Comprehensive Quality Control for Immunology

Introducing Liquichek™ Immunology Control with Anti-CCP
Immunology Control with Anti-Cyclic Citrullinated Peptide (Anti-CCP)

Liquichek™ Immunology Control

Liquichek™ Immunology Control now includes Anti-CCP as well as Rheumatoid Factor and many other serum proteins used in assessing immune function. Liquichek™ Immunology Control is an independent QC material providing assayed values for most integrated immunoassay platforms. International Organization for Standardization (ISO) 15189 recommends the use of independent control materials; either instead of, or in addition to, any control materials supplied by the reagent or instrument manufacturers.

1 mL & 3 mL Fill Sizes
- Liquid, human serum based
- Three distinct levels
- Comprehensive list of methods
- 2 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2–8°C for most analytes

2.5 mL Fill Size
- Enlarged peer groups from sharing lot numbers with 1 mL and 3 mL fill sizes
- Quick, easy and accurate QC set-up with 2D barcodes
- 5 day open-vial (punctured) stability for all analytes when stored at 2–8°C

Additionally available—Lyphochek® Immunology Plus Control

Visit bio-rad.com/immunocontrols for complete product information

Analytes
- α1-Acid Glycoprotein
- α1-Antitrypsin
- α2-Macroglobulin
- β2-Microglobulin
- ADNase B
- Albumin
- Anti-Cyclic Citrullinated Peptide (Anti-CCP)* NEW
- Antistreptolysin O (ASO)
- Antithrombin III (AT III)*
- Apolipoprotein A-1
- Apolipoprotein B
- C1 Inhibitor
- Ceruloplasmin
- CH50* *
- Complement C3
- Complement C4
- CRP
- Cystatin C
- Ferritin

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

Not available in 2.5 mL fill size.
*No claims are made regarding performance or stability.

Target Analyte Values

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-CCP (U/mL)*</td>
<td>&lt;5</td>
<td>24</td>
<td>45</td>
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<tr>
<td>CRP (mg/dL)</td>
<td>0.7</td>
<td>2.95</td>
<td>5.25</td>
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<tr>
<td>Rheumatoid Factor (U/mL)</td>
<td>25</td>
<td>37</td>
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</table>

For specific analyte, open-vial stability, methods, mean values and ranges, refer to the package inserts of currently available lots at myeinserts.com
The Essential Elements of Quality Control

1. Focus on the Patient

Whether a laboratory produces five hundred or five million results a year, providing quality patient care should include a plan to minimize the risk of reporting incorrect results in the event of an out-of-control condition. A patient-focused assessment enables the laboratory to evaluate appropriate QC levels, frequency and rules for a risk-based approach to quality control. Generally, monitoring instrument performance at shorter intervals increases the likelihood that an out-of-control condition will be detected before incorrect results are reported and can reduce the number and cost of repeat tests.

qcnet.com/patientrisk

2. Independent Control Materials

Any patient result reported without monitoring quality control is at risk, and the best way to monitor instrument performance is with independent controls from a third-party manufacturer. Independent control materials are designed and manufactured independently of any instrument, kit or method bias. As well as overt failures, they can often detect more subtle changes in instrument and reagent performance. International Organization or Standardization (ISO) 15189 recommends the use of independent control materials; either instead of, or in addition to, any control materials supplied by reagent or instrument manufacturers.

qcnet.com/thirdpartyqc

3. QC Data Management

The ability to successfully manage and interpret QC results is essential to improving laboratory analytical performance. Today, the entire laboratory can be consolidated into one comprehensive system for QC Data Management and Peer Group Comparison with Unity Real Time®. Best-in-class software tools include automatic QC data importing, support for run time decision making, trouble shooting and QC design. No program can more effectively provide information about laboratory QC performance than the suite of Unity® QC Data Management Solutions.

bio-rad.com/qc-datamanagement
Matrix and values appropriate for QC of cerebrospinal fluid testing—includes oligoclonal banding

Available in a new 2.5 mL fill size for the Dimension Vista®

**Liquichek™ Spinal Fluid Control**

Liquichek™ Spinal Fluid Control comprises of a liquid matrix with lower enzyme, glucose and protein values appropriate for QC of cerebrospinal fluid testing. Liquichek™ Spinal Fluid Control is available in two levels and has oligoclonal banding in Level 2.

**3 mL Fill Size**
- Liquid
- Oligoclonal banding in Level 2
- 2 year shelf life at 2–8°C
- 30 day open-vial stability at 2–8°C

**2.5 mL Fill Size**
- Enlarged peer groups from sharing lot numbers with 3 mL fill size
- Quick, easy and accurate QC set-up with 2D barcodes
- 30 day open-vial (punctured) stability for all analytes when stored at 2–8°C

**Analytes**

- Albumin
- Chloride
- Glucose
- Immunoglobulin A (IgA)*
- Immunoglobulin G (IgG)
- Immunoglobulin M (IgM)*
- Lactate (Lactic Acid)
- Lactate Dehydrogenase (LDH)
- Protein (Total)
- Protein Electrophoresis*1
- Sodium

*Not for use on the Dimension Vista®

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

Normal protein electrophoretogram

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**Single analyte controls for CRP and Rheumatoid Factor**

Monitor assay precision across a wide range of values

**Liquichek™ Elevated CRP Control**

- Liquid, human serum based
- 3 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2-8°C
- Target CRP levels of 1.5, 9.0 and 18.0 mg/dL

**Analyte**

CRP

**Liquichek™ Rheumatoid Factor Control**

- Liquid, human serum based
- 2 year shelf life at -20°C to -70°C
- 30 day open-vial stability at 2–8°C
- Target Rheumatoid Factor levels of 34, 79 and 150 U/mL

**Analyte**

Rheumatoid Factor

For specific analyte, open-vial stability, methods, mean values and ranges, refer to the package inserts of currently available lots at myeinserts.com
Consolidated Quality Control for Chemistry and Immunology

Greater efficiency for your integrated analyzer

Liquid Assayed Multiqual® Premium Control

Liquid Assayed Multiqual® Premium Control is especially formulated to address the complex needs of a multi-disciplined laboratory. This new control offers you the benefits of a comprehensive selection of chemistry, key Immunology and Therapeutic Drug Monitoring (TDM) analytes.

Core laboratories that employ integrated Chemistry/Immunoassay analyzers will find the analytes in Liquid Assayed Multiqual® Premium Control complement the broad test menu on those platforms. The comprehensive list contains 96 analytes.

Packaged in a larger fill size, this control accommodates a busy laboratory workflow by providing efficient QC usage.

- Liquid, trilevel formulation
- 3 year shelf life at -20°C to -70°C
- 14 day open-vial stability at 2-8°C for most analytes
- Includes CRP, Cystatin C and Vancomycin

Complete your Immunochemistry coverage with Liquichek™ Immunoassay Premium Control

For specific analyte, open-vial stability, methods, mean values and ranges, refer to the package inserts of currently available lots at myeinserts.com
Unity™ QC Data Management Solutions

Bio-Rad Quality Controls are part of the Unity™ Program with its industry-leading features for benchmarking laboratory performance.

- Benefit from peer data generated from more than 40,000 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

You can consolidate your entire laboratory into one QC system through our Unity™ Program. This sophisticated software includes best-in-class tools to support releasing results, benchmarking laboratory performance, and designing your QC system.

Ordering Information

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<th>Cat #</th>
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<th>Quantity</th>
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