Lab Dept: Transfusion Services
Test Name: PLATELET ANTIBODY

**General Information**

Lab Order Codes: APLT

Synonyms: Platelet Antibody Screen Serum; Indirect Platelet Antibody; Antiplatelet Antibodies; PLA-(HPA-la); Circulating Platelet Antibody; Platelet Ab Screen

CPT Codes: 86022 – Platelet Antibodies

Test Includes: Detection of alloantibodies to epitopes on platelet glycoproteins IIb/IIIa, Ib/IX, la/IIa, IV and class I human leukocyte antigens (HLA) to evaluate cases of immune mediated refractoriness to platelet transfusions, posttransfusion purpura, or neonatal alloimmune thrombocytopenia.

**Logistics**

Test Indications: This test is not recommended for the diagnosis of immune thrombocytopenia (ITP) or autoimmune thrombocytopenia. Tests that are optimized to detect antibodies bound to the platelets will be useful in these situations; cell-bound platelet antibody (direct) test is strongly recommended.

Lab Testing Sections: Transfusion Service - Sendouts

Referred to: Mayo Clinic Laboratories (MML Test: PLABN)

Phone Numbers: MIN Lab: 612-813-6820

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 - 4 days; Test performed Monday - Friday

Special Instructions: Red No Gel tube required. See Patient Preparation

If information on the reason for request, IVIg in the last month, platelet transfusion in the last 72 hours, or current platelet count is not available from electronic order, complete the Platelet Antibody Screen patient information form.

**Specimen**
Specimen Type: Blood

Container: Red top (no gel) tube

Draw Volume: 4.5 mL (Minimum: 1.5 mL) blood

Processed Volume: 1.5 mL (Minimum: 0.5 mL) serum

Collection: Routine venipuncture. See Patient Preparation

Special Processing: Lab Staff: Centrifuge and aliquot serum to plastic vial. Store and ship at frozen temperatures. Forward promptly.

Specimen stable frozen (preferred) for 365 days, refrigerated for 48 hours (2 days).

Patient Preparation: The patient must be positively identified when the specimen is collected. The label on the blood specimen must correspond with the identification on the patient’s Medical Record wrist or ankle band and on the physician’s/practitioner’s orders.

Do not collect within 72 hours of a platelet transfusion. Transfused platelets will interfere with this assay.

Sample Rejection: Gross hemolysis; sample placed in a serum separator tube; specimen tube not properly labeled; mislabeled or unlabeled specimens

Interpretive Reference Range: An interpretive report will be provided.
Limitations:

Erroneous results can occur from bacterial contamination of test materials, inadequate incubation periods, inadequate washing or decanting of test wells, exposure of substrate to stray light, omission of test reagents, exposure to higher or lower than prescribed temperature requirements, insufficient or excessive platelets, or omission of steps.

This assay is intended for use as a screening assay. The results of this assay should not be used as the sole basis for a clinical decision. The reaction patterns a test sample produces with this product should not be relied on solely to establish the identity of a platelet antibody. Therefore, positive or negative results obtained using this assay should be used in conjunction with clinical findings or other serological tests.

Some low-titer, low-avidity antibodies may not be detected using this assay.

The presence of other human platelet antigen (HPA) polymorphic variants located on glycoprotein (GP)IIb/IIIa (HPA-6, 7, 8, 9, 10, 11, 14, 16, 17, 19, 20, 21), GPIa/IIa (HPA-13, 18), and GP Ib/IX (HPA-12) has not been determined for the antigens captured in this kit. Antibodies to these systems may be reactive in this assay.

Antibodies to low incidence class I human leukocyte antigens (HLA) may not be detected using this product.

This test has not been evaluated for the detection of autoantibodies to platelet antigens.

For neonate testing, consider sending a maternal specimen instead of a neonate specimen as unbound platelet antibodies may not be detected in the neonate serum.

This test is not recommended for the diagnosis of immune thrombocytopenia (ITP) or autoimmune thrombocytopenia. Tests that are optimized to detect antibodies bound to the platelets will be useful in these situations; cell-bound platelet antibody (direct) test is strongly recommended.

Methodology:

Solid Phase Enzyme-Linked Immunosorbent Assay (ELISA)

References:

Mayo Clinic Laboratories June 2023
Updates:

9/20/2010: Specimen storage requirements changed from refrigerated to frozen.