**Lab Dept:** Flow and Immunology  

**Test Name:** ANTIBODIES TO EXTRACTABLE NUCLEAR ANTIGENS  

### General Information

**Lab Order Codes:** ABENA  

**Synonyms:** ENA antibodies; Anti-ENA  

**CPT Codes:** 86235 x6 – Extractable nuclear antigen, antibody to, any method  

**Test Includes:** Detection of antibodies to the extractable nuclear antigens Sm (Smith), RNP, SS-A (Ro), SS-B (La), Scl-70, and Jo-1 in serum. The results will be reported in ENA Units with corresponding interpretations of negative, borderline or positive.

### Logistics

**Test Indications:** The results from this assay can be used as an aid in the diagnosis of autoimmune diseases. The incidence of autoantibodies to various nuclear antigens varies depending upon the patient population, and the incidence of clinical rheumatic diseases in that population. The association of the antibodies with specific rheumatic diseases is summarized in this table:

<table>
<thead>
<tr>
<th>Antibodies to:</th>
<th>Disease Association:</th>
</tr>
</thead>
</table>
### Lab Testing Sections:
- Immunology

### Phone Numbers:
- MIN Lab: 612-813-6280
- STP Lab: 651-220-6550

### Test Availability:
- Daily, 24 hours

### Turnaround Time:
- 1 - 4 days – testing is batch processed twice weekly

### Special Instructions:
- N/A

### Specimen

<table>
<thead>
<tr>
<th>Specimen Type:</th>
<th>Blood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container:</td>
<td>Red top tube, plain, no gel</td>
</tr>
<tr>
<td>Draw Volume:</td>
<td>1.5 mL blood</td>
</tr>
</tbody>
</table>

If ANA and/or dsDNA are also being ordered, a draw volume 1.5 mL will be adequate for all tests.

| Processed Volume: | 0.5 mL serum |

### Abnormalities

<table>
<thead>
<tr>
<th>Marker</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sm</td>
<td>Highly specific marker antibody seen in 25 - 30% of SLE patients</td>
</tr>
<tr>
<td>U1-RNP</td>
<td>Mixed Connective Tissue Disease &gt;95%; SLE 35%; lower frequency in discoid lupus or progressive systemic sclerosis (PSS).</td>
</tr>
<tr>
<td>SS-A/Ro</td>
<td>Sjögren’s syndrome 60 - 70%; SLE 50%</td>
</tr>
<tr>
<td>SS-B/La</td>
<td>Sjögren’s syndrome 40 - 50%; SLE 15%</td>
</tr>
<tr>
<td>Scl-70</td>
<td>Highly specific marker antibody seen in 15 - 20% of PSS patients</td>
</tr>
<tr>
<td>Jo-1</td>
<td>Highly specific marker antibody seen in 25 - 30% of patients with polymyositis or dermatomyositis</td>
</tr>
</tbody>
</table>
**Collection:** Blood should be collected aseptically and placed in a plain red top tube or other plain sterile tube without anticoagulant and allowed to clot at room temperature.

**Special Processing:** Lab Staff: Centrifuge specimen; transfer serum to a plain polypropylene tube, and refrigerate. If testing is delayed longer than 7 days, serum should be frozen at -20ºC or colder. Serum should not be stored in a self-defrosting freezer.

**Patient Preparation:** N/A

**Sample Rejection:** Sera exhibiting a high degree of hemolysis, icterus, or microbial growth will not be used because these conditions may cause aberrant results.

**Interpretive**

**Reference Range:** The results will be reported in ENA Units with corresponding interpretations of negative, borderline or positive:

- <20 ENA Units: Negative
- 20 - 30 ENA Units: Borderline
- >30 ENA Units: Positive

**Critical Values:** N/A

**Limitations:** Diagnosis cannot be made on the basis of antibodies to extractable nuclear antigens alone. Some patients with autoimmune diseases may have undetectable or insignificant levels of antibodies to extractable nuclear antigens, and some individuals may have high levels of antibodies to extractable nuclear antigens, but little or no evidence of clinical disease. The physician must interpret these results in conjunction with the patient’s history and symptoms, the physical findings, and other diagnostic procedures.

**Methodology:** Qualitative Indirect Enzyme Immunoassay (EIA)

**References:** Immuno Concepts® RELISA® ENA Test System Package Insert. July 1996