



## Albumin in Urine (Qualitative Determination)

### Exton's Sulfosalicylic Acid Test

Reagents Needed:

Exton Qualitative Reagent

RICCA CHEMICAL COMPANY Cat. No. 2950

Recommended Method:

1. Clarify the urine sample by centrifugation, filtration, or charcoal treatment and filtration.
2. Mix equal volumes of the clarified urine sample and Exton Qualitative Reagent in a test tube.
3. Observe and grade for cloudiness. Comparison with a set of graded standards is recommended.
4. If desired, repeat the test with another portion of the same urine sample to which some control serum has been added. The white cloud should be denser than in the first test.

Interpretation of Results:

A white cloud indicates the presence of protein, usually Albumin or Globulin. Bence Jones protein causes a heavy precipitate which clears when boiled and reappears on cooling.

Interferences:

**False positive results** can occur during therapy with Tolbutamide, massive doses of Penicillin, Sulfonamides, and up to three days following administration of radiographic dyes.

**Other Interferences:** Bacterial proteins (in alkaline urine with abundant bacteria), Mucin (remove by acidifying the urine sample with Acetic Acid, then filtering), salts in extremely concentrated urine.

**False negative results** can occur in very dilute urine samples or highly buffered alkaline urine samples.

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### Robert's Ring Test

Reagents Needed:

Robert's Reagent

RICCA CHEMICAL COMPANY Cat. No. 6630

Recommended Method:

1. Clarify the urine sample by centrifugation, filtration, or charcoal treatment and filtration.
2. Add 1 mL of Robert's Reagent to a test tube.
3. Gently layer 1 mL of the clarified urine sample on the heavier Robert's Reagent using a pipet or dropper.
4. Repeat the test with another portion of the same urine sample to which some control serum has been added. The white ring should be denser than in the first test.

Interpretation of Results:

A white ring indicates the presence of Albumin. The density of the ring varies with the amount of Albumin present. When only traces of Albumin are present, the white ring may not appear for two or three minutes.

Interferences:

**False positive results** can be caused by Bence Jones protein, primary protease, Thymol, bacterial proteins (in alkaline urine), and resinous drugs.

**Other Interferences:** White rings or cloudiness above the zone of contact may result from excess urates or mucus. Colored rings near the junction may be produced by iodides, urinary pigments, bile, or indican. Mucin, the most common interferent, may be removed by acidifying the urine sample with Acetic Acid, then filtering. In extremely concentrated urine, certain of the urinary salts may interfere.

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These are typical procedures. These reagents may be suitable for use in other procedures. Consult clinical laboratory reference books or standard operating procedures for other suitable uses of these products.