

Next-generation BN II System

The nephelometric performance you trust.
The speed and workflow you need.

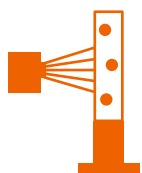
siemens-healthineers.com/BN-II



Next-generation nephelometric testing to meet the new demands of the modern laboratory

Aging populations are increasing demand for diagnostic testing across conditions, from malnutrition to kidney and inflammatory diseases. At the same time, laboratories face rising volumes, staff constraints, and pressure to deliver faster results. To keep pace, laboratories need solutions that combine analytical reliability with efficient, flexible operations, and scalability to support future growth.

Built on more than 60 years of dedicated nephelometric expertise, the next-generation BN II System combines proven analytical performance with enhancements designed to optimize high-volume testing workflows. Trusted by laboratories worldwide, the enhanced system delivers advanced workflow capabilities, optimized sample handling, and onboard reagent cooling. Optional connectivity to automation and data management can further maximize productivity and reduce operator intervention, enabling labs with extremely high volumes of protein testing to scale solutions to meet evolving needs.



Nephelometry

Provides confidence in results with proven nephelometric technology for high sensitivity, precision, reproducibility, and wide measuring ranges.



High-volume workflow

Supports high-volume testing with 24/7 operation, onboard cooling, and connectivity to Aptio and FlexLab™ X Total Lab Automation.



Broadest assay menu*

Features the industry's broadest menu of more than 70 plasma protein assays, including N Latex FLC assays for diagnosis and monitoring monoclonal gammopathies.

*As of August 2026. Data on file.

Guidelines recommend nephelometry for high-sensitivity plasma protein assays

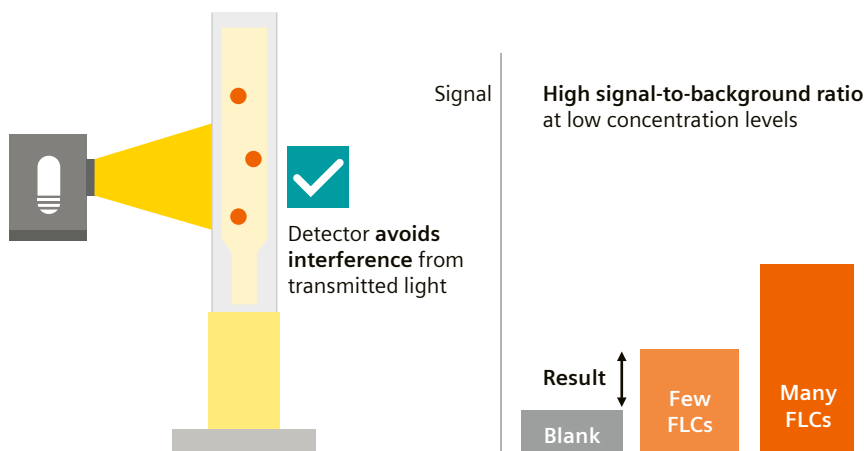
Nephelometry offers analytical advantages over turbidimetry in terms of precision and sensitivity for plasma protein testing [1-3]. Nephelometry is recommended by the International Myeloma Working Group (IMWG) and European Society for Medical Oncology (ESMO) for measuring high-sensitivity plasma protein assays [4,5]. It is also recommended for the quantification of CSF kappa free light chains (KFLC) in multiple sclerosis assessment by the German Society for Neurology [6].

When testing low-end concentrations of free light chains, N Latex FLC kappa and lambda assays on the BN II System are up to 68% more sensitive* than Freelite assays on the Optilite System [7-9].

*Based on the limits of quantification reported in the manufacturers' IFUs.

Consistent results for confident patient management

Highly precise and reproducible, nephelometric technology provides additional sensitivity that is critical for testing diseases such as multiple myeloma, for which accurate free light chain test results are required to derive a true free light chain kappa-to-lambda ratio.

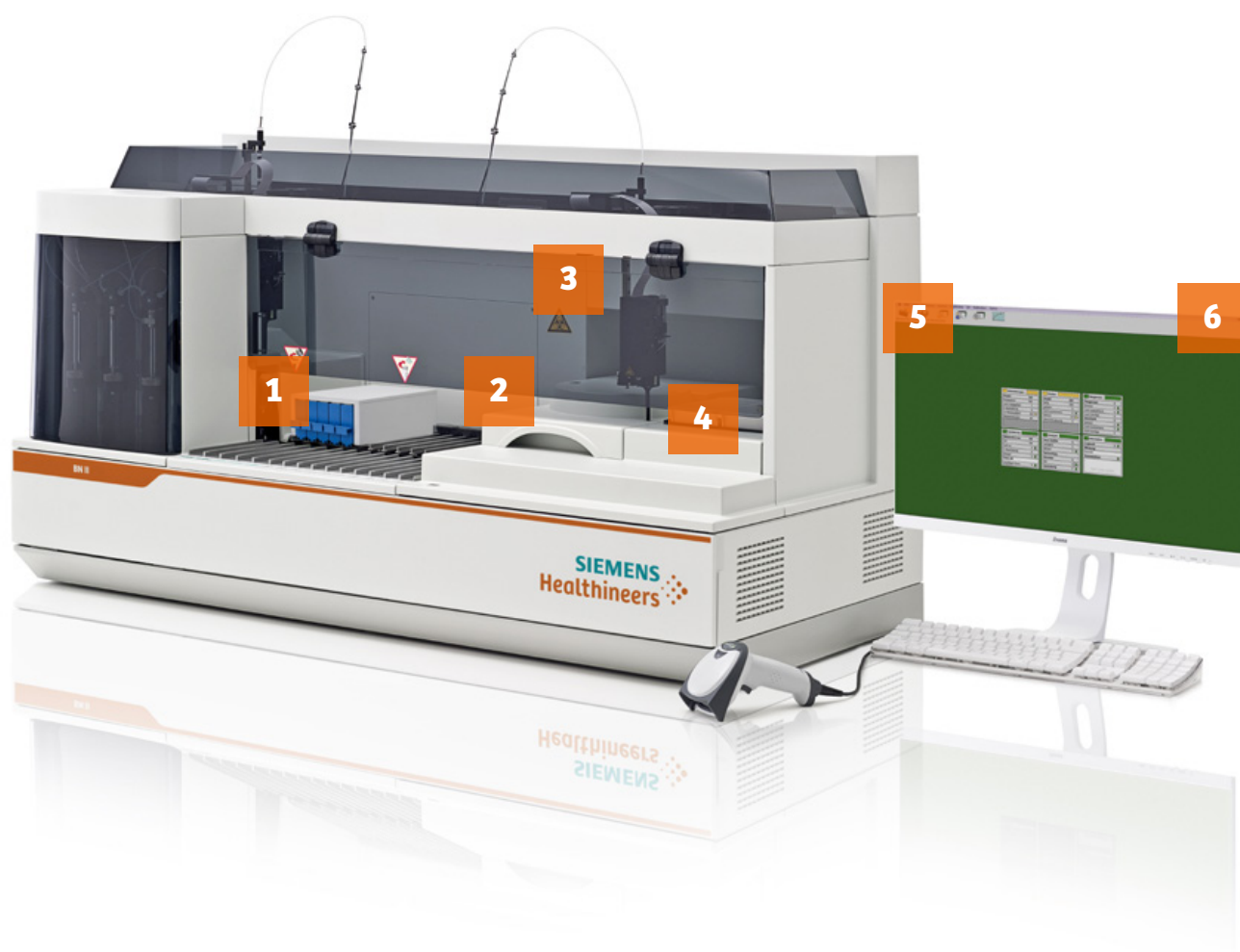


- Sophisticated antigen-excess pre-reaction protocols provide more-accurate results and fewer repeats.
- Wide initial measuring ranges reduce the need for retesting.
- Detects specimen and reagent levels prior to processing to enhance accuracy of results.
- Automatic serial dilution technology supports reliable results and helps to keep the dilution factor low.

Figure 1: Nephelometry measures the intensity of light scattered by particles in a sample in order to find their concentration.

Next-generation features for the modern laboratory

The next-generation BN II System builds on the proven performance of its predecessor. By combining the tried-and-true features that customers have come to count on – while also delivering the performance-enhancing capabilities that high-volume labs need to further streamline testing – it delivers a flexible, modern nephelometric testing solution that will support your needs today and tomorrow.





Onboard reagent cooling

- Enhances reagent stability through integrated onboard cooling
- Reduces manual reagent handling and daily reagent management activities
- Helps improve workflow efficiency and maximize walkaway time



Flexible, automated sample processing

- Offers assay applications for serum, plasma, urine, and CSF samples
- Consolidates specialty and routine plasma protein parameters on one system to support comprehensive disease-state assessment while reducing send-outs



High-volume throughput

- Supports up to 143 tests per hour in high-volume or free light chain testing environments*
- Enables continuous loading of samples and consumables for uninterrupted operation and reduced downtime



Dedicated dilution station

- Automates serial dilutions for reliable quantification of both low- and high-concentration samples
- Reduces the need for repeat testing, saving time and reagents, while also providing confidence in results
- Supports accurate quantification across wide concentration ranges
- Helps maintain assay linearity across a broad measuring range



Intuitive, secure user interface and management protocols

- Helps control system access, permissions, and user responsibilities through a multi-dialog interface
- Supports compliance protocols with applicable data privacy regulations, helping protect both personnel and patient information throughout the testing workflow
- Provides detailed audit trails—including user actions, system events, and workflow activities—supporting compliance initiatives, including FDA 21 CFR Part 11 workflows



Seamless connectivity to the larger laboratory ecosystem

- Supports efficient data management integration within modern laboratory environments
- Enhances sample, process, and clinical insight efficiencies with connectivity to Atellica Diagnostics IT and Protis Decision Support Software†
- Facilitates efficient data exchange and streamlined result reporting through bidirectional communication

*Based on Siemens Healthineers workflow studies. Data on file.

†Not available for sale in the U.S.

Flexible connectivity options enable you to scale your protein testing with total lab automation

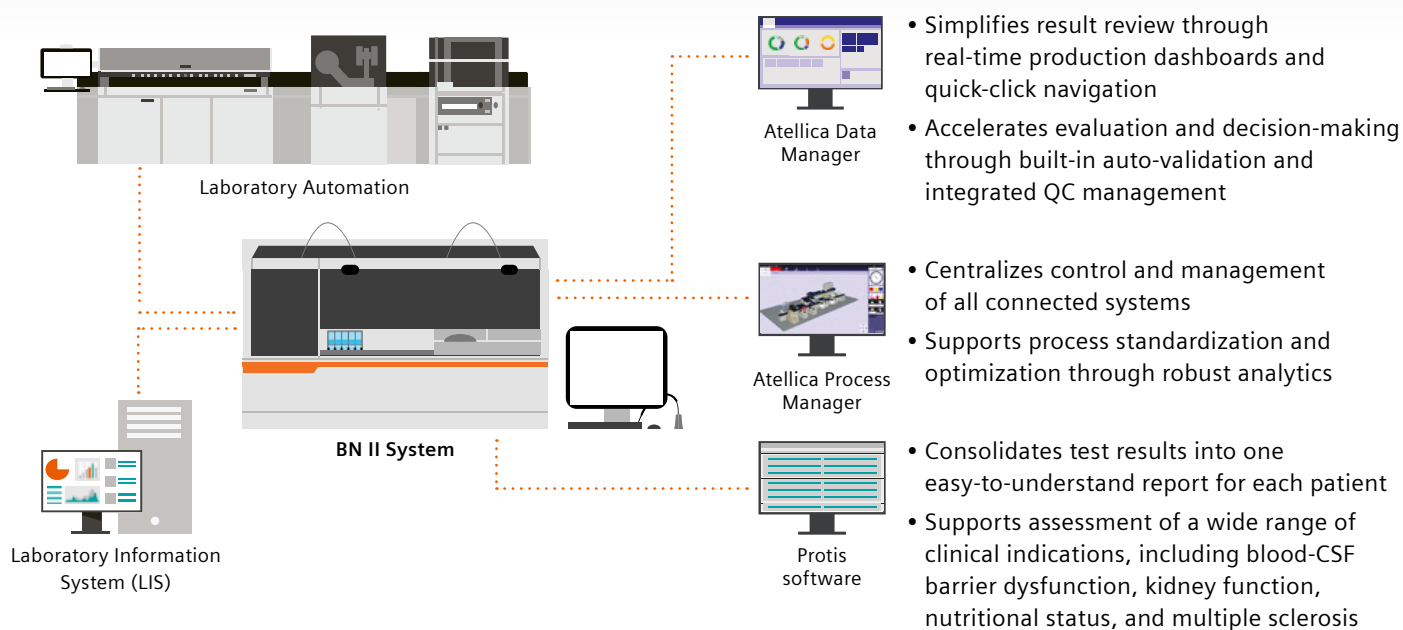
For labs looking to further reduce manual workflows, extend walkaway time, and streamline sample routing, the next-generation BN II System offers an automation-ready protein testing solution. Whether you are looking to realize the benefits of track-based automation now or want to leave your options open for the future, connecting the BN II System to Aptio, FlexLab™, or FlexLab™ X Total Lab Automation can help your lab:

- Reduce manual interaction
- Extend walkaway time
- Maintain continuous access to reagents and consumables
- Improve biohazard safety

A recent study demonstrated that connecting the BN II System to total lab automation can reduce turnaround time by up to 27% and support reagent savings of up to 40%.*



Get the most value from BN II System result data through integrated result interpretation and data management solutions



*Study performed at customer site. Data on file.

†Not available for sale in the U.S.

Maximize your testing with the industry's broadest plasma protein assay menu*

Polyclonal and Monoclonal Gammopathies/Immune System

B2-Microglobulin
 FLC kappa
 FLC lambda
 Ig/Light Chain, type kappa
 Ig/Light Chain, type lambda
 IgA
 IgD^{†,‡}
 IgG
 IgG subclasses 1-4
 IgM

Kidney Disease

α1-Microglobulin urine
 α2-Macroglobulin urine[‡]
 B2-Microglobulin urine
 B-trace protein[§]
 Albumin urine
 Cystatin C
 FLC kappa urine[‡]
 FLC lambda urine[‡]
 Ig/Light Chain, type kappa urine[‡]
 Ig/Light Chain, type lambda urine[‡]
 IgG urine
 Transferrin urine

Inflammation

α1-Acid Glycoprotein
 hsCRP
 Fibrinogen
 SAA[§]

Chronic Alcohol Abuse

CDT (Carbohydrate-deficient Transferrin)
 Transferrin (for %CDT calculation)

Autoimmune/Rheumatoid Diseases

ADNase B
 ASL
 Calprotectin^{†,§}
 C3c
 C4
 hsCRP
 RF
 TNFα Inhibitors (adalimumab, infliximab, etanercept)[§]

Cardiovascular Risk/Acute Cardiac Care

Albumin urine
 Apo A-I
 Apo B
 Cystatin C
 Fibrinogen
 hsCRP
 Homocysteine
 Lp(a)
 Myoglobin

Nutritional Assessment

Albumin
 CRP
 Ferritin
 Prealbumin
 RBP (Retinol-binding Protein)

Allergic Diseases

IgE

Coagulation Disorders

AT-III
 Fibrinogen
 Plasminogen

Anemia/Iron Metabolism

Ferritin
 Haptoglobin
 Hemopexin
 sTfR (Soluble Transferrin Receptor)
 Transferrin

Complement Activity

C1 Esterase Inhibitor
 C1q^{†,§}
 C3c
 C3 Proactivator^{†,§}
 C4
 C5^{†,§}

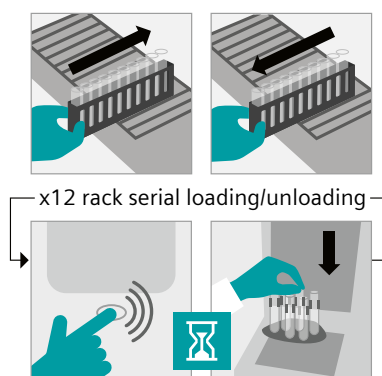
Blood-CSF Barrier Dysfunction

Albumin
 Albumin CSF
 β-trace Protein (CSF leakage)[§]
 FLC kappa CSF[§]
 FLC lambda CSF[§]
 IgA
 IgA CSF
 IgG
 IgG CSF
 IgM
 IgM CSF

Other Specialty Analytes

α1-Antitrypsin
 α2-Macroglobulin serum
 Apo A-II[§]
 Apo E[§]
 Ceruloplasmin
 Fibronectin[§]

See how the BN II System can help save time compared with the Optilite System.**



- **Parallel rack loading/unloading** supports continuous multi-rack exchange for up to 10 samples; Optilite System requires manual loading for each sample.
- **100-sample capacity** versus 54 on Optilite System reduces manual loading and extends walkaway time.
- **Automatic rack ejection after aspiration** frees racks immediately after pipetting; Samples on Optilite System remain onboard until all associated results are released.

Learn how the next-generation BN II System can help your laboratory deliver consistent results with the speed and workflow you need.



*As of August 2026. Data on file.

†Alliance application manufactured by third party, distributed by Siemens Healthcare Diagnostics Inc.

‡Not available for sale in the U.S.

§Research use only in the U.S.

**Optilite System Instructions for Use

At Siemens Healthineers, we pioneer breakthroughs in healthcare. For everyone. Everywhere. Sustainably. As a leading medical technology company, we want to advance a world in which breakthroughs in healthcare create new possibilities sustainably. We partner with healthcare providers to address their most pressing challenges so that they can deliver high-quality, patient-centered care, efficiently.

We are active in the areas of imaging, diagnostics, cancer care, and minimally invasive therapies, augmented by digital technologies and artificial intelligence. With our unique combination of strengths in Patient Twinning,* Precision Therapy, as well as Healthcare AI, we take on the greatest challenges in healthcare. We help improve access to healthcare for underserved communities worldwide and overcome the most threatening diseases.

We are a team of around 74,000 Healthineers in over 70 countries passionately pushing the boundaries of what is possible in healthcare so that patients can live with hope, not fear of disease.

**Early detection, accurate diagnosis, individualized therapy selection, simulation and planning, continuous monitoring and aftercare.*

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Aptio Automation is manufactured by Inpeco and is exclusively distributed by Siemens Healthcare Diagnostics Inc. FlexLab™ and FlexLab™ X are manufactured by Inpeco and distributed by Siemens Healthcare Diagnostics Inc. FlexLab is a trademark of Inpeco SA.

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9. The Binding Site Optilite Freelite Lambda Free Kit IFU, INS018.OPT.

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