

NEW TEST ANNOUNCEMENT

MML JACKSONVILLE

NOTIFICATION DATE: February 10, 2011 **EFFECTIVE DATE** March 15, 2011

MONOCLONAL PROTEIN STUDY, EXPANDED PANEL, SERUM #800303

EXPLANATION: Mayo Medical Laboratories is pleased to announce that our Jacksonville Laboratory will be adding Monoclonal Protein Study, Expanded Panel, Serum, to their test menu. The testing and reporting is equivalent to Rochester test, Monoclonal Protein Study, Expanded Panel, Serum (Test code #87997).

PROFILE INFORMATION:

Unit Code	Reporting Name	Available Separately	Always Performed
800304	Total Protein	Yes (order #8520)	Yes
800305	Protein Electrophoresis	No	Yes
800306	Immunofixation	No	Yes
800281	Kappa Free Light Chain, S	No	Yes
800283	Lambda Free Light Chain, S	No	Yes
800284	Kappa/Lambda FLC Ratio	No	Yes

USEFUL FOR:

- Diagnosis of monoclonal gammopathies.
- Eliminating the need for urine monoclonal studies as a part of initial diagnostic studies (ie, ruling out monoclonal gammopathy).
- Assessing risk of progression from monoclonal gammopathy of undetermined significance to multiple myeloma.

METHODOLOGY:

800304: Biuret

800305: Agarose Gel Electrophoresis

800306: Immunofixation

800281, 800283, 800284: Nephelometry

REFERENCE VALUES:

PROTEIN, TOTAL:

> or = 1 year: 6.3-7.9 g/dL

PROTEIN ELECTROPHORESIS

Albumin: 3.4-4.7 g/dL

Alpha-1-globulin: 0.1-0.3 g/dL Alpha-2-globulin: 0.6-1.0 g/dL Beta-globulin: 0.7-1.2 g/dL Gamma-globulin: 0.6-1.6 g/dL

An interpretive comment is provided with the report.

IMMUNOFIXATION

Negative (reported as positive or negative)

KAPPA-FREE LIGHT LAMBDA-FREE LIGHT KAPPA/LAMBDA FLC

CHAIN CHAIN RATIO 0.33-1.94 mg/dL 0.57-2.63 mg/dL 0.26-1.65

SPECIMEN REQUIREMENTS:

Container/Tube: Plain, red-top tube(s) or serum gel tube(s)

Specimen Volume: 2 mL of serum **Collection Instructions:** Fasting

CAUTIONS:

- Protein electrophoresis (PEL) alone is not considered an adequate screen for monoclonal gammopathies.
- Very large IgG M-spikes (>4 g/dL) may saturate the protein stain. In these situations, quantitative IgG assays more accurately determine M-spike concentrations for monitoring disease progression or response to therapy.
- Although the PEL M-spike is the recommended method of monitoring monoclonal gammopathies, IgA and IgM proteins that are contained in the beta fraction may be more accurately monitored by quantitative immunoglobulins.
- Fibrinogen will migrate as a distinct band in the beta-gamma fraction but will be negative on immunofixation electrophoresis.
- Hemolysis may augment the beta fraction.
- Penicillin may split the albumin band.
- Radiographic agents may produce an uninterpretable pattern.
- Elevated kappa and lambda FLC may occur due to polyclonal hypergammaglobulinemia or impaired renal clearance. A specific increase in FLC (eg, FLC K/L ratio) must be demonstrated for diagnostic purposes.
- Moderate to marked lipemia may interfere with the ability to perform testing.

MML LIST FEE: \$ 447.70

CPT CODE:

83883 x 2-Nephelometry, each analyte not elsewhere specified 84155-Protein, Total 84165-Protein electrophoresis 86334-Immunofixation

ANALYTIC TIME: 1 day

DAY(S) SET-UP: Monday through Saturday

QUESTIONS: Contact your Mayo Medical Laboratories' Regional Manager Greg Renkly, Mayo Medical Laboratories' Technologist Support Telephone: 800-533-1710