MAYO CLINIC
Mayo Medical Laboratories

**NEW TEST ANNOUNCEMENT**
**MML JACKSONVILLE**
**NOTIFICATION DATE:** February 10, 2011
**EFFECTIVE DATE** March 15, 2011

# MONOCLONAL PROTEIN STUDY, SERUM #800302

**EXPLANATION:** Mayo Medical Laboratories is pleased to announce that our Jacksonville Laboratory will be adding Monoclonal Protein Study, Serum, to their test menu. The testing and reporting is equivalent to Rochester test, Monoclonal Protein Study, Serum (Test code #81756).

**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 |

**USEFUL FOR:**

- Diagnosis of monoclonal gammopathies, when used in conjunction with urine monoclonal studies.
- Monitoring patients with monoclonal gammopathies.
- Protein electrophoresis alone is not considered an adequate screening for monoclonal gammopathies.

**METHODOLOGY:**
800304: Biuret
800305: Agarose Gel Electrophoresis
800306: Immunofixation
Includes total protein, serum protein electrophoresis (SPEP), heavy-chain typing, and light-chain typing (kappa and lambda). See "Laboratory Screening Tests for Suspected Multiple Myeloma" in Special Instructions and see "Laboratory Approach to the Diagnosis of Amyloidosis" in Special Instructions.

**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)

**SPECIMEN REQUIREMENTS:**
**Container/Tube:** Plain, red-top tube(s) or serum gel tube(s)
**Specimen Volume:** 1 mL of serum
**Collection Instructions:** Fasting

**CAUTIONS:**

- 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.
- 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.

**MML LIST FEE:** $ 199.00

**CPT CODE:**
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