AUTOIMMUNE THROMBOCYTOPENIA PURPURA (AITP):
AITP is one of the most common causes of immune thrombocytopenia. A diagnosis of AITP is usually reached by excluding nonimmune causes of thrombocytopenia such as sepsis, fever, acute leukemia, and drug-induced thrombocytopenia. Approximately 85% of AITP patients have elevations of platelet-associated IgG (PAIgG), PAIgM or both.\(^1\) The majority of these antibodies react with platelet surface membrane glycoproteins.\(^3-5\)

ADVANTAGES:
- Detects glycoprotein-specific antibodies in eluates prepared from washed patient platelets resulting in improved specificity.\(^6\)
- Previous tests were nonspecific in that positive results were often seen in patients with nonimmune types of thrombocytopenia.\(^2\)
- Antibodies specific for the platelet glycoproteins GPIIb/IIIa, GPIb/IX, and GPIa/IIa are detected.

METHOD:
ELISA
Platelets and plasma are isolated from whole blood. Platelets are washed and bound autoantibodies are eluted with a low pH buffer. Eluates and patient plasma are incubated in microtiter plates coated with GPIIb/IIIa, GPIb/IX, and GPIa/IIa captured with monoclonal antibodies. Glycoprotein-bound autoantibodies are detected with enzyme labelled antibody. Colorimetric results are measured in an ELISA reader.

REASONS FOR REFERRAL:
Detection of platelet autoantibodies associated with acute or chronic AITP.

LIMITATIONS:
Positive or negative results should be used in conjunction with clinical findings and other test results to establish diagnosis. Autoantibodies present at reduced levels, as in AITP responsive to therapy, may be missed in this assay. This assay detects only antibodies reactive with platelet GPIIb/IIIa, GPIb/IX and GPIa/IIa. Human anti-mouse antibodies may be detected, causing false positive results.

Samples from patients recently transfused may reflect characteristics of donor platelets. If the patient has been transfused, wait 4 days before drawing sample. If the patient is receiving continuous platelet transfusions, draw sample immediately before next transfusions. Steroids or IVIg do not affect testing.
REFERENCE RANGE:
Negative  -  ELISA values less than twice the normal control values.
Positive  -  ELISA values greater than twice the normal control values.

SPECIMEN REQUIREMENTS:
ACDA (yellow top) whole blood is the preferred sample. EDTA whole blood is acceptable.

<table>
<thead>
<tr>
<th>Patient Platelet Count</th>
<th>Volume of Whole Blood</th>
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<tbody>
<tr>
<td>&lt; 100,000 per mm$^3$</td>
<td>40 ml</td>
</tr>
<tr>
<td>&gt; 100,000 per mm$^3$</td>
<td>10 ml</td>
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*Note: Sample must be received within 4 days of draw.*

SHIPPING REQUIREMENTS:
Ship on an ice pack. Protect whole blood from freezing by wrapping in paper towels. Place the specimen and the test requisition into plastic bags and seal. Insert into an insulated container, place in a sturdy cardboard box and tape securely. Ship the package in compliance with your overnight carrier guidelines. Label box with the following address:

Client Services/Platelet and Neutrophil Immunology Laboratory  
BloodCenter of Wisconsin  
638 N. 18th St.  
Milwaukee, WI 53233  
1-800-245-3117, ext. 6250

TURNAROUND TIME: 3 days

CPT CODES: 86022, 86023

REFERENCES:

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