

1. Name of laboratory: Clinical&MolecularCytogenetics Laboratory  
Department of Pathology
2. Documentation of CAP Certification: Attached
3. Specimen and collection requirements: Attached
4. Method: Direct harvest and unstimulated cultures of bone marrow and peripheral blood to provide metaphases for G-banded analysis.
5. Instrumentation: Biological safety cabinet, Centrifuge, Refrigerator, Slide warmer, Water bath, Microscopes, Cytovision® Image Analysis System for karyotype preparation.
6. Turn around times: STAT Analysis: 24-72 hours post cell culture harvest  
Final report: 14 to 28 days

**Collection Of Bone Marrow And Peripheral Blood  
For Chromosome Analysis Of Hematologic Disorders**

**BONE MARROW:**

Collect approximately 1.0-2.0 ml of the first aspirate in a Sodium Heparin Vacutainer. Mix by inversion immediately. Store at room temperature until ready for delivery or pick up by the lab personnel.

**PERIPHERAL BLOOD:**

Peripheral blood may be used if the white blood cell count is increased and if ~ 7-10% or more blasts are present. Collect 5.0 ml in a Sodium Heparin Vacutainer and store at room temperature until ready for delivery or pick up by the lab personnel.

**Specimens need to be sent protected from heat to:**

CLINICAL & MOLECULAR CYTOGENETICS LABORATORY  
Department of Pathology, Room 318C  
The University of Texas Health Science Center  
7703 Floyd Curl Drive  
San Antonio, Texas 78229-3900

Please send with the specimen with the Request Form containing:

1. Physician's name and phone number, address to mail report.
2. Hospital information (i.e. patient's ID number, sex, date of birth etc.)
3. Provisional diagnosis
4. Any pertinent patient history.  
**In case of bone marrow or other transplant, sex of the DONOR is essential for interpretation of the results.**
5. Billing information

**NOTE: For prompt processing, the specimen should be received by 4:30 p.m. on weekdays.**

***Please call the lab (210-567-4050) with any questions.***

**COLLECTION OF PERIPHERAL BLOOD**  
**FOR CONSTITUTIONAL STUDIES**  
**(Mitogen Stimulated)**

Principle:

Peripheral blood being collected for the study of constitutional chromosome abnormalities is collected in sodium heparin. It is processed by the standard 72-96 hour phytohemagglutinin (PHA) or other appropriate mitogen stimulated cell culture.

Collection:

Thoroughly cleanse area of venipuncture with alcohol or betadine. Draw blood, using sterile technique, and transfer to Sodium heparin vacutainer labeled with the patient's name and identification number whose top has been swabbed with 70% ethanol. Mix well and keep refrigerated until delivery to the Cytogenetic laboratory. Send the specimen - cool, but not frozen - as soon as possible, but within 24 hrs. for optimal results.

Send with the specimen:

1. Consult sheet with provisional diagnosis and any pertinent patient history. Referring physician's name and phone number.
2. Copy of recent CBC and differential. Peripheral blood and/or bone marrow slide (stained or unstained) if available.
3. Hospital information including patient's identification number, address to mail report and billing information.

**B. Stimulated** - for the study of constitutional abnormalities.

Specimen:

The amount of peripheral blood needed is determined by the age of the patient:

Newborns:	1.5 - 2 ml, collected in sodium heparin
Children:	3 - 5 ml, collected in sodium heparin
Adults:	5 - 7 ml, collected in sodium heparin

Thoroughly cleanse area of venipuncture with Betadine or similar preparation, followed by rinse with 70% ethanol. Draw blood, using sterile technique, and transfer to sodium heparinized tube labeled with the patient's name and identification number whose top has been swabbed with 70% ethanol. Mix well and have delivered to the Cytogenetics laboratory as soon as possible. [During the extremes of summer and winter, protect from excessive heat or cold, i.e., ship on wet ice during the summer. Do not allow to freeze or go above 38°C.]

Send with the specimen:

1. Consult sheet with provisional diagnosis and any pertinent patient history and referring physician's name and phone number.
2. Hospital information, including patient I.D. number, address to mail report, and billing information.

Note: Specimens collected in anticoagulants other than the above will be accepted and processed. The results, though, may be less than optimal.

Samples should be placed in a sealing biohazard specimen bag to protect against leakage during transport.

Please notify the lab (210-567-4050) prior to sending a specimen, and if possible, the specimen should be received by 4:00pm on weekdays.

Specimens should be sent to:

Clinical&MolecularCytogeneticsLaboratory  
Department of Pathology, Room 318C  
University of Texas Health Science Centr  
7703 Floyd Curl Drive  
San Antonio, TX 78229-3900