

Testing Update

Test Method Change for Serum and Urine Protein Electrophoresis

WHO: Froedtert Health System including Froedtert South

WHEN: Transition occurring 10/22/2025 – 10/23/2025

WHAT: Wisconsin Diagnostic Laboratories (WDL) will be updating the test method used for serum and urine protein electrophoresis. The current method used is the Helena gel electrophoresis system for protein quantification and gel immunofixation method for protein characterization. The new method will be Sebia's capillary electrophoresis for protein quantification and immunotyping for protein characterization.

There are several clinical advantages to the new assay, such as better detection and characterization of monoclonal proteins, the ability to report therapeutic antibodies separately, more accurate quantitation with capillary software, and improved consistency for longitudinal monitoring.

What to expect:

A new interpretive comment noting the change in method will be applied for a minimum of 3 months. There will be updated reference intervals for the protein fractions.

Urine will only have albumin, and any paraprotein, reported.

Protein electrophoresis interpretive comments will be reported for serum in the "Protein EP interpretation" and for urine in the "Protein EP interpretation, urine."

The paraprotein quantitation, characterization, and any additional interpretive comments will be reported in one location; "Immunotyping electrophoresis interpretation, serum" or the "Immunotyping electrophoresis interpretation, urine."

Paraproteins suggestive of therapy will be quantitated and identified separately, when possible.

Screenshots of example views in Epic are provided at the end of this memo.

Action item: Epic users, if you have saved or favorited a previous version of the "immunofixation" orders in your preference list, please remove the outdated order and replace it with the update "immunotyping" order.

QUESTIONS: Please contact:

- Laura Smy, PhD, Clinical Chemistry and Toxicology Co-Directory, 414-805-6975, lsmy@mcw.edu
- Rob Nerenz, PhD, Clinical Chemistry and Toxicology Co-Director, 414-805-7074, rnerenz@mcw.edu
- Pearl Albright, Manager, Chemistry, 414.805.7977 palbright@wisconsindiagnostic.com

EPIC SUPPORT:

Any questions or concerns regarding this change can be directed to the Epic help desk at 805-2101. They will direct you to the appropriate person



Testing Update

Test Method Change for Serum and Urine Protein Electrophoresis

Screenshots of example views in Epic for new serum electrophoresis reporting

Chart Review

Encounters Notes/Trans **Lab** Meds Images Anesthesia Surgeries Procedures Cardiology Telemetry Referrals Other Orders Episodes Consents Letters LDAs Misc Reports

Refresh [x] Review [x] Lab Floorheet [x] Route [x] Results Review

Filters [x] Hide Canceled [x] Blood Orderables [x] Micro/Virology [x] Anatomical Path. Orderables [x] Urine Orderables [x] Prelim Final Edited

Date/Time	Test	Status	Provider	E
09/25/2025 12:50	CREATININE URINE RANDOM	Final result	Gardner, Patrick M, MD L	
09/25/2025 12:50	PROTEIN URINE RANDOM	In process	Gardner, Patrick M, MD L	
09/23/2025 12:42	Basic Metabolic Panel	In process	Gardner, Patrick M, MD L	
09/22/2025 13:19	PROTEIN ELECTROPHORESIS WITH IMMUNOFIXATIO...	Final result	Phtwo, Physician, MD H	
09/09/2025 08:53	Protein Electrophoresis Reflex Immunofixation, Urine Ran...	Final result	Phtwo, Physician, MD H	
08/20/2025 08:30	Urine Drugs of Abuse Screen Reflex	Final result	Richien, Matthew, MD L	
08/11/2025 10:12	HEMOGLOBINOPATHY EVALUATION	In process	Phtwo, Physician, MD H	
08/11/2025 10:07	Protein Urine 24 Hr	Final result	Phtwo, Physician, MD H	
08/11/2025 10:07	Protein Electrophoresis Reflex Immunotyping, 24hour Urine	In process	Phtwo, Physician, MD H	
08/11/2025 10:07	Protein Electrophoresis Reflex Immunofixation, Urine 24hr	In process	Phtwo, Physician, MD H	
08/07/2025 10:16	PARTIAL THROMBOPLASTIN TIME	Final result	Phtwo, Physician, MD H	
08/07/2025 10:16	PROTHROMBIN TIME	Final result	Phtwo, Physician, MD H	
07/24/2025 16:17	Protein Electrophoresis with Immunofixation, Serum	Final result	Phtwo, Physician, MD H	
07/16/2025 15:29	T4 FREE	In process	Gardner, Patrick M, MD L	
07/16/2025 15:29	TSH	In process	Gardner, Patrick M, MD L	
07/16/2025 15:29	ELECTROLYTES	In process	Gardner, Patrick M, MD L	
07/15/2025 16:19	BLOOD GAS, VENOUS	Preliminary result	Smy, Laura, PHD L	
07/15/2025 12:29	T4 FREE	In process	Gardner, Patrick M, MD L	
07/15/2025 12:29	TSH	In process	Gardner, Patrick M, MD L	
07/15/2025 12:29	ELECTROLYTES	In process	Gardner, Patrick M, MD L	
07/15/2025 11:04	Protein Electrophoresis Serum Reflex	Final result	Phtwo, Physician, MD H	
07/15/2025 11:03	Complete Blood Count & Differential	Needs to be Collected	Provider, Ordered Au...	

Protein electrophoresis Serum Order: 1349718 - Part of Panel Order 1349718

Status: Final result Next appt: None
Test Result Released: No (inaccessible in MyChart)

0 Result Notes

Component	Ref Range & Units (hover)
Total Protein	7.0
Albumin Fraction	4.46
Alpha 1 Fraction	0.25
Alpha 2 Fraction	0.67
Beta Fraction	0.80
Gamma Fraction	0.83

Protein EP Interpretation Monoclonal band(s) present. Final Interpretation By: Ashley Cunningham, MD.

Comment: On 10/22/2025, the method for protein electrophoresis and paraprotein characterization at Wisconsin Diagnostic Laboratories changed to the Sebia capillary electrophoresis and immunotyping method from the Helena gel electrophoresis and immunofixation method.

Immunotyping Electrophoresis IgG Kappa, 0.28 g/dL. Final Interpretation By: Ashley Cunningham, MD.

Specimen Collected: 09/22/25 13:19 Last Resulted: 09/22/25 16:45

Lab Floorheet Order Details View Encounter Lab and Collection Details Routing Result History

Result Care Coordination

Patient Communication Add MyChart Message X Not seen Back to Top

Results Review

Select View All Results

Search

LABORATORY RESULTS

- BLOOD GAS RESULTS
- CHEMISTRIES
- CARDIAC PROFILE
- CHEM
- LIPID PROFILE
- PROTEIN
 - Prostate Specific Antigen, Total
 - ALBUMIN FRACTION
 - PROTEIN EP - ALPHA 1 FRACTION
 - PROTEIN EP - ALPHA 2 FRACTION
 - PROTEIN EP - BETA FRACTION
 - PROTEIN EP - GAMMA FRACTION
 - PROTEIN EP INTERPRETATION
 - Immunotyping Electrophoresis Interpretation, Serum
 - Protein Urine Calculation UTV
- COAGULATION
- ENDOCRINE
- HEMATOLOGY
- IMMUNOLOGY
- PATHOLOGY
- SEROLOGY
- URINE
- BODY FLUIDS
- THERAPEUTIC DRUG MONITORING/TOXIC...
- INFECTIOUS DISEASE/MICROBIOLOGY

PROTEIN

Component	Ref Range & Units
ALBUMIN FRACTION	4.46
PROTEIN EP - ALPHA 1 FRACTION	0.25
PROTEIN EP - ALPHA 2 FRACTION	0.67
PROTEIN EP - BETA FRACTION	0.80
PROTEIN EP - GAMMA FRACTION	0.83
PROTEIN EP INTERPRETATION	Monoclonal band(s) present. Final Interpretation By: Ashley Cunningham, MD.
Immunotyping Electrophoresis	IgG Kappa, 0.28 g/dL. Final Interpretation By: Ashley Cunningham, MD.

Immunotyping Electrophoresis Interpretation, Serum

9/22 13:19 (Collected) | Blood Venous

IgG Kappa, 0.28 g/dL. Final Interpretation By: Ashley Cunningham, MD.

Resulting Lab: WISCONSIN DIAGNOSTIC LAB

Related Results	Ref Range & Units
ALBUMIN FRACTION	3.10 - 5.60 g/dL 4.46
PROTEIN EP - ALPHA 1 FRACTION	0.15 - 0.53 g/dL 0.25
PROTEIN EP - ALPHA 2 FRACTION	0.50 - 1.10 g/dL 0.67
PROTEIN EP - BETA FRACTION	0.50 - 1.20 g/dL 0.80
PROTEIN EP - GAMMA FRACTION	0.50 - 1.50 g/dL 0.83

PROTEIN EP INTERPRETATION Monoclonal band(s) present. Final Interpretation By: Ashley Cunningham, MD.

Comment: On 10/22/2025, the method for protein electrophoresis and paraprotein characterization at Wisconsin Diagnostic Laboratories changed to the Sebia capillary electrophoresis and immunotyping method from the Helena gel electrophoresis and immunofixation method.

Immunotyping Electrophoresis Interpretation, Serum IgG Kappa, 0.28 g/dL. Final Interpretation By: Ashley Cunningham, MD.

