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, Ia/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 GPIb/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:	3/2/2004: Test moved from North Central Blood Service of American Red Cross to Mayo Medical Laboratories. 9/20/2010: Specimen storage requirements changed from refrigerated to frozen. 6/12/2023: Added instruction regarding required clinical information form, added stability, added limitations and patient preparation collection timing, amended test use guidance, corrected Mayo's test code.