

# Nephrology Clinical Laboratory Research Compendium



The Nephrology Clinical Laboratory is a not-for-profit CAP and CLIA accredited facility that utilizes Good Clinical Laboratory Practice guidelines. We perform diagnostic laboratory services ranging from routine FDA approved assays to high-complexity lab developed tests. Our longstanding complement testing program includes quantitative and functional assays, activation markers, antibody titers, and complement drug levels. Our highly skilled team leverages the first-class infrastructure of Cincinnati Children's Research Foundation to support national and international investigators in all stages of biomarker research, from pre-clinical discovery and assay development to clinical test validation and multi-site clinical trials.

## CONTACT US

For more information on research or clinical testing, please contact us at:

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[www.cincinnatichildrens.org](http://www.cincinnatichildrens.org)

## TECHNOLOGY/EQUIPMENT

- Siemens BNII Nephelometer
- Roche Cobas c 311 Integrated Chemistry System
- Dynex DS2 and DSX ELISA Systems
- Beckman IMMAGE 800
- MESO Quickplex SQ 120
- BioTek Synergy H1 Hybrid Multi-Mode Monochromator Fluorescence Microplate Reader
- Euroimmun Sprinter XL
- Euroimmun EUROPattern Microscope

## SPECIALTIES

- Complement System Testing
- New Test Development
- Clinical Test Validation
- Biomarker Research Support
- Clinical Trials
- Pharmaceutical Trials

## COMPLEMENT

### Autoantibody Testing

- Factor H Autoantibody
- C3 Nephritic Factor
- Factor B Autoantibody

### Functional Testing

- CH50
- Alternative Pathway Functional Assay
- MBL Pathway Functional Assay
- C1 inhibitor Functional Assay
- C5 Functional

### Complement Activation Fragments

- Complement Bb
- Complement Ba
- C3a
- C3c
- C3d
- C4a
- C4d
- iC3b
- SC5b-9

### Complement Components (Quantitative)

- C1 inhibitor (quantitative)
- C1q
- C2
- C3
- C4
- C5
- C6
- C7
- C8
- C9
- Factor B
- Factor D (coming soon)
- Factor H
- Factor I
- Properdin
- C4 Binding Protein
- MBL

## SERUM PROTEINS (NEPHELOMETRY)

- |   |  |                                       |                                     |
|---|--|---------------------------------------|-------------------------------------|
| • ADNase B                                  | • CDT (Carbohydrate Deficient Transferrin) | • Plasminogen                         | • α1-Microglobulin urine            |
| • Albumin                                   | • Ceruloplasmin                            | • Prealbumin                          | • α2-Macroglobulin                  |
| • Albumin Urine                             | • Ferritin                                 | • RBP (Retinol Binding Protein)       | • β2-Microglobulin                  |
| • ASO                                       | • Fibrinogen                               | • sTfR (Soluble Transferrin Receptor) | • β2-Microglobulin urine            |
| • Cystatin C                                | • Fibronectin                              | • Transferrin (for %CDT calculation)  | • β trace protein                   |
| • Haptoglobin                               | • Hemopexin                                | • Transferrin                         | • Ig/light chain, type kappa        |
| • High Sensitivity CRP (CardioPhase® hsCRP) | • Homocysteine                             | • Transferrin urine                   | • Ig/light chain, type lambda       |
| • α1-Antitrypsin                            | • Lipoprotein(a)                           | • α1-Acid glycoprotein                | • Ig/light chain, type kappa urine  |
| • AT-III                                    | • Myoglobin                                |                                       | • Ig/light chain, type lambda urine |

TTP	TDM	IMMUNOLOGY
<ul style="list-style-type: none"> <li>• ADAMTS13 Activity</li> <li>• ADAMTS13 Antibody</li> <li>• ADAMTS13 Inhibitor</li> </ul>	<ul style="list-style-type: none"> <li>• Eculizumab Level</li> <li>• Cyclosporine Level (CsA C0)</li> <li>• Cyclosporine Level (CsA C2)</li> <li>• Sirolimus Level</li> <li>• Tacrolimus Level</li> <li>• Mycophenolic Acid (MPAT)</li> </ul>	<ul style="list-style-type: none"> <li>• PLA2R Autoantibody</li> <li>• IgG</li> <li>• IgG CSF</li> <li>• IgG urine</li> <li>• IgG subclasses 1–4</li> <li>• IgM</li> <li>• IgM CSF</li> <li>• IgA</li> <li>• IgE</li> <li>• Rheumatoid factor</li> <li>• COVID19 IgG</li> <li>• COVID19 IgA</li> </ul>

## BIOMARKERS

- |   |   |   |
|---|---|---|
| • Endothelin-1                                      | • Adiponectin                               | • Angiotensin 1–7                             |
| • Neutrophil Gelatinase-Associated Lipocalin (NGAL) | • Glucose                                   | • Angiotensin 1–9                             |
| • Kidney Injury Molecule-1 (KIM-1)                  | • Microalbumin                              | • Angiotensin I                               |
| • Creatinine  | • Vascular Endothelial Growth Factor (VEGF) | • Angiotensin II                              |
| • Macrophage Chemoattractant Protein-1 (MCP-1)      | • Intracellular Adhesion Molecule 1 (CD54)  | • Angiopietin I                               |
| • Liver Fatty Acid Binding Protein (LFABP)          | • Vascular Cell Adhesion Molecule 1 (CD106) | • Angiopietin II                              |
| • Transforming Growth Factor-beta 1 (TGFβ-1)        | • Fibroblast Growth Factor 23 (FGF23)       | • Angiotensin converting enzyme-1 (ACE 1)     |
| • Uromodulin (Tamm-Horsfall protein)                | • Matrix Metalloproteinase 9 (MMP9)         | • Angiotensin converting enzyme-2 (ACE 2)     |
| • Alpha-1 antitrypsin                               | • N-acetyl Glucosaminidase (NAG)            | • ACE activity                                |
| • Alpha-1 acid glycoprotein (orosomuroid)           | • Renin                                     | • Von Willebrand Factor protein (VWF)         |
| • Hepcidin-25                                       | • Aldosterone                               | • Plasminogen activator inhibitor-1 (PAI-1)   |
| • Troponin T  | • Adiponectin                               | • Tissue plasminogen activator (T-PA)         |
| • Vitamin D binding protein                         | • Interleukin 6 (IL-6)                      | • Cytokeratin 18 (M65) (M30)                  |
|   | • Interleukin 18 (IL-18)                    | • Human CD163                                 |
|   | • Matrix Metalloproteinase-7 (MMP-7)        | • Human anti-endothelial cell antibody (AECA) |

The above list is not a comprehensive list of biomarkers.  
Please contact us for special projects and specific testing needs.

**For sample processing and shipping instructions, call 513-636-4530.**