<table>
<thead>
<tr>
<th>Lab Dept:</th>
<th>Urine/Stool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Name:</td>
<td>MICROALBUMIN, TIMED URINE</td>
</tr>
</tbody>
</table>

**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

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>Microalbumin:</th>
<th>30 mg/collection</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Albumin/creatinine ratio (A/C ratio):</em></td>
<td>&lt;30 mg/g Normal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30-300 mg/g Microalbuminuria</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;300 mg/g Clinical albuminuria</td>
<td></td>
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<tr>
<td><strong>Urine Albumin Excretion Rate:</strong></td>
<td>0 – 19 mcg/minute</td>
<td></td>
</tr>
<tr>
<td><strong>Urine Creatinine:</strong></td>
<td>No reference ranges established</td>
<td></td>
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</table>

**Critical Values:** N/A

**Limitations:** N/A

**Methodology:** Nephelometry

**References:** Siemens Dimension Vista MALB Flex Package Insert, K7062G00E0803, Rev 3/2011
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.