siemens		
ADVIA Centaur		●
ADVIA Chemistry Systems	●	
BN Series	●	●
Dimension Series	●	●
Dimension Vista Systems	●	●
IMMULITE		●

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.



Put your data to work—it may be more valuable than you think!

You may be eligible to become a partner in product development and evaluation of new control lots while earning extra money for your laboratory. To learn more visit QCNet.com/ProductStudies/



QC Data Management Solutions

Optimize Your Laboratory Performance as a Member of the World's Largest Community of QC Users

Software Products

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Did You Know?

- **Web-based software** solutions eliminate the need to install and update software locally, and reduce the amount of support necessary from on-site IT staff

For More Information

- **Booklet** Unity Interlaboratory Program (Q-1144)
- **Brochure** QC Data Management Solutions (Q-1181)
- **Brochure** QC Data Management Solutions for Lab Supervisors (Q-1190)
- **Flyer** Unity Alert (Q-1180)
- **Flyer** Westgard Advisor (Q-1608)
- **Flyers** Bio-Rad Mission: Control (Q-1638 and Q-1642)
- **Website**
www.qcnet.com/datamanagement

Join over 29,000 of your peers who already use the Unity Interlaboratory Program, the most robust program for clinical labs

Bio-Rad Quality Controls are part of the Unity Program with industry-leading features for benchmarking laboratory performance. Whether a lab produces five hundred or five million results a year, the lab director bears ultimate responsibility for the accuracy and timeliness of each test result.¹

A patient risk approach to QC means planning your QC based on the type or method of the test and its impact on patient outcomes when a failure is detected. As the world's leader in clinical laboratory QC, we've established the foundation to help you make the transition to patient-focused QC.

- Benefit from peer data generated from more than 50,000 instruments worldwide
- Utilize real-time access to peer group comparisons to help with troubleshooting
- Consolidate your entire laboratory into one QC system

- Facilitate run-time decisions with optimized Westgard rules
- Facilitate compliance with simple tools to review rule violations and document corrective actions
- Define your own quality requirements and track key quality performance indicators
- Automate QC data from Instruments, Middleware and/or LIS systems with Unity Connectivity

This sophisticated software includes best-in-class tools to support releasing results, benchmarking laboratory performance, and designing your QC system. Unity enables you to work smarter, making it possible to achieve optimum lab practice for your QC workflow. Reducing manual QC data management tasks with software automation frees your staff to focus on more critical tasks. Unity ultimately helps your team deliver objectives more efficiently and with greater ease.

Choose From Four Unity Solutions

Bio-Rad Laboratories offers several options for participation in the Unity Interlaboratory Program. Refer to the product comparison grid below to help determine which solution is the most appropriate for your laboratory.

	Basic User Options		Advanced User Options	
	UnityWeb	Unity Real Time LT	Unity Real Time online	Unity Real Time
Type of Solution				
Web Service (Web-based)	X		X	
Desktop Software		X		X
Unity Interlaboratory Reports				
Monthly Reports	X	X	X	X
InstantQC Reports	X	X	X	X
Basic Intralaboratory Charts & Reports				
Westgard Rules	X	X	X	X
Various Charts and Reports	X	X	X	X
Additional Features				
Westgard Advisor (Subscription sold separately)	X		X	X
Bench Review with Data Review Report	X	X	X	X
Supervisor Data Review with Data Review Report			X	X
Analytical Goals			X	X
Dynamic Data Set Comparisons			X	X
Database Platform				
Bio-Rad Hosted	X		X	
Installed on Local Laboratory PC		X		X
Connectivity (Sold separately)				
WebConnect	X		X	
UnityConnect	X	X	X	X

Want to know more? Discover the power of Unity Solutions at www.qcnet.com/datamanagement/

¹Malone B. A New Approach to Quality Control. AACC. 2011;37:11. Available at: <http://www.aacc.org/publications/cln/2011/november/Pages/ANewApproachtoQualityControl.aspx#>. Accessed June 14, 2013.
Refer to myInseris.com or the package insert of currently available lots for specific analyte and stability claims.



Basic



Advanced



Desktop based



Web based



Mobile



Basic User Options

Unity Real Time LT



Entry-Level Desktop QC Data Management Solution

- Basic QC rules, charts and reports
- Configurable Levey-Jennings charts
- Upgrade easily to Unity Real Time for more advanced tools and features
- Upload QC data points from an LIS, middleware or instrument (optional)

Ordering Information

Cat #	Description
804	Installation Package.Single use
805-1	Unity Real Time LT.Annual subscription
825i	Unity Remote Installation & Training.Single use
858i	Additional Software TrainingSingle use

UnityWeb



Entry-Level Online QC Data Management Solution

- No software to install and maintain
- Use basic QC rules, charts and reports
- Upgrade easily to Unity Real Time online for more advanced tools and features
- Upload QC data points from an LIS, middleware or instrument (optional)

Ordering Information

Cat #	Description
870-1	UnityWeb.Annual subscription
825i	Unity Remote Installation & Training.Single use
858i	Additional Software TrainingSingle use

WebConnect



A web-based connectivity solution that allows laboratories to easily upload QC data from LIS systems, middleware and/or instruments directly into Unity Real Time online or UnityWeb

- Eliminate manual keying of data
- Standard LIS QC reports can be used
- No software to install

Ordering Information

Cat #	Description
870-W1	WebConnect 2.0Annual subscription
825i	Unity Remote Installation & Training.Single use
858i	Additional Software TrainingSingle use



Compliance Requirements

"The laboratory shall design quality control procedures that verify the attainment of the intended quality of results."

– ISO 15189:2012(E), Subclause 5.6.2.1

Advanced User Options

Unity Real Time



Expert QC Data Management Solution for Desktop Users

- Facilitate compliance under CLIA and ISO 15189
- Improve real-time bench and supervisor QC data review
- Implement best QC rules when used with Westgard Advisor
- Run validation with comprehensive audit trails
- Advanced charts and reports for data analysis
- Reduce non-essential retests with Analytical Goal options
- Upload QC data points from an LIS, middleware or instrument (optional)
- RiLiBÄK module available to comply with German regulations
- GOST module available to comply with Russian regulations

Ordering Information

Cat #	Description
804	Installation Package.Single use
804-1	Unity Real TimeAnnual subscription
825i	Unity Remote Installation & Training.Single use
858i	Additional Software TrainingSingle use

Unity Real Time online



Expert QC Data Management Solution for Online Users

- Facilitate compliance under CLIA and ISO 15189
- Improve real-time bench and supervisor QC data review
- Implement best QC rules when used with Westgard Advisor
- Run validation with comprehensive audit trails
- Advanced charts and reports for data analysis
- Reduce non-essential retests with Analytical Goal options
- Upload QC data points from an LIS, middleware or instrument (optional)

Ordering Information

Cat #	Description
804-W1	Unity Real Time onlineAnnual subscription
825i	Unity Remote Installation & Training.Single use
858i	Additional Software TrainingSingle use

UnityConnect



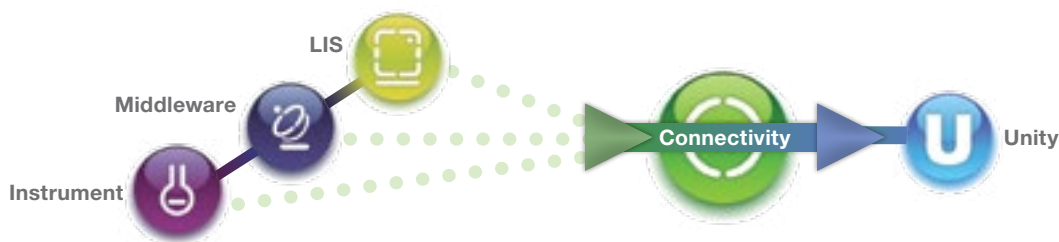
A connectivity solution that allows QC data from LIS systems, middleware and/or instruments to be quickly and easily imported into Unity software, enabling interlaboratory program comparison

- Eliminate manual keying of QC data
- Standard LIS QC reports can be used
- Automatic data import and real-time connection
- Transparent to the flow of data to the LIS
- Capture and analyze QC data economically from laboratory instruments not connected to the LIS
- Easy-to-install optional interface hardware
- Choose from soft, serial and ethernet connections

Ordering Information

Cat #	Description
820-1	UnityConnect SoftwareAnnual subscription
858i	Additional Software TrainingSingle use

Hardware solutions available for serial and network devices. Contact your Bio-Rad sales representative for recommendation.



Contact your Bio-Rad sales representative for region-specific information.



Advanced User Options

Bio-Rad Mission: Control



Take the guesswork out of your QC strategy

Employing a robust quality control system is an essential step for any laboratory hoping to provide reliable results for appropriate patient care. Unfortunately for clinical laboratories, selecting the right QC rules and frequency can be challenging, and questions often arise.

- How often should controls be run for specific assays—is there an optimal frequency?
- How can QC be managed to minimize the risk of releasing incorrect patient results?

Bio-Rad Mission: Control is the first objective risk management solution for quality control in laboratories. The intuitive interface allows users to focus on patient safety by assessing the risk of reporting incorrect patient results in their laboratory.

Bio-Rad Mission: Control allows you to:

- Determine your laboratory's Risk Management Index (RMI)
- Evaluate your test method performance based on your QC results
- Quantify the likelihood and severity of reporting incorrect patient results
- Assess how much you can lower your risk, based on instrument performance
- Create a QC Plan by confidently selecting rules and frequency that fit your risk tolerance



Minimize your risk of reporting unreliable patient results

A patient risk approach to Quality Control is a progressive step toward improving quality assurance and patient care. Bio-Rad can help you understand what this means for your laboratory and how to take steps to implement an effective approach for Quality Control within your analytical test phase.

For more information, visit www.qcnet.com/missioncontrol

Ordering Information

Cat #	Description
11000002	Mission: Control.Annual Subscription
11000005	Mission: Control.Subscription and Service Bundle

Westgard Advisor



Automatic QC Rules Selection Engine

- Recommend and automatically apply best QC rules with patented technology
- Easy step-by-step automatic rule selection capabilities
- Reduce false rejections and desensitization to false error flags
- Save time and money by reducing unnecessary repeats and troubleshooting
- Improve laboratory test quality with optimally selected QC rules
- Available as an optional module with Unity QC data management solutions

Ordering Information

Cat #	Description
811-1	Westgard AdvisorAnnual subscription
825i	Unity Remote Installation & Training.Single use
858i	Additional Software TrainingSingle use

Unity Alert



Continuously Monitor QC Status

- Notifications of missing QC runs can help to ensure proper monitoring of instrument performance
- Notifications of new violations can be useful for troubleshooting and monitoring problem analytes
- Alert rules are easy to set up and customize for specific instruments or tests
- Receive emails remotely to stay informed of QC issues in your laboratory
- Color-coded displays help draw attention to the most urgent QC issues
- Notifications are provided even when Unity Real Time is not in use
- Available as an optional module with Unity Real Time

Ordering Information

Cat #	Description
806-1	Unity AlertAnnual subscription
825i	Unity Remote Installation & Training.Single use
858i	Additional Software TrainingSingle use

Unity Interlaboratory Reports

There has never been a better time to be a member of the world's largest QC peer group program

Bio-Rad drives innovation in the development of Quality Control for the clinical laboratory and we're raising the bar again. It's time to take a fresh look at your Unity peer reports. Redesigned formats make reports easier than ever to read. The addition of color, graphics and statistical information allows you to interpret your data with ease, enabling prompt action to potential problems. Condensed report formats require fewer pages and view equally well printed in color or black and white.

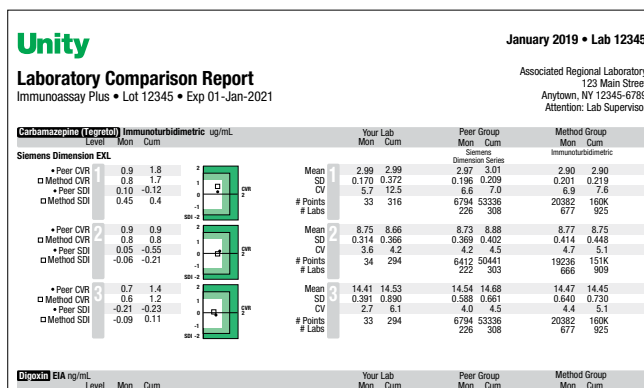
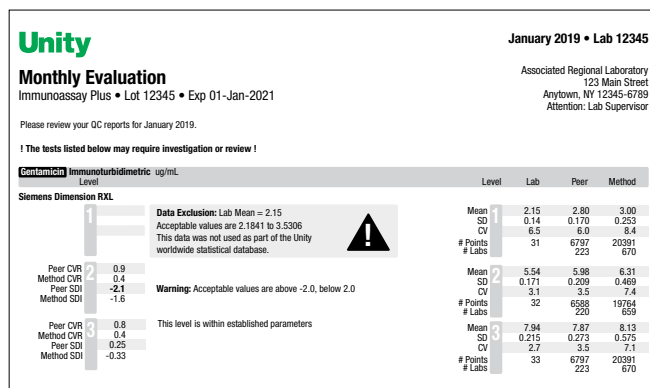
Unity Interlaboratory Program Reports Feature:

- Logical arrangement of data provides a quick and intuitive read
- Data consolidation and imagery simplifies interpretation of lab data

List of Available Reports

- Monthly Evaluation
- Laboratory Performance Overview
- Laboratory Comparison Report
- Laboratory Histogram
- Bias & Imprecision Histogram
- Worldwide Report
- Statistical Profile Report
- Affiliated Laboratory Comparison Report
- Affiliated Laboratory Comparison Report: Abbreviated Summary
- Affiliated Data Exception Report
- Urinalysis Reports
- Qualitative Worldwide Report
- Blood Typing/Serum Indices Report
- InstantQC Report

Contact your Bio-Rad Sales Representative or visit QCNet.com for more information.



Receive on-demand InstantQC Reports via QCNet today!

InstantQC Reports allow you to compare your QC results to other laboratories at any time, with real-time peer information. On-demand reports are particularly useful for troubleshooting problems with test system performance.



Customers agree:

"The documentation of Bio-Rad Controls using the Unity QC Program has been well accepted by CAP inspectors. Worry-free QC."
— Laboratory Director,
Health Center

"To compare our data with a substantial peer group ensures that we are turning out reliable patient data."
— Laboratory Supervisor,
School of Medicine

"The reports are clean and easy to read and understand. For each test, Unity Reports for our lab show a summary of our data, our instrument group, and our method group—reports are simple."
— Clinical Chemist,
Hospital Laboratory



QC Products in Dimension Vista Vials

Rely on Bio-Rad controls and QC performance for routine quality control of Vista assays

Quality Control Products

Liquid Assayed Multiquel Control	94
Liquichek Cardiac Markers Plus Control LT	94
Liquichek Diabetes Control	95
Liquichek Ethanol/Ammonia Control	95
Liquichek Immunoassay Plus Control	96
Liquichek Immunology Control	96
Liquichek Pediatric Control	97
Liquichek Spinal Fluid Control	97
Liquichek Tumor Marker Control	98
Liquichek Urine Chemistry Control	98

See Also

- **Pages 148-149** Analyte Chart: QC Products in Dimension Vista Vials

Controls in Vista vials allow Dimension Vista customers to

- **Access extensive** Unity peer group reports and comparisons
- **Scan 2D barcodes** to automatically set-up QC with Vista assigned values to prevent transcription errors
- **Alleviate manual pour-off** tasks to minimize handling errors and reduce the cost of extra consumables
- **Monitor analytes** that are specific to the Dimension Vista test menu

For More Information

- **Booklet** Bio-Rad Quality Control Products in Dimension Vista Vials (Q-1214)
- **Flyer** Dimension Vista Controls Analyte Chart (Q-1223)

Liquid Assayed Multiquel Control



- Provides a comprehensive range of chemistry analytes for monitoring the precision of general chemistry test procedures
- Liquid, human serum based
- 5 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 3 year shelf life when stored at -20°C to -50°C

Ordering Information

Cat #	Description
337	Level 1 12 x 2.5 mL
338	Level 2 12 x 2.5 mL
339	Level 3 12 x 2.5 mL
338X	Trilevel MiniPak (1 of each level) 3 x 2.5 mL

Analytes

General Chemistry

Albumin
Alkaline Phosphatase (ALP)
ALT/SGPT
Amylase
AST/SGOT
Bilirubin (Direct)
Bilirubin (Total)
Calcium (Total)
Chloride
Cholesterol (HDL)
Cholesterol (LDL)
Cholesterol (Total)
CO₂
Creatine Kinase
Creatinine
Ethanol

GGT

Glucose
Iron
Iron (TIBC)
Lactate (Lactic Acid)
Lactate Dehydrogenase (LDH)
Lipase
Magnesium
Phosphorus
Potassium
Protein (Total)
Pseudocholinesterase
Sodium
Triglycerides
Urea Nitrogen
Uric Acid

Immunology

Alpha-1-Antitrypsin
Apolipoprotein A-1
Apolipoprotein B
Ceruloplasmin
Complement C3
Complement C4
Haptoglobin
Immunoglobulin A (IgA)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)
Prealbumin
Transferrin

Therapeutic Drug Monitoring

Acetaminophen
Carbamazepine
Digoxin

Gentamicin
Lithium
Phenobarbital
Phenytoin
Salicylate
Theophylline
Tobramycin
Valproic Acid

Immunoassay

Ferritin
T3 (Total)
T3 Uptake/T-Uptake
T4 (Free)
T4 (Total)
TSH
Vitamin B₁₂

Liquichek Cardiac Markers Plus Control LT



- A comprehensive cardiac assessment control
- Level 1C Troponin I values at or near the 99th percentile upper reference limit (URL) of Troponin I LOCI method
- Value assigned for hs-CRP
- Liquid, human serum based
- 10 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 3 year shelf life when stored at -20°C to -50°C

Ordering Information

Cat #	Description
297	Level 1C 6 x 2.5 mL
298	Level 2 6 x 2.5 mL
299	Level 3 6 x 2.5 mL
298X	Trilevel MiniPak (1 of each level) 3 x 2.5 mL

Analytes

CK (Total)
CK-MB Isoenzyme
CRP
Digitoxin

Myoglobin
NT-proBNP
Troponin I

Did You Know. . .

Siemens Healthineers recommends the family of Bio-Rad Controls in Dimension Vista vials for your Quality Control needs.

Liquichek Diabetes Control



- Monitors the precision of Hemoglobin A1C
- Available in three critical levels
- Liquid, human whole blood based
- 14 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 3 year shelf life when stored at -10°C to -50°C

Ordering Information

Cat #	Description
291	Level 1 6 x 2 mL
292	Level 2 6 x 2 mL
293	Level 3 6 x 2 mL
292X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analyte

Hemoglobin A1C

Liquichek Ethanol/Ammonia Control



- Offers normal, elevated and toxic concentrations of Ethanol and Ammonia
- 20 day open-vial (punctured) stability for both analytes when stored at 2–8°C
- 2 year shelf life when stored at 2–8°C

Ordering Information

Catalog #	Description
271	Level 1 6 x 2.5 mL
272	Level 2 6 x 2.5 mL
273	Level 3 6 x 2.5 mL
272X	Trilevel MiniPak (1 of each level) 3 x 2.5 mL

Analytes

Ammonia
Ethanol

Product Insert Table and 2D Barcode

Scan 2D barcodes with Vista values for easy, efficient QC product set-up

Level 1						
Analyte	Lot 45611W		Units	Lot 45611W		SI
	Mean	Range		Mean	Range	
Aspartate Aminotransferase (ASAT)	23.0	20.0 – 26.0	µg/dL	130	130 – 130	µmol/L
Alanine Aminotransferase (ALAT)	26.0	22.0 – 28.0	U/L	0.434	0.377 – 0.490	µkat/L
Bilirubin	2.45	2.25 – 2.65	g/dL	24.6	22.6 – 26.6	g/L
Alkaline Phosphatase (ALP)	37.8	33.4 – 42.2	U/L	0.631	0.514 – 0.689	µkat/L
Alpha-1 Antitrypsin (A1)	83.7	82.3 – 108	mg/dL	0.937	0.819 – 1.05	g/L
Ammonia	40.1	36.2 – 44.0	U/L	0.670	0.605 – 0.735	µkat/L
Amylase (A-1)	87.5	80.8 – 94.2	mg/dL	0.875	0.805 – 0.942	g/L
Amylase (A-2)	41.4	36.9 – 45.9	mg/dL	0.414	0.369 – 0.459	g/L
Aspartate Aminotransferase (ASAT/500)	26.6	20.9 – 42.3	U/L	0.912	0.517 – 0.707	µkat/L
Bilirubin, Direct	0.210	0.100 – 0.320	mg/dL	3.09	1.71 – 5.47	µmol/L
Bilirubin, Total	0.010	0.010 – 0.700	mg/dL	12.4	8.72 – 12.8	µmol/L
Cl Compensated (%)	89.3	82.0 – 96.7	mg/dL	0.893	0.820 – 0.967	g/L
Cl Compensated (%)	14.8	13.4 – 16.2	mg/dL	0.148	0.134 – 0.162	g/L
Calcium, Total	6.10	5.89 – 6.31	mg/dL	1.52	1.42 – 1.63	mmol/L
Cathartecine	1.92	2.89 – 4.86	µg/dL	19.6	12.5 – 26.8	µmol/L
Carbon Dioxide (CO2)	13.8	14.2 – 17.5	mg/dL	13.8	14.2 – 17.5	mmol/L



Note: All barcodes should be scanned on the package insert prior to implementing a new lot of Vista vial products for purposes of updating the quality control data.

Liquichek Immunoassay Plus Control



- Efficient solution for QC of routine Immunoassay and Therapeutic Drug Monitoring analytes
- Liquid, human serum based
- 4 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 2 year shelf life when stored at -20°C to -50°C

Ordering Information

Catalog #	Description
267	Level 1 12 x 2.5 mL
268	Level 2 12 x 2.5 mL
269	Level 3 12 x 2.5 mL
268X	Trilevel MiniPak (1 of each level) 3 x 2.5 mL

Analytes

Therapeutic Drug Monitoring

Acetaminophen
Amikacin
Caffeine
Carbamazepine
Digoxin
Gentamicin
Lidocaine
Lithium
N-Acetylprocainamide (NAPA)
Phenobarbital
Phenytoin
Procainamide

Salicylate
Theophylline
Tobramycin
Tricyclic Antidepressants (TCA)
Screen
Valproic Acid
Vancomycin

Immunology

Immunoglobulin A (IgA)
Immunoglobulin E (IgE)
Immunoglobulin G (IgG)
Immunoglobulin M (IgM)

Immunoassay

Alphafetoprotein (AFP)
CEA
Estradiol
Ferritin
Folate
FSH
hCG- β Subunit
LH
Prolactin
PSA
PSA (Free)
T3 (Free)

T3 (Total)
T3 Uptake/T-Uptake
T4 (Free)
T4 (Total)
TSH
Vitamin B₁₂

Cardiac

CK-MB Isoenzyme

General Chemistry

Iron

Liquichek Immunology Control



- Comprehensive control to monitor the precision of serum proteins and related analyte test procedures
- Liquid, human serum based
- 5 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 2 year shelf life when stored at -20°C to -50°C

Ordering Information

Catalog #	Description
281	Level 1 6 x 2.5 mL
282	Level 2 6 x 2.5 mL
283	Level 3 6 x 2.5 mL
282X	Trilevel MiniPak (1 of each level) 3 x 2.5 mL

Analytes

α -1-Acid Glycoprotein
 α -1-Antitrypsin
 α -2-Macroglobulin
 β -2-Microglobulin
Albumin
Antistreptolysin O (ASO)
Apolipoprotein A-1

Apolipoprotein B
C1 Inhibitor
Ceruloplasmin
Complement C3
Complement C4
CRP
Cystatin C

Ferritin
Haptoglobin
Immunoglobulin A (IgA)
Immunoglobulin E (IgE)
Immunoglobulin G (IgG)
Immunoglobulin G Subclasses 1–4
Immunoglobulin M (IgM)

Kappa Light Chain
Lambda Light Chain
Prealbumin
Protein (Total)
Retinol Binding Protein (RBP)
Rheumatoid Factor
Transferrin

Liquichek Pediatric Control



- Monitors precision of analyte test procedures at higher concentrations important for neonatal testing
- Suitable for monitoring high Bilirubin levels important for adult liver disease.
- Liquid
- 14 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 3 year shelf life when stored at -20°C to -50°C

Ordering Information

Catalog #	Description
176	Level 1 6 x 2.5 mL
177	Level 2 6 x 2.5 mL
178X	Bilevel MiniPak (1 of each level) 2 x 2.5 mL

Analytes

Bilirubin (Direct)	Glucose
Bilirubin (Total)	Magnesium
Caffeine	Potassium
Calcium	Sodium
Chloride	Theophylline

Liquichek Spinal Fluid Control



- Multi-analyte control with relevant concentrations of analytes for cerebrospinal fluid tests
- Liquid, human based
- 30 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 2 year shelf life at 2–8°C

Ordering Information

Catalog #	Description
303	Level 1 6 x 2.5 mL
304	Level 2 6 x 2.5 mL
302X	Bilevel MiniPak (1 of each level) 2 x 2.5 mL

Analytes

Albumin	Lactate (Lactic Acid)
Chloride	Lactate Dehydrogenase (LDH)
Glucose	Protein (Total)
Immunoglobulin G (IgG)	Sodium

Did You Know. . .

Liquid Assayed Multiquel (pg. 97) and Liquichek Immunology Control (pg. 97) complement Liquichek Spinal Fluid Control for analytes also tested in serum. See individual product pages for more information.

Liquichek Tumor Marker Control



- Monitors the precision of tumor marker testing procedures
- Liquid, human based
- 10 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 2 year shelf life when stored at -20°C to -50°C

Ordering Information

Cat #	Description
27114	Level 1 6 x 2 mL
27115	Level 2 6 x 2 mL
27116	Level 3 6 x 2 mL
27115X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analytes

Alphafetoprotein (AFP)	Ferritin
β-2-Microglobulin	hCG
CA 15-3	Prolactin
CA 19-9	PSA (Free)
CA 125	PSA (Total)
Carcinoembryonic Antigen (CEA)	

Liquichek Urine Chemistry Control



- Monitors the precision of general urine chemistry testing procedures
- Includes Amylase and Creatinine
- Liquid, human urine based
- 30 day open-vial (punctured) stability for all analytes when stored at 2–8°C
- 2 year shelf life when stored refrigerated at 2–8°C

Ordering Information

Cat #	Description
195	Level 1 12 x 2.5 mL
196	Level 2 12 x 2.5 mL
198X	Bilevel MiniPak (1 of each level) 2 x 2.5 mL

Analytes

Amylase	Phosphorus
Calcium	Potassium
Chloride	Protein (Total)
Creatinine	Sodium
Glucose	Urea Nitrogen
Magnesium	Uric Acid
Microalbumin	



Therapeutic Drug Monitoring Controls

Be more confident when reporting TDM results with Bio-Rad's reliable QC products, regardless of what platform you use

TDM Controls

Liquichek Whole Blood Immunosuppressant Control	100
Lyphochek Whole Blood Immunosuppressant Control	100
Liquichek Therapeutic Drug Monitoring Control.	101
Lyphochek Therapeutic Drug Monitoring Control	101

Additional Information

Controls for Popular Instruments Chart	102
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See Also

- **Pages 18-21** for TDM analytes in Serum Chemistry controls
- **Pages 50-54** for TDM analytes in Immunoassay controls
- **Pages 84-85** for TDM analytes in Premium Controls

Did You Know?

- **Bio-Rad controls** provide assigned values for over 50 TDM methods to aid in providing consistently reliable results

For More Information

- **Brochure** Whole Blood Immunosuppressant Controls (Q-1604)
- **Brochure** Premium Controls for Immunochemistry (Q-1215)

Liquichek Whole Blood Immunosuppressant Control



- Multiple levels ranging from low to very high immunosuppressant concentrations
- Compatible with chromatography and most immunoassay methods
- Liquid, human blood based
- 3 year shelf life at -20°C to -70°C
- 14 day open-vial stability at 2-8°C for most analytes

Ordering Information

Cat #	Description
12000404	Level 1 6 x 2 mL
12000405	Level 2 6 x 2 mL
12000406	Level 3 6 x 2 mL
12000407	Level 4 6 x 2 mL
12000408	Four Level MiniPak (1 of each level) 4 x 2 mL

Lyphochek Whole Blood Immunosuppressant Control



- Multiple levels ranging from low to very high immunosuppressant concentrations
- Compatible with chromatography and most immunoassay methods.
- Lyophilized, human blood based
- 3 year shelf life at 2-8°C
- 14 day reconstituted stability at 2-8°C
- 30 day reconstituted stability at -20°C to -70°C

Ordering Information

Cat #	Description
274	Level 1 6 x 2 mL
275	Level 2 6 x 2 mL
276	Level 3 6 x 2 mL
277	Level 4 6 x 2 mL
278	Level 5 6 x 2 mL
279X	Five Level MiniPak (1 of each level) 5 x 2 mL

Analytes for Liquichek and Lyphochek Whole Blood Immunosuppressant Controls

Cyclosporine

Everolimus*

Sirolimus

Tacrolimus (FK 506)

*Available in Liquichek Whole Blood Immunosuppressant Control only.
Refer to myelnserts.com or the package insert of currently available lots for specific analyte and stability claims.

	Liquichek Whole Blood Immunosuppressant Control				Lyphochek Whole Blood Immunosuppressant Control				
	Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	Level 4	Level 5
Catalog Number	12000404	12000405	12000406	12000407	274	275	276	277	278
Everolimus		•	•	•					
Cyclosporine Sirolimus Tacrolimus	•	•	•		•	•	•		
Extended/High range methods, including chromatography: Cyclosporine Tacrolimus				•				•	•

Refer to the package insert for instrument-specific ranges for each level.

Did you know . . .

Both Liquichek and Lyphochek Whole Blood Immunosuppressant Controls include high levels of Cyclosporine, suitable for C2 monitoring.

Refer to myelnserts.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Therapeutic Drug Monitoring Control (TDM)



- For labs that run a high volume of serum therapeutic drug tests or prefer dedicated TDM controls
- Includes markers for monitoring thyroid function and some esoteric drugs
- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 180 day unopened-vial stability at 2–8°C for most analytes
- 30 day open-vial stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
724	Trilevel (4 of each level) 12 x 5 mL
725	Level 1 12 x 5 mL
726	Level 2 12 x 5 mL
727	Level 3 12 x 5 mL
724X	Trilevel MiniPak (1 of each level) 3 x 5 mL

Analytes

Acetaminophen	Digoxin	Nortriptyline*	T4 (Free)*
Amikacin	Disopyramide	Phenobarbital	T4 (Total)
Amitriptyline*	Estriol (Total)*	Phenytoin	Theophylline
Caffeine	Ethosuximide	Phenytoin (Free)	Thyroid Stimulating Hormone (TSH)
Carbamazepine	Flecainide*	Primidone	Tobramycin
Carbamazepine (Free)	Gentamicin	Procainamide	Tricyclic Antidepressants (TCA)
Chloramphenicol	Haloperidol*	Propranolol	Screen
Clonazepam*	Imipramine*	Quinidine	Valproic Acid
Cortisol	Lidocaine	Salicylate	Valproic Acid (Free)
Cyclosporine*	Lithium	T3 (Free)	Vancomycin
Desipramine	Methotrexate	T3 (Total)	
Diazepam	N-Acetylprocainamide (NAPA)	T3 Uptake/T-Uptake	

*No claims are made regarding performance or stability.

Lyphochek Therapeutic Drug Monitoring Control (TDM)



- For labs that run a high volume of serum therapeutic drug tests or prefer dedicated TDM controls
- Contains over 40 analytes including markers for monitoring thyroid function
- Human serum based
- 3 year shelf life at 2–8°C
- 30 day reconstituted stability at 2–8°C for most analytes

Ordering Information

Cat #	Description
450	Trilevel (4 of each level) 12 x 5 mL
451	Level 1 12 x 5 mL
452	Level 2 12 x 5 mL
453	Level 3 12 x 5 mL
450X	Trilevel MiniPak (1 of each level) 3 x 5 mL

Analytes

Acetaminophen	Disopyramide	Nortriptyline	T4 (Total)
Amikacin	Estriol (Total)*	Phenobarbital	Theophylline
Amiodarone*	Ethosuximide	Phenytoin	Thyroid Stimulating Hormone (TSH)
Amitriptyline	Flecainide*	Phenytoin (Free)	Tobramycin
Caffeine	Gentamicin	Primidone	Tricyclic Antidepressants (TCA)
Carbamazepine	Haloperidol*	Procainamide	Screen
Carbamazepine (Free)	Imipramine	Propranolol	Valproic Acid
Chloramphenicol	Lidocaine	Quinidine	Valproic Acid (Free)
Cortisol	Lithium	Salicylate	Vancomycin
Cyclosporine	Methotrexate	T3 (Total)	
Desipramine	N-Acetylprocainamide (NAPA)	T3 Uptake/T-Uptake	
Digoxin	Netilmicin*	T4 (Free)	

*No claims are made regarding performance or stability.

Did you know. . .

Serum based therapeutic drug testing analytes are also available in Bio-Rad's Premium, Immunoassay and Serum Chemistry Controls.

Use Bio-Rad's Therapeutic Drug Monitoring Controls on these popular instruments

Manufacturer/Instrument(s)	TDM (Liquid)	TDM (Lyophilized)	Whole Blood Immunosuppressant (Liquid)	Whole Blood Immunosuppressant (Lyophilized)
Abbott Diagnostics				
ARCHITECT Series	●	●	●	●
Beckman Coulter				
AU Series	●	●	●	●
UniCel DxC Series	●	●		
Ortho Clinical Diagnostics				
VITROS Series	●	●		
Roche Diagnostics				
Cobas 6000 Series/COBAS INTEGRA	●	●		
Elecsys		●		
Hitachi Systems/ MODULAR Systems	●	●		●
Siemens				
ADVIA Series	●	●		
ADVIA Centaur Series	●	●	●	●
Dimension Vista	●	●	●	●
Dimension Series	●	●	●*	●
IMMULITE Series	●	●		
Viva/V-Twin/Viva-E	●	●	●	●
Other				
Chromatography	●	●	●	●

*Required for Dimension Tacrolimus (TAC DF107)

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.



Put your data to work—it may be more valuable than you think!

You may be eligible to become a partner in product development and evaluation of new control lots while earning extra money for your laboratory. To learn more visit QCNet.com/ProductStudies/



Toxicology Controls

Bio-Rad has the expertise to assist your laboratory in choosing the right control for your method of analysis

Drugs-of-Abuse Controls

Liquichek Qualitative Urine Toxicology Controls.	104
Liquichek Urine Toxicology Negative Control.	104
Liquichek Opiate Control	105
Liquichek Urine Toxicology Screen Controls	106-108
Liquichek Urine Toxicology Confirm Controls.	109

Specialty Controls

Lyphocheck Drug Free Serum	110
Lyphocheck Benzo/TCA Control–Set B.	110
Liquichek Serum Volatiles Control	111
Lyphocheck Urine Metals Control	111
Lyphocheck Whole Blood Metals Control	111
Lyphocheck Whole Blood Control	112

Additional Information

Controls for Popular Specialty Toxicology	
Instruments Chart	112

Did You Know?

- **Bio-Rad Drugs-of-Abuse Controls** meet SAMHSA* and other agency guidelines and are made from human urine with pH, specific gravity and creatinine concentrations that fall within the limits of normal human urine
- **Certificates of Analysis** are available upon request. Please contact your Bio-Rad technical support representative for more information

For More Information

- **Brochure** Urine Toxicology Controls (Q-1551)
- **Brochure** Controls for Trace Metals Testing (Q-1552)
- **Flyer** Liquichek Opiate Control (Q-1627)

*United States Substance Abuse and Mental Health Services Administration.

Liquichek Qualitative Urine Toxicology Control, Negative and Positive

Use with qualitative urine drug panels, including POCT methods such as the Bio-Rad TOX/See



- Human urine
- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–25°C

POCT Methods Listed

Ordering Information

Cat #	Description
454	Negative Level 6 x 3 mL
455	Positive Level 6 x 3 mL
454X	Bilevel MiniPak (1 of each level) 2 x 3 mL

Qualitative Control

- Drug-free Negative or Strong Positive
- Smaller packaging
- Room temperature stable up to 30 days after opening

Analyte Target Values

Analytes	Negative* (ng/mL)	Positive (ng/mL)
Amphetamines		
d-Amphetamine	<50	2,000
d-Methamphetamine	<50	2,000
3, 4-Methylenedioxymethamphetamine (MDMA)	<75	750
Barbiturates		
Secobarbital	<50	1,000
Benzodiazepines		
Nordiazepam	<50	3,000
Oxazepam	<50	1,000
Cannabinoids		
11-Nor- Δ -9-THC-9-COOH	<3	150
Cocaine		
Benzoylcegonine	<30	4,000
Ethanol (mg/dL)	<20	250
Lysergic Acid Diethylamide (LSD)	<0.1	2.0
Methadone	<75	750
Methaqualone	<50	750
Opiates		
Morphine (Free)	<50	3,000
Oxycodone	<50	150
Phencyclidine (PCP)	<5	200
Propoxyphene	<50	750
Tricyclic Antidepressants		
Nortriptyline	<20	2,000

*Negative level has been tested and found to be negative for the analytes listed in the package insert. Values above represent the testing method's Limit of Quantitation (LOQ).

Liquichek Urine Toxicology Negative Control

Use with Screening or Confirmatory methods



- Confirmed negative by GC-MS, LC-MS or other methods for 32 common drugs or drug metabolites
- Human urine
- 3 year shelf life at 2–8°C
- 60 day open-vial stability when stored refrigerated at 2–8°C

Ordering Information

Cat #	Description
460	Negative Control 10 x 20 mL
460X	MiniPak 1 x 20 mL

Liquichek Opiate Control



- Contains eight drugs or drug metabolites, at concentrations above and below assay cutoffs
- This control has been tested by GC/MS, LC/MS/MS and other methods to confirm the recovery of drug concentration
- Representative values for screening and confirmatory methods provided
- Human urine
- 3 year shelf-life at -20°C to -70°C
- 30 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
12005786	Level 1 6 x 5 mL
12005787	Level 2 6 x 5 mL
12002594	Level 1 MiniPak 1 x 5 mL
12002595	Level 2 MiniPak 1 x 5 mL

Gravimetric Reference Values

Analyte (ng/mL)	Level 1	Level 2
6-Monoacetylmorphine (6-MAM, Heroin Metabolite)	7.5	12.5
Buprenorphine	5	15
EDDP (Methadone Metabolite)	50	150
Fentanyl	0.25	0.75
Meperidine*	100	300
Methadone	150	450
Oxycodone	50	150
Tramadol*	100	300

*International use only.



Opiate Control

Targeted for analytes tested in pain management or opioid treatment and compliance programs.

Liquichek Urine Toxicology Controls

SCREEN CONTROLS



Levels S1 & S2 Levels S1E & S2E

- Human urine
- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
438	Level S1E 10 x 10 mL
439	Level S2E 10 x 10 mL
461	Level S1 10 x 10 mL
462	Level S2 10 x 10 mL

MiniPaks also available



Determine your cutoff

Controls on this page recommended for High Opiate cutoff (2,000 ng/mL)



Gravimetric Reference Values

Select the controls best suited for your Benzodiazepine assays

	Level S1E	Level S2E	Level S1	Level S2
Example assays may include:	(e.g. Siemens EMIT II, EMIT DAT & Ortho VITROS)		(e.g. Roche OnLine)	
Analytes (ng/mL)	Lormetazepam		Nordiazepam	
Amphetamines				
d-Amphetamine	–	–	750	1,250
d-Methamphetamine	750	1,250	–	–
MDMA (Ecstasy)	–	–	–	–
Barbiturates				
Secobarbital	150	375	150	375
Benzodiazepines				
Lormetazepam	150	375	–	–
Nordiazepam	–	–	75	375
Oxazepam	–	–	–	–
Cannabinoids				
11-Nor-Δ-9-THC-9-COOH	37.5	65	37.5	65
Cocaine				
Benzoyllecgonine	225	375	225	375
Ethanol (mg/dL)	40	70	40	70
Lysergic Acid Diethylamide (LSD)	0.3	0.8	0.3	0.8
Methadone	225	375	225	375
Methaqualone	225	375	225	375
Opiates				
Morphine (Free)	1,500	2,500	1,500	2,500
Phencyclidine (PCP)	19	31	19	31
Propoxyphene	225	375	225	375
Tricyclic Antidepressants				
Nortriptyline	750	1,250	750	1,250

Refer to myelnserts.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Urine Toxicology Controls



Levels S1E & S2E Low Opiate

Levels S1 & S2 Low Opiate

- Human urine
- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

Levels S10 & S20 Low Opiate

- Human urine
- 2 year shelf life at -20 to -70°C
- 30 day open-vial stability at 2–8°C
- 45 day closed-vial stability at 2–8°C

SCREEN CONTROLS

Ordering Information

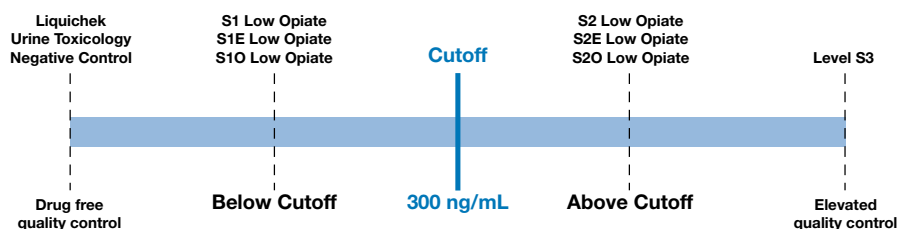
Cat #	Description
423	Level S1E Low Opiate 10 x 10 mL
424	Level S2E Low Opiate 10 x 10 mL
466	Level S1 Low Opiate 10 x 10 mL
467	Level S2 Low Opiate 10 x 10 mL
683	Level S10 Low Opiate 10 x 10 mL
706	Level S20 Low Opiate 10 x 10 mL

MiniPaks also available



Determine your cutoff

Controls on this page recommended for Low Opiate cutoff (300 ng/mL)



Gravimetric Reference Values

Select the controls best suited for your Benzodiazepine assays

	Level S1E Low Opiate	Level S2E Low Opiate	Level S1 Low Opiate	Level S2 Low Opiate	Level S10 Low Opiate	Level S20 Low Opiate
Example assays may include:	(e.g.: Siemens EMIT II & EMIT DAT, Ortho VITROS)		(e.g.: Roche OnLine)		(e.g.: Abbott Multigent, Thermo DRI)	
Analytes (ng/mL)	Lormetazepam		Nordiazepam		Oxazepam	
Amphetamines						
d-Amphetamine	–	–	750	1,250	–	–
d-Methamphetamine	750	1,250	–	–	750	1,250
MDMA (Ecstasy)	–	–	–	–	–	–
Barbiturates						
Secobarbital	150	375	150	375	150	375
Benzodiazepines						
Lormetazepam	150	375	–	–	–	–
Nordiazepam	–	–	75	375	–	–
Oxazepam	–	–	–	–	100	300
Cannabinoids						
11-Nor-Δ-9-THC-9-COOH	37.5	65	37.5	65	37.5	65
Cocaine						
Benzoylcegonine	225	375	225	375	225	375
Ethanol (mg/dL)	40	70	40	70	40	70
Lysergic Acid Diethylamide (LSD)	0.3	0.8	0.3	0.8	0.3	0.8
Methadone	225	375	225	375	225	375
Methaqualone	225	375	225	375	225	375
Opiates						
Morphine (Free)	225	375	225	375	225	375
Phencyclidine (PCP)	19	31	19	31	19	31
Propoxyphene	225	375	225	375	225	375
Tricyclic Antidepressants						
Nortriptyline	750	1,250	750	1,250	–	–

Liquichek Urine Toxicology Controls

SCREEN CONTROLS



Levels S1S & S2S

- Contains six drugs of abuse at concentrations 20-25% below and above SAMHSA's recommended cutoff levels
- Human urine
- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C



Determine your cutoff

Levels S1S & S2S recommended for labs running SAMHSA* cutoffs

Ordering Information

Catalog #	Description
409	Level S1S..... 10 x 10 mL
419	Level S2S..... 10 x 10 mL

MiniPaks also available



Level S3

- An elevated control for most urine Drugs-of-Abuse cutoffs
- For Low Opiate Cutoff
- Human Urine
- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C



Determine your cutoff

Level S3 recommended for labs that need an Elevated/Strong Positive control

Ordering Information

Catalog #	Description
463	Level S3..... 10 x 10 mL

MiniPaks also available

Gravimetric Reference Values

Analytes (ng/mL)	Level S1S	SAMHSA* Screen Cutoffs	Level S2S	Level S3
Amphetamines				
d-Amphetamine	–	–	–	2,000
d-Methamphetamine	375	500	625	–
MDMA (Ecstasy)	375	500	625	–
Barbiturates				
Secobarbital	–	–	–	1,000
Benzodiazepines				
Lormetazepam	–	–	–	–
Nordiazepam	–	–	–	1,000
Oxazepam	–	–	–	–
Cannabinoids				
11-Nor-Δ-9-THC-9-COOH	37.5	50	65	125
Cocaine				
Benzoylcegonine	113	150	185	500
Ethanol (mg/dL)	–	–	–	250
Lysergic Acid Diethylamide (LSD)	–	–	–	2.0
Methadone	–	–	–	750
Methaqualone	–	–	–	750
Opiates				
Morphine (Free)	1,500	2,000	2,500	750
Phencyclidine (PCP)	19	25	31	200
Propoxyphene	–	–	–	750
Tricyclic Antidepressants				
Nortriptyline	–	–	–	2,000

*United States Substance Abuse and Mental Health Services Administration.

Refer to myInserTs.com or the package insert of currently available lots for specific analyte and stability claims.

Liquichek Urine Toxicology Controls

CONFIRM CONTROLS



- Human urine
- 3 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

Level C1

Contains drugs at the Limit of Quantitation (LOQ) or at very low concentrations

Levels C2 & C2 Low Opiate

Contains drugs at 20–25% below confirmatory drug cutoff levels

Levels C3 & C3 Low Opiate

Contains drugs at 20–25% above confirmatory drug cutoff levels

Level C4

Contains drugs at elevated concentrations

Ordering Information

MiniPaks also available

Catalog #	Description	Catalog #	Description
441	Level C1. 10 x 20 mL	444	Level C4. 10 x 20 mL
442	Level C2. 10 x 20 mL	468	Level C2 Low Opiate . . . 10 x 20 mL
443	Level C3. 10 x 20 mL	469	Level C3 Low Opiate . . . 10 x 20 mL

Gravimetric Reference Values

Analytes (ng/mL)

	Designed for SAMHSA* Cutoff					
	Level C1	Level C2	Level C3	Level C4	Level C2 Low Opiate	Level C3 Low Opiate
d-Amphetamine	100	188	312	750	375	625
d-Methamphetamine	100	188	312	750	375	625
3, 4-Methylenedioxymethamphetamine (MDMA)	100	188	312	750	–	–
3, 4-Methylenedioxyamphetamine (MDA)	100	188	312	750	–	–
3, 4-Methylenedioxy-N-ethylamphetamine (MDEA)	100	188	312	750	–	–
Amobarbital	80	150	250	1,200	150	250
Butalbital	80	150	250	1,200	150	250
Pentobarbital	80	150	250	1,200	150	250
Phenobarbital	80	150	250	1,200	150	250
Secobarbital	80	150	250	1,200	150	250
Alpha-Hydroxyalprazolam	80	225	375	1,000	225	375
Nordiazepam	80	225	375	1,000	225	375
Oxazepam**	**	**	**	**	**	**
11-Nor-Δ-9-THC-9-COOH	6	11.5	18.5	150	11.5	18.5
Benzoyllecgonine	40	75	125	300	115	185
Ethanol (mg/dL)	20	40	70	250	40	70
Lysergic Acid Diethylamide (LSD)	0.2	0.35	0.65	4.0	0.35	0.65
Methadone	120	225	375	1,000	225	375
EDDP (Methadone Metabolite)**	**	**	**	**	**	**
Methaqualone	120	225	375	1,000	225	375
6-Monoacetylmorphine**	**	**	**	**	**	**
Codeine	120	1,500	2,500	4,000	225	375
Morphine-3-β-d-Glucuronide	120	1,500	2,500	4,000	225	375
Phencyclidine (PCP)	10	19	31	100	19	31
Norpropoxyphene	120	225	375	1,000	225	375
Propoxyphene	120	225	375	1,000	225	375

*United States Substance Abuse and Mental Health Services Administration.

**Analyte present, no claims are made regarding performance or stability.

Bio-Rad Controls for Lead, Alcohol, Environmental Toxins and Other Specialty Tests



Bio-Rad offers QC solutions for the unique challenges of specialty toxicology testing, such as drug-free baseline serum or a control suitable for the special needs of analytical methods. Other specialty controls are available for monitoring drugs, lead, metals and volatile compounds.

Lyphochek Drug Free Serum



- Tested by HPLC and other methods
- Found to be drug free for more than 60 therapeutic drugs and illicit compounds
- Human serum
- 3 year shelf life at 2–8°C
- 10 day reconstituted stability at 2–8°C

Ordering Information

Catalog #	Description
456	Single Level 12 x 10 mL
456X	MiniPak 1 x 10 mL

Analytes

Acetaminophen	Desipramine	Meperidine	Phenytoin
Alprazolam	Desmethyldoxepin	Methadone	Primidone
Amikacin	Diazepam	Methamphetamine	Procainamide
Amitriptyline	Digitoxin	Methaqualone	Propoxyphene
Amphetamine	Digoxin	Methotrexate	Propranolol
Caffeine	Disopyramide*	Methyprylon	Pyrimidine
Cannabinoids	Doxepin	Morphine	Quinidine
Carbamazepine	Ethosuximide	N-Acetylprocainamide (NAPA)	Quinine
Chloramphenicol	Flecainide	Nicotine	Salicylate
Chlordiazepoxide	Gentamicin	Norclomipramine	Secobarbital
Cimetidine	Glutethimide	Nordiazepam	Theophylline
Clomipramine	Haloperidol	Nordoxepin	Tobramycin
Clonazepam	Hydromorphone	Nortriptyline	Trazodone
Cocaine	Ibuprofen	Oxazepam	Valproic Acid
Codeine	Imipramine	Phencyclidine (PCP)	Vancomycin
Cyclosporine	Lidocaine	Phenobarbital	
Desalkylflurazepam	Lithium	Phenothiazines	

*No claim is made for expected value or stability.

Lyphochek Benzo/TCA Control–Set B



- Used in conjunction with separation techniques, such as chromatography or mass spectrometry in identification and quantification of benzodiazepine and tricyclic antidepressant drugs
- Compatible with Roche COBAS INTEGRA Serum Benzodiazepines Assay for Alprazolam measurements
- Human serum based
- 3 year shelf life at 2–8°C
- 14 day reconstituted stability at 2–8°C

Ordering Information

Catalog #	Description
663	Level 1 6 x 5 mL
664	Level 2 6 x 5 mL
665X	Bilevel MiniPak (1 of each level) 2 x 5 mL

Analytes

Alprazolam	Norclomipramine
Clomipramine	Trazodone

Clonazepam has been added to this product as a service to laboratories that wish to investigate this analyte. No claims are made regarding performance or stability.

Liquichek Serum Volatiles Control



- Value assigned for volatile substances by multiple methods, including GC and clinical methods (Ethanol)
- Serum based
- 3 year shelf life at 2–8°C
- 10 day open-vial stability at 2–8°C

Ordering Information

Cat #	Description
383	Level 1 6 x 5 mL
384	Level 2 6 x 5 mL
385X	Bilevel MiniPak (1 of each level) 2 x 5 mL

Analytes

Acetone	Ethylene Glycol	Isopropanol (Isopropyl Alcohol)	Methanol (Methyl Alcohol)
Ethanol			

Lyphocheck Urine Metals Control



- Supports toxicological environmental and industrial testing by providing assayed values of critical trace elements, heavy metals and organic metabolites by AA, GC-MS, HPLC and ICP-MS
- Human urine
- 3 year shelf life at 2–8°C
- 5 day reconstituted stability at 2–8°C
- 30 day reconstituted stability at -10°C to -20°C

Ordering Information

Catalog #	Description
400	Level 1 10 x 25 mL
405	Level 2 10 x 25 mL
402X	Bilevel MiniPak (1 of each level) 2 x 25 mL

Analytes

5-Aminolevulinic Acid (ALA)	Cobalt	Mandelic Acid	Phenylglyoxylic Acid
Aluminum	Copper	Manganese	Selenium
Antimony	Fluoride	Mercury	Thallium
Arsenic	Hippuric Acid	Nickel	Trichloroacetic Acid
Cadmium	Lead	Pentachlorophenol	Zinc
Chromium	Magnesium	Phenol	

Lyphocheck Whole Blood Metals Control



- Contains major heavy metals of toxicological and environmental significance for whole blood analysis
- Assayed values for Lead include AA, ASV, ICP-MS and IDMS
- Human whole blood based
- 3 year shelf life at 2–8°C
- 14 day reconstituted stability at 2–8°C

Ordering Information

Catalog #	Description
527	Level 1 6 x 2 mL
528	Level 2 6 x 2 mL
529	Level 3 6 x 2 mL
528X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analytes

Arsenic	Mercury
Cadmium	Thallium
Lead	

Lyphochek Whole Blood Control



- Assayed values for Red Cell Folate for common clinical methods
- Assayed values for Lead include AA, ASV, ICP-MS
- Human whole blood based
- 3 year shelf life at 2–8°C
- 2 day reconstituted stability at 2–8°C (Folate)
- 14 day reconstituted stability at 2–8°C (Lead)
- 30 day reconstituted stability at -10° to -20°C

Ordering Information

Catalog #	Description
561	Level 1 6 x 2 mL
562	Level 2 6 x 2 mL
563	Level 3 6 x 2 mL
560X	Trilevel MiniPak (1 of each level) 3 x 2 mL

Analytes

Lead	Red Cell Folate	Serotonin*
------	-----------------	------------

*No claims are made regarding performance or stability.

Use Bio-Rad's Specialty Toxicology Controls on these popular instruments

Manufacturer/Instrument(s)	Drug Free Serum	Serum Volatiles	Urine Metals	Whole Blood Metals	Benzo/TCA Set B	Whole Blood Control
Abbott Diagnostics						
ARCHITECT Series		●				
Beckman Coulter						
Access Series/UniCel Dxl						●
AU Series		●				
UniCel Dx Series	●	●				
Ortho Clinical Diagnostics						
VITROS Series		●				
VITROS Eci						●
Roche Diagnostics						
Cobas 6000 Series/COBAS INTEGRA		●			●	
Elecsys Systems						●
Hitachi Systems		●				
Siemens						
ADVIA Systems		●				
ADVIA Centaur Systems	●					●
Dimension Vista	●	●				
Dimension Series		●				
IMMULITE Series						●
V-Twin/Viva-E Series	●					
Tosoh						
AIA Series						●
Other						
AA, AA Graphite Furnace			●	●		●
GC, GC-MS	●	●	●			
ICP-MS			●	●		●
LC-MS/MS, HPLC	●				●	

If your instrument model is not listed, please contact your nearest Bio-Rad office for current control information.

Glossary

AA = Atomic Absorption

GC, GC-MS = Gas Chromatography, Gas Chromatography-Mass Spectrometry

ICP-MS = Inductively Coupled Plasma-Mass Spectrometry

LC-MS/MS, HPLC = Liquid Chromatography-Mass Spectrometry/Mass Spectrometry, High Performance Liquid Chromatography



Urinalysis Controls

Versatile packaging and comprehensive analytes for today’s laboratory

Urinalysis Controls

qUAntify Advance Control	114
qUAntify Plus Control	114
Liquichek Urinalysis Control	115

Did You Know?

- **Bio-Rad Urinalysis** controls are available in a variety of convenient packaging options, including dropper bottles, flip-top squeeze bottles and centrifuge tubes

For More Information

- **Brochure** Urinalysis Controls (Q-1508)

Please note that not all products may be available in all countries.

qUAntify Advance Control



- Available in an easy-to-use plastic squeeze bottle
- Dipstick tests include Pregnancy and Microalbumin
- Human urine solution
- 18 month shelf life at 2-8°C
- 31 day open-vial stability at 2-25°C, including ketones

Ordering Information

Cat #	Description
12007028	Bilevel (3 of each level) 6 x 12 mL
12007029	Bilevel MiniPak (1 of each level) 2 x 12 mL

Analytes

Albumin	Glucose	Nitrite	Specific Gravity
Ascorbic Acid	Hemoglobin (HGB)	pH	Urobilinogen
Bilirubin	Ketones	Pregnancy (hCG)	
Blood	Leukocytes	Protein (Total)	
Creatinine	Microalbumin	Protein-to-Creatinine Ratio	

qUAntify Plus Control

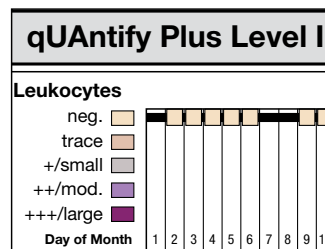


- Choose from a conical 12 mL tube or 120 mL flip top squeeze bottle
- Both options can be used for urine dipstick and microscopic testing
- Liquid
- 2 year shelf life at 2-8°C
- 31 day open-vial stability at 2-25°C for most analytes

POCT Methods Listed

Ordering Information

Catalog #	Description
995	Bilevel (5 of each level)/Tube 10 x 12 mL
995X	Bilevel MiniPak (1 of each level)/Tube. 2 x 12 mL
962	Bilevel (2 of each level)/Bottle 4 x 120 mL
963	Level 1/Bottle. 4 x 120 mL
964	Level 2/Bottle. 4 x 120 mL
962X	Bilevel MiniPak (1 of each level)/Bottle. 2 x 120 mL



Example Peer Group Report

Analytes

Albumin	Microscopics (RBC, WBC, Crystals, Casts)
Albumin-to-Creatinine Ratio	Nitrite
Ascorbic Acid*	pH
Bilirubin	Pregnancy (hCG)
Blood	Protein (Total)
Creatinine	Protein-to-Creatinine Ratio
Glucose	Specific Gravity
Hemoglobin (HGB)	Urobilinogen
Ketones	
Leukocytes	
Microalbumin	

*Tested and found to be negative.



Optimize your Urinalysis workflow by choosing from our diverse selection of user-friendly Urinalysis Controls.

Liquichek Urinalysis Control



- Ready-to-use urine control formulated to monitor the precision of dipstick and microscopic analyzers
- Available in 12 mL glass vials
- Liquid, human urine based
- 2.5 year shelf life at 2–8°C
- 30 day open-vial stability at 2–25°C

Ordering Information

Catalog #	Description
435	Bilevel (6 of each level) 12 x 12 mL
436	Level 1 12 x 12 mL
437	Level 2 12 x 12 mL
435X	Bilevel MiniPak (1 of each level) 2 x 12 mL

Analytes

Bilirubin	Ketones	Nitrite	Protein-to-Creatinine Ratio
Blood	Leukocytes	Osmolality	Specific Gravity
Clarity	Microalbumin	pH	Urobilinogen
Color	Microscopics (RBC, WBC,	Pregnancy (hCG)	
Creatinine	Crystals, Casts)	Protein (Total)	
Glucose			

Refer to myelInserts.com or the package insert of currently available lots for specific analyte and stability claims.

Dispenser Tips for Screw Caps



- For controls fitted with a screw cap closure
- Disposable plastic tips enable fluid delivery directly from glass vial
- Reduces risk of product contamination that may be introduced via pipetting
- Easy and convenient to use

Ordering Information

Catalog #	Description
987000	Dispenser Tips for Screw Caps 100/Package

Dispenser Tips for Crimp Seals



- For controls fitted with a metal crimp seal and stopper
- Plastic tips allow the glass vial to be used as a dropper bottle
- Easy and convenient to use

Ordering Information

Catalog #	Description
588	Dispenser Tips for Crimp Seals 50/Package

Blood Gas Ampule Breaker



- Designed to reduce the risk of injury when opening blood gas ampules
- Easy and convenient to use
- Reusable

Ordering Information

Catalog #	Description
587	Blood Gas Ampule Breaker 1 each

Quality Control Tray



- 28-position durable acrylic tray to prepare or transport controls
- Accommodates up to 10 large and 18 standard sized control vials or dropper bottles
- Dimensions: 10" x 9.5" x 1.25" (25.4 cm x 24.1 cm x 3.2 cm)

Ordering Information

Catalog #	Description
12000846	Quality Control Tray 1 unit

Unity Binder



- Keep your Unity Interlaboratory Program reports organized and readily available
- 2 inch Capacity
- 3-Ring for Letter Size (8.5 x 11 inches)
- Monthly Tabs Provided

To request a binder, please call your local Bio-Rad office.



Resources

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Did You Know?

- **Bio-Rad controls** offer over **560** analytes

See page number

- Analyte present
- Analyte present in endogenous levels
- Analyte present and no claims are made regarding performance or stability
- Analyte present in endogenous levels and no claims are made regarding performance or stability
- ▶ Tested and found to be negative
- ◆ Specimen validity criteria
- ✖ Values not for diagnostic use
- ▲ No claim is made for expected value or stability

3-Methoxytyramine																															
5-Aminolevulinic Acid (ALA)																															
5-HIAA																															
6-Monoacetylmorphine						■																									
11-Ketoetiiocholanolone																															
11-Nor-Δ-9-THC-9-COOH						●																									
11-Ketoandrosterone																															
11-Deoxycortisol																											▲	●			
11-β-Hydroxy-Androsterone																															
11-β-Hydroxy-Etiocholanolone																															
17-α-Hydroxyprogesterone																											▲	●			
17-Hydroxycorticosteroids																															
17-Ketosteroids																															
17-Ketogenic Steroids																															
25-Hydroxy Vitamin D						●																					▲	○	●		
α-1-Acid Glycoprotein						●						○																		●	
α-1-Antitrypsin						○					○	○	○																	●	
α-1-Globulin						○						○																			
α-2-Globulin						○						○																			
α-2-Macroglobulin																														●	
αHBDH											○	○	○																		
β-2-Microglobulin						●							○																●	●	
β-Globulin						○																									
β-hCG						●																									
γ-Globulin						○						○																			
Acetaminophen						●					●	●	●															●	●	●	
Acetone																															
Acid Phosphatase (Total)						●					●	●	●																		
ACTH																											●		●		
Activated Partial Thromboplastin Time (APTT)																												●			
ADH																												▲			
ADNase B																														●	
ALA																															
Albumin						●					●	●	●																	●	
Albumin (BCG)						●																									
Albumin (BCP)						●																									
Albumin-to-Creatinine Ratio																															
Albumin-to-Globulin Ratio						○																									
Alcohol (Ethanol)						●						●	●														●				
Alcohol (Isopropanol)																															
Alcohol (Methanol)																															
Aldolase																															
Aldosterone																											●	●	●		
Alkaline Phosphatase (ALP)						●					●	●	●																		
Alpha-Hydroxyalprazolam						●																									
Alphafetoprotein (AFP)						●					○																●		●	●	●
Alprazolam																															
ALT/SGPT						●					●	●	●																		
Aluminum																															
Amikacin						●						●	●															●	●	●	
Amiodarone																												▲	▲		
Amitriptyline																												▲	●		

58	20	54	54	31	22	105	21	114	114	22	59	47	111	52	52	60	101	101	53	53	20	19	18	115	56	23	111	112	100	100	111	See page number		
Immunology Plus (Lyophilized)	Lipids	Maternal Serum 1st Trimester	Maternal Serum II	Meter Trax	Microalbumin	Opiate	Pediatric	qUAntify Advance	qUAntify Plus	Quantitative Urine	Rheumatoid Factor	Sedimentation Rate	Serum Volatiles	Specialty Immunoassay (Liquid)	Specialty Immunoassay (Lyophilized)	Spinal Fluid	TDM (Liquid)	TDM (Lyophilized)	Tumor Marker (Liquid)	Tumor Marker Plus (Lyophilized)	Unassayed Chemistry (Liquid)	Unassayed Chemistry (Lyophilized)	Unassayed Multiquial	Urinalysis	Urine Bone Markers	Urine Chemistry	Urine Metals	Whole Blood	Whole Blood Immunosuppressant (Liquid)	Whole Blood Immunosuppressant (Lyophil.)	Whole Blood Metals	● Analyte present ○ Analyte present in endogenous levels ■ Analyte present and no claims are made regarding performance or stability □ Analyte present in endogenous levels and no claims are made regarding performance or stability ⬛ Tested and found to be negative ◆ Specimen validity criteria ✖ Values not for diagnostic use ▲ No claim is made for expected value or stability		
										●																	●					3-Methoxytyramine		
										●																	●					5-Aminolevulinic Acid (ALA)		
						●				●																						5-HIAA		
										▲																						6-Monoacetylmorphine		
										▲																						11-Ketoetiocholanolone		
										▲																						11-Nor-Δ-9-THC-9-COOH		
										▲																						11-Ketoandrosterone		
										▲																						11-Deoxycortisol		
										▲																						11-β-Hydroxy-Androsterone		
										▲																						11-β-Hydroxy-Etiocholanolone		
										●																						17-α-Hydroxyprogesterone		
										●																						17-Hydroxycorticosteroids		
										●																						17-Ketosteroids		
										●				●	●																	17-Ketogenic Steroids		
●																																25-Hydroxy Vitamin D		
●																						○	○									α-1-Acid Glycoprotein		
																																	α-1-Antitrypsin	
																																	α-1-Globulin	
●																																	α-2-Globulin	
																						○	○	○									α-2-Macroglobulin	
●																						○	○	○		▲							αHBDH	
																																	β-2-Microglobulin	
																																		β-Globulin
																																		β-hCG
																																		γ-Globulin
																																		Acetaminophen
																																		Acetone
																																		Acid Phosphatase (Total)
																																		ACTH
																																		Activated Partial Thromboplastin Time (APTT)
																																		ADH
																																		ADNase B
●								●	●													●	●	●				●					ALA	
																																		Albumin
																																		Albumin (BCG)
																																		Albumin (BCP)
									●																									Albumin-to-Creatinine Ratio

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Ammonia					●																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</
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58	20	54	54	31	22	105	21	114	114	22	59	47	111	52	52	60	101	101	53	53	20	19	18	115	56	23	111	112	100	100	111	See page number	
Immunology Plus (Lyophilized)	Lipids	Maternal Serum 1st Trimester	Maternal Serum II	Meter Trax	Microalbumin	Opiate	Pediatric	qUantify Advance	qUantify Plus	Quantitative Urine	Rheumatoid Factor	Sedimentation Rate	Serum Volatiles	Specialty Immunoassay (Liquid)	Specialty Immunoassay (Lyophilized)	Spinal Fluid	TDM (Liquid)	TDM (Lyophilized)	Tumor Marker (Liquid)	Tumor Marker Plus (Lyophilized)	Unassayed Chemistry (Liquid)	Unassayed Chemistry (Lyophilized)	Unassayed Multiquant	Urinalysis	Urine Bone Markers	Urine Chemistry	Urine Metals	Whole Blood	Whole Blood Immunosuppressant (Liquid)	Whole Blood Immunosuppressant (Lyoph.)	Whole Blood Metals		
																																Ammonia	
										▲																						Amobarbital	
																																AMP (Cyclic)	
																																Amphetamines	
																																Amylase	
																																Amylase (Alpha)	
																																Amylase (Pancreatic)	
																																ANA, Centromere Pattern	
																																ANA, Homogeneous Pattern	
																																ANA, Mitotic Spindle Pattern	
																																ANA, Nucleolar Pattern	
																																ANA, Speckled Pattern	
																																Androstenedione	
										▲																						Androsterone	
																																Angiotensin I	
																																Anti-CCP	
																																Anti-Cytomegalovirus (CMV)	
																																Anti-HAV	
																																Anti-HBc	
																																Anti-HBe	
																																Anti-HBs	
																																Anti-HCV	
																																Anti-HIV-1	
																																Anti-HIV-2	
																																Anti-HTLV-I	
																																Anti-HTLV-I/II	
																																Anti-HTLV-II	
																																Anti-Mitochondrial	
																																Anti-Mullerian Hormone	
																																Anti-nDNA	
																																Anti-RNP	
																																Anti-Scl-70	
																																Anti-Sm	
																																Anti-Smooth Muscle	
																																Anti-SS-A	
																																Anti-SS-B	
														●																		Anti-Thyroglobulin (Anti-Tg)	
														●																		Anti-Thyroperoxidase (Anti-TPO)	
																																Anti-Treponema pallidum (Syphilis)	
●																												●				Antimony	
																																Antistreptolysin O (ASO)	
	○																															Antithrombin III (AT III)	
	○																					○	○									Apolipoprotein A-1	
																						○	○									Apolipoprotein B	
								●	▶																		●					●	Arsenic
																																	Ascorbic Acid
																																	AST/SGOT
																																	Autoimmune Negative
										▲																							Barbiturates
																																	Basophils (BASO)
																																	Benzodiazepines

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Benzoyllecgonine (Cocaine Metabolite)						●																									
Bile Acids																															
Bilirubin																															
Bilirubin (Direct)						●				●	●	●																			
Bilirubin (Indirect)										●																					
Bilirubin (Neonatal)						●					●	●																			
Bilirubin (Total)						●				●	●	●																			
Blood																															
BNP			●			●																									
<i>Borrelia burgdorferi</i> IgG					●																										
Buprenorphine																															
Butalbital																															
C-Peptide						●																						●			
C-Telopeptide (CTX)																															
C1 Inhibitor																													●		
CA 15-3						●																						●			
CA 19-9						●																						●			
CA 27.29						●																									
CA 50*																															
CA 72-4*						●																									
CA 125						●																							●		
Cadmium																															
Caffeine												●							▶								●	●	●		
Calcitonin																												●			
Calcium						●				●	●																				
Calcium (CPC)						●																									
Calcium (Ionized)		●				●				○	●	●																			
Calcium (Total)										●	●	●																			
Cannabinoid Metabolite												●																			
Cannabinoids																			▶												
Carbamazepine						●				●	●	●							▶								●	●	●		
Carbamazepine (Free)																											▲	▲			
CASA*																															
Casts																															
CEA						●				○																	●	●	●		
Cellular Hemoglobin Concentration Mean (CHCM)				●																											
Cellular Hemoglobin Concentration Mean of Gated Red Blood Cells (CHCMg)				●																											
Cellular Hemoglobin Concentration Mean of Reticulocytes (CHCMr)				●																											
Centromere Pattern													●																		
Ceruloplasmin						○				○	○	○																	●		
CH50																													▲		
<i>Chlamydia trachomatis</i>					●																										
<i>Chlamydia trachomatis</i> IgG					●																										
Chloramphenicol																			▶								▲	●			
Chlordiazepoxide																			▶												
Chloride		●				●				●	●	●																			
Cholesterol (HDL)						●				●	●	●																			
Cholesterol (LDL)						●				●	●	●																			
Cholesterol (Total)						●				●	●	●																			
Cholinesterase						○				○	○	○																			
Chromium																															
Cimetidine																			▶												

*International use only.

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	140	140	141	146	142	104	60	54	55	19	18	84	61	110	26	27	30	30	110	59	55	21	54	30	31	26	55	50	51	85	58
	See Blood Gas Chart	See Cardiac Assessment Chart	See Hematology Chart	See Infectious Disease/Molecular Chart	See IntelliQ Chart	See Urine Toxicology Charts	Allergen sIgE	AMH	Anemia	Assayed Chemistry	Assayed Multiquant	Assayed Multiquant Premium	Autoimmune	Benzo/TCA-Set B	Coagulation	D-dimer	Diabetes (Liquid)	Diabetes (Lyophilized)	Drug Free Serum	Elevated CRP	Endocrine	Ethanol/Ammonia	Fertility	Hemoglobin A1C Linearity Set	Hemoglobin A ₂	Hemostasis	Hypertension Markers	Immunoassay Plus (Liquid)	Immunoassay Plus (Lyophilized)	Immunoassay Premium	Immunology (Liquid)
CK (Total)	●				●																										
CK-MB Isoenzyme	●				●						▲																	●			
Clarity																															
Clomipramine														●					▶												
Clonazepam																			▶												
Clostridium difficile (<i>C. diff.</i>)				●																											
CO ₂					●					●	●	●																			
Cobalt										●	●	●																			
Cocaine					●														▶												
Cocaine Metabolite					●																										
Codeine					●														▶												
Color																															
Complement C1q																															
Complement C3					○					○	○	○																			●
Complement C4					○					□	○	○																			●
Copper					○					○	○	○																			
Coproporphyrin																															
Cortisol				●	●					●	●	●															●	●	●	●	
Creatine Kinase (CK)				●	●					●	●	●																			
Creatinine				●	◆					●	●	●																			
CRP	●			●	●					●	●	●								●											●
Crystals																															
Cyclosporine																			▶									●	▲		
Cyfra 21-1*				●																										●	
Cystatin C				○								○																			○
Cystine																															
Cytomegalovirus (CMV) IgG				●																											
Cytomegalovirus (CMV) IgM				●																											
D1 House Dust Mite (<i>D. pteronyssinus</i>)							●																								
D2 House Dust Mite (<i>D. farinae</i>)							●																								
d-Amphetamine					●																										
D-dimer																●															
d-Methamphetamine					●																										
Dehydroepiandrosterone (DHEA)																												▲	▲		
Deoxypyridinoline (DPD)																															
Desalkylflurazepam																			▶												
Desipramine																			▶										▲	▲	
Desmethyldoxepin																			▶												
DHEA Sulfate				●																								●	●	●	
Diazepam																			▶												
Digitoxin	●			●															▶				●								
Digoxin				●						●	●	●							▶									●	●	●	
Disopyramide												●							▲									▲	●	●	
Dopamine																					●										
Doxepin																			▶												
E1 Cat Dander (<i>Felis domesticus</i>)							●																								
E3 Horse Dander (<i>Equus caballus</i>)							●																								
E5 Dog Dander (<i>Canis familiaris</i>)							●																								
EBNA IgG				●																											
EBV EA-D IgG				●																											
Ecstasy (MDMA)					●																										
EDDP (Methadone Metabolite)					■																										

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Eosinophils (EOS)				●																												
Epinephrine																					●											
Epstein-Barr Virus (VCA) IgG					●																											
Epstein-Barr Virus (VCA) IgM					●																											
Erythrocyte Sedimentation Rate (ESR)				●																												
Erythropoietin (EPO)						●																										
Estradiol						●																	●					●	●	●		
Estriol (Free)																							●					●	●	●		
Estriol (Total)																							▲					▲	▲			
Estrogen (Total)																												▲	●			
Ethanol						●	●					●	●									●										
Ethosuximide																						⌋						●	●	●		
Ethylene Glycol																																
Etiocanolone																																
Everolimus																																
F1 Egg White (<i>Gallus spp.</i>)								●																								
F2 Cow Milk (<i>Bos. spp.</i>)								●																								
F13 Peanut (<i>Arachis hypogaea</i>)								●																								
Factors II, V, VII, VIII, IX, X, XI and XII																												●				
Fentanyl																																
Ferritin						○			●		○	○											●					●	●	●	●	
Fibrinogen																											●					
Flecainide																																
Fluoride																																
Folate						●			●																				●	●	●	
Folate (RBC)																																
Fructosamine																													□	□		
FSH						●																	●					●	●	●		
G2 Bermuda Grass (<i>Cynodon dactylon</i>)								●																								
G3 Cocksfoot/Orchard Grass (<i>Dactylis glomerata</i>)								●																								
G6 Timothy Grass (<i>Phleum pratense</i>)								●																								
Gastrin																														●		
Gentamicin						●				●	●	●																	●	●	●	
GGT						●				●	●	●																				
GLDH										○																						
Globulin										○	○	○																				
Glucagon																														▲		
Glucose	●									●	●	●																				
Glucose (Hexokinase)						●																										
Glutethimide							■																									
Granulocytes (GRAN)				●																												
Haloperidol																																
Haptoglobin							○			○	○	○																			●	
HAV-IgM					●																											
HBc-IgM					●																											
HBDH																																
HBeAg					●																											
HBsAg					●																											
hCG						●																	●					●	●			
hCG (Intact)						●																										
hCG (Total)						●																										
hCG-β Subunit									○														●					●	●	●		

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hCG-β Subunit (Free)																															
HDL Cholesterol										●	●	●																			
HE4 (Human Epididymis Protein 4)																															
Helicobacter pylori IgG																															
Hematocrit (HCT)																															
Hemoglobin (HGB)	●																														
Hemoglobin (Total)																															
Hemoglobin (Total Glycated)																															
Hemoglobin A1																															
Hemoglobin A1C																															
Hemoglobin A ₂																															
Hemoglobin Concentration Distribution Width (HDW)																															
Hemoglobin F																															
Hemoglobin S																															
Hemolysis																															
Hemopexin																															
Hepatitis B Virus (HBV)																															
Hepatitis C Virus (HCV)																															
HER2/neu																															
Heroin Metabolite																															
Herpes Simplex Virus Type 1 (HSV-1) IgG																															
Herpes Simplex Virus Type 1 (HSV-1) IgM																															
Herpes Simplex Virus Type 2 (HSV-2) IgG																															
Herpes Simplex Virus Type 2 (HSV-2) IgM																															
hGH																															
Hippuric Acid																															
HIV-1 Ag																															
Homocysteine																															
Homogenous Pattern																															
hs-CRP																															
Human Immunodeficiency Virus Type 1 (HIV-1)																															
Human Papillomavirus (HPV)																															
HVA																															
Hydromorphone																															
Hydroxyproline (Free)																															
Hydroxyproline (Total)																															
Ibuprofen																															
Icterus																															
Imipramine																															
Immature Reticulocyte Fraction (IRF)																															
Immunoglobulin A (IgA)																															
Immunoglobulin E (IgE)																															
Immunoglobulin G (IgG)																															
Immunoglobulin G Subclasses 1–4																															
Immunoglobulin M (IgM)																															
Immunoreactive Trypsinogen (IRT)																															
Inhibin A																															
Insulin																															
Insulin Growth Factor I (IGF-I)																															
Intact PTH																															
Iron																															
Iron (TIBC)																															

58	20	54	54	31	22	105	21	114	114	22	59	47	111	52	52	60	101	101	53	53	20	19	18	115	56	23	111	112	100	100	111	See page number
Immunology Plus (Lyophilized)	Lipids	Maternal Serum 1st Trimester	Maternal Serum II	Meter Trax	Microalbumin	Oplate	Pediatric	qUAntify Advance	qUAntify Plus	Quantitative Urine	Rheumatoid Factor	Sedimentation Rate	Serum Volatiles	Specialty Immunoassay (Liquid)	Specialty Immunoassay (Lyophilized)	Spinal Fluid	TDM (Liquid)	TDM (Lyophilized)	Tumor Marker (Liquid)	Tumor Marker Plus (Lyophilized)	Unassayed Chemistry (Liquid)	Unassayed Chemistry (Lyophilized)	Unassayed Multiquant	Urinalysis	Urine Bone Markers	Urine Chemistry	Urine Metals	Whole Blood	Whole Blood Immunosuppressant (Liquid)	Whole Blood Immunosuppressant (Lyophil.)	Whole Blood Metals	
	●	●			●			●	●										●		▲	●	●									hCG-β Subunit (Free)
																																HDL Cholesterol
																																HE4 (Human Epididymis Protein 4)
																																<i>Helicobacter pylori</i> IgG
																																Hematocrit (HCT)
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																																Hemoglobin (Total)
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																																Hemoglobin A ₂
																																Hemoglobin Concentration Distribution Width (HDW)
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																																Hemolysis
																																Hemopexin
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											▲																					Hydromorphone
											●																					Hydroxyproline (Free)
																																Hydroxyproline (Total)
																																Ibuprofen
																																Icterus
																		▲	●													Imipramine
																																Immature Reticulocyte Fraction (IRF)
	●																				○	○	○									Immunoglobulin A (IgA)
	●																															Immunoglobulin E (IgE)
	●																				○	○	○									Immunoglobulin G (IgG)
	●																				○	○	○									Immunoglobulin G Subclasses 1–4
																					○	○	○									Immunoglobulin M (IgM)
																																Immunoreactive Trypsinogen (IRT)
																																Inhibin A
																																Insulin
																																Insulin Growth Factor I (IGF-I)
																																Intact PTH
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[illegible]

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Methicillin Sensitive Staphylococcus aureus (MSSA)				●																											
Methotrexate																															
Methypyrlyon																															
Microalbumin																															
Microscopics (RBC, WBC, Crystals, Casts)																															
MID																															
Mitochondrial																															
Mitotic Spindle Pattern																															
Mixed Cell Percent (MXD)																															
Monocytes (MONO)																															
Morphine																															
Morphine (Free)																															
Morphine-3-β-d-Glucuronide																															
Mumps Virus IgG																															
MXD (W-MCC & W-MCR)																															
Mycoplasma pneumoniae IgG																															
Mycoplasma pneumoniae IgM																															
Myoglobin																															
N-Acetylprocainamide (NAPA)																															
N-Telopeptide (NTx)																															
nDNA																															
Neisseria gonorrhoeae (NG or GC)																															
Netilmicin																															
Neuron Specific Enolase (NSE)*																															
NEUT (W-LCC & W-LCR)																															
NEUT X																															
NEUT Y																															
Neutrophils (NEUT)																															
Nickel																															
Nicotine																															
Nitrite																															
Non-treponemal Antibodies (Syphilitic Reagin)																															
Norclomipramine																															
Nordiazepam																															
Nordoxepin																															
Norepinephrine																															
Normetanephrine																															
Norpropoxyphene																															
Nortriptyline																															
NT-proBNP																															
Nucleated Red Blood Cells (NRBC)																															
Nucleated Red Blood Cells/100 WBC (NRBC/WBC%)																															
Nucleolar Pattern																															
Oligoclonal Banding (IgG)																															
Opiates																															
Osmolality																															
Osteocalcin																															
Oxazepam																															
Oxycodone																															
Oxygen Content																															
PAP																															
PAPP-A																															

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pCO ₂	●																														
PCT			✖																												
PDW			✖																												
Pentachlorophenol																															
Pentobarbital						●																									
pH	●				◆																										
Phencyclidine (PCP)						●													▶												
Phenobarbital						●	●			●	●	●							▶									●	●	●	
Phenol																															
Phenothiazines																			▶												
Phenylalanine																															
Phenylglyoxylic Acid																															
Phenytoin						●				●	●	●							▶									●	●	●	
Phenytoin (Free)																												▲	▲	●	
Phospholipids						●					●	●																			
Phosphorus						●				●	●	●																			
Plasminogen																											●				
Platelecrit (PCT)				●																											
Platelet Distribution Width (PDW)				✖																											
Platelet Volume Distribution Width (PDW)				✖																											
Platelets (PLT)				●																											
Platelets Impedance Method (PLTi)				●																											
Platelets, Optical Count (PLTo)				●																											
pO ₂	●																														
Porphyrins (Total)																															
Potassium	●				●					●	●	●																			
Prealbumin					○				○		○	○																			●
Pregnancy (hCG)																															
Pregnancy (Qualitative)																															
Pregnanetriol																															
Primidone																			▶									●	●	●	
Procainamide												●							▶									●	●	●	
Procalcitonin																															
Progesterone					●																					●		●	●	●	
ProGRP*					●																										
Prolactin					●																							●	●	●	
Properdin Factor B																															●
Propoxyphene						●													▶												
Propranolol																			▶									●	▲		
Prostatic Acid Phosphatase (PAP)										▲	●																	●	●	●	
Protein (Total)					●					●	●	●																			●
Protein (Total Urine)					●																										
Protein C (Functional)																											●				
Protein Electrophoresis										○		○																			
Protein S (Functional)																											●				
Protein Serum (Total)					●																										
Protein-to-Creatinine Ratio																															
Prothrombin Time (PT)															●												●				
PSA (Free)					●																							●	●	●	
PSA (Total)					●					○																		●	●	●	
Pseudocholinesterase																															
PTH (Intact)																													▲		

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Immunology Plus (Lyophilized)	Lipids	Maternal Serum 1st Trimester	Maternal Serum II	Meter Trax	Microalbumin	Opiate	Pediatric	qJAntify Advance	qJAntify Plus	Quantitative Urine	Rheumatoid Factor	Sedimentation Rate	Serum Volatiles	Specialty Immunoassay (Liquid)	Specialty Immunoassay (Lyophilized)	Spinal Fluid	TDM (Liquid)	TDM (Lyophilized)	Tumor Marker (Liquid)	Tumor Marker Plus (Lyophilized)	Unassayed Chemistry (Liquid)	Unassayed Chemistry (Lyophilized)	Unassayed Multiquant	Urinalysis	Urine Bone Markers	Urine Chemistry	Urine Metals	Whole Blood	Whole Blood Immunosuppressant (Liquid)	Whole Blood Immunosuppressant (Lyophil.)	Whole Blood Metals	
																																pCO ₂
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																																PDW
																																Pentachlorophenol
																																Pentobarbital
																																pH
																																Phencyclidine (PCP)
																																Phenobarbital
																																Phenol
																																Phenothiazines
																																Phenylalanine
																																Phenylglyoxylic Acid
																																Phenytoin
																																Phenytoin (Free)
																																Phospholipids
																																Phosphorus
																																Plasminogen
																																Plateletcrit (PCT)
																																Platelet Distribution Width (PDW)
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																																PTH (Intact)

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PTH-MM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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*International use only.

58	20	54	54	31	22	105	21	114	114	22	59	47	111	52	52	60	101	101	53	53	20	19	18	115	56	23	111	112	100	100	111	
Immunology Plus (Lyophilized)	Lipids	Maternal Serum 1st Trimester	Maternal Serum II	Meter Trax	Microalbumin	Oplate	Pediatric	qAntify Advance	qAntify Plus	Quantitative Urine	Rheumatoid Factor	Sedimentation Rate	Serum Volatiles	Specialty Immunoassay (Liquid)	Specialty Immunoassay (Lyophilized)	Spinal Fluid	TDM (Liquid)	TDM (Lyophilized)	Tumor Marker (Liquid)	Tumor Marker Plus (Lyophilized)	Unassayed Chemistry (Liquid)	Unassayed Chemistry (Lyophilized)	Unassayed Multiquant	Urinalysis	Urine Bone Markers	Urine Chemistry	Urine Metals	Whole Blood	Whole Blood Immunosuppressant (Liquid)	Whole Blood Immunosuppressant (Lyophil.)	Whole Blood Metals	
																																PTH-MM
																																Pyridinium Crosslinks (DPD & PYD)
																																Pyridinolone (PYD)
																																Pyrimidine
																																Quinidine
																																Quinine
																																RDW-SD
																																Reagin
																																Red Blood Cells (RBC)
																																Red Blood Cells, Optical (RBCo)
																																Red Cell Distribution Width (RDW)
																																Red Cell Distribution Width-CV (RDW-CV)
																																Red Cell Distribution Width-SD (RDW-SD)
																																Red Cell Folate
																																Renin
																																Reticulocyte (Retic)
																																Retinol Binding Protein (RBP)
																																Rheumatoid Factor
																																RNP
																																Rubella Virus IgG
																																Rubella Virus IgM
																																Rubeola Virus (Measles) IgG
																																S-100*
																																Salicylate
																																SCC*
																																Scl-70
																																Secobarbital
																																Sedimentation Rate (ESR)
																																Selenium
																																Serotonin
																																SHBG (Sex Hormone Binding Globulin)
																																Sirolimus
																																Sm
																																Smooth Muscle
																																Sodium
																																Soluble Transferrin Receptor (sTfR)
																																Somatomedin-C
																																Somatomedin C
																																Specific Gravity
																																Speckled Pattern
																																Spun Hematocrit (Spun HCT)
																																SS-A
																																SS-B
																																Syphilis RPR
																																T3 Birch (<i>Betula</i>)
																																T3 (Free)
																																T3 (Total)
																																T3 Uptake/T-Uptake
																																T4 (Free)
																																T4 (Total)
																																T-Uptake
																																Tacrolimus (FK 506)

See page number

- Analyte present
- Analyte present in endogenous levels
- Analyte present and no claims are made regarding performance or stability
- Analyte present in endogenous levels and no claims are made regarding performance or stability
- ◆ Tested and found to be negative
- ◆ Specimen validity criteria
- ✱ Values not for diagnostic use
- ▲ No claim is made for expected value or stability

*International use only.

See page number

- Analyte present
- Analyte present in endogenous levels
- Analyte present and no claims are made regarding performance or stability
- Analyte present in endogenous levels and no claims are made regarding performance or stability
- ▶ Tested and found to be negative
- ◆ Specimen validity criteria
- ✖ Values not for diagnostic use
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	140	140	141	146	142	104	60	54	55	19	18	84	61	110	26	27	30	30	110	59	55	21	54	30	31	26	55	50	51	85	58
	See Blood Gas Chart	See Cardiac Assessment Chart	See Hematology Chart	See Infectious Disease/Molecular Chart	See IntelliQ Chart	See Urine Toxicology Charts	Allergen sIgE	AMH	Anemia	Assayed Chemistry	Assayed Multiquant	Assayed Multiquant Premium	Autoimmune	Benzo/TCA-Set B	Coagulation	D-dimer	Diabetes (Liquid)	Diabetes (Lyophilized)	Drug Free Serum	Elevated CRP	Endocrine	Ethanol/Ammonia	Fertility	Hemoglobin A1C Linearity Set	Hemoglobin A ₂	Hemostasis	Hypertension Markers	Immunoassay Plus (Liquid)	Immunoassay Plus (Lyophilized)	Immunoassay Premium	Immunology (Liquid)
TBG										□																					
Testosterone					●																		●					●	○	●	
Testosterone (Free)																												●	●	●	
Thallium																															
THC Metabolite						●																									
Theophylline					●				●	●	●								▶									●	●	●	
Thrombin Time (TT)															●											●					
Thyroglobulin (Tg)																											▲	○			
Tobramycin					●				●	●	●								▶									●	●	●	
Total Red Blood Cell Counts in Retic Channel (Retic RBC)			●																												
<i>Toxoplasma gondii</i> IgG				●																											
<i>Toxoplasma gondii</i> IgM				●																											
Tramadol*																															
Transferrin					●				●	○	○	○																			●
Trazodone														●					▶												
<i>Treponema pallidum</i> (Syphilis) IgG				●																											
<i>Treponema pallidum</i> (Syphilis) IgM				●																											
Trichloroacetic Acid																															
Tricyclic Antidepressants						●								●																	
Tricyclic Antidepressants (TCA) Screen																											●	▲	●		
Triglycerides					●				●	●	●																				
Troponin I		●																													
Troponin I Ultra					●																										
Troponin T		●																													
<i>Trypanosoma cruzi</i> (<i>T. cruzi</i>)				●																											
TSH					●				●	●	●	●																●	●	●	
Unconjugated Estradiol (UE ₂)																															
Urea					●					●	●	●																			
Urea Nitrogen					●					●	●	●																			
Uric Acid					●					●	●	●																			
Urobilinogen																															
Uroporphyrin																															
Valproic Acid					●					●	●	●							▶									●	●	●	
Valproic Acid (Free)																											▲	▲	●		
Vancomycin					●					●	●								▶									●	●	●	
Vancomycin Resistant Enterococci (VRE or vanR)				●																								●	●	●	
Varicella Zoster Virus (VZV) IgG				●																											
Vitamin B ₁₂					●				●	○	○	○																●	●	●	
VMA																															
W6 Mugwort (<i>Artemisia vulgaris</i>)							●																								
West Nile Virus IgG				●																											
West Nile Virus IgM				●																											
White Blood Cells (WBC)			●																												
White Blood Cells Counts Measured in Perox Channel (WBCP)			●																												
Zinc					●					○	●	●																			

*International use only.

58	20	54	54	31	22	105	21	114	114	22	59	47	111	52	52	60	101	101	53	53	20	19	18	115	56	23	111	112	100	100	111				
Immunology Plus (Lyophilized)	Lipids	Maternal Serum 1st Trimester	Maternal Serum II	Meter Trax	Microalbumin	Opiate	Pediatric	qJAmyl Advance	qJAmyl Plus	Quantitative Urine	Rheumatoid Factor	Sedimentation Rate	Serum Volatiles	Specialty Immunoassay (Liquid)	Specialty Immunoassay (Lyophilized)	Spinal Fluid	TDM (Liquid)	TDM (Lyophilized)	Tumor Marker (Liquid)	Tumor Marker Plus (Lyophilized)	Unassayed Chemistry (Liquid)	Unassayed Chemistry (Lyophilized)	Unassayed Multiquant	Urinalysis	Urine Bone Markers	Urine Chemistry	Urine Metals	Whole Blood	Whole Blood Immunosuppressant (Liquid)	Whole Blood Immunosuppressant (Lyophil.)	Whole Blood Metals				
																						○										●	TBG		
																																	Testosterone		
																																	Testosterone (Free)		
																												●				●	Thallium		
																																	THC Metabolite		
							●										●	●			●	●	●										Theophylline		
																																	Thrombin Time (TT)		
																			●	●													Thyroglobulin (Tg)		
																	●	●			●	●	●										Tobramycin		
																																		Total Red Blood Cell Counts in Retic Channel (Retic RBC)	
																																		<i>Toxoplasma gondii</i> IgG	
																																		<i>Toxoplasma gondii</i> IgM	
																																		Tramadol*	
●																					○	○	○										Transferrin		
																																		Trazodone	
																																		<i>Treponema pallidum</i> (Syphilis) IgG	
																																		<i>Treponema pallidum</i> (Syphilis) IgM	
																													●					Trichloroacetic Acid	
																																		Tricyclic Antidepressants	
																	●	●				●	●	●									Tricyclic Antidepressants (TCA) Screen		
	●																																	Triglycerides	
																																		Troponin I	
																																		Troponin I Ultra	
																																		Troponin T	
																		●	●			●	●	●									<i>Trypanosoma cruzi</i> (T. cruzi)		
																																		TSH	
																																		Unconjugated Estriol (UE ₃)	
										●												●	●				●							Urea	
										●												●	●	●			●							Urea Nitrogen	
								●	●																									Uric Acid	
																																		Urobilinogen	
										●																								Uroporphyrin	
																	●	●			●	●	●											Valproic Acid	
																	●	●				●	●											Valproic Acid (Free)	
																	●	●			●	●												Vancomycin	
																																			Vancomycin Resistant Enterococci (VRE or vanR)
																																			Varicella Zoster Virus (VZV) IgG
																					○	○	○											Vitamin B ₁₂	
										●																									VMA
																																			W6 Mugwort (<i>Artemisia vulgaris</i>)
																																			West Nile Virus IgG
									●																●										West Nile Virus IgM
																																			White Blood Cells (WBC)
										▲												▲	○	●				●							White Blood Cells Counts Measured in Perox Channel (WBCP)
																																			Zinc

*International use only.

Blood Gas Controls

See page number

	10	10	11
● Analyte present	Blood Gas	Blood Gas Plus E	Blood Gas Plus EGL
Chloride		●	●
Calcium (Ionized)		●	●
Glucose			●
Lactate (Lactic Acid)			●
Lithium			●
Magnesium			●
pCO ₂	●	●	●
pH	●	●	●
pO ₂	●	●	●
Potassium		●	●
Sodium		●	●

Cardiac Assessment Controls

See page number

	14	15	15	14	15	16
● Analyte present ■ Analyte present and no claims are made regarding performance or stability	Cardiac Markers Plus LT	Cardiac Markers Plus	Cardiac Markers LT	Cardiac Troponins	CK/LD Isoenzyme	Homocysteine
Albumin					●	
BNP	●	●				
CK (Total)	●	●			●	
CK Electrophoresis					●	
CK-MB Isoenzyme	●	●	●		●	
CRP	●	●				
Digitoxin	●	●	●			
Globulin					●	
Homocysteine	■	■	■			●
LD Electrophoresis					●	
LD-1 Isoenzyme					●	
LDH					●	
Myoglobin	●	●	●			
NT-proBNP	●	●	●			
Protein (Total)					●	
Protein Electrophoresis					●	
Troponin I	●	●	■	●		
Troponin T	●	●	●	●		

Hematology Controls

See page number

- Analyte present
- ✖ Values not for diagnostic use
- ▲ No claim is made for expected value or stability

	42	43	44	45	46	46	42	42	43	44	45	47
	Hematology (A)	Hematology (C)	Hematology (S)	Hematology (X)	Hematology-16	Hematology-16T	Reticulocyte (A)	Reticulocyte (A-I)	Reticulocyte (C)	Reticulocyte (S)	Reticulocyte (X)	Sedimentation Rate
Basophils (BASO or BA)	●	●	●	●								
Cellular Hemoglobin Concentration Mean (CHCM)			●									
Cellular Hemoglobin Concentration Mean of Gated Red Blood Cells (CHCMg)										●		
Cellular Hemoglobin Concentration Mean of Reticulocytes (CHCMr)										●		
Eosinophils (EOS or EO)	●	●	●	●								
Erythrocyte Sedimentation Rate (ESR)												●
Granulocytes (GRAN)	●				●	●						
Hematocrit (HCT)	●	●	●	●	●	●						
Hemoglobin (HGB)	●	●	●	●	●	●						
Hemoglobin Concentration Distribution Width (HDW)			●									
Immature Reticulocyte Fraction (IRF)							●	●	●		●	
Large Unstained Cells (LUC)			●									
LYMPH (W-SCC & W-SCR)						●						
Lymphocytes (LYMPH or LY)	●	●	●	●	●	●						
Mean Corpuscular Hemoglobin (MCH)	●	●	●	●	●	●						
Mean Corpuscular Hemoglobin Concentration (MCHC)	●	●	●	●	●	●						
Mean Corpuscular Volume (MCV)	●	●	●	●	●	●						
Mean Corpuscular Volume of Gated Red Blood Cells (MCVg)										●		
Mean Corpuscular Volume of Reticulocytes (MCVr)										●		
Mean Hemoglobin Content of All Gated Red Cells (CHg)										●		
Mean Hemoglobin Content of Reticulocytes (CHr)										●		
Mean Platelet Volume (MPV)	●	●	●	●	●	●						
Mean Reticulocyte Volume (MRV)									●			
MID	●				●	●						
Monocytes (MONO or MO)	●	●	●	●	●							
MXD (W-MCC & W-MCR)						●						
NEUT (W-LCC & W-LCR)						●						
Neutrophils (NEUT or NE)	●	●	●	●								
NEUT X			●									
NEUT Y			●									
NRBC/100 WBC (NRBC percent of WBC Count)	●											
Nucleated Optical Count (NOC)	●											
Nucleated Red Blood Cells (NRBC)	●			▲								
Platelet Distribution Width (PDW)	✖	✖										
Plateletcrit (PCT)	✖	✖										
Platelets (PLT)	●	●	●	●	●	●						
Platelets Impedance Method (PLTI)	●											
Platelets, Optical Count (PLT-o)				▲								
Red Blood Cell Distribution Width (RDW)	●	●	●		●	●						
Red Blood Cell Distribution Width-CV (RDW-CV)				●		●						
Red Blood Cell Distribution Width-SD (RDW-SD)		●		●		●						
Red Blood Cells (RBC)	●	●	●	●	●	●		●	●		●	
Red Blood Cells, Optical (RBCo)	●											
Reticulocyte (Retic)							●	●	●	●	●	
Spun HCT (Spun Hematocrit)						●						
Total Red Blood Cell Counts in Retic Channel (Retic RBC)										●		
White Blood Cells (WBC)	●	●	●	●	●	●						
White Blood Cells Counts Measured in Perox Channel (WBCP Perox)			●									
White Impedance Count (WIC)	●											
White Optical Count	●											

InteliQ

See page number

- Analyte available
- Analyte present in endogenous levels

Test Menu	Analytes	74	75	75	76	76	77	77	78	78
		InteliQ Assayed Multiquant	InteliQ Ethanol/Ammonia	InteliQ Homocysteine	InteliQ Specialty Immunoassay	InteliQ Tumor Marker	Liquichek Cardiac Markers Plus LT	Liquichek Immunoassay Plus	Liquichek Immunology	Liquichek Urine Chemistry
Anemia	Erythropoietin (EPO)				●					
	Ferritin	○				●		●	●	
	Folate							●		
	Vitamin B ₁₂	○						●		
Bone Metabolism	25-Hydroxy Vitamin D				●					
	Intact PTH				●					
	Osteocalcin				●					
Cancer/Oncology	α-Fetoprotein (AFP)					●				
	CA 15-3					●				
	CA 19-9					●				
	CA 27.29					●				
	CA 72-4*					●				
	CA 125					●				
	Carcinoembryonic Antigen (CEA)					●				
	Cyfra 21-1*					●				
	HE4					●				
	HER-2/neu					●				
	PRoGRP*					●				
	PSA (Free)					●				
	PSA (Total)					●		●		
	SCC*					●				
Cardiac	BNP						●			
	CK-MB Isoenzyme						●	●		
	Myoglobin						●			
	NT-proBNP						●			
	Troponin I Ultra						●			
Diabetes	C-Peptide				●					
	Insulin							●		
Fertility/Pregnancy	β-hCG					●				
	DHEA-S							●		
	Estradiol							●		
	FSH							●		
	hCG					●		●		
	LH							●		
	Progesterone							●		
	Prolactin					●		●		
	SHBG (Sex Hormone Binding Globulin)							○		
	Testosterone							●		

*International use only.

InteliQ

See page number

- Analyte available
○ Analyte present in endogenous levels

Test Menu

Analytes

		74	75	75	76	76	77	77	78	78
		InteliQ Assayed Multiquant	InteliQ Ethanol/Ammonia	InteliQ Homocysteine	InteliQ Specialty Immunoassay	InteliQ Tumor Marker	Liquichek Cardiac Markers Plus LT	Liquichek Immunoassay Plus	Liquichek Immunology	Liquichek Urine Chemistry
General Chemistry	α-1-Antitrypsin	○								
	α-1-Globulin	○								
	α-2-Globulin	○								
	β-Globulin	○								
	γ-Globulin	○								
	γ-Glutamyltransferase (GGT)	●								
	Acid Phosphatase (Total)	●								
	Albumin	●								
	Albumin (BCG)								●	
	Albumin (BCP)								●	
	Albumin-to-Globulin Ratio	○								
	Alkaline Phosphatase	●								
	ALT/SGPT	●								
	Ammonia		●							
	Amylase	●								●
	Amylase (Pancreatic)	●								
	AST/SGOT	●								
	Bilirubin (Direct)	●								
	Bilirubin (Neonatal)	●								
	Bilirubin (Total)	●								
	Calcium	●								●
	Calcium (CPC)									●
	Calcium (Ionized)	●								
	Carbon Dioxide (CO ₂)	●								
	Chloride	●								●
	Cholesterol (HDL)	●								
	Cholesterol (LDL)	●								
	Cholesterol (Total)	●								
	Cholinesterase	○								
	Copper	○								
	Creatine Kinase (CK)	●					●			
	Creatinine	●								●
	Glucose (Hexokinase)	●								●
	Iron	●						○		
	Iron (TIBC)	○								
	Iron (UIBC)	○								
	Lactate (Lactic Acid)	●								
	Lactate Dehydrogenase (LDH)	●								
	LAP Arylamidase	●								
	Lipase	●								
	Magnesium	●								●
	Microalbumin									●
	Osmolality	●								●
	Phospholipids	●								
	Phosphorus	●								●
	Potassium	●								●
	Protein (Total)	●							●	
	Protein (Total Urine)									●
	Sodium	●								●
	Triglycerides	●								
	Urea	●								●
	Urea Nitrogen (BUN)	●								●
	Uric Acid	●								●

InteliQ

See page number

- Analyte available
○ Analyte present in endogenous levels

Test Menu	Analytes	74	75	75	76	76	77	77	78	78
		InteliQ Assayed Multiquel	InteliQ Ethanol/Ammonia	InteliQ Homocysteine	InteliQ Specialty Immunoassay	InteliQ Tumor Marker	Liquichek Cardiac Markers Plus LT	Liquichek Immunoassay Plus	Liquichek Immunology	Liquichek Urine Chemistry
Growth	Insulin Growth Factor I (IGF-I)/Serratomedin C				●	●				
Inflammation	Immunoglobulin E (IgE)							●	●	
Metabolic	Cortisol	●						●		●
	Homocysteine			●						
Reproductive Endocrinology	hCG					●				●
	hCG (Intact)					●				
	hCG (Total)					●				
	Prolactin					●				
Therapeutic Drug Monitoring	Amikacin	●								
	Carbamazepine	●						●		
	Digitoxin						●			
	Digoxin	●						●		
	Gentamicin	●								
	Lithium	●						●		
	Phenobarbital	●						●		
	Phenytoin	●						●		
	Theophylline	●						●		
	Tobramycin	●						●		
	Valproic Acid	●						●		
	Vancomycin							●		
Thyroid	Anti-Thyroglobulin (Anti-Tg)				●					
	Anti-Thyroperoxidase (Anti-TPO)				●					
	T3 (Free)							●		
	T3 (Total)	●						●		
	T3 Uptake/T Uptake	●								
	T4 (Free)	●						●		
	T4 (Total)	●						●		
	Thyroid Stimulating Hormone (TSH)	●						●		
	T-Uptake							●		
Toxicology: DOA	Acetaminophen	●						●		
	Ethanol	●	●							
	Salicylate	●								
	Zinc	●								

InteliQ

See page number

- Analyte available
○ Analyte present in endogenous levels

Test Menu	Analytes	74	75	75	76	76	77	77	78	78
		InteliQ Assayed Multiquel	InteliQ Ethanol/Ammonia	InteliQ Homocysteine	InteliQ Specialty Immunoassay	InteliQ Tumor Marker	Liquichek Cardiac Markers Plus LT	Liquichek Immunoassay Plus	Liquichek Immunology	Liquichek Urine Chemistry
Tumor Marker	α-Fetoprotein (AFP)							●		
	CEA							●		
	PAP					●				
Specific Proteins	α-1-Acid Glycoprotein (AAG)								●	
	α-1-Antitrypsin (AAT)	○							●	
	Antistreptolysin O (ASO)								●	
	Apolipoprotein A-1	○							●	
	Apolipoprotein B	○							●	
	β-2-Microglobulin					●			●	
	Ceruloplasmin	○							●	
	Complement C3	○							●	
	Complement C4	○							●	
	CRP						●		●	
	Cystatin C								○	
	Haptoglobin	○							●	
	Immunoglobulin A (IgA)	○						○	●	
	Immunoglobulin G (IgG)	○						○	●	
	Immunoglobulin M (IgM)	○						○	●	
	Kappa Light Chain (FLC)								●	
	Lambda Light Chain (FLC)								●	
	Lipoprotein (a)								●	
	Prealbumin	○							●	
	Protein Serum (Total)	●							●	
	Rheumatoid Factor								●	
	Transferrin	○							●	

See page number

Molecular & Infectious Disease Controls

- Analyte present
- Negative for analyte

	Molecular								Infectious Disease															
	80	81	81	82	82	80	81	81	82	64	64	64	65	69	69	71	71	72	71	67	67	67	66	66
	Positive Controls				Negative Controls				Positive Controls															
	Amplitek I	Amplitek II	Amplitek STI	AmplIPROBE CT/6C	AmpliTrol CT/6C	Amplitek I	Amplitek II	Amplitek STI	AmplClear	Assayed VIROTROL I-C	Assayed VIROTROL I-E	Assayed VIROTROL I-F	Assayed VIROTROL II-B	Liq. TORCH Plus	Liq. TORCH Plus IgM	PneumoTrol	PyloriTrol	VIROTROL Chagas	VIROTROL EBV	VIROTROL HAV-IgM	VIROTROL HBe-IgM	VIROTROL HBeAg	VIROTROL HIV-1 Ag	VIROTROL HIV-1 gO
Anti-Cytomegalovirus (Anti-CMV)										●	●	●												
Anti-HAV														●										
Anti-HBc										●	●	●												
Anti-HBe																								
Anti-HBs													●											
Anti-HCV										●	●	●												
Anti-HIV-1										●	●	●												
Anti HIV-1/2																								
Anti-HIV-1 gO																							●	
Anti-HIV-2																								
Anti-HTLV-I										●	●	●												
Anti-HTLV-I/II																								
Anti-HTLV-II																								
Anti-Treponema pallidum (Syphilis)																								
Borrelia burgdorferi IgG																								
Chlamydia trachomatis			●	●	●			■	■															
Chlamydia trachomatis IgG															●									
Clostridium difficile (C. diff.)		●					■								●									
Cytomegalovirus (CMV) IgG															●									
Cytomegalovirus (CMV) IgM																								
EBNA IgG																			●					
EBV EA-D IgG																								
Epstein-Barr Virus (VCA) IgG															●				●					
Epstein-Barr Virus (VCA) IgM																			●					
HAV-IgM																				●				
HBe-IgM																					●			
HBeAg																						●		
HBsAg										●	●	●											●	
Helicobacter pylori IgG														●		●								
Hepatitis B Virus (HBV)	●					■																		
Hepatitis C Virus (HCV)	●					■																		
Herpes Simplex Virus Type 1 (HSV-1) IgG														●										
Herpes Simplex Virus Type 1 (HSV-1) IgM															●									
Herpes Simplex Virus Type 2 (HSV-2) IgG														●										
Herpes Simplex Virus Type 2 (HSV-2) IgM															●									
HIV-1 Ag																							●	
Human Immunodeficiency Virus Type 1 (HIV-1)	●					■																		
Human Papillomavirus (HPV)		●					■																	
Measles Virus (Rubeola) IgG																								
Methicillin Resistant Staphylococcus aureus (MRSA)		●					■																	
Methicillin Sensitive Staphylococcus aureus (MSSA)		●					■																	
Mumps Virus IgG																								
Mycoplasma pneumoniae IgG																●								
Mycoplasma pneumoniae IgM																●								
Neisseria gonorrhoeae (NG or GC)			●	●	●			■	■															
Non-treponemal Antibodies (Syphilitic Reagin)																								
Rubella Virus IgG														●										
Rubella Virus IgM															●									
Syphilis RPR														●										
Toxoplasma gondii IgG														●										
Toxoplasma gondii IgM															●									
Treponema pallidum (Syphilis) IgG														●										
Treponema pallidum (Syphilis) IgM																								
Trypanosoma cruzi (T. cruzi)																		●						
Vancomycin Resistant Enterococci (VRE or vanR)		●					■																	
Varicella Zoster Virus (VZV) IgG														●										
West Nile Virus IgG & West Nile Virus IgM																								

See page number

Molecular & Infectious Disease Controls

- Analyte present
- Negative for analyte

See page number

QC Products in Dimension Vista Vials

See page number

	94	95	96	97	98					
	Assayed Multiquant	Cardiac Markers Plus LT	Diabetes	Ethanol/Ammonia	Immunoassay Plus	Immunology (Liquid)	Pediatric	Spinal Fluid	Tumor Marker	Urine Chemistry
α-1-Acid Glycoprotein						●				
α-1-Antitrypsin	○					●				
α-2-Macroglobulin						●				
β-2-Microglobulin						●			●	
Acetaminophen	●				●					
Albumin	●				●			●		
Alcohol (Ethanol)	●			●						
Alkaline Phosphatase (ALP)	●									
Alphafetoprotein (AFP)					●				●	
ALT/SGPT	●									
Amikacin					●					
Ammonia				●						
Amylase	●									●
Antistreptolysin O (ASO)						●				
Apolipoprotein A-1	○					●				
Apolipoprotein B	○					●				
AST/SGOT	●									
Bilirubin (Direct)	●						●			
Bilirubin (Total)	●						●			
C1 Inhibitor						●				
CA 15-3									●	
CA 19-9									●	
CA 125									●	
Caffeine					●		●			
Calcium							●			●
Calcium (Total)	●									
Carbamazepine	●				●					
CEA					●				●	
Ceruloplasmin	○					●				
Chloride	●						●	●		●
Cholesterol (HDL)	●									
Cholesterol (LDL)	●									
Cholesterol (Total)	●									
CK (Total)		●								
CK-MB Isoenzyme		●			●					
CO ₂	●									
Complement C3	○					●				
Complement C4	○					●				
Creatine Kinase (CK)	●									
Creatinine	●									●
CRP		●				●				
Cystatin C						●				
Digitoxin		●								
Digoxin	●				●					
Estradiol					●					
Ethanol	●			●						
Ferritin	○				●	●			●	
Folate					●					
FSH					●					
Gentamicin	●				●					
GGT	●									
Glucose	●						●	●		●
Haptoglobin	○					●				
hCG									●	

See page number

QC Products in Dimension Vista Vials

See page number

	94	95	96	97	98					
	Assayed Multiquantal	Cardiac Markers Plus LT	Diabetes	Ethanol/Ammonia	Immunocassay Plus	Immunology (Liquid)	Pediatric	Spinal Fluid	Tumor Marker	Urine Chemistry
hCG-β Subunit					●					
Hemoglobin A1C			●							
Immunoglobulin A (IgA)	○				○	●				
Immunoglobulin E (IgE)					●	●				
Immunoglobulin G (IgG)	○				○	●		●		
Immunoglobulin G Subclasses 1–4						●				
Immunoglobulin M (IgM)	○				○	●				
Iron	●				○					
Iron (TIBC)	○									
Kappa Light Chain						●				
Lactate (Lactic Acid)	●							●		
Lactate Dehydrogenase (LDH)	●							●		
Lambda Light Chain						●				
Lidocaine					●					
Lipase	●									
Lithium	●				●					
Luteinizing Hormone (LH)					●					
Magnesium	●						●			●
Microalbumin										●
Myoglobin		●								
N-Acetylprocainamide (NAPA)					●					
NT-proBNP		●								
Phenobarbital	●				●					
Phenytoin	●				●					
Phosphorus	●									●
Potassium	●						●			●
Prealbumin	○					●				
Procainamide					●					
Prolactin					●				●	
Protein (Total)	●					●		●		●
PSA					●				●	
PSA (Free)					●				●	
Pseudocholinesterase	○									
Retinol Binding Protein (RBP)						●				
Rheumatoid Factor						●				
Salicylate	●				●					
Sodium	●						●	●		●
T3 (Free)					●					
T3 (Total)	●				●					
T3 Uptake/T-Uptake	●				●					
T4 (Free)	●				●					
T4 (Total)	●				●					
Theophylline	●				●		●			
Tobramycin	●				●					
Transferrin	○					●				
Tricyclic Antidepressants (TCA) Screen					●					
Triglycerides	●									
Troponin I		●								
TSH	●				●					
Urea Nitrogen	●									●
Uric Acid	●									●
Valproic Acid	●				●					
Vancomycin					●					
Vitamin B ₁₂	○				●					

EQAS Programs

See page number

- Analyte present
 ▸ Pilot analyte

See page number

EQAS Programs

Analyte present

Pilot analyte

		34			35		36		37		38		39				
	Blood Gas	Blood Typing	Cardiac Markers	Clin. Chemistry (Monthly)	Coagulation	Ethanol /Ammonia	Hematology	Hemoglobin	HIV/Hepatitis	Immunoassay (Monthly)	Lipids	Serum Proteins	Syphilis/Chagas	TDM	ToRCH/EBV/MuMZ	Urinalysis	Urine Chemistry
5-Hydroxyindoleacetic Acid (HIAA)																	●
11-Deoxycortisol										●							
17-α-OH-Progesterone										●							
25-OH Vitamin D										●							
α-1 Acid Glycoprotein												●					
α-1 Antitrypsin												●					
α-2 Macroglobulin												●					
β-2 Microglobulin										●		●					
ABO Group		●															
Acetaminophen														●			
Acid Phosphatase (Total)				●													
ACTH										●							
Alanine Aminotransferase (ALT/SGPT)				●													
Albumin				●								●				●	
Albumin-to-Creatinine Ratio																●	
Aldosterone										●							
Alkaline Phosphatase (ALP)				●													
Alphafetoprotein (AFP)										●							
Amikacin														●			
Amitriptyline														●			
Ammonia						●											
Amylase (Pancreatic)				●													
Amylase (Total)				●													
Androstenedione										●							
Angiotensin Converting Enzyme (ACE)										●							
Antigen Typing		●															
Antistreptolysin O (ASO)												●					
Antithrombin III (ATIII)					●												
Anti-HAV									●								
Anti-HBc									●								
Anti-HBe									●								
Anti-HBs									●								
Anti-HCV									●								
Anti-HIV-1									●								
Anti-HIV-1/2									●								
Anti-HIV-2									●								
Anti-HTLV-I									●								
Anti-DNase B												●					
Antibody Identification		●															
Antibody Screen		●															
Apolipoprotein A-1											●						
Apolipoprotein B											●						
APTT					●												
Aspartate Aminotransferase (AST/SGOT)				●													
Bile Acid				●													
Bilirubin																●	
Bilirubin (Direct)				●													
Bilirubin (Indirect)				●													
Bilirubin (Total)				●													
Blood/Hemoglobin																●	
BNP			●														
C-Peptide										●							
C-Reactive Protein (CRP)												●					
CA 15-3										●							
CA 19-9										●							
CA 27.29										●							
CA 125										●							
Caffeine														●			
Calcium (Ionized)	●			●													

EQAS Programs

See page number

- Analyte present
 ▸ Pilot analyte

EQAS Programs

See page number

● Analyte present

▸ Pilot analyte

	34			35			36			37		38			39		
	Blood Gas	Blood Typing	Cardiac Markers	Clin. Chemistry (Monthly)	Coagulation	Ethanol/Ammonia	Hematology	Hemoglobin	HIV/Hepatitis	Immunoassay (Monthly)	Lipids	Serum Proteins	Syphilis/Chagas	TDM	ToRCH/EBV/MuMZ	Urinalysis	Urine Chemistry
Calcium (Total)				●													●
Carbamazepine										●				●			
Carbon Dioxide (CO ₂)				●													
Carcinoembryonic Antigen (CEA)										●							
Ceruloplasmin												●					
Chloride	●			●													●
Cholesterol (HDL)				●							●						
Cholesterol (LDL)				●							●						
Cholesterol (non-HDL)											▸						
Cholesterol (Total)				●							●						
Cholinesterase				●													
CK-MB			●														
Compatibility (Cross-match)		●															
Complement C3												●					
Complement C4												●					
Copper				●													
Cortisol				●						●							
Cortisol (Free)																	●
Creatine Kinase (CK)				●													
Creatinine				●												●	●
Cyclosporine														●			
Cytomegalovirus (CMV) IgG															●		
Cytomegalovirus (CMV) IgM															●		
DAT (Direct Antiglobulin Test)		●															
D-dimer			●		●												
DHEA										●							
DHEA Sulfate										●							
Digoxin										●				●			
Dopamine																	●
Epinephrine																	●
Epstein-Barr Virus (EBNA) IgG															●		
Epstein-Barr Virus (VCA) IgG															●		
Epstein-Barr Virus (VCA) IgM															●		
Estradiol										●							
Estriol, Free (UE ₃)										●							
Ethanol						●											
Ethosuximide														●			
Factor VIII					●												
Ferritin										●							
Fibrinogen					●												
Folate										●							
Follicle Stimulating Hormone (FSH)										●							
Fructosamine										▸							
Gamma Glutamyltransferase (GGT)				●													
Gastrin										●							
Gentamicin														●			
Glucose	●			●												●	●
Haptoglobin												●					
HAV IgG									●								
HAV IgM									●								
HBc IgM									●								
HBeAg									●								
HBsAg									●								
hCG										●							
Hematocrit (HCT)							●										
Hemoglobin A1C								●									
Hemoglobin A ₂								●									
Hemoglobin							●										
Hemoglobin (Total Glycated)								●									

EQAS Programs

See page number

- Analyte present
 ▮ Pilot analyte

EQAS Programs	See page number	34			35		36			37	38			39			
		Blood Gas	Blood Typing	Cardiac Markers	Clin. Chemistry (Monthly)	Coagulation	Ethanol/Ammonia	Hematology	Hemoglobin	HIV/Hepatitis	Immunoassay (Monthly)	Lipids	Serum Proteins	Syphilis/Chagas	TDM	ToRCH/EBV/MuMZ	Urinalysis
Progesterone										●							
Prolactin										●							
Protein C					●												
Protein S					●												
Protein (Total)				●								●					●
Protein-to-Creatinine Ratio																●	
PSA (Free)										●							
PSA (Free/Total Ratio)										●							
PSA (Total)										●							
PT					●												
Red Blood Cells (RBC)							●										
Red Blood Cell Distribution Width (RDW)							●										
Red Blood Cell Distribution Width (RDW-SD)							●										
Renin										●							
Rh(D)		●															
Rheumatoid Factor (RF)												●					
Rubella Virus IgG															●		
Rubella Virus IgM															●		
S100 Protein										●							
Salicylate														●			
Sex Hormone Binding Globulin (SHBG)										●							
Sodium	●			●													●
Specific Gravity																●	
T3 Uptake										●							
T-Uptake										●							
Testosterone										●							
Testosterone (Free)										▮							
Theophylline										●				●			
Thrombin Time (TT)					●												
Thyroglobulin (Tg)										▮							
Thyroid Stimulating Hormone (TSH)				●						●							
Thyroxine Binding Globulin (TBG)										●							
Thyroxine, Free (T ₄)				●						●							
Thyroxine (T ₄), Total				●						●							
Tobramycin														●			
<i>Toxoplasma gondii</i> (Toxo) IgG															●		
<i>Toxoplasma gondii</i> (Toxo) IgM															●		
Transferrin				▮						●		●					
<i>Treponema pallidum</i> IgG													●				
<i>Treponema pallidum</i> IgM													●				
<i>Treponema pallidum</i> Total Antibody													●				
Tricyclic Antidepressants (TCA) Screen														●			
Triglycerides				●							●						
Triiodothyronine, Free (T ₃)				●						●							
Triiodothyronine (T ₃), Total				●						●							
Troponin I			●														
Troponin T			●														
Urea				●													▮
Urea Nitrogen				●													●
Uric Acid				●													●
Urobilinogen																●	
Valproic Acid										●				●			
Vancomycin														●			
Vanillylmandelic Acid (VMA)																	●
Varicella Zoster Virus (VZV) IgG															●		
Vitamin B ₁₂										●							
von Willebrand Factor (vWF)					●												
White Blood Cells (WBC)							●										
Zinc				●													

A

Additional Software Training, Unity	89, 90, 91
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228X	ToRCH Plus Control (Liquichek), Negative MiniPak	69	339	Liquid Assayed Multiquel, Level 3 (2.5 mL)	94
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239	ToRCH Plus Control (Liquichek), Positive	69	355	Pediatric Control (Liquichek), Level 2 (4 mL)	21
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385X	Serum Volatiles Control (Liquichek), Bilevel MiniPak	111	475	Fertility Control (Lyphocheck), Level 2.	54
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572	Blood Gas Control (Liquichek), Level 2	10		(Liquichek), Level 1	101
573	Blood Gas Control (Liquichek), Level 3	10	726	Therapeutic Drug Monitoring Control (TDM)	
575X	Blood Gas Plus E Control (Liquichek), Trilevel MiniPak	10		(Liquichek), Level 2	101
576	Blood Gas Plus E Control (Liquichek), Level 1	10	727	Therapeutic Drug Monitoring Control (TDM)	
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**For Worldwide Customers**

For service outside the United States, please refer to page 159 for the Bio-Rad location nearest you.

Communication Overview

Product chemical hazard information is communicated through standard statements and hazard symbols on our labeling and Safety Data Sheet (SDS).

This information was previously based on the older system contained in the European Union *Dangerous Substances Directive and the Dangerous Preparations Directive*. This system is now being replaced with the *Globally Harmonized System of Classification and Labeling of Chemicals* (GHS), which is a new international system for chemical classification introducing new hazard symbols (pictograms) and labeling phrases.

The key elements for the label under the GHS include:

- hazard pictograms
- a signal word – either DANGER or WARNING – where necessary
- hazard statements, indicating the nature and degree of the risks posed by the product
- precautionary statements, indicating how the product should be handled to minimize risks to the user (surrounding population and the general environment)

For a copy of an SDS, or for environment or safety related information, contact the Bio-Rad office nearest you. You can find a complete list of Bio-Rad offices on the inside back cover of this catalog. SDS and product inserts are also available online at www.QCNet.com.

(Note: European Union Regulation No. 1272/2008 on Classification, Labeling and Packaging (CLP) aligns the European Union system of classification, labeling and packaging chemical substances and mixtures to the GHS).

Hazard information according to *Globally Harmonized System of Classification and Labeling of Chemicals (GHS)*

Health Hazards



Skull & Crossbones



Corrosion



Exclamation Mark



Health Hazard

Environmental Hazards



Environment Hazard

Physical Hazards



Corrosion

Hazard Statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P261	Avoid breathing dust/fumes/gas/mist/vapors/spray.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P310	IF SWALLOWED: Immediately call a POISON Center or doctor/physician.

CE Marking on Bio-Rad Products

What is the CE Mark?

The letters “CE” are an abbreviation of the French phrase “Conformité Européenne.” The CE Mark on the Bio-Rad quality control products indicates the products have been designed and manufactured in an approved quality system and conform to all requirements of the In Vitro Diagnostic Directive (IVDD, 98/79/EC) and the regulation on in vitro diagnostic medical devices, Regulation 2012/0267. The CE Mark allows products to be sold within the European Economic Area (EEA).

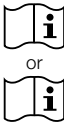
How is CE Marking obtained?

Companies must have their quality system certified by a European-based Notified Body in order to obtain CE Marking. A Notified Body is an organization authorized by the EEA to inspect facilities, processes, technical data, and/or test products to assess conformity to the appropriate standards. The quality system at Bio-Rad has been certified to be in conformance with the IVDD and the ISO 13485 quality system standards. A European Authorized Representative is also required for companies not based in the EEA. The Bio-Rad entity located in Marnes, France, is the Authorized Representative for Bio-Rad.

What does CE Marking mean for Bio-Rad quality control products?

In addition to allowing Bio-Rad to continue to sell products in the EEA, CE Marking also demonstrates how Bio-Rad continues its commitment to quality. CE Marking is an extra measure of confidence that customers can have with Bio-Rad quality control products.

Labeling Symbols

	European Conformity		Use by YYYY-MM-DD (Expiration Date)		Reconstitute With
	In Vitro Diagnostic Medical Device		Manufacturer		Catalog Number
	Temperature Limitation (Recommended product storage range)		Manufactured for		Lot Number
	Authorized Representative	 or  myinserts.com	Consult instructions for Use (Refer to package insert)		Caution, Consult Accompanying Documents
	Cycle Number		Results Receipt Date		Sample Number

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