
Lab Dept: Urine/Stool

Test Name: MICROALBUMIN, TIMED URINE

General Information

Lab Order Codes: UMAT

Synonyms: Microalbumin, timed urine

CPT Codes: 82043 – Albumin; urine, microalbumin, quantitative
81050 – Volume measurement for timed collection
82570 – Creatinine; other source

Test Includes: Urine Microalbumin in mg/L, Urine Creatinine in mg/dL
Albumin/creatinine ratio and Urinary Albumin Excretion Rate (UAE) in ug/minute.

Logistics

Test Indications: Increased excretion of albumin (microalbuminuria) is a predictor of future development of clinical renal disease in patients with hypertension or diabetes mellitus.

Lab Testing Sections: Chemistry

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 day

Special Instructions: Submit an entire 24-hour urine collection. No preservative. Refrigerate specimen during and after collection.

Note: Starting and ending times of collection are required for a timed urine collection and must be documented electronically or on the proper request form.

Specimen

Specimen Type: Urine, timed collection

Container: Plastic leakproof container (No preservative). Urine GUARD® collection container is preferred for a timed urine sample.

Draw Volume: Submit entire 24 hour or timed urine collection.

Processed Volume: Minimum: 1 mL urine

Collection: For timed urine collections, empty the bladder, discard the voided sample, and note the start time. Collect all urine voided for the specified time period. At the end of the period, note the finishing time, add the last voided sample to the container by emptying the bladder. Bring the refrigerated container to the lab or doctor's office. Make sure all specimens submitted to the laboratory are properly labeled with the patient's name, medical record number and date of birth.

Special Processing: Lab Staff: Measure total volume of specimen submitted and record by ordering PV (Period and Volume) in the LIS.
Pour off an aliquot and centrifuge specimen before analysis.

Patient Preparation: Sample should not be collected after exertion, in the presence of urinary tract infection, during acute illness, immediately after surgery, or after acute fluid load.

Sample Rejection: Mislabeled or unlabeled specimens; samples contaminated with blood

Interpretive

Reference Range:	Microalbumin:	<30 mg/collection
	Albumin/creatinine ratio (A/C ratio):	<30 mg/g Normal
		30 - 299 mg/g Microalbuminuria
		>300 mg/g Clinical albuminuria
	Urine Albumin Excretion Rate:	0 – 19 mcg/minute
	Urine Creatinine:	No reference ranges established

Critical Values: N/A

Limitations: Due to variability in urinary albumin excretion, at least two of three test results measured within a 6-month period should show elevated levels before a patient is designated as having microalbuminuria.

Exercise within 24 hours, infection, fever, congestive heart failure, marked hyperglydemia, and marked hypertension may elevate urinary albumin excretion over baseline values.

Methodology: Turbidimetric/Immunturbidimetric

References:

Abbott Alinity c Microalbumin Reagent Kit Instructions for Use, Abbott Diagnostics Division, Abbott Park, IL, 60064, USA. Revised February 2018

Abbott Alinity c Microalbumin Calibrator Package Insert, Abbott Diagnostics Division, Abbott Park, IL, 60064, USA. Revised December 2017

Jacobs & DeMott Laboratory Test Handbook (2001) Lexi-Comp, Inc, Hudson, OH, 5th Edition

Biorad Liquichek Urine Chemistry Control Product insert, Bio-Rad Laboratories, Irvine, CA 92618

Updates:

8/29/2005: Method change, previously listed as Immunoturbidimetric /Modified benedict/Behre.

4/29/2014: Method change, previously listed as Turbidimetric/Immunoassay – PETINIA

9/28/2017: Updated lab processing.

11/24/2020: Updated for method Abbott Alinity, removed method Siemens Vista