
Lab Dept: Transfusion Services

Test Name: RBC PHENOTYPING/Rh PHENOTYPING

General Information

Lab Order Codes: MPHEN – Minneapolis (RBC)

MRHPH – Minneapolis (Rh)

APHEN – St Paul (RBC)

ARHPH – St. Paul (Rh)

Synonyms: Antigen type, Red cells, Phenotype; Rh phenotyping

CPT Codes: 86905 - RBC antigens, other than ABO or Rh (D) each

86906 – Rh phenotyping, complete

Test Includes: Testing for common antigens of the Rh, Kell, MNS, Duffy, Kidd, P and Lewis blood group systems.

Logistics

Test Indications: Determine likelihood of Rh positive child in genetic counseling, determine likelihood of hemolytic disease of the newborn in cases of maternal antibody, identify compatible blood for recipients with atypical antibodies, identify phenotypically matched blood for recipients likely to receive multiple red cell transfusions to prevent the production of atypical antibodies.

Lab Testing Sections: Transfusion Service - Sendouts

Referred to: Memorial Blood Center - Minneapolis

American Red Cross/North Central Blood Services (NCBS) – St Paul

Phone Numbers:

Minneapolis: 612-813-6824

Saint Paul: 651-220-6558

Test Availability: Monday - Friday

Turnaround Time: 1 - 2 days

Special Instructions: Provide Transfusion Services with patient's transfusion history outside of Children's system.

Specimen

Specimen Type: Whole blood

Container: Lavender top (EDTA) tube and Red top tube (**SST tubes are not acceptable**).

Draw Volume: 3 – 6 mL blood in a Lavender top (EDTA) tube and 3 mL blood in a Red top tube

Collection: All specimens submitted to the Transfusion Service must be appropriately labeled at the bedside with the time and date of collection and the signature of the individual collecting the specimen. A completed order, either through the HIS or general requisition must accompany each specimen. It is not always necessary to collect a new sample prior to the provision of blood for patients. Consult with the Transfusion Service prior to collecting additional samples if the patient status is unknown.

Special Processing: Lab Staff: **Do Not** spin. Complete Blood Center test requisition form.

Patient Preparation: Refer to [Collection of Patient Specimens](#) for full details. 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 (or ED ID) and on the physician's/practitioner's orders. The specimen must be timed, dated and signed by the phlebotomist at the bedside.

Sample Rejection: Gross hemolysis, sample placed in a serum separator tube, specimen not properly labeled.

Interpretive

Reference Range: Frequencies of phenotypes vary significantly in different ethnic groups.

Limitations: N/A

Methodology: Antisera to known RBC antigens. Methodology dependent on antigen group and Reference Lab.

Contraindications: Recent transfusion within the past 3 months.

References: N/A