

Vitalant Reference Laboratory

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The Immunohematology Reference Laboratory (IRL) at Vitalant provides specialized serological testing and consultation services to aid hospitals in the resolution of complex red blood cell (RBC) serological problems. We offer technical expertise in the areas of red blood cell serology testing, as well as platelet compatibility testing, to ensure the safety and well-being of your patients and their transfusion needs. The Vitalant IRL is accredited by CLIA and the American Association of Blood Banks (AABB), is FDA-certified, and licensed by the State of California for high-complexity testing. Our laboratory is also an active member of the American Rare Donor Program (ARDP), which provides a nation-wide search service for rare blood that is difficult to procure and not readily available at a local level.

The IRL is staffed 24 hours a day/7 days a week. On-site staffing is available from 7:00 AM until 11:30 PM on weekdays Monday through Friday. On-call staffing is made available for emergency (STAT or ASAP) testing after regular business hours, on weekends, and on holidays.

For recently transfused patients, include a pre-transfusion specimen if available. The following criteria must be present and evident on all samples submitted for testing to the Immunohematology Reference Lab per current AABB Standards (5.11.2-5.11.2.4) If critical information is missing or discrepant, samples may be rejected.

- Patient samples shall be identified with an affixed label bearing sufficient information for unique identification of the patient, including two unique identifiers:
 - Patient's full name (first and last name)
 - Medical Record # or Date of Birth
- There shall be a mechanism to identify the date and time of sample collection and the individual(s) who collected the sample from the patient:
 - Initials of the phlebotomist who performed collection
 - Date/Time sample collected

Include a list of the patient's medications whenever possible and attach copies of the work performed at your facility. Samples for RBC serological testing should be shipped in a container that maintains a temperature between 1°C – 25°C, and should arrive in the IRL within 24 hours after they are collected. Please thoroughly complete the Reference Laboratory Request Form (BS 313) and contact Vitalant to arrange for sample pick-up and/or shipping.

IRL Test Menu

Vitalant Immunohematology Reference Laboratory offers the following list of testing services:

Red Cell Serology Testing

ABO/Rh Typings

ABO/Rh Discrepancy Resolutions

Antibody Screens

Antibody Identification (simple to complex)

Adsorptions – Autologous or Allogeneic

Direct Antiglobulin Test (DAT)

Elutions

Drug Studies/Immunotherapy resolutions (anti-CD38, anti-CD47)

Antigen Typing

HDFN Evaluations

Red Cell Extended Phenotypes (Serological)

Red Cell Separations (reticulocyte harvest)
 Red Cell Molecular Genotypes (complete/RHCE/RHD)
 Red Cell Chemical Treatments (EGA, DTT, CQT)
 Red Cell Enzyme Treatments (Ficin, Papain, Trypsin)
 Titration Studies
 Adsorption/Elution Studies
 Transfusion Reaction Investigations
 Special Serum Studies (0.01M DTT, Neutralization, Inhibition)

Platelet Testing

Platelet Antibody Screens (Capture-P)
 Platelet Crossmatch/Compatibility (Capture-P)
 HLA A,B (IR) Typings
 HLA Class I Antibody Screens/Identifications

Guidelines for Referral Status & TATs

The turn-around-times (TAT's) for referred samples can vary depending on the complexity of the request. See below for general TAT descriptions:

Urgency of request	Aim to provide Preliminary Results in...
STAT* (Life-threatening emergency)	~8 hours (fees may apply*)
ASAP (Transfusion needed NOT life-threatening)	~24 hours (fees may apply*)
Routine (not urgent)	1-4 days

All TAT's are measured from the time the sample is received by the testing laboratory.

Emergency (STAT*) status should be considered for patients who:

- Demonstrate any of the symptoms listed in #1
 - Answer “yes” to questions #2 and #4
 - Answer “yes” to questions #3 and #4
1. Does the patient have any of the following clinical symptoms:
 - High output failure: heart failure-rapid beating with insufficient O2 delivery?
 - Angina: coronary artery disease with persistent decrease in O2 delivery to the myocardial muscle?
 - Impending stroke: cerebral vascular disease with persistent decrease in O2 delivery to the cerebrum?
 2. Is the patient actively bleeding? Note: a rapid drop in hemoglobin (>1 gm/dL / 24 hours) places the patient at risk.
 3. Does the patient require surgery during the next 24 hours?
 4. Are all units incompatible?

Platelet Crossmatching samples must be received no later than 12:00pm on the day of testing. Units are typically available the following day once they are released into inventory. Requests for STAT Platelet Crossmatch cannot be guaranteed on the same day, but all efforts will be made to accommodate depending on current inventory. All samples for platelet testing received after 12:00pm may be subject to delayed testing and will most likely be tested the next day.

Molecular Genotyping (red cell or platelets): Routine (~5-10 days)
 HLA Testing (HLA A, B (IR) typing, HLA antibody): Routine (48-72 hours)

IRL Sample Requirements

(No gel-separator tubes)

Red Cell Serological Testing	2-4 EDTA tubes 1 clot tube
Platelet Testing	2 EDTA tubes
HDFN Evaluation	Mom: 2-3 EDTA tubes, 1 clot tube Baby: 2-10 mL cord blood
HLA A,B (IR) typing	3 ACD-A tubes (light yellow) (please inquire with the HLA Coordinator before sending)
HLA Class I antibody screen/ID	1-2 clot tubes (please inquire with the HLA Coordinator before sending)
Molecular testing (genotyping)	1-2 EDTA tubes

[CLICK HERE for a Histocompatibility Request Form](#)

HLA Coordinator: #415-354-1384

Reporting and Billing

Preliminary reports (prior to final review) and billing information will be faxed when testing is completed. Final reports are faxed and mailed to the hospital after the final review has been completed. Billing for testing services is handled through the normal billing process at Vitalant.