



# Blood Products and Testing Services



Stanford Blood Center is a one-stop solution offering a wide range of custom blood products and testing services to support clinical and research communities.

## **Transfusible Blood Products**

- Components manufacturing
- Quality control (QC)

## **Donor Testing Lab**

- Donor testing
- Infectious disease testing

## **Immunohematology Reference Lab (IRL)**

## **Special Donations**

- Autologous donations
- Directed donations
- Therapeutic donations

## **SBC Biologics**

- Research biologics
- Cellular therapy products
- Custom services

## **Flow Cytometry**

- Cell characterizations
- Special services

## **HLA Lab**

- Solid organ and bone marrow transplant testing
- Disease association and pharmacogenetic testing



# Transfusible Blood Products

SBC's Manufacturing Laboratory processes and stores blood components in a regulated, controlled environment to ensure quality and compliance. Our QC Lab ensures efficacy of manufactured blood products.

## Routine and specialized products

- Red Blood Cells (RBCs)
  - 100% leukoreduced
  - Irradiated RBCs
  - Genotyped antigen-specific units
- Platelets by apheresis
  - Pathogen reduced
  - HLA typed
- Pooled Cryoprecipitate
  - Pathogen reduced and pooled
  - AHF
- Plasma
  - Cryoreduced
  - Fresh
  - Frozen
  - Liquid transfusible
  - COVID-19 Convalescent Plasma (CCP)
- Granulocytes

## Distribution support

Our team collaborates with MDs, transfusion services, and research partners to ensure timely delivery and a sustainable blood supply.





# Donor Testing Lab

## Types of tests

- Infectious disease testing
- Immunohematology
- Donor health and wellness

## Types of donors tested

- Blood donor
- Bone marrow donor
- Living kidney donor

## Tests include:

- Serology
  - Anti-HBc
  - Anti-HCV
  - Anti-HTLV 1/2
  - HBsAg
  - HIV 1/2 Combo Ag/Ab
  - T. Cruzi Ab
- Syphilis testing
- CMV Ab capture and IgG/ IgM titer
- Extended RBC molecular blood typing
- Multiplex (HIV, HBV, HCV NAT)
- West Nile Virus
- HbA1c
- Total cholesterol

# Immunohematology Reference Laboratory (IRL) Testing

## Services include:

- ABO/Rh Discrepancy workup
- Complex Antibody Identification
- Positive DAT Antibody Identification
- Warm Autoantibody workup
- Antibody Titration (including prenatal titers)
- RBC Phenotype

# Special Donations

While the vast majority of blood donations are allogenic, occasionally other types of donations may be required. Stanford Blood Center offers customized support for rare donation circumstances.

- Autologous donations
- Directed donations
- Therapeutic donations
- Granulocytes
- HLA-matched platelets



# SBC Biologics

## Products

### Leukocytes

- GMP\* and RUO leukopaks from healthy donors
- RUO leukopaks from donors mobilized with GCSF
- Primary cells (cryopreserved or freshly isolated): B cells, T cells (CD4+/CD8+), monocytes, NK cells, PBMC
- Buffy coats from whole blood
- LRS chambers — leukoreduction filter from platelet apheresis

### Plasma

- Frozen, recovered, or liquid plasma, cryoprecipitate (AHF, IFC)

### Platelets

- Collected using automated technology

### Red blood cells

- CPD-preserved

### Tubes

- Green Top 10ml (Heparin), Red Top 4ml (Clot), Purple Top 6ml (K2 EDTA), Yellow Top 8.5ml (ACDA-Liquid)
- Custom collection into researcher-provided tubes available with advance notice

### Whole blood

- Fresh, 475mL (CPD anticoagulant)

## Services

Stanford Blood Center (SBC) provides blood products for investigational use. Requests for blood products for clinical trials will be evaluated by SBC's Medical Director (IRB approval is required).

### Services offered

- Complete Blood Count (CBC) with differential
- Deidentified donor demographic reports
- Recruitment and selection of donors
- Infectious disease panel reporting (by request)
- HLA-typing (customizable, see HLA Lab section)
- Medical consultations
- Special order requests
- Blood irradiation services available upon request

\*21 CFR 1271 compliant, AABB Cell Sourcing Material Certification





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SBC BIOLOGICS



## Flow Cytometry Testing

Stanford Blood Center provides specialized flow cytometry services to meet diverse research needs.

- Cell isolation and cryopreservation
- Cell sorting (operator-assisted)
- Research studies using flow cytometry
- Instrument access (with or without operator)
- LeucoCount
- Lymphocyte proliferation testing
- Special order requests



# HLA Lab

Stanford Blood Center's HLA Laboratory supports hematopoietic stem cell and solid organ transplants, transfusion medicine, and HLA-related disease association and pharmacogenetics.

## Key features

- Accredited by ASHI, certified by CLIA, and licensed for high-complexity testing
- Serving numerous customers in the San Francisco Bay Area and beyond



## Histocompatibility and immunogenetics testing to support transplantation

Comprehensive testing services for marrow/stem cell, kidney, heart, lung, intestine, and pancreas transplants:

- **Chimerism Testing:** STR and NGS-based profiles, including subsets\*
- **HLA Typing:** High resolution (NGS), intermediate resolution (SSO), and low resolution (RT-PCR)\*
- **Antibody Screening:** C1q and IgG Class I/II
- T and B cell flow cytometry crossmatching
- Other services:
  - Donor-specific antibody monitoring
  - KIR typing
  - DNA extraction and storage
  - Desensitization monitoring
  - Cell isolation and freezing
  - Platelet compatibility
  - Blood donor HLA antibody testing

\*Research options available





## Disease association and pharmacogenetic testing panels

SBC's HLA Lab provides a wide range of HLA disease association and pharmacogenetic testing panels, offering comprehensive and locus-specific HLA genotyping services. Our flexible testing solutions can be tailored to meet all customized HLA disease association and pharmacogenetic testing needs, ensuring accurate test results and interpretations for clinicians and researchers.

### About the panels

Our most frequently requested panels are:

#### Disease Association:

- Spondyloarthropathies (Ankylosing Spondylitis, Reactive Arthritis, Juvenile Arthritis)
- Celiac Disease

- Eye Disease HLA Association (Acute Anterior Uveitis, Behçet's Disease, Birdshot Chorioretinopathy)
- Narcolepsy
- Psoriasis
- Pediatric Acute-onset Neuropsychiatric Syndrome (PANS)

#### Drug Hypersensitivity:

- Abacavir Hypersensitivity
- Allopurinol Hypersensitivity
- Carbamazepine Hypersensitivity
- IL-1 and IL-6 Inhibitors Hypersensitivity

#### Custom HLA typing service:

- HLA typing Custom Panel (at intermediate resolution)
- HLA NGS typing (Full High Resolution)

*Additional panels and/or medical consultation available on request.*





# How to Order

## SBC Biologics

**Hours:** Monday–Friday, 8:00am–4:30pm  
**Phone:** (650) 724-2997  
**Email:** [sbc-clients@stanford.edu](mailto:sbc-clients@stanford.edu)  
**Online ordering:** [sbcbiologics.org](http://sbcbiologics.org)

## Special Donations

**Hours:** Monday–Friday, 8:00am–4:30pm  
**Phone:** 650-723-6667  
**Email:** [specialdonations@stanford.edu](mailto:specialdonations@stanford.edu)

## Flow Cytometry

**Hours:** Monday–Friday, 9:30am–6:00pm  
**Phone:** (650) 723-6304  
**Email:** [sbc-flowlab@stanford.edu](mailto:sbc-flowlab@stanford.edu)

## Transfusible Blood Products

**Hours:** 24/7  
**Phone:** (650) 725-2491  
**Email:** [sbc-hospital-services@stanford.edu](mailto:sbc-hospital-services@stanford.edu)

## HLA Lab

**Ordering:** [stanfordbloodcenter.org/hla](http://stanfordbloodcenter.org/hla)  
**Phone:** (650) 724-6742  
**FAX:** (650) 723-6350  
**Email:** [secure-HLAsupport@lists.stanford.edu](mailto:secure-HLAsupport@lists.stanford.edu)

## Pickup and Billing

**Routine Product Order Pickup  
(Current Customers)**  
Monday–Thursday, 8:30am–6:30pm  
Friday, 8:30am–3:30pm  
**Hours:** Monday–Friday, 8:00am–4:30pm  
**Phone:** (650) 723-7994  
**Email:** [bloodcenter-ar@stanford.edu](mailto:bloodcenter-ar@stanford.edu)



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