

Monoclonal Protein Quantitation, Random, Urine

Test ID: RMPQU

Useful for:

Identifying monoclonal gammopathies using random urine specimens

Profile Information:

Test ID	Reporting Name	Available Separately	Always Performed
RPEU	Protein Electrophoresis, Random, U	No	Yes
RPTU2	Protein/Creatinine Ratio, Random, U	Yes (RPTU1)	Yes

Reflex Tests:

Test ID	Reporting Name	Available Separately	Always Performed
MPTRU	M-protein Mass-Fix, Random, U	No	No

Methods:

RPTU2: Turbidimetry/Enzymatic Colorimetric Assay

RPEU: Agarose Gel Electrophoresis

MPTRU: Matrix-Assisted Laser Desorption/Ionization-Time of Flight Mass Spectrometry (MALDI-TOF MS)

Reference Values:

CREATININE:

> or =18 years old: 16-326 mg/dL

Reference values have not been established for patients who are younger than 18 years of age.

PROTEIN/CREATININE RATIO:

> or =18 years: <0.18 mg/mg creatinine

Reference values have not been established for patients younger than 18 years of age.

ELECTROPHORESIS, PROTEIN

The following fractions, if present, will be reported as mg/dL:

- Albumin
- Alpha-1-globulin
- Alpha-2-globulin
- Beta-globulin
- Gamma-globulin

No reference values apply to random urines.

MASS-FIX M-PROTEIN ISOTYPE

M-protein Isotype MS:

No monoclonal protein detected

Flag M-protein Isotype MS:

Negative

Specimen Requirements:

Supplies: Urine Container, 60 mL (T313)

Submission Container/Tube: Plastic, 60-mL urine bottle

Specimen Volume: 50 mL

Minimum Volume: 30 mL

Collection Instructions:

1. Collect a random urine specimen.
2. Aliquot between 30 mL and 50 mL of urine into a plastic, 60-mL urine bottle.

Specimen Stability Information:

Specimen Type	Temperature	Time
Urine	Refrigerated (preferred)	14 days
	Ambient	24 hours
	Frozen	5 days

Cautions:

Patients suspected of having a monoclonal gammopathy may have a normal urine protein electrophoretic pattern, and these patients should have M-protein isotyping performed.

Monoclonal gammopathies are rarely seen in patients younger than 30 years of age.

Hemolysis may cause a discrete band on protein electrophoresis, which will be negative on immunofixation.

Penicillin may split the albumin band.

Radiographic agents may produce an uninterpretable pattern.

CPT Code:

84156

82570

84166

0077U (if appropriate)

Day(s) Performed: Monday through Friday

Report Available: 4 to 6 days

Questions

Contact Amy Ennis, Laboratory Resource Coordinator at 800-533-1710.