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# GenPath Oncology Directory of Services

2014 EDITION

# GenPath

## **DIRECTORY OF SERVICES 2014**



A Business Unit of BioReference Laboratories

481 Edward H. Ross Drive  
Elmwood Park, New Jersey 07407

TEL (800) 627-1479  
FAX (201) 791-1941

Visit our website at: [www.genpath.com](http://www.genpath.com)

## SECTION 1

**CONTENTS**

Letter from Chief Medical Officer .....	3
Medical and Scientific Staff.....	4
Laboratory Operations and Service .....	4
How to Contact Us .....	5
Supplies.....	6
Specimen Preparation .....	13
Specimen Submission Criteria .....	13
Cytology Directions.....	15
Pathology, Anatomic (Biopsies and Surgical Specimens).....	16
Specimen Quality and Rejection.....	17
Connectivity Solutions .....	18
Test Addition After Submission.....	22
AMA Disease-Specific Panels	
Approved For Government Health Plans.....	23
Branded Reports .....	25
Billing Policies and Insurance Coverage.....	27
General Billing Information.....	28
List of Insurances for which Bioreference Submits Claims .....	29
Licenses and Regulatory Information .....	41
How To Use The Test Directory.....	42

## SECTION 2 - TEST DIRECTORY

Laboratory Tests in Alphabetical Order.....	A1
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## INDEX

Laboratory Tests By Test Name .....	B1- B5
Laboratory Tests By Test Code .....	B6

## LETTER FROM CHIEF MEDICAL OFFICER

Dear Valued Client,

Welcome to the GenPath Oncology Directory of Services for 2014. This directory provides important information that will assist in the test ordering process, including test description and code, clinical indication, and specimen requirements.

Our Directory of Services equips you with information on how to contact us, including phone, fax, and e-mail addresses of respective groups in our organization. We also provide you with information on how to effectively work with us, samples of our branded reports, and a background of our billing policies. Please feel free to browse our alphabetical test listing, which includes information on how to submit your specimens for processing, testing methodologies, CPT codes, and clinical indications.

GenPath Oncology is a specialized cancer laboratory serving the needs of physicians and patients across the United States. We provide specialized testing services in the following areas: Anatomic and Clinical Pathology, Cytopathology, Dermatopathology, Hematopathology, and Molecular Pathology. If you are unable to find information on a respective test in our Directory of Services, please do not hesitate to call our Customer Service Department at (800) 627-1479.

On behalf of all the committed members of GenPath, I look forward to providing your patients with unmatched diagnostic services.

Best Regards,

James Weisberger, MD

Chief Medical Officer

## MEDICAL AND SCIENTIFIC STAFF

Marc D. Grodman, MD	President and Chief Executive Officer
James D. Weisberger, MD	Senior Vice President, Chief Medical Officer, Laboratory Director
Ayala Aviram-Goldring, PhD	Director, Cytogenetics
Katherine Berezowski, MD	Medical Director, Cytology – Clarksburg, MD
Shiphali Gupta, PhD, FACMG	Laboratory Director – Milford, MA
Dehui Ku, PhD	Director, Special Coagulation
Po-Shing Lee, MD	Medical Director, Flow Cytometry
Annette Meredith, PhD	Director, Cancer Genetics
Dina Mody, MD	Laboratory Director – Houston, TX
Karim Oauhchi, MD, FACMG	Director, Cytogenetics
Kambiz Merati, MD	Director, Lenetix Laboratory
Luoquan Wang, MD	Medical Director, Cytopathology
Hashim Othman, PhD	Director, Special Chemistry and Toxicology
James Sundeen, MD	Laboratory Director – Clarksburg, MD
Ramana Tantravahi, PhD	Assistant Director, Cytogenetics – Milford, MA

## LABORATORY OPERATIONS AND SERVICE

Warren Erdmann	Senior Vice President, General Manager
Maryanne Amato	Vice President, General Manager, GenPath
Frank Buccini	Director, Molecular Testing
Nick Cetani, MS, MT (ASCP)	Vice President, Clinical Laboratory Operations
Sally Howlett	Vice President, Accounts Receivable
Karen Muthusammy	Director, Client Services
Patricia Neybold	Director, Core Lab Operations
Kathleen Phillips, MPA, MT (ASCP)	Director, Quality Systems
Estrella Moran	Director, Technical Services
Ron Rayot	Vice President, Director, Logistics
Jamie Schwartzmeyer	Director, Referral Testing
Chris Smith	Vice President, Director, Field Operations

## HOW TO CONTACT US

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**MAIN NUMBER**

ph: (800) 627-1479  
 fax: (201) 791-1941

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**CUSTOMER SERVICE**

ph: (800) 627-1479 Press 1  
 fax: (201) 345-7166

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**LABORATORY SUPPLIES**

ph: (800) 627-1479 Press 1  
 fax: (201) 345-7166

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**SPECIMEN PICK UP**

ph: (800) 627-1479 Press 3  
 fax: (201) 791-8878

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**SALES/MARKETING**

ph: (800) 627-1479 Press 5  
 fax: (201) 791-3810  
 e-mail: [info@genpathdiagnostics.com](mailto:info@genpathdiagnostics.com)

## SUPPLIES

### IMPORTANT REGULATORY NOTICE

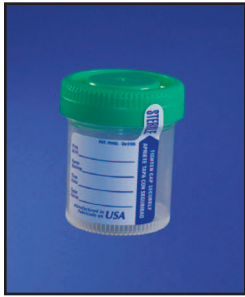
The Federal Government, through the Centers for Medicare and Medicaid Services (“CMS”), has advised that laboratories may provide items, devices, or supplies if they can be used only to collect, transport, process, or store specimens. If any of these items, devices, or supplies may be used for purposes other than collection, transportation, processing, or storage of specimens, the laboratory may not provide them free of charge. Among the items specifically prohibited by CMS are **gloves**. With regard to those items that are permitted, such as specimen collection devices (tubes, vials, etc.), needles, tourniquets, needle disposal containers, and refrigerators used solely for the storage of specimens, the laboratory may only provide an amount that is reasonably related to the number of specimens referred to the laboratory by the healthcare provider.

New York State law further restricts the types and quantities of supplies that laboratories may offer to healthcare providers. New York permits laboratories to provide, at no charge, only those items, devices or supplies that do not have any generally accepted use in healthcare practices other than to collect, transport, process, or store specimens. Further, these regulations specifically prohibit additional items, such as **adhesive bandages, alcohol prep pads, gauze pads, etc.** Laboratories must provide permitted supplies, items, and devices of a size, type, and quantity reasonably related to the type and number of specimens being referred by the healthcare provider to the clinical laboratory.

**Supplies and containers for our laboratory services are provided at no additional charge. These include all blood collection tubes, needles, needle holders, slides, preservative solutions, cytology fixative, and transport boxes and containers specific to the testing type.**

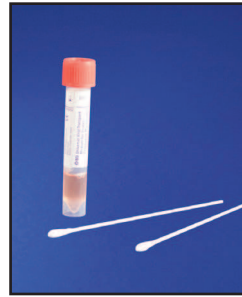
**Supply request forms are available from the lab and should be used to request needed items. Please allow two to three days for delivery of your supplies.**

## SWABS, VIALS, AND CONTAINERS



### **Sterile Container (Item #8406):**

Plastic wide-mouthed, 5-ounce sterile container with graduated measure indicator on side. Supplied with cap. Use for any culture specimen (with the exception of urine and stool cultures).



### **Viral Culturette (Item #5493):**

Sterile swab in transport media. Use for routine aerobic culturettes from all sites. (Squeeze ampule to wet swab with transport media).



### **Aptima Swabs (Item #20671):**

Used for Chlamydia and Gonorrhea testing (replaces older PACE swabs).



### **JEMBEC Plate (Item #1093):**

Plastic compact container with chocolate agar. Use for Gonorrhea cultures.



### **Parasitology Kit - Ova and Parasite Collection Vials (Item #20452):**

Two plastic vials containing PVA and formalin preservative. Inform patient of the importance of the proper sample volume.



### **Urinalysis Tube (Item #10100):**

Plastic vial with graduated measurement indicator and yellow cap. Stabilizing preservative added (note: may be tablet or coated tube).

DO NOT USE FOR URINE CULTURES.



### **Urine Container, for 24-hour Urine Collection:**

64-ounce plastic container with handle.

Must specify:  
No Preservative (Item #8824),  
HCL (Item #34007),  
Boric Acid (Item #34006) or  
Acetic Acid (Item #34020).



### **GenProbe Urine Collection (Item #20670):**

Plastic vial with white screw cap. Bacteriostatic preservative present. Use for Chlamydia and Gonorrhea testing.

DO NOT USE FOR ROUTINE URINALYSIS.



## EVACUATED TUBES



### Light Blue Top (Item #12695):

Sodium citrate as anticoagulant. Available in 2.7-mL size. This is a siliconized tube containing a citrate solution which is specific for Prothrombin Time and other coagulation tests.



### Green Top:

Sodium or Ammonium Heparin as anticoagulant. Available in 3-mL (Item #3070) and 6-mL sizes (Item #3051).



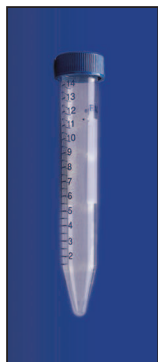
### Grey Top (Item #3172):

Potassium Oxalate as an anticoagulant. Sodium Fluoride as preservative. Available in 6-mL size.



### Lavender Top:

EDTA as anticoagulant. Avoid exposure to extreme hot or cold temperatures. Available in 3-mL (Item #7291) and 4-mL sizes (Item #6089). Also available in microtainer sizes for capillary collections.



### Fresh Tissue Container (Item #13638):

One can use these disposable culture tubes for most routine laboratory procedures.



### Red Top, Plain:

Red stopper. No additive. Available in 3-mL (Item #3039) and 10-mL sizes (Item #17483). This tube is used for tests where gel separator is not desirable such as therapeutic drug monitoring. There is no need to centrifuge this tube as it will not remain separated during transport.



### SST with Clot Activator (Item #6088):

This tube is the normal Serum Separator Tube. Please follow these instructions when using the Barrier Tube or the SST Tube with Clot Activator in order to obtain the most accurate test results:

1. Collect blood specimen using the usual venipuncture technique. Fill tube completely.
2. Gently invert barrier tube 5 times to mix clot activator with blood.
3. Allow blood to clot for 30 minutes.
4. Centrifuge at High Speed for 15 minutes.
5. Remove from centrifuge. Barrier will have formed, separating cells from serum. All of the separation gel should have moved from the bottom of the tube to form a barrier layer.
6. The sample is now ready to be transported to the laboratory. Do not remove stopper.

**KITS**



**Circulating Tumor Cells Kit (Item #23763):**

Includes a CellSave tube that is used to help oncologists in assessing the prognosis of patients with breast, colorectal, or prostate cancer.



**Frozen Coagulation Kit (Item #33042):**

Used in the diagnosis of acquired or inherited disorders of the coagulation system.



**Hospital Collection Kit (Item #33029):**

Includes EDTA, heparin, RPMI tubes, slide carrier, and two blocks.



**Bone Marrow Collection Kit (Item #33025):**

Includes two heparin tubes, an EDTA tube, two slide carriers, and two formalin jars (core & clot).



**Unfrozen Coagulation Kit (Item #33041):**

Used in the diagnosis of acquired or inherited disorders of the coagulation system.



**Fine Needle Aspiration Collection Kit (Item #17515):**

Includes two slide carriers each containing five slides, two alcohol filled slide holders and a Cytolyt tube.

**SOLUTIONS**



**RPMI Media (Item #G107):**

Used for the culture of human normal and neoplastic leukocytes.



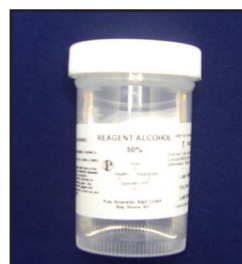
**Buffered Formalin (Item # Upon Request)**

Traditional fixative, buffered to a neutral pH.



**ThinPrep Cytolyt Collection Cup (Item #18482):**

Cellwash and transport buffer for use with the ThinPrep system.



**Reagent Alcohol 50% (Item #8070):**

For Fine Needle Aspirations.









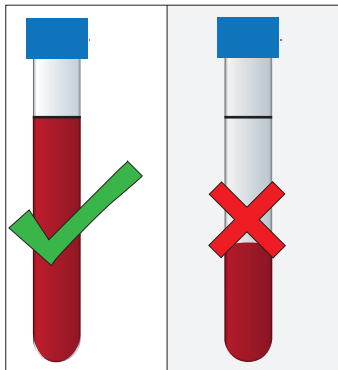
## SPECIMEN PREPARATION

### SPECIMEN LABELING

ALL SPECIMENS MAY BE POTENTIALLY INFECTIOUS MATERIAL AND SHOULD BE HANDLED, LABELED, AND TRANSPORTED ACCORDINGLY.

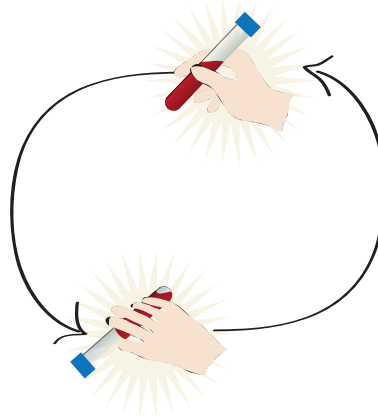
It is essential that the following instructions be followed exactly to assure delivery of a specimen that is adequate for testing. All specimens must be properly identified by using a minimum of two identifiers that must include the patient's name and at least one of the following: date of birth, chart number or a unique identifier. Also, the phlebotomist must initial all specimen containers submitted. The test request form must be completed and include the time and date of the specimen collection, as well as the signature of the physician, or other legally-authorized person requesting the patient's tests.

### PROPER PHLEBOTOMY TECHNIQUES



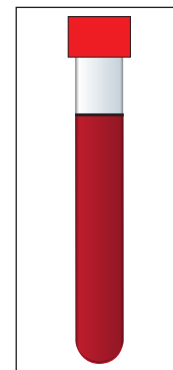
#### 1. Fill tubes to capacity required level

Always make sure to collect enough specimen.



#### 2. Mix gently

Immediately following collection, all plastic tubes require mixing. Gently invert all tubes eight (8) times, except Light Blue Tubes (invert 4 times).



#### 3. Separate

Do not use Gel Tubes (Red/Black SST®) for toxicology or therapeutic drug testing.

## SPECIMEN SUBMISSION CRITERIA

### Blood

When whole blood is requested, obtain the full amount in a vacuum tube as shown in the Specimen Preparation section of this Directory of Services.

Lavender, Grey, Green, Yellow, Tan, and Royal Blue Top tubes contain different anticoagulants that inhibit blood coagulation. When drawing these specimens, immediately invert the tube 8-10 times. Invert Light Blue Top Tubes 3-4 times. **Do not shake the tube, as this can cause hemolysis.**

## Serum

Obtain sufficient blood to yield the required volume of serum. A plain Red Top tube or Red/Speckled Top Barrier Gel Tube (SST) should be used. (Refer to Test Section for details.)

When drawing these specimens, immediately invert the tube eight (8) times. Allow the blood to clot for no more than 30 minutes and centrifuge for 15 minutes to separate the serum at 3135-3465 rpms (4500-5000 rpms for coagulation testing). If a Barrier Gel Tube is used, no other manipulations are required. Make sure that the gel has formed a thick, solid, intact barrier between the serum and the clotted cells. **If the gel trails into the bottom of the tube, re-centrifuge the tube for another 10 minutes.** If a plain Red Top Tube is used, transfer the serum with a pipette to a Transfer Tube. **It is important to avoid hemolysis.** Serum in contact with red cells will produce erroneously high Potassium, LD, AST, and ALT results and erroneously low Glucose results. Label Transfer Tube with patient's full name, identifiers and specimen type (e.g. serum, plasma, etc).

## Plasma

When processing plasma, follow the instructions for each test.

## Urine

**Urinalysis:** To adequately test urine specimens the sample should be collected in a tube with a stabilizing chemical present. The tube provided contains a **yellow** "pop off" cap and a "Stabilur<sup>®</sup>" tablet or coated tube that preserves the formed elements such as red cells, white cells, casts, and epithelial cells. For urinalysis, use a paper cup and transfer about 10 mL of urine to the tube and replace cap.

**Urine Chemistry:** Some assays require a 24-hour collection that may contain boric acid, hydrochloric acid, or sodium carbonate as a preservative. Some analyses require a urine specimen without any additive. **Refer to the specific test in this Directory of Services for specific test details.** Instruct the patient to discard the first urine voided upon arising in the morning and thereafter collect all urine specimens in a paper cup and transfer to the 24-hour container, including the first morning voiding of the following day. A normal intake of fluid is recommended. Measure the 24-hour volume and record it on the container and the test request form. Keep the specimen refrigerated until picked up by the laboratory.

Urine Chemistry tests that do not require a 24-hour collection container and can be submitted in a sterile cup; please keep refrigerated.

## Frozen Specimens

Certain tests must be submitted frozen because of the viability of the analyte being tested. Keep all frozen specimens separate from the routine tests and submit a separate test request form. As soon as possible, separate the serum or plasma and transfer to a plastic transfer tube. Place the specimen in the office freezer and keep until it is solid. **Notify the Transportation Department as soon as possible that you have a frozen specimen for pick up.**

PLEASE STORE YOUR SPECIMEN IN THE FREEZER UNTIL PICK UP, UNLESS SPECIFICALLY INSTRUCTED TO DO OTHERWISE.

## CYTOLOGY DIRECTIONS

### Aspiration Biopsy by Fine Needle (FNA)

1. Solid masses: Do direct smears and spray with cytology spray fixative immediately.
2. Fluids: Add directly to fixative supplied in special container.

#### **Method for Obtaining an Optimum Fine Needle Aspiration Specimen:**

A high percentage of smears are difficult, and sometimes impossible to accurately diagnose. This difficulty is primarily due to poorly preserved cellular material or a lack of adequate cellular material. Poorly preserved material is usually due to a delay in fixing the smears or spraying them too closely with the fixative and freezing the material. A lack of adequate cells is generally the result of a hypocellular cystic fluid spread too thinly over the slide.

### Direct Smears

1. Write patient's name with lead pencil on frosted end of clean slide.
2. Spread material evenly over slide.
3. Fix immediately with cytology spray fixative from a distance of 10 to 12 inches until liquid droplets form.
4. Allow slide to dry before sending it out in designated slide holder.

### Fluids (Collected or Aspirated)

1. Write patient's name on container.
2. All fluids, including bronchial washings, pleural, and peritoneal (ascitic) fluids, have to be placed in a container with an equal volume of 50% ethyl alcohol.
3. Send fluid immediately in securely closed containers.

**NOTE:** A sputum specimen will be considered unsatisfactory for diagnosis if no pigmented macrophages (dust cells) are present.

### Gastrointestinal Tract Washings

1. Collect fasting specimen and transfer to a labeled container.
2. Rapidly inject 300 mL of normal saline.
3. Aspirate as much as possible of the injected saline and transfer to another labeled container.
4. If possible, repeat steps "2" and "3" with patient in different positions.
5. Specimens may be pooled or collected separately in containers of 95% ethyl alcohol.
6. Send immediately to lab.

**NOTE:** A Gastrointestinal Tract Washing specimen will be considered unsatisfactory if it is not representative of the anatomic site or the slides are broken beyond repair.

### Urine for Cytology

1. Specimen can be randomly collected.
2. Female patients should be instructed to wash their genitalia with soap and water prior to collection.
3. Have the patient void into a paper cup and transfer to a container with 50% ethyl alcohol.
4. Send immediately to the laboratory in a securely closed container.



**NOTE:** INCLUDE PATIENT AGE AND PERTINENT CLINICAL DATA ON THE REQUEST FORM.

If there are any questions about specimen collection, or if you need to order the container of fixative, call our Customer Service Department at (800) 627-1479.

## PATHOLOGY, ANATOMIC (BIOPSIES AND SURGICAL SPECIMENS)

### General Instructions

1. Use Surgical Pathology requisition form for all biopsies and surgical specimens. Relevant clinical information should be written down in the spaces provided.
2. Write patient's name on specimen container.
3. Place all tissues immediately in 10% buffered formalin at 10 times the volume of the specimen. Specimen containers with 10% formalin are provided by the laboratory.
4. Send immediately to the laboratory in a securely closed container. For additional information, please contact Customer Service.

**NOTE:** CPT Codes shown with tests are to be used as guidelines only and may be subject to change. Their accuracy is neither expressed nor implied in this compendium. Please consult the AMA CPT Code Book for further information.

## SPECIMEN QUALITY AND REJECTION

### Hemolysis

Some analytes may be reported erroneously if the serum is not promptly removed from the clot, or if the Barrier Gel Tube is not centrifuged after the clot has formed. Major discrepancies are low Glucose, high Potassium and LDH. Hemolyzed hematological specimens are unsuitable for testing.

### Inadequate Draw or Quantity Not Sufficient (QNS)

Most tests that require anticoagulated specimens require that a full tube of blood be obtained. This is because there is a defined quantity of anticoagulant in each tube and the ratio of anticoagulant to the blood volume has to be exact to ensure quality results. Particularly important are Light Blue Top Tubes used for coagulation tests. For Prothrombin Times, Activated Partial Thromboplastin Times, and Fibrinogen determinations, blood must fill the tube to the fill line.

For CBCs, a “short draw” Lavender Top Tube will result in red cell crenation, reduced MCV and Hematocrit, and possible changes in leukocyte morphology, platelets, and total leukocyte counts.

QNS may also be seen when an inadequate volume of serum or plasma is submitted for the number of tests requested.

### Clotted Specimens

All hematological testing utilizes anticoagulated blood. For blood counts, a Lavender Top Tube containing the anticoagulant EDTA is required. All specimens should be collected and the tube filled to the limit of the vacuum. Clotted samples, either macroscopic or microscopic in nature, cannot be processed for CBC testing, as such results will produce false leukopenia, low red cell counts, and aberrant red cell indices. As the equipment used to test blood counts incorporates a clot detector, it is occasionally possible that specimens that appear macroscopically normal will have small microscopic clots that are detected and that will produce incorrect results. Similarly, small clots found in Blue Top Tubes (for coagulation tests) will result in falsely-prolonged PT and PTT test results.

### Old Specimens

Blood specimens older than 24 hours cannot be adequately tested for some analytes. Particularly sensitive are most Hematology tests, including coagulation procedures.

### Poor Cell Preservation

Blood cells, particularly leukocytes, become fragile and can be distorted morphologically if the specimen is older than 24 hours. In such situations, a reliable differential white cell count cannot be carried out.

### Test Not Performed (TNP)

TNP may be reported for one or more of the tests requested. This “result” is entered when a test cannot be performed on the submitted specimen (e.g. wrong tube, duplicate order, no longer stable, etc).

## CONNECTIVITY SOLUTIONS

### CareEvolve

We offer many options for results reporting to physicians that include courier delivery of hard copies, report printers, structured HL7 results interface to EMRs, HL7 data to a repository via secure transfer, and our web-based electronic order and reporting system, CareEvolve.

CareEvolve offers Computerized Provider Order Entry (CPOE) and secure access to lab results via the Internet.

### Order Entry

**Practice:** J9999 - Careevolve Test    **Location:** J9999 - CAREEVOLVE TEST

**Results**    **Orders**    **Patients**    **Admin**    **Help**    Search    Last Name    GO    Advanced search

**Jones, Mary**    Patient ID: 456789789    Phone Number: 123-456-4564    Primary Insurance: --  
 DOB: 10/25/1972    Gender: F

**New Order**    Filter: BRLI    Cancel Order

Step I - Select Tests    Step II - Select Diagnosis    Step III - Complete Order

**Selected Tests**

- 5858-6 QNT., RT-PCR, BCR/ABL1

**Test Groups**

- (blood) hormone
- dR LOPEZ first time visit

**Tests**

- 0053-9 CBC WITH DIFF
- 5660-6 CERVICAL BIOPSY
- 5890-9 CERVICAL PUNCH BIOPSY
- 1890-3 CREATININE
- P903-8 DRUG SCREEN (11)
- 1984-4 DRUG SCR(N)(8) + GC/MS
- 8062-1 GENETIC COUNSELING
- 6006-1 HISTOCHEMICAL STAIN (1)-TC
- 0156-0 ABO/Rh BLOOD TYPE
- 3555-0 ACETYLCHOLINE MODUL.
- 3554-3 ACETYLCHOLINE RECEP.
- 6007-9 HISTOCHEMICAL STAIN (2) - TC
- 5416-3 HISTOL
- 5419-7 HISTOL
- 5420-5 HISTOLOGY PROCESSING 3 H+E
- 5423-9 HISTOLOGY PROCESSING 5 H+E
- P601-8 PANEL P601
- 0134-7 PROLACTIN, SERUM
- 5622-6 PROSTATE CORE BIOPSY 12
- 0874-8 ACETYLCHOLINE RECEP.Ab.
- 9719-6 ACT 1 (BASIC LIPID + NMR LIPOPR)
- 8133-0 RITALIN, URINE
- Q035-8 TP CHEM
- 5889-1 VAGINAL BIOPSY
- 0160-2 VITAMIN B12
- 5886-7 VULVAR BIOPSY
- 9672-7 ACT 2
- 9753-5 ACT 4

**Annotations:**

- A real-time bridge with the PMS eliminates duplicate entry of patient information.
- Frequently ordered tests and panels can be combined into a single group to streamline ordering.
- User-defined "favorite" tests appear "above the line".
- Tests are automatically presented on the screen based on the provider's ordering history.

**Next >**

## Standing Orders are easily managed in CareEvolve

**New Standing Order**

Step I - Select Tests | Step II - Select Diagnosis | Step III - Complete Order | **Step IV - Schedule Order**

Quick Code Removal (Unchecking items will remove them from this order)

5858-6 QNT,,RT-PCR,BCR/ABL1

Schedule

Click to Select Dates

Year 2013

January	February	March	April	May	June
..	..	..	..	..	..
July	August	September	October	November	December
..	..	..	..	..	..

Schedule Type: **Monthly (My)**

Activate  Discontinue

< Back | **Submit Schedule**

## Results Review

**Results Inbox**

Filter: All Providers | All Locations | All Reports | Result 1 - 20 of 1403

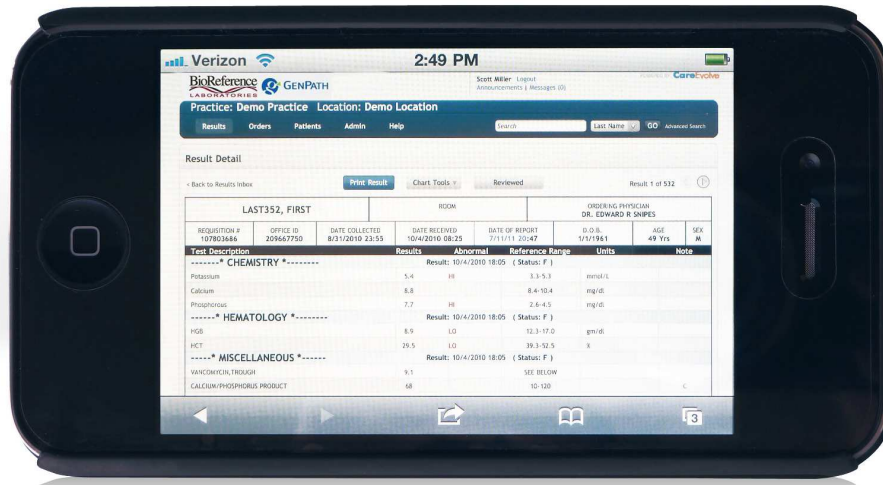
Name	Date	Accession	Lab	Flag	Alerts	Status	Provider	V	R	P
PATIENT_TEST	11/02/13	100149058	BioReference	N	Y	F	TEST, PROVIDER2	Y	N	Y
PATIENT_TEST	11/02/13	100128490	BioReference	Y	Y	F	TEST, PROVTEST	Y	Y	Y
HUNT_ESSIE	11/02/13	101046444	BioReference	N	Y	F	TEST, PROVIDER1	Y	N	Y
STOVALL_HELEN	11/02/13	101046449	BioReference	Y	Y	F	TEST, PROVIDER1	Y	Y	Y
TEST_PATIENT	11/02/13	101046444	BioReference	N	Y	F	TEST, PROVIDER1	Y	Y	Y
TEST_PATIENT	11/02/13	101046449	BioReference	Y	Y	F	TEST, PROVIDER1	Y	N	Y
				N	Y	F	TEST, PROVIDER1	Y	N	Y
				N	Y	F	TEST, PROVIDER1	Y	Y	Y
PATIENT_TEST	11/02/13	100149018	BioReference	Y	Y	F	TEST, PROVIDER2	Y	N	Y
PATIENT_TEST	11/02/13	100149090	BioReference	Y	Y	F	TEST, PROVTEST	Y	N	Y
PATIENT_TEST	11/02/13	100149041	BioReference	Y	Y	F	TEST, PROVTEST	Y	N	Y
TEST_PATIENT	11/02/13	101046223	BioReference	N	Y	F	TEST, PROVIDER1	Y	N	Y
PATIENT_TEST	11/02/13	100125823	BioReference	Y	Y	F	TEST, PROVTEST	Y	N	Y
PATIENT_TEST	11/02/13	100147136	BioReference	Y	Y	F	TEST, PROVTEST	Y	N	Y
COPELAND_TERRELL	11/02/13	101046694	BioReference	Y	Y	F	TEST, PROVIDER1	Y	N	Y
TEST_PATIENT	11/02/13	101046694	BioReference	Y	Y	F	TEST, PROVIDER1	Y	N	Y
PATIENT_TEST	11/02/13	100146279	BioReference	Y	Y	F	TEST, PROVTEST	Y	N	Y
PATIENT_TEST	11/02/13	100146279	BioReference	Y	Y	F	TEST, PROVTEST	Y	Y	Y
Summary_STL	11/04/13	20131104-J9999	BioReference	N	N	F		N	N	N
TEST_TEST	11/04/13	105807727	BioReference	N	N	F	TEST, PROVIDER2	Y	N	Y

Status: P = Preliminary F = Final C = Corrected Final

© CareEvolve™

If providers prefer to review results on paper, reports can be printed automatically upon sample completion or at pre-scheduled intervals.

CareEvolve is browser independent and the touch-optimized software is easy to use on smart phones and tablets, as well as desktops.



CareEvolve provides a Global Results Search function with the capability to screen results and to perform patient and practice-wide analytics.

Test Account Logout  
Announcements

POWERED BY **CareEvolve**  
ENG | ESP

Practice: J9999 - Careevolve Test Location: J9999 - CAREEVOLVE TEST

**Global Results Search** Filter: All Locations  Browser

Saved Search(s):   Hide Patient Identifiers

Date Range

From:

To:

Age

>  #

Year(s)

Sex

All

Male

Female

Zip Code(s)

**Search Criteria**

Analyte Search

Any  of the following conditions must be met:

Analyte <input type="text"/>	<input type="button" value="Select"/>	<input type="button" value="Clear"/>	*Value > <input type="button" value="v"/>	<input type="text"/>
Analyte <input type="text"/>	<input type="button" value="Select"/>	<input type="button" value="Clear"/>	Value > <input type="button" value="v"/>	<input type="text"/>

Keyword Search

Keyword:

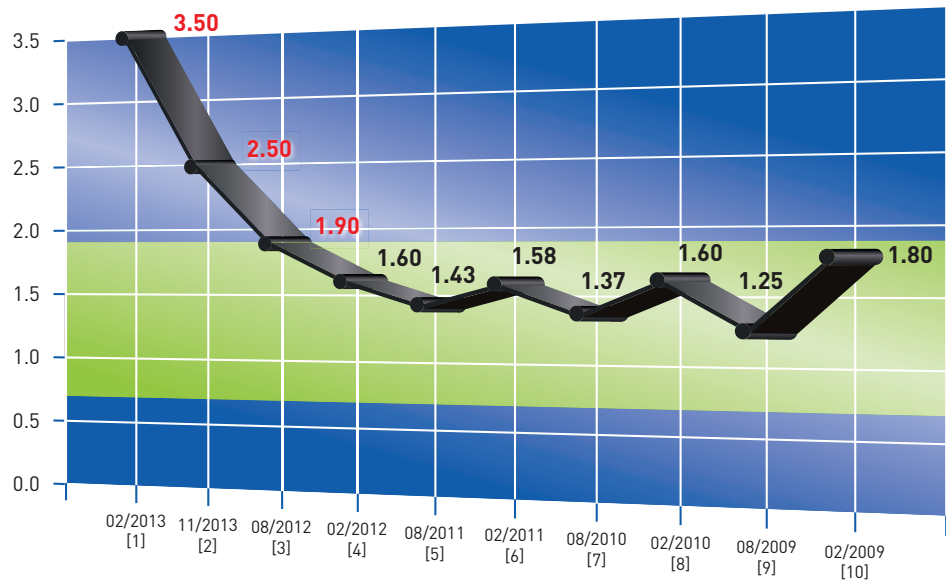


The system also includes customized cumulative reporting, which allows the provider to select the tests to trend over a designated time period. The graphed reports are automatically generated and give the provider both historic and current test results at a glance, eliminating the need to search through past results to see how current results compare.

**CareEvolve Online  
Clinical Trended Report**

Name Smith, Phil    DOB 08/10/1952    Age 58    PID 12345    SS# 555-55-5555    Sex Male

**Gamma Glob. (SPEP)**  
Ref Range: 0.70 - 1.90 g/dL  
Time Period: All



STORMPATH is GenPath’s web-enabled digital pathology service that provides pathologists with a comprehensive service to interpret the technical component of esoteric testing. Through STORMPATH, pathologists can order new tests, analyze results and create patient reports efficiently. Our STORMPATH test menu includes:

- **FISH:** Interpret clear probe signals for hematological malignancies and solid tumors
- **Flow Cytometry:** Interpret a complete library of cell surface markers
- **Breast IHC Markers:** Quantify key markers such as ER, PgR, HER2, Ki-67 and p53
- **UroVysion:** Utilize FISH for bladder cancer assessment
- **Digital Slide Imaging:** Digitally view more than 220 antibodies clearly
- **Surgical Biopsies:** Provide custom reports for GI, GU, Derm and Prostate
- **Cytology:** Create custom reports for cytological specimens in women’s health

## TEST ADDITION AFTER SUBMISSION

Our Customer Service department can arrange for additional testing if the specimen is stable and the volume is adequate after your requested tests have been completed. We are required by Federal mandates to ask for written or electronic authorization for every test we perform. You will receive a request for written confirmation for verbal requests via hard copy reporting or by fax. The physician or authorized employee must sign and return this written confirmation.



\_\_\_\_\_  
GENPATH ACCESSION NUMBER

### FAX CHANGE IN TESTING AUTHORIZATION

ACCOUNT NAME: \_\_\_\_\_ ACCOUNT # \_\_\_\_\_

PATIENT NAME: \_\_\_\_\_

DATE: Click here to enter a date. \_\_\_\_\_ FAXED BY: \_\_\_\_\_

FAX: \_\_\_\_\_

**Submitted Specimens:**

- Cytology
- Slide(s)
- Urine(s)
- Other: \_\_\_\_\_

**Please Sign and Fax back to  
201-345-7152**

**ALL testing is on HOLD until  
authorization is signed. and  
returned.**

Dear:  
The following additional tests have been ADDED to those requested for the patient:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Reason(s):**

**Person spoke with:**

**Title:**

The following tests have been DELETED from those requested for the patient:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Reason(s)**

**Quantity Not Sufficient**

**Inappropriate specimen**

**Other** \_\_\_\_\_

**PLEASE SIGN BELOW:**  
I authorized the above changes in testing

\_\_\_\_\_  
Physician designated authorized signature

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
DATE

## AMA DISEASE-SPECIFIC PANELS APPROVED FOR GOVERNMENT HEALTH PLANS

Code	Profile
<b>3283-9</b>	<p><b>Acute Hepatitis Panel</b></p> <p>Hepatitis A Antibody (HA Ab), IgM (86709)</p> <p>Hepatitis B Core Antibody (HBcAb), IgM Antibody (86705)</p> <p>Hepatitis B Surface Antigen (HBsAg) (87340)</p> <p>Hepatitis C Antibody (86803)</p>
<b>2555-1</b>	<p><b>Basic Metabolic Panel</b></p> <p>Calcium, Total (82310)</p> <p>Carbon Dioxide (Bicarbonate) (82374)</p> <p>Chloride (82565)</p> <p>Creatinine (82565)</p> <p>Glucose, Serum (82947)</p> <p>Ionized Calcium (82330)</p> <p>Potassium (84132)</p> <p>Sodium (84295)</p> <p>Blood Urea Nitrogen (BUN) (84520)</p>
<b>3427-2</b>	<p><b>Comprehensive Metabolic Panel</b></p> <p>Albumin (82040)</p> <p>Bilirubin, Total (82247)</p> <p>Calcium, Total (82310)</p> <p>Carbon Dioxide (Bicarbonate) (82374)</p> <p>Chloride (82565)</p> <p>Creatinine (82565)</p> <p>Glucose (82947)</p> <p>Phosphatase, Alkaline (84075)</p> <p>Potassium, Serum (84132)</p>



Protein, Total (84155)  
Sodium, Serum (84295)  
Transferase, Alanine Amino (ALT) (SGPT) (84460)  
Transferase, Aspartate Amino (AST) (SGOT) (84450)  
Blood Urea Nitrogen (BUN) (84520)

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**0002-6      Electrolytes Panel**

Carbon Dioxide (Bicarbonate) (82374)  
Chloride, Blood (82435)  
Potassium, Serum (84132)  
Sodium, Serum (84295)

---

**3422-3      Hepatic Function Panel/Liver Panel**

Albumin (82040)  
Bilirubin, Total (82247)  
Bilirubin, Direct (82248)  
Alkaline Phosphatase (84075)  
Protein, Total (84155)  
Transferase, Alanine Amino (ALT) (SGPT) (84460)  
Transferase, Aspartate Amino (AST) (SGOT) (84440)

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**3284-7      Renal Function Panel**

Albumin (82040)  
Calcium, Total (82310)  
Carbon Dioxide (Bicarbonate) (82374)  
Chloride (82435)  
Creatinine (82565)  
Glucose (82947)  
Phosphorus, Inorganic (Phosphate) (84100)  
Potassium, Serum (84132)  
Sodium, Serum (84295)  
Blood Urea Nitrogen (BUN) (84520)

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# BRANDED REPORTS

GenPath reports provide easy-to-read information, which may include:

- Previous test results
- Abnormalities highlighted in yellow
- Easy to find final diagnosis
- Detail clinical abnormalities summary

Final Report

**SMITH, SUSAN**  
 ONCOLOGY CENTER  
 123 MAIN STREET  
 ELMWOOD PARK, NJ 07407  
 ACCT #: **ABCDE** 60  
 P: 555-555-5555 F: 555-555-5555

**SAMPLE, REPORT**  
 DOB: 9/10/1966 Age: 44Y Sex: M  
 Surgical #: XXXXXXXX  
 Patient ID: 55555555  
 Address: 123 MAIN STREET  
 ANYTOWN, NJ 01451  
 Phone: (999) 999-9999

**SAMPLE**  
 Specimen ID: 11111111  
 Date of Report: 04/14/2013 10:40 AM  
 Date Collected: 04/06/2013 3:00 PM  
 Date Received: 04/07/2013  
 Source: Bone marrow (R. post/sup I.C.)  
 Clinical Information: CML restaging, on Tasigna

INTEGRATED HEMATOPATHOLOGY SUMMARY REPORT

**FINAL DIAGNOSIS**

(1) Histologic and cytogenetic remission, history of CML.  
 (2) Residual molecular disease, with slightly less than a 2 log decrease in BCR/ABL from the initial marrow.

**COMPARATIVE REVIEW OF CURRENT AND PRIOR RESULTS**

Compared to the patient's previous biopsy, there has been normalization of the histology and cytogenetic status.

**RESULTS**

Method	Interpretation					
	Result		Current Specimen ID: 11111111 Collection Date: 4/6/13	Result		Prior Specimen ID: 22222222 Collection Date: 4/9/12
	Normal	Abnormal		Normal	Abnormal	
Morphology	X		1) Normocellular marrow with maturing trilineage hematopoiesis. 2) There is no morphologic evidence of residual chronic myelogenous leukemia seen (see comment.)		X	Markedly hypercellular marrow with marked myeloid hyperplasia consistent with chronic myelogenous leukemia, chronic phase (see comment). No morphologic evidence of accelerated phase or acute leukemia. Absent storage iron.
IHC			There is no increase in CD34+ blasts (1%).			
FISH					X	BCR/ABL rearrangement is detected.
Cytogenetics	X		46,XX[20]		X	46,XX,t(9;22)(q11.2;q34)[20]
Molecular		X	<u>BCR/ABL1</u> Detected BCR/ABL1 of b2a2 Type: Not Detected BCR/ABL1 of b3a2 Type: 4.79% BCR/ABL1 of e1a2 Type: Not Detected		X	<u>BCR/ABL1</u> Detected BCR/ABL1 of b2a2 Type: Not Detected BCR/ABL1 of b3a2 Type: 227.093% BCR/ABL1 of e1a2 Type: Not Detected

Joseph Weisensel, D.O.  
 Hematopathologist  
 Electronically signed by J. Weisberger, M.D.

481 Edward H. Ross Drive  
 Elmwood Park, NJ 07407  
 (800) 627-1479

James Weisberger, M.D.  
 Laboratory Director

Page 1 of 2  
 Created 04/14/2013 10:56 AM

GenPath is a business unit of BioReference Laboratories, Inc. mg

Pathologist's diagnosis comparing current biopsy vs. previous

## BRANDED REPORTS (CONT.)

<b>D O C T O R</b>	<b>SMITH, JOHN</b>	<b>P A T I E N T</b>	<b>SAMPLE, REPORT</b>	<b>S A M P L E</b>	<b>Specimen ID: 11111111</b>
	ONCOLOGY CENTER		<b>DOB: 10/21/1920 Age: 92Y Sex: F</b>		<b>Date of Report: 02/06/2013</b>
	123 MAIN STREET		<b>Surgical #: XXXXXXXX</b>		<b>Date Collected: 02/05/2013</b>
	ELMWOOD PARK, NJ 07407		<b>Patient ID: 55555555</b>		<b>Date Received: 07/15/2013</b>
ACCT #: <b>ABCDE 60</b>	<b>Address: 123 MAIN STREET</b>	<b>ANYTOWN, NJ 01451</b>	<b>Phone: (999) 999-9999</b>	<b>Time Collected: 10:32</b>	<b>Date Received: 02/05/2013</b>
P: 555-555-5555 F: 555-555-5555				<b>Time Received: 21:56</b>	

### CLINICAL REPORT

**Clinical Abnormalities Summary:** (May not contain all abnormal results; narrative results may not have abnormal flags. Please review entire report.)

Albumin	<b>3.4 LO</b>	e-GFR	<b>52 LO</b>	Calcium	<b>8.4 LO</b>
AST	<b>34 HI</b>	GGTP	<b>174 HI</b>	CA 27.29	<b>112.9 HI</b>
FERRITIN	<b>364 HI</b>	CEA	<b>5.9 HI</b>		

Abnormalities are summarized at the top of the report

NON FASTING

#### CHEMISTRY

Test	Result	Abnormal	Reference	Units	Previous Result	Date
Total Protein	6.5		5.9-8.4	g/dL	6.9	01/22/2013
Albumin		<b>3.4 LO</b>	3.5-5.2	g/dL	4.0	01/22/2013
Globulin	3.1		1.7-3.7	g/dL	2.9	01/22/2013
A/G Ratio	1.1		1.1-2.9		1.4	01/22/2013
Glucose	79		70-99	mg/dL	71	01/22/2013
Sodium	134		133-145	mmol/L	136	01/22/2013
Potassium	4.7		3.3-5.3	mmol/L	4.4	01/22/2013
Chloride	98		96-108	mmol/L	100	01/22/2013
CO2	23		22-29	mmol/L	<b>20 LO</b>	01/22/2013
BUN	18		8-23	mg/dL	20	01/22/2013
Creatinine	0.99		0.60-1.30	mg/dL	1.06	01/22/2013
e-GFR		<b>52 LO</b>	>60	ml/min	<b>48 LO</b>	01/22/2013
e-GFR, African American	63		>60	ml/min	<b>58 LO</b>	01/22/2013
BUN/Creat Ratio	18.2		10.0-28.0		18.9	01/22/2013
Calcium		<b>8.4 LO</b>	8.6-10.2	mg/dL	9.2	01/22/2013
Uric Acid	6.9		2.5-7.9	mg/dL	<b>8.0 HI</b>	01/22/2013
NOTE: New reference ranges for Uric Acid effective 11/26/12.						
Iron	95		30-160	ug/dL	107	01/22/2013
Bilirubin, Total	0.4		0.1-1.0	mg/dL	0.6	01/22/2013
LD	201		135-214	U/L	<b>264 HI</b>	01/22/2013
Alk Phos	140		40-156	U/L	<b>170 HI</b>	01/22/2013
NOTE: New reference ranges for Alkaline Phosphatase effective 11/26/12.						
AST		<b>34 HI</b>	<32	U/L	<b>37 HI</b>	01/22/2013
Phosphorus	3.2		2.7-4.5	mg/dL	3.3	01/22/2013
ALT	22		<33	U/L	32	01/22/2013
GGTP		<b>174 HI</b>	6-42	U/L	<b>238 HI</b>	01/22/2013
MAGNESIUM	1.9		1.6-2.6	mg/dL	2.2	01/22/2013

Previous test result

Abnormal testing results clearly identified

#### CARDIOVASCULAR/LIPIDS

Test	Result	Abnormal	Reference	Units	Previous Result	Date
Cholesterol	143		<200	mg/dL	172	01/22/2013
Triglycerides	66		<150	mg/dL	74	01/22/2013

#### MISCELLANEOUS

Test	Result	Abnormal	Reference	Units	Previous Result	Date
FERRITIN		<b>364 HI</b>	10-291	ng/mL	<b>418 HI</b>	01/07/2013
CK	41		26-192	U/L	39	01/22/2013

## BILLING POLICIES AND INSURANCE COVERAGE

GenPath, a division of BioReference Laboratories, Inc., will be billing as BioReference Laboratories.

### Direct Billing To Patient

GenPath can bill your patients directly for our services. The patient's full name and street address (including apartment number, city, state, and zip code) must be clearly printed in the space provided on the requisition. A complete address at the time the test is ordered is essential. Each requisition will result in a separate bill to the patient. Payment of patient bills is due upon receipt and, if not paid, will be followed by subsequent reminders and normal collection activity.

**GenPath offers a discount program to patients that need financial assistance.**

### Direct Billing To Third Party

For patients who are subscribers or recipients of benefits from one of the insurance payers listed on the following pages, GenPath will bill that carrier directly, provided all the necessary information is supplied with the requisition. Please be certain to include all of the necessary information in the spaces provided on the requisition at the time the test is ordered. Complete information avoids the need to interrupt and impose upon your staff or patients with requests for any missing information. GenPath will bill the patient directly for services not covered, deductibles, and co-payments as determined by the carrier and provided to GenPath on the explanation of benefits sent with the payment or rejection.

### Medicare / Medicaid

For patients that are part of government healthcare programs, only AMA-approved panels should be ordered. All other tests must be ordered individually.

### Hospital Billing

GenPath is required by law to bill all hospitals for the technical component of testing performed on Medicare and Medicaid inpatients or outpatients. Some exceptions do apply for Medicaid patients depending on the governing state laws. Patients that are deemed by the hospital as outreach patients can be billed to the appropriate payor directly. Privately insured patients can be billed directly to the insurance carrier if the hospital determines it to be appropriate according to their contracts. GenPath offers professional billing for all hospital clients.

### Reminder to Clinicians

GenPath would like to remind all our customers that diagnostic testing services should be ordered only when medically necessary and when required for the diagnosis or treatment of a patient. Federal and state payers (Medicare and Medicaid) typically exclude most testing for screening purposes only. Exceptions and requirements are noted on following pages.

When ordering any of the tests above, outside of their corresponding utilization guidelines and without additional documentation, please have the patient sign the Advanced Beneficiary Notice (ABN), so they may be billed directly for the test.

## GENERAL BILLING INFORMATION

At your discretion, GenPath billing as BioReference will (1) bill your office directly for services rendered to your patients (in those States that allow direct billing), (2) bill your patient, and (3) bill any of the third-party insurance carriers that BioReference is able to bill directly, provided your patient is an enrollee of one of these third-party carriers and you provide us with the necessary information.

Our computerized billing department submits electronic claims to many insurance carriers plus paper forms to others, as well as individual statements to patients and clients.

BioReference Laboratories submits claims to the following list of insurance companies.

Upon request for insurances not on this list, BioReference will bill the patient and provide a 1500 claim form for their convenience.

## LIST OF INSURANCES FOR WHICH BIOREFERENCE SUBMITS CLAIMS

21st Century	AHCCCS / Health Choice Arizona	American Health Medicare
A & I Benefit Plan	AHCCCS / Maricopa Health Plan	American Healthcare Alliance
AAP Group Ins Trust	AHCCCS / Mercy Care Advantage	American Heritage Life Ins Co
AARP	AHCCCS / Phoenix Health Plan	American Home Assurance Korea
ABA / Affordable Benefit Admin	AHCCCS / Schaller Anderson	American Insurance Admin
ABA / American Benefit Admin	AHCCCS / University Family Care	American Life Ins Co
Abercrombie & Fitch	AHS Of Mississippi	American Lifecare
Absolute Total Care	AIG American International Grp	American Maritime Officers
Academic Health Plans	Alaska Electrical H & W	American Medical & Life
Access Administrators Of Texas	Alicare	American Medical Security
Acclaim Medical Services	All Care Medical Group	American National
Accountable Health Plan	All State Workplace Division	American Pioneer
Acordia National	Allegiance Benefit Pln Man	American Plan Administrators
ACS Benefit Services Inc	Allen J Flood	American Progressive Medicare
ACS Employee Benefit	Alliance California	American Public Life Ins Co
ADAP - New York	Alliance Health And Life	American Republic
Administrative Concepts	Alliance Onenet	American Sentinel Ins Co
Administrative Enterprises Inc	Alliance Partners	American Sterling Ins
Administrative Service Consult	Alliant Health Plans	American Transit Insurance
Administrative Solutions Inc	Allianz Worldwide Care	American Trust Admin
Advanced Benefit	Allied Administrators CA	American Veterinary Med Assoc
Advanced Benefit Solutions	Allied Benefit Funds	American Workers Plan Kba
Advanced Insurance Admin	Allied Benefit Systems	America's 1st Choice Health Plan
Advantage Care Select	Allied International Union	Americas Choice
Advantage Health Solutions	Allied Physicians Of CA	Americas Health Choice Of Florida
Advantra Freedom Medicare	Allied Welfare	Americhoice - Connecticut
Advantra Medicare Of Kansas	Alternative Benefit Plan	Americhoice - Maryland
Adventist Care Center	Alternative Ins Resources	Americhoice - Mississippi
Adventist Health Employee Plan	Alternative Risk Management	Americhoice - New Jersey And New York
Advocate Christ Hospital Ipa	Altius Health Plan	Americhoice - Pennsylvania
AETNA - All States	AM First	Americhoice - Tennessee
AETNA Better Health Medicaid	AMA / American Medical Assoc	Americorps Seven Corners
Affinity Health Plan	Amalgamated Life	Amerigroup - DC
AFS Insurance Services Inc	AMCO	Amerigroup - Florida
Afra Health Fund	Amedex Worldwide Ins Co	Amerigroup - Georgia
A-G Administrators	Amerasouth Administrators	Amerigroup - Maryland
AGC / Assoc Gen Contr	Ameriben Solutions	Amerigroup - New Jersey And New York
AGVA / American Guild Varsity Artists	American Administrative Group	Amerigroup - Texas
AHCCCS / Abrazo Advantage Health Plan	American Administrators	Amerigroup - Virginia
AHCCCS / Arizona Health Care	American Benefit Administrators	Amerihealth Administrators
AHCCCS / Arizona Physicians IPA	American Benefit Plan Admin	Amerihealth HMO
AHCCCS / AZ Foundation For Medical Care	American Community	Amerihealth Magellan
AHCCCS / Bridgeway Health Medicare	American Community Providers	Amerihealth Mercy Health Plan
AHCCCS / Bridgeway Health Solutions	American Family Insurance	Amidacare
AHCCCS / Care 1st Health Plan	American Family Insurance Group	Amo Med Plan
AHCCCS / Comprehensive Med Plan	American Group Administrators	
AHCCCS / Comprehensive Medical Dent PI	American Health Group Inc	

Anchor Benefit Consulting  
 Angel Guardian  
 Antares EHP  
 Antares Magnt Prudential Ins  
 Anthem Blue Cross Blue Shield  
 APA Partners Inc  
 Apex Benefit Services  
 Appalachian Benefit Admin  
 APWU / American Postal Workers Union  
 AR Health Plan  
 Archcare Advantage  
 Argus PMB  
 Arkansas Best Corp HPO  
 Arkansas Community Care  
 Arkansas First Source  
 Arkansas Managed Care Org  
 ARM, Ltd  
 ARTA Western Health Network  
 ASC Findlay  
 ASEA / Alaska State Employee Assoc.  
 AW Claims Administration  
 ASRM, LLC  
 Associated Administrators  
 Associated Benefits Corp  
 Association Benefit Plan  
 Association For Lifesyle Reform  
 Assurant Health  
 Assurecare  
 Assured Assistance Travel Ins  
 Assured Benefits Administrators  
 Asuris Northwest Health  
 Atlantic Administrators Inc  
 Atlantic Medical Insurance  
 Atlantic Southern Puerto Rico  
 Atlanticare  
 Atlantis Health Plan  
 Atlas Administrators  
 Aultcare Of Ohio  
 Aultman Primetime Health Plan  
 Aultra Administrative Group  
 AUSA Life Insurance Co  
 Automated Claims Processing  
 Auxiant  
 Avalon Benefit Services  
 Avalon Healthcare  
 Avemco Ins Co  
 Avera Health Plans

Avmed  
 BABB Incorporated  
 Bakery Confectionery & Tobacco  
 Bankers Life And Casualty  
 Banner Choice  
 BAS / Benefit Administ Systems  
 Bas Limited  
 Basic Benefits  
 BC Life & Health  
 BCS Insurance Co  
 BDAE Eurocare Inc  
 BDG Benefits Design Group  
 Beechstreet Network  
 Benecorp Insurance Co  
 Benefiit Services Inc  
 Benefit Administration Service  
 Benefit Assistance Corp  
 Benefit Concepts  
 Benefit Design Administrator  
 Benefit Management Inc  
 Benefit Management Svcs  
 Benefit Management Systems  
 Benefit Managment Admin  
 Benefit Plan Administrators  
 Benefit Plan Management  
 Benefit Planners  
 Benefit Services PA  
 Benefit Solutions, Inc.  
 Benefit Support  
 Benesight  
 Benchmark Inc City Of Gulfport  
 Benovation  
 Berkshire Health Plan  
 Best Doctors  
 Best Life And Health Ins Co  
 Big Lots Assoc Benefit Plan  
 Blue Advantage Of Arkansas  
 Blue Bell Health Benefits  
 Blue Choice South Carolina Medicaid  
 Blue Cross Blue Shield PPO -  
 All States Blue Card  
 Blue Ridge Health Network  
 Bluegrass Family Health  
 BMC Healthnet  
 BMI Healthplans  
 B'nai Brith  
 Boilermakers NTL Welfare Fund

Bollinger  
 Boone Chapman  
 Boulder Admin Service  
 Bravo Health Plan  
 Briad Group Claims  
 Bricklayers Fringe Benefit  
 Bridge Benefits Cbca  
 Bridge Breast  
 Bridgestone Claims Services  
 British American Mediflex Gold  
 British Caymanin Insurance  
 BRMS Benefit Risk Manage Serv  
 BSSI / Benefit Systems & Services Inc  
 Buckeye Comm Health Plan  
 Business Admin Consult  
 Butler Benefit Service Inc  
 Cal Optima Direct  
 California Field Ironworkers  
 Cam Administrative Services  
 Cambridge  
 Capella Group  
 Capital Admin Inc  
 Capital Administrators Of SE  
 Capital Blue Cross Of Pennsylvania  
 Caprock Health Plan  
 Cardinal Insurance  
 Care Access  
 Care Improvement Plus  
 Care Management Group  
 Care Plus Health Plan Of Florida  
 Care UTU Yardmasters  
 Care VU  
 Carefirst Blue Cross Blue Shield - PPO  
 Careington International  
 Caremore Health Plan  
 Carenet  
 Caresource Michigan  
 Caresource Ohio  
 Caricare Sagicor Life  
 Cariten PPO  
 Carolina Care Plan  
 Carolina Crescent  
 Carpenters Welfare  
 CBA / Comprehensive Benefit Admin  
 CBCA Administrators  
 CBH / Cigna Behavioral Health  
 CBSA / Corp Benf Svcs Of America

CCMSI Cannon Cochran Mgmt Srvs  
 CCN / Community Care Network  
 CDPHP / Capital District Physicians HP  
 CDS Group Health  
 CEBA  
 CECHP / Chipitmacha Employee Hp  
 Celtic Conversion Coverage  
 Celtic Insurance  
 Celticare  
 Centercare  
 Central Benefits  
 Central Employee Benefit Plan  
 Central Health California Alliance  
 Central Health Medicare  
 Central Pa Teamsters H&W Fund  
 Central Reserve Life  
 Central United Ins Co  
 Century Healthcare  
 Champva  
 Charlotte Healthcare Svc Ctr  
 Chartis  
 Chatwins Healthcare  
 Chcc Health Plan  
 Cherokee Indian Hosp Auth  
 Chesapeake Life Ins Co  
 Chesterfield Resources  
 Chickasaw Nation Medical Center  
 Chickering AETNA  
 Childrens Mercy Healthpart  
 CHN / Consumer Health Network  
 Choicenet Intercare  
 Christian Brothers  
 Christian Care Medi-Share  
 Christian Hosp Aid  
 Christus Spohn Health Network  
 Cigna - All States  
 Cinergy Health Preferred Plan  
 Cinergy Insurance  
 Citruscaid  
 Citruscare Medicare Advantage  
 City Of Mesa Employee Ben  
 Claims & Benefit Management  
 Claims Management Service  
 Claims Ware Incorporated  
 Claimtech  
 Classic Album LLC  
 Clear One Health Plan Medicaid

Clear One Health Plans  
 CMS Claims Management Services  
 CNA  
 CNIC Health Solutions  
 Coastal TPA Inc  
 Coastwise  
 Cofinity  
 Colonial Healthcare Inc  
 Colonial Life & Accident  
 Colorado Access Advantage  
 Columbia United Providers  
 Columbian Life Ins Co  
 Combined Benefits Admin  
 Combined Government Health Plan  
 Commerce Benefits Group  
 Commonwealth Administrators  
 Commonwealth Care Alliance  
 Commonwealth Life Ins  
 Community Administrators  
 Community Care Behavioral Health  
 Community Care Life  
 Community Claims Admin  
 Community First Hlth Pln  
 Community Health Choice Texas  
 Community Health Network Of CT  
 Community Health Of Missouri  
 Community Health Optima  
 Compass Rose Health Plan  
 Competitive Health  
 Compnet  
 Comprehensive Benefit Adm  
 Comprehensive Benefit Consultants  
 Comprehensive Care Management  
 Comprehensive Care Services  
 Compsych  
 Concert Health Plan  
 Connecticut  
 Conseco Ins Co  
 Consociate Group Ins Co  
 Consolidated Health - Mass  
 Consolidated Health Plan Texas  
 Consolidated Workers Assoc  
 Consumer Advocate Group  
 Continental American Ins Co  
 Continental Assurance Ins Co  
 Continental General  
 Continental Life Ins Co

Contra Costa Health Plan  
 Contractors Employee Ben Adm  
 Cook Children's Health Plan  
 Cook Group Health Plan  
 Cooperative Benefit Admin  
 Coordinated Benefit Plans, Inc.  
 Core Administrative Services  
 Core Health Plan  
 Core Management Resources  
 Coresource  
 Corestar  
 Corevalue Medical  
 Cornerstone Preferred Resrc  
 Corphealth  
 Corporate Benefit Services  
 Corporate Systems Adminis  
 COSVI  
 Covenant Administrators Inc  
 Coventry Carelink  
 Coventry Cares  
 Coventry Carolinas  
 Coventry Delaware  
 Coventry Diamond Plan  
 Coventry Florida  
 Coventry Georgia  
 Coventry Iowa  
 Coventry Kansas  
 Coventry Louisiana  
 Coventry National Network  
 Coventry Nebraska  
 Coventry Nevada  
 Coventry Oklahoma  
 Coventry South Carolina  
 Coventry Southern Health Services  
 Coventry Summit Medicare  
 Coventry Tennessee  
 Cover Colorado  
 Cox Health Systems Inc  
 Creative Plan Administrators  
 Crossamerica Health Plans  
 Crossroads Healthcare  
 Cti Administrators  
 Culinary Health Fund  
 Cultural Ins Serv Internat  
 Cuna Mutual  
 Custom Alloy  
 Custom Design Benefits



CWI Benefits  
 Cypress Benefit Administrators  
 Cypress Benefits  
 DAC / Diversified Group Brokerage  
 Dakotacare  
 Dart Management Corp  
 Dayton T Brown Inc  
 DC 1707 Local 389  
 DC Chartered Health Plan  
 DCI Insurance Dept  
 Dean Health Plan  
 Dean TPA  
 Debis Financial Services  
 Definity Health  
 Delaware Physicians Care  
 Delta Health Systems  
 Denver Health Medicare Choice  
 Deseret Mutual Ben Admin  
 Design Savers Plan  
 Destiny Health Plan  
 DH Evans Assoc  
 Diamond Plan Maryland  
 Diamond State Partners Delaware  
 Direct Care Administrator  
 Direct Med  
 Direct Medical Solutions  
 Disney Worldwide Serv.  
 District 6 Health Fund  
 DKV Insurance  
 DMC Care  
 Doctors Choice Administrators  
 Driscoll Childrens Health Plan  
 Dunn And Associates  
 Eastern Benefit System  
 EBA & M  
 EBMC / Employee Benefit Mgmt Corp  
 EBMS / Employee Benefit Mgmt Services  
 EBS Of Ohio  
 ECOM Benefits  
 Edinger Medical Group IPA  
 Educators Health Plan  
 Educators Mutual  
 EGA Erin Group Admin  
 Eighth Dist Elec Benefit Fund  
 Elder Health  
 Elderplan  
 ELMCO LLC

Emblem Health  
 Emerald Health Network  
 Emergency Assistance Japan  
 Emerson Electric Co Ben Plan  
 Empire Blue Cross Blue Shield New York  
 Empire Plan / United Healthcare  
 Employee Benefit Administrators  
 Employee Benefit Concepts Inc  
 Employee Benefit Consultants  
 Employee Benefit Plan Admin  
 Employee Benefit Service Ctr  
 Employee Benefit Services  
 Employee Benefit Solutions LLC  
 Employee Health Plan Aibonito  
 Employee Painters Trust  
 Employee Plans LLC  
 Employee Security Inc.  
 Employers Direct  
 Employers Mutual  
 Empowered Benefits  
 Encore Health Network  
 Enigneers Joint Welfare Fund  
 Entrust  
 Envision  
 EPC Associates  
 Epoch Group LTC  
 Equitable  
 Equitable Plan Services  
 ES Beveridge & Assoc  
 ESP Enhanced Service Plan  
 Essence Medicare  
 Euro Center USA  
 EV Benefits  
 Evercare  
 Everence  
 Everest Administrators  
 Evergreen Health Plan Inc  
 Evolutions Healthcare Systems  
 Excellus Benefit SVCS Inc  
 Excellus Blue Cross Blue Shield  
 Exclusive Care  
 Fallon Community Health Plan  
 Family Care Discount Plan  
 Family Choice Medical Group  
 Familycare Insurance  
 Fara Insurance Co  
 Fbmc-United Benefits

Fce Benefit Administrator  
 Federal Assistance Travel Insurance  
 Federal Black Lung Program  
 Federated Insurance  
 Federated Mutual Ins  
 Fedex Freight East  
 FHA TPA  
 FHA-TPA Southcare  
 FHHS / Florida Hospital Healthcare  
 Fidelis Care New York  
 First Administrators  
 First Carolina Care  
 First Choice Health Network WA  
 First Choice Select Health SC  
 First Health  
 First Medical Health Plan Puerto Rico  
 First Plus Puerto Rico  
 First Seniority Freedom  
 First Service Administrators  
 First United American Medicare  
 Firstcare Of Texas  
 Firstcare SW Health Alliance  
 Firstchoice Administrators  
 FISERV Health  
 Florida First  
 Florida Health Alliance EPO  
 Florida League Of Cities  
 Florida Netpass  
 Fmh Benefit Services Inc  
 Food Employer Benefit Fund CA  
 Foreign Service Benefit Plan  
 Forest Oil Group Medical Plan  
 Fortis Benefits  
 Fortis Insurance Company  
 Foundation Admin Service  
 Foundation Benefits Admin  
 Foundation For Medical Care  
 Foundation Health Admin TPA  
 Fox Everett  
 Fox Valley Labor Welfare Fund  
 Freedom Claims Management, Inc.  
 Freedom Health  
 Freedom Life Ins Co Of America  
 Fringe Benefit Coordinators  
 Fringe Benefit Services Inc  
 Fringe Benefits Consortium  
 Frontpath Health

Futurepoint	Harrington Healthchoice	Healthfirst - New Jersey
Galaxy Managed Care Inc	Harvard Health Plans Inc	Healthfirst - New York
Gallagher Benefit	Harvard Pilgrim Health Care	Healthfirst TPA Austin
Garden State Health Care	Harvard Pilgrim Student	Healthfirst TPA Houston
Gateway Health Plan	HCH Administration	Healthfirst TPA Tyler
Gateway Plans Administrators	HCPC / Healthcare Payers Coalition	Healthlink
GBS / Group Benefit Services	HCPIPA Healthcare Partners IPA	Healthlink State Of Illinois
GEHA / Government Employees Hospital Asso	Health Administrators	Healthplan Services
Geisinger Health Plan	Health Alliance Health Plan	Healthplus Michigan
Generations Healthcare	Health America	Healthreach Advantage
Genesee Health Plus Of Michigan	Health And Welfare Benefit Sys	Healthscope Benefits
Georgia Ports Authority	Health Assurance	Healthsmart
Gerber Life	Health Cost Solutions	Healthsmart Accel
Gettysburg Health Admin	Health Design Plus	Healthsmart Benefit Solutions
GHI / Group Health Inc / Emblem Health	Health EOS	Healthsource
GHP CMR Carpenters H&W	Health Exchange	Healthspring Inc
GHP Group Health Plan	Health First Florida Health Plan	Healthsun Health Plans Of Florida
GHP ST Charles County Gov't	Health Flex 2000	Healthy Palm Beach Of Florida
Gilsbar Incorporated	Health Ins Risk Share Plan	HIP / Health Insurance Plan Of New York
Global Care	Health Manager	HIRSP Health Ins Risk Share Plan
Global Health Inc	Health Net Of California	HM Care Advantage
Global Medical Management	Health Net Of North East	HMA Administrators LLC
Globalcare Health Ins	Health Network One	HMA Healthcare Mgmt Admin
GMP Employers Retirees Trust	Health New England	Homeland Health Care AIG
Gold Med Global Excel	Health NOW	Hometown Health Nevada
Golden Rule	Health One National	Hometown Health Texas
Good Samaritan	Health Partners Minneapolis	HOP Administration Unit
GPA / Group Pension Administrators	Health Partners Of Pennsylvania	Horizon NJ Health Mercy Health Plan
Great American	Health Plan Of Michigan	HPS Services Corp
Great Lakes Helath Plan	Health Plan Of Nevada	HRH Of Illinois
Great West - All States	Health Plan Of San Joaquin	HRM Claim Management
Greentree Admin	Health Plan Of San Mateo	HSBA Health Service Benefit Admn
Group Administrators	Health Plan Of Texas	HSR Administrators
Group Benefit Admin	Health Plan Of Upper Ohio Valley	HTH Worldwide Insurance Svs
Group Benefits Program	Health Plan Select	Hudson Health Plan
Group Insurance Service Ctr	Health Plans Incorporated	Hudson River Healthcare
Group Resource Inc	Health Plus New York	Humana - All States
GTC Greater Tri Cities	Health Plus Of Louisiana	Humana Military Tricare South
Guarantee Trust Life Ins Co	Health Provider Org Ltd	Humana Of Puerto Rico
Guardian	Health Systems International	Hygeia Corporation
Guidestar PPO	Healthallies Inc	IAA / Insurance Administrators Of America
Gundersen Lutheran Health Plan	Healthcare One	IAM Northwest Health Fund
Haa Preferred Partners	Healthcare Plan Of Georgia	IAP Specialist Secondary
Hammerman & Gainer, Inc.	Healthcare Solutions Group	IBA Crossamerica
HAP / Health Alliance Plan Michigan	Healthcare USA	IBEW / NECA SW Health & Ben Fund
Harrington Health	Healthcomp Admin Inc	ICHIA
	Healthease (Wellcare)	ICON Benefit Admin

IDA / Insurance Design Admin  
 IE Shaffer  
 IEES  
 Illinois Mutual Life Ins Co  
 IMC / International Medical Card  
 IMG / International Medical Group  
 IMS / Interactive Medical Systems - TPA  
 INDECS Corp  
 Independent Care Plus  
 Independent Health  
 Independent Processing  
 Indiana Prohealth  
 Indiana State Council Roofer  
 Indiana Teamsters Health Fund  
 Individual Health Benefits  
 Infinity Administrators  
 Informed Adventist HC  
 ING Life Ins And Annuity Co  
 Ingham Health Plan Of MI  
 Innovante Benefit Administrators  
 Innovative Admin Services  
 INSTIL Health  
 Insurance Administrative Corp  
 Insurance Mgmt Admin Of Louisiana  
 Insurance Mgmt Services  
 Insurance Service Center  
 Insurance Service Of Lubbock  
 Integra Administrative Group  
 Integrated Services United Health  
 Integritas Benefit Group Llc  
 Integrity Administrators  
 Integrity Benefit Group  
 Integrity Health  
 Inter American Ins Corp  
 Inter Valley Health Plan  
 Intergroup Services  
 International Benefits Administrators  
 International Claims Services  
 International Health Insurance  
 International SOS Assistance  
 Ironworkers Intermountain Fund  
 Island Group Administration  
 ITPE Health Welfare Fund  
 Jackson Memorial Health  
 JAI Medical Systems  
 Jardin Group Services  
 Jas-Jenson Admin Service

Jefferson Pilot  
 John Alden  
 John Deere  
 John Muir Physicians Network  
 John T Riley Insurance  
 Johns Hopkins US Family Health Plan  
 JP Farley Corporation  
 JPS Benefit Services  
 JSL Administrators  
 JW Terrill  
 Kaiser Permanente California  
 Kaiser Permanente Colorado  
 Kaiser Permanente Georgia  
 Kaiser Permanente Hawaii  
 Kaiser Permanente Mid-Atlantic  
 Kaiser Permanente Ohio  
 Kaiser Permanente Texas  
 Kanawha Healthcare Solutions  
 Kansas Health Ins Assoc  
 Kappa  
 Keenan  
 Kelsey Care Advantage  
 Kentucky Access  
 Kentucky Health Choices  
 Key Benefit Administrators  
 Keystone Mercy Health Plan  
 Klais & Company Inc  
 KPS Health Plans  
 Laborers Health Fund So Calif  
 Laundry And Dry Cleaning Wkrs  
 LBA Health Plans  
 League Atpam Welfare Fund  
 Leon Medical Center Health Plan  
 Liberty Health Advantage  
 Liberty Union Life  
 Life Benefit Plan  
 Lifeprint  
 Lifewise  
 LIG Insurance  
 Lincoln Financial Group  
 Liuna Staff Health & Welfare  
 Local 0455 South Central Ufcw  
 Local 100 Sheet Metal Workers  
 Local 1010 Pavers & Road Build  
 Local 102 Bakery Confectionery  
 Local 1034  
 Local 1036 UFCW

Local 104 Sheet Metal Workers  
 Local 108 Retail Wholesale  
 Local 1102  
 Local 1109  
 Local 115 Teamsters Union  
 Local 1181 ATU  
 Local 1199 Home Care  
 Local 1199 National Benefit Fund  
 Local 1205  
 Local 1222 Welfare Fund  
 Local 1245  
 Local 1298  
 Local 132 West Virginia  
 Local 135 UFCW  
 Local 1360 UFCW  
 Local 137 IUOE  
 Local 138  
 Local 14 14B  
 Local 1428 UFCW  
 Local 1430 IBEW Health Fund  
 Local 144 Nursing Home  
 Local 145 IBEW Welfare Plan  
 Local 1478 2 Longshoremen  
 Local 148 Production Workers  
 Local 15/15A/15C/15D/AFL CIO  
 Local 152 West Virginia  
 Local 1529 United Food  
 Local 169 Laborers  
 Local 17 18 United Production Workers  
 Local 172 142 Heavy General  
 Local 1730 Long Shoremen  
 Local 174  
 Local 177 Plumber & Steamfit  
 Local 18a/20 - Concrete And Cement  
 Local 194  
 Local 1964 - ILA  
 Local 1d Wine Liquor  
 Local 202  
 Local 21 Plumber Pipefitters  
 Local 210 Unity Welfare  
 Local 22 Sheet Metal  
 Local 223 National Health Plan  
 Local 237 Employees Union  
 Local 239  
 Local 25 Health Plan  
 Local 257  
 Local 26 Electrical Trust

Local 269 IE Shaffer	Local 715 NJ Carpenters	Managed Benefit Plans
Local 27	Local 723	Managed Care Administrators
Local 272	Local 74 SEIU / NAHP	Managed Care Inc
Local 277 Welfare Funds	Local 770 UFCW	Managed Health Network
Local 28 Sheet Metal Workers	Local 790 Shop Ironworkers	Managed Health Service Indiana
Local 29	Local 798 Make Up Artists	Managemed
Local 290 Plumber Steam Ship	Local 8 United Roofers Union	Manatee Service Center
Local 2947 Hollow Metal Trust	Local 802 Bakery Drivers	Manhattan Insurance Group
Local 295 Group Welfare	Local 802 Musicians	MAPFRE Life Insurance Co
Local 3 IBEW	Local 803 Union Administrators	MAPSI
Local 30 Engineers	Local 806	Marsh Advantage American
Local 300 Production Service	Local 807 Teamsters Trucking	Martins Point Health Care
Local 302 & 612	Local 810	Maryland Electrical Indstry
Local 305	Local 812 GIPA Health	Maryland Physicians Care
Local 306 C/O ASO	Local 814 Teamsters	Mashantucket Pequot Plan
Local 338 RWDSU	Local 821 Carpenters Specialty	Masonry Security Plan Of WA
Local 340 Barneys Retail	Local 825 Operating Engineers	Master Mates & Pilots
Local 350 Plumbers And Pipefitters	Local 854 Bus Drivers	Mayer Textile Machine Corp
Local 351 IE Shaffer	Local 854 Truck Drivers	Mayfair Fulhealth Ins
Local 354 Plumbers And Pipefitters	Local 863 - Fruit And Vegetables	Mayo Management Services
Local 365 UAW	Local 868	MBA Of Maryland
Local 37 luoe Operating Engineer	Local 880 UFCW	MBA Of Utah
Local 377 Welfare Fund	Local 888	MC2 Health
Local 4 Health & Welfare	Local 9 IE Shaffer	MCA Administrators
Local 4 Roofers Union	Local 90 Laborers	McCalls
Local 4 SEIU Illinois	Local 917 Drivers Union	McCrew Care
Local 40 361 Iron Workers	Local 918 United Teamsters	MCI / Galaxy Managed Care
Local 413	Local 947 Health & Welfare	McLaren Health Advantage
Local 424	Local 97 Teamsters	MCM Maxcare
Local 463 National Health Plan	Local 971 Combined Welfare	MCS Reclamacion
Local 469 Benefit Teamsters	Lockard & Williams Ins Co	MDCARE Health Plan Inc
Local 475 Steamfitters	Loomis Company	MDIPA
Local 478 IE Shaffer	Louisiana State Employee Group	MDNY Healthcare
Local 485 Machine Workers	Lovelace Hmo Helathplan	MDWISE Care Select
Local 522 Welfare Fund	Lucent Informed Choice	MDWISE Family Planning
Local 531 Teamsters Welfare Fund	Lutheran Preferred	MDWISE HIP
Local 54 Theater Workers	Macori Administration	MDWISE Hoosier Alliance
Local 550 Bakery Workers	Magellan Behavioral Health	MDWISE Methodist
Local 56 Health & Welfare	Magnacare	MDWISE Prohealth
Local 560 Trucking	Magnolia Health Plan	MDWISE Select Health Network
Local 57 IBEW	Maher Terminals Insurance	MDWISE St Anthony
Local 610 Stationary Engineers	Mail Handlers Benefit Plan	MDWISE St Catherine
Local 621 United Labor	Maksin Management Group	MDWISE St Francis
Local 66 Pointers Cleaners	Maloney Associates	MDWISE St Margaret Mercy
Local 670 Stationary Engineers	MAMI Major American Mrket Intl	MDWISE St Vincent
Local 700 IE Shaffer	MAMSI	MDWISE Wishard
Local 701 Welfare & Pension	Managed Benefit Administrators	MDX Hawaii

MEBA Medical & Benefit Plan  
 MED Pay  
 MED Save  
 MedAdmin Solutions  
 MEDBEN / Medical Benefits Admin  
 Medcost Benefit Services  
 Medica Healthplan Of Florida  
 Medicaid Alabama  
 Medicaid Alaska  
 Medicaid Arkansas  
 Medicaid California  
 Medicaid Colorado  
 Medicaid Connecticut  
 Medicaid Delaware  
 Medicaid Florida  
 Medicaid Georgia  
 Medicaid Hawaii  
 Medicaid Idaho  
 Medicaid Illinois  
 Medicaid Indiana  
 Medicaid Iowa  
 Medicaid Kansas  
 Medicaid Kentucky  
 Medicaid Louisiana  
 Medicaid Maine  
 Medicaid Maryland  
 Medicaid Massachusetts  
 Medicaid Michigan  
 Medicaid Minnesota  
 Medicaid Mississippi  
 Medicaid Missouri  
 Medicaid Montana  
 Medicaid Nebraska  
 Medicaid Nevada  
 Medicaid New Hampshire  
 Medicaid New Jersey  
 Medicaid New Mexico  
 Medicaid New York  
 Medicaid North Carolina  
 Medicaid North Dakota  
 Medicaid Ohio  
 Medicaid Oklahoma  
 Medicaid Oregon  
 Medicaid Pennsylvania  
 Medicaid Rhode Island  
 Medicaid South Carolina  
 Medicaid South Dakota

Medicaid Texas  
 Medicaid Utah  
 Medicaid Vermont  
 Medicaid Virginia  
 Medicaid Washington  
 Medicaid Washington DC  
 Medicaid West Virginia  
 Medicaid Wisconsin  
 Medicaid Wyoming  
 Medi-Cal  
 Medical Claims Management  
 Medical Devel International  
 Medical Mutual Of Ohio  
 Medicare - All States  
 Medigold  
 Mediprime  
 Medisun  
 Medstar Family Care  
 Med-Team DC-37  
 Mega Life & Health  
 Memorial Healthcare IPA  
 Memorial Hermann HNP  
 Memorial Managed Care Of Florida  
 Mennonite Mutual-MMA  
 Mercer Administration  
 Mercy Health Plan Missouri  
 Mercy Health Plan New Jersey  
 Mercy Health Plan Texas  
 Meritain Health  
 Metcare Health Plans Inc  
 Methodist MSAG Healthcare  
 Metroplus Health Plan  
 MHN / HMC-HNNE  
 MHS Managed Health Service Indiana  
 Mid America Assoc  
 Midwest Health Plan  
 Midwest National Life  
 Midwest Security Admin  
 Millette Admin  
 Missionary Medical  
 Mississippi Admin  
 Mississippi Health Partners  
 Mississippi Physicians Care  
 Missouri Care  
 Missouri Consol Hlth Care Plan  
 Mitsui Sumitomo Ins  
 MMM Healthcare Medicare

MO HealthNet  
 MOAA Mediplus  
 Mobility Benefits  
 Molina Health - California  
 Molina Health - Florida  
 Molina Health - Michigan  
 Molina Health - Missouri  
 Molina Health - New Mexico  
 Molina Health - Ohio  
 Molina Health - Salud New Mexico  
 Molina Health - Texas  
 Molina Health - Utah  
 Molina Health - Washington  
 Monarch Healthcare IPA  
 Monroe Plan For Medical Care  
 Montefiore CMO  
 Montgomery Cancer Crusade  
 Monumental Life Ins  
 Morgan-White Admin Internl  
 Morris Associates  
 Motorola Health Advantage Plan  
 Mountain States Admin Services  
 MS Physician Care Network  
 Multinational Underwriters Inc  
 Multiplan  
 Municipal Health Of Arkansas  
 Mutual Assurance Administrators  
 Mutual Medical Plan HD Smith  
 Mutual Of America  
 Mutually Preferred  
 MVP Health Plan Of New York  
 NAHGA Claims Service  
 NALC / National Assoc Letter Carriers  
 NAMCI  
 NASI / National Automatic Sprinklers  
 National Alliance CBMC  
 National Asbestos Workers  
 National Benefit Administ  
 National Claims Administration  
 National Foundation Life Ins  
 National Health Administrators  
 National Maritime Union Plan  
 National States Insurance  
 National Way Healthcare Assoc  
 Nationway Healthcare  
 Nationwide  
 Nationwide Specialty Health

NBLA / National Better Living Assoc	Ohio Health Choice	Physicians Care
NCAS / National Claim Adm Service	Old Surety Life Ins Co	Physicians Healthchoice
NCE Preferred Care	Omnicare	Physicians Heathplan Mid Michigan
NEA Group Insurance	One Source EPO	Physicians Mutual
NEBA / National Employee Benefit Admin	ONEill Consulting	Physicians Plan Northern In
Neighborhood Health - Florida	Operating Engineers Trust Fund	Physicians United Plan
Neighborhood Health - Massachusetts	Optima Health	PIA / Personal Ins Adm
Neighborhood Health - New York	Optimed Health Plan	Pinellas County Health Service
Neighborhood Health - Rhode Island	Optimum Choice	Pinnacle Claims Management
Network Health Forward	Optimum Healthcare, Inc.	Pinnacle Health System
New Century Infusion SOL	Options Health Plan	Pioneer Life Insurance
New England Financial Employee Benefits	OSF Health Plans	Pipeline Industry Benefits
New Era Life Ins Co	OSMA Health	Pittman & Associates Inc
New Jersey Carpenters Local 715	Oxford Health Plan	Plan Handlers Healthscope
New Mexico Presbyterian	P5 Electronic Health	POMCO
New Source Benefits	Pace Center NY	Positive Healthcare Partners
New West Health Services	Pacific Health Alliance	Post Masters Benefit Plan
New World Administrators	Pacificare	PPHN
NexCaliber	Pacificare Secure Horizon	PPOM American Community
NFL Players Insurance Plan	Pacificsource Health Plan	PPP Healthcare
NGS American, Coresource	PAI / Planned Admin Inc.	Prairie States Enterprises Inc
NHealth	Palmetto GBA Railroad	Precise Comprehensive Benefits
NHL Group Health Ins Plan	Pan American Life	Preferred Benefit Admin
Nippon Life Insurance	Pan American Life Puerto Rico	Preferred Benefits Administrator
Nishimoto Trading Company	Paragon Benefits Inc	Preferred Care Inc.
NJCEED Brava	Paramount Health Care	Preferred Care Partners
NJTMA / Employee Benefit Assoc	Parkland Health First	Preferred Choices Ppo
NMU Pension & Welfare Plan	Passport Advantage	Preferred Community Choice
Noble Mid Orange County	Passport Health Plan	Preferred Health Plan
Norfolk Mobility Benefits	Patriot Health Plan	Preferred Health Professionals
Noridian Benefit Plan Admin	Patriot Healthcare	Preferred Health Systems
North American Administrators	Peace Corps Claims	Preferred Healthcare
North American Health Plan	PeachState Health Plan	Preferred Healthcare System
North Carolina State Health Plan	Pearce Administration	Preferred Medical Plan Of Florida
Northern Calif Teamsters	Pedicare	Preferred Medicare Puerto Rico
Northstar	Pekin Life Insurance Comp	Preferred One Admin
Northwest Administrators Inc	Penn Western Benefits WCWC	Preferred Plan
Northwest Sheet Metal Workers	Peoples Benefit Life Ins Co	Preferred Plus Of Kansas
Nova Healthcare Admin	Peoples Health Network	Premier HMO Of Missouri
NovaNet Inc	Pequot Plus Health Ben Svc	Premier Physician Network IPA
Novasys Health	Perfect Health Ins Co	Presidential Life
NTCA / National Telecom Coop Assoc	Performax	Prestige Health Choice
NY Life Insurance Co	Personal Care	Prestige International USA
NY Presbyterian SelectHealth	PHCS / Private Healthcare Systems	Primary Physiciancare Inc
NYS Catholic Health Plan	PHCS Savility	Primary Select PPO
ODS Health	Phifer Wire Products, Inc.	Principal Financial Group
Ohio Carpenters Health	Philadelphia American Life	Priority Health Of Michigan



Priority Partners PPMCO  
 Pro America  
 Pro Net  
 Professional Administrators  
 Professional Benefit Administrators  
 Professional Benefit Service, Inc.  
 Prohealth Healthmark  
 Prosam  
 Prospect Cal Optima  
 Providence Health Plan  
 Provider Benefit Plans, Inc.  
 Providers Network Of America  
 Prudential Overall Supply Benefit Fund  
 PSATS Trustees Ins Fund  
 PSERS Health Admin Unit  
 Public Employee Health Plan  
 Publishers News Mail  
 Pyramid Life Insurance  
 QHP / Quality Health Plan  
 QSIT Qualicare Self Ins Trust  
 Quadmed Claims  
 Qualcare  
 QualChoice QCA In Arkansas  
 Qualicare Self Insurance Trust  
 Quik Trip  
 Railroad Maint & Indust Health  
 Railroad Medicare  
 RBA Administrators  
 RBMS LLC  
 RCI Regional Care Inc  
 Red Bridge  
 Redwood Health Services  
 REFCO  
 Reformed Church America  
 Regal Medical Group  
 Reliance Insurance  
 Reliastar Northwestern Nat  
 Religious Comp Trust  
 Reserve National Ins Co  
 Resource One Admin  
 Reward Administration Center  
 Reynolds & Reynolds  
 RH Administrators Inc  
 RIO Grand Employee Hospital  
 Risk Reduction Inc  
 River Valley United Healthcare  
 RMSCO

Rocky Mountain Health Plan  
 Rojw Healthcare Support  
 Royal Neighbors Of America  
 RSL Specialty Prod Admin  
 Rural Carrier Benefit Plan  
 Rural Health Plans Initiative  
 RWDSU  
 Ryan White Tennessee  
 S & S Healthcare Strategies  
 Sagamore Health Network  
 Sage Technologies  
 Salvation Army C/O Chesterfield Resources  
 SAMBA  
 San Diego County Fringe Ben  
 San Joaquin Health Admin  
 Sanford Health Plan  
 Sanus Health Corp  
 Scan Health Plan AZ  
 Scan Health Plan Of CA  
 SCIRHC  
 Scott & White Health Plan  
 Seabury & Smith  
 Seafarers Welfare Plan  
 Seaview IPA  
 Secure Care HMO Of Ohio  
 Secure Health Plan Of GA  
 Secure Horizons UHC  
 Security Administ Services  
 Select Administrative Services  
 Select Benefit Admin Of America  
 Select First Administrators  
 Selectcare Of Texas  
 Selectcare Worldwide  
 SelectMed Plus - Medical Mutual Ohio  
 Self Insured Benefit Admin  
 Self Insured Plans  
 Seminole Tribes  
 Senior Care Connect  
 Senior Care Plus  
 Senior First Of Alabama  
 Senior Health Partners  
 Senior Whole Health  
 Sentara Health  
 Sentinel Administrators  
 Sentry Insurance Mutual Co  
 Seton Healthcare  
 Seven Corners

Seven Corners Peace Corps  
 Sharp Community Medical Group  
 Shasta Administ Services  
 Sheffield Olson & McQueen  
 SIBA / Self Insured Benefit Admin  
 SIEBA  
 Sierra Health  
 Significa Insurance Group  
 SIHO / Southern Indian Health Org  
 Simplicity Health Plan  
 Simply Healthcare Plans  
 Sinclair Health Services  
 Sioux Valley Health Plan  
 SISCO  
 Smith Administrators  
 SO Texas Health System  
 South Central Preferred  
 Southcare IBA  
 Southern Benefit Services  
 Southern Benefits Admin  
 Southern Benefits Service  
 Southern Graphic Health Fund  
 Southern Health Services  
 Southwest Admin  
 Southwest Carpenters Health  
 Southwest Multicraft Health  
 Southwest Service Administrators Inc  
 Southwest Service Life  
 Special Insurance Services Inc  
 Spectrum Administrators  
 Spraying Systems Co  
 SRC - Strategic Resource Company  
 SRI / Specialty Risk Inter  
 SS Healthcare Strategies  
 St Barnabas System Health Plan  
 St Francis Health Network  
 St Johns Claims Admin  
 St Joseph Health Preferr Ipa  
 St Joseph Hospital Affil Phys  
 St Lawrence Lewis Ins  
 St Marys Health Plan  
 Standard Life & Accident Ins  
 Standard Security Life  
 Star Healthcare Network Inc  
 Starbridge CIGNA  
 Starmark  
 Stateline TPA

Staywell (Wellcare)	Total Plan Services	United Healthcare - New York And New Jersey
Sterling & Sterling	Touchstone Health Partnership	United Healthcare Student Resource
Sterling Option 1	Tower Life Ins	United Medical Alliance
Stirling Benefits	TPA Of Georgia	United Security Life
Student Assurance Services	TPAC / The Physicians Assurance Corp	United Service Assoc For HC
Student Resources Mega Life	TR Paul	United Wire Metal & Machine
Suburban Health Organization	Transamerica Financial	Unity Health Insurance
Summacare Of Ohio	Travel Care Services	Univera Blue Cross Blue Shield
Summit Administrators	Tri Union Health	Universal Assistance Inc
Summit America Ins Serv	Triad Group Llc	Universal Health Care Of Florida
Summit Health Plan	TriCare Europe	Universal Health Network
Summit Medicare	TriCare For Life	University Of Missouri
Summit Vista Advantra	TriCare Latin America & Canada	University Utah Health Care
Sun Health Medisun AZ	TriCare North	Unkechaug Indian Nation
Sunshine State Health Plan	TriCare North / HealthNet Fed Serv	UPMC Health Plan
Superien Health	TriCare Pacific	UPREHS
Superior Administrators	TriCare South	Upstate Administrative Serv
Superior Health Plan	TriCare West	Upstate Employees Benefit Fund
SuperMed / Medical Mutal Ohio	Trident Plan Admin	US Able Life
SW Service Admin Of AZ	Trinity Broadcast Health Plan	US Alliance
SW Service Life Ins	Triple S Of Puerto Rico	US Dept Of State ASPE
Swedish Covenant Managed Care	TriSurant	US Family Health Plan
Talbert Medical Group, Inc.	Trusted Plan Services Corp	US Life
Tall Tree Administrators	Trustmark	US Now
Taylor Benefit Resource Inc	Tucson Claim Center	USI Administrators
TCC Of South Carolina	Tufts Health Plan	Utah Idaho Teamsters
Teachers Health Trust	TW Lord & Associates	Utah Pipe Trade Fund
Teamsters Benefit Trust	UABT / United Agricultural Bene	VA Premier Health
Tencon Health Plan	UAHC Health Plan Of Tenn	Vale U Health
Tenet Choices Medicare	UCare Minnesota	Valero Energy Corporation
Texas Childrens Health Plan	UFirst Medicaid Florida	Value Options
Texas International Ins	UHC - New York And New Jersey	Vanbreda International
Texas True Choice	Ultra Benefits Inc	Vantage Health Plan
The TPA	UMCH University Medical HP	Vantage Medical Group
Thomas Cooper Company	UMR / United Medical Resources	Ventura County Health Plan
Three Rivers Provider Network	UniCare - All States	VIA Christi Hope
Timbar Group Ins	Unified Group Services	Vida Care
Time Insurance Co	Uniformed Medical Plan	Virginia Health Network
TL Groseclose Asso	Uniformed Services Family HP	Virginia Premier Health Plan
TLC Benefit Solutions	Unison Health Plan	Virtual Benefits Admin
TML / Texas Municipal League	United Administrative Services	Vista Plan Florida
Todays Options	United American Insurance Company	Vita Health
Toledo Public School Hlth Plan	United Behavioral Health	Viva Health
Total Broker Benefits	United Benefit Fund	VNS / Visiting Nurse Services
Total Claim Administrators	United Benefits-FBMC	Volusia Health Network
Total Claims Solution	United Commercial Travelers	Vytra Quest
Total Health Care	United Employees Health Plan	Wabash Memorial Hosp Assco
Total Health Choice	United Group Programs Inc	



Washington Employers Trust  
Waterstone Benefit Admin  
Watkins Assoc Industries  
Wausau Benefits  
WEA Trust  
WEB TPA  
WEDCO Health Dept  
WelForce Administrators  
Wellborn Health Plan  
Wellcare - All States  
Wellforce Administrators  
WellMed  
Wellnet Healthcare  
Wellpath Select Coventry  
Wellpoint Blue Cross Blue Shield  
Wells Fargo TPA  
West Virginia Employee Benefit  
Western Benefits Ppo  
Western Maryland Health System  
Western Mutual Insurance  
Western Southern Life  
Westlake Financial Group  
Westport Benefits  
William J Sutton & Co  
Willis Corroon

Willis Of Kansas  
Windsor Medicare Extra  
Wood And Grooms Ben Serv Inc  
Work Site Solutions  
World Insurance Company  
Worldwide Assistance Service  
WPEE Insurance Trust Fund  
WPPA Mega Life  
WPS Health Insurance  
WPS TriCare West  
WV Laborers' Trust Fund  
Young Life  
Young Life Benefits Plan  
Zenith Administrators Inc

## LICENSES AND REGULATORY INFORMATION

BioReference Laboratories in Elmwood Park currently holds licenses for testing in the following states, as well as a CLIA Certificate issued by the Centers for Medicare and Medicaid Services (CMS).

CLIA Certificate	#31D0652945
College of American Pathologists	#LAP12372-01
CMS	
Medicare	#301910
Cytology/Pathology	#CY305343
New York State Permit	#PFI3130
New Jersey State License	#0000283
Maryland State Permit	#482
Pennsylvania State Permit	#022757A
Florida State License	#800004934
Rhode Island State License	#LC000305
California State License	#COS800242
DEA Registration	#RBO215726
West Virginia State License	#RL17
Vermont State Certificate	HIV, Urine Drugs

## HOW TO USE THE TEST DIRECTORY

This directory describes the diagnostic testing and ancillary services that can assist you and your staff in providing the best possible medical care to your patients.

The major section of this directory is the alphabetical test listing by test name. This section describes in detail, the specimen requirements and clinical utility of each test. In addition to the alphabetical listing, tests are listed by test code.

### Our Test Format

Test Name	Test Code
<p><b>MYC/IGH by FISH</b></p> <p><b>Alternate Name:</b> MYC/IGH t(8;14) for Burkitt Lymphoma, c-MYC</p> <p><b>Methodology:</b> FISH</p> <p><b>Preferred Specimen:</b> 2 mL Bone Marrow, Tissue in RPMI</p> <p><b>Alternate Specimen:</b> 5 mL Peripheral Blood - Green Top</p> <p><b>Specimen Comment:</b> Please include specimen collection date on requisition.</p> <p><b>Storage Instruction:</b> Refrigerate</p> <p><b>Turnaround time:</b> 3 days</p> <p><b>Clinical Indication:</b> Useful for assessment of Burkitt Lymphoma.</p> <p><b>Ref Range:</b> See Report</p>	<p><b>5027-8</b></p> <p><b>CPT Code:</b> 88368 (2)</p>

### Legend for Test Directory

**FISH:** Fluorescence In Situ Hybridization

**IHC:** Immunohistochemistry

**PCR:** Polymerase Chain Reaction

**LABORATORY TESTS  
IN  
ALPHABETICAL ORDER**

**-5/5q- by FISH- TC Only**
**A869-0**
**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** MDS with isolated 5q- is a discrete subset of MDS with a favorable prognosis. Unlike the majority of MDS, most patients with 5q- syndrome are elderly woman, with a 2:1 female predominance. Lenalidomide (an immunomodulatory drug) is FDA approved for 5q- MDS. Commonly ordered through the MDS FISH panel (TC Only), P960-8.

**Ref Range:** See Report

**-7/7q- by FISH- TC Only**
**A868-2**
**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** 7q- is a common cytogenetic abnormality found in MDS. Entire or partial deletions of chromosome 7 generally confer an intermediate prognosis when found in isolation. Genetic alterations of 7 is a poor prognosis when found in conjunction with other cytogenetic abnormalities of clinical significance. Commonly ordered through the MDS FISH panel (TC Only), P960-8.

**Ref Range:** See Report

**11q22.3 by FISH- TC Only**
**A879-9**
**Alternate Name:** ATM by FISH, TC Only

**Methodology:** FISH

**Preferred Specimen:** 5 mL Peripheral Blood - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 2 mL Bone Marrow - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** FISH for 11q23 provides useful prognostic and therapeutic information. CLL patients with 11q23 deletion have rapid disease progression and shorter treatment free survival. This deletion in the ATM gene, a tumor suppressor gene, occurs in 10-20% of CLL cases. Commonly ordered through the CLL FISH panel (TC Only), P962-4.

**Ref Range:** See Report

**13q14 by FISH- TC Only**
**A872-4**
**Alternate Name:** RB1 by FISH, TC Only

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** FISH for 13q14.3 (D13S319) provides useful prognostic information in the management of CLL patients. Deletions involving 13q14 are detectable by FISH in approximately 50% of persons with CLL. As the sole aberration, del(13q) is associated with a more favorable clinical outcome. However, recent studies have shown that certain CLL patients with a larger size deletion in 13q14 correlate strongly with a concomitant RB1 deletion. Patients with an RB1 deletion or those have a 13q14.3 deletion in > or equal to 70% of nuclei have in fact a shorter time to treatment. Commonly ordered through the Multiple Myeloma FISH panel (TC Only), P961-6.

**Ref Range:** See Report

**13q14.3 by FISH- TC Only**

**A878-1**

**Alternate Name:** D13S319 by FISH, TC Only

**Methodology:** FISH

**Preferred Specimen:** 5 mL Peripheral Blood - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 2 mL Bone Marrow - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** FISH for 13q14.3 (D13S319) provides useful prognostic information in the management of CLL patients. Deletions involving 13q14 are detectable by FISH in approximately 50% of persons with CLL. As the sole aberration, del(13q) is associated with a more favorable clinical outcome. However, recent studies have shown that certain CLL patients with a larger size deletion in 13q14 correlate strongly with a concomitant RB1 deletion. Patients with an RB1 deletion or those have a 13q14.3 deletion in > or equal to 70% of nuclei have in fact a shorter time to treatment. Commonly ordered through the CLL FISH panel (TC Only), P962-4.

**Ref Range:** See Report

**17p13 by FISH- TC Only**

**A874-0**

**Alternate Name:** p53 by FISH, TC Only

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** 17p or p53 is commonly referred to as a universally poor prognostic factor in hematological malignancies. A unifying molecular genetic abnormality in these cases appears to be a deletion or inactivation of one copy of the TP53 gene, with subsequent inactivation of the second allele. Commonly ordered through the CLL FISH panel (TC Only), P962-4.

**Ref Range:** See Report

**1p/19q by FISH**

**A311-3**

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88368 (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Turn Around Time:** 7 days

**Clinical Indication:** As an aid in diagnosing oligodendroglioma tumors and predicting the response of an oligodendroglioma to therapy.

**Ref Range:** See Report

**1q21 by FISH- TC Only**

**A876-5**

**Alternate Name:** CKS1B by FISH, TC Only

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** FISH is used to detect the amplification of 1q21, a poor prognostic marker for Plasma Cell Myeloma. Commonly ordered through the Multiple Myeloma FISH panel (TC Only), P961-6.

**Ref Range:** See Report

**20q12 by FISH- TC Only**

**A871-6**

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Deletions in 20q12 is a favorable prognostic marker for myelodysplastic syndrome (MDS). It also can be helpful to aid in the diagnosis of MDS in the presence of negative morphological findings. Commonly ordered through the MDS FISH panel (TC Only), P960-8.

**Ref Range:** See Report

**Acute Hepatitis Panel for Medicare**
**3283-9**

**Preferred Specimen:** SST Tube **CPT Code:** 80074 (1)  
**Alternate Specimen:** Red Top, Aliquot Tube-Serum, Microtainer - Pediatric SST, Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Components:** HEPATITIS A Ab, IgM, HEPATITIS B CORE Ab, IgM, HBsAg, HEPATITIS C Ab.  
**Clinical Indication:** Comprehensive profile for detecting markers for HAV or HBV infections; can be used for all stages of infection  
**Ref Range:** See Report

**Acute Leukemia & Myeloid Disorders Analysis**
**5515-2**

**Methodology:** Flow Cytometry  
**Preferred Specimen:** 2 mL Bone Marrow - Green Top **CPT Code:** 88184 (1), 88185 (27), 88189 (1)  
**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI, Peripheral Blood - Lavender Top  
**Specimen Comment:** Submit within 24hrs. of collection, Time Sensitive  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Clinical Indication:** Flow Cytometry is highly sensitive and specific in diagnosing non-Hodgkin lymphoma and acute leukemias and in identifying granulocytic, monocytic, erythroid, and megakaryocytic differentiation. Flow allows examination and characterization of normal myeloid, monocytic, and immature hematopoietic precursors and their specific, synchronized patterns of antigen expression.  
**Ref Range:** See Report

**Acute Leukemia & Myeloid Disorders Analysis- TC Only**
**5516-0**

**Methodology:** Flow Cytometry  
**Preferred Specimen:** 2 mL Bone Marrow - Green Top **CPT Code:** 88184 (1), 88185 (27)  
**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI, Peripheral Blood - Lavender Top  
**Specimen Comment:** Submit within 24hrs. of collection, Time Sensitive  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Clinical Indication:** Flow Cytometry is highly sensitive and specific in diagnosing non-Hodgkin lymphoma and acute leukemias and in identifying granulocytic, monocytic, erythroid, and megakaryocytic differentiation. Flow allows examination and characterization of normal myeloid, monocytic, and immature hematopoietic precursors and their specific, synchronized patterns of antigen expression.  
**Ref Range:** See Report

**Acute Leukemia/MDS IHC Panel**
**5116-9**

**Methodology:** IHC  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** G0461 (1), G4062 (10)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Ship block with cold pack during warm weather.  
**Turn Around Time:** 1 day  
**Clinical Indication:** The Acute Leukemia/MDS IHC panel is used to assess lineage and blast cell count in the context of AML, ALL and/or MDS diagnosis. The components of this panel include: CD3, CD10, CD20, CD34, CD56, CD61, CD79a, CD117, Glycophorin-A, HLA-DR, MPO and TdT.  
**Ref Range:** See Report

**Adenocarcinoma vs. Mesothelioma IHC Panel**
**5181-3**

**Methodology:** IHC  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** G0461 (1), G0462 (8)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Ship block with cold pack during warm weather.  
**Turn Around Time:** 1 day  
**Clinical Indication:** The IHC panel is useful in the differential diagnosis between adenocarcinoma and mesothelioma. The components of this panel include: BerEP4, Calretinin, CD68, CEAm, Desmin, GLUT-1, MOC31, Napsin A and TTF-1.  
**Ref Range:** See Report



**AE1/AE3- TC Only**

**5108-6**

**Alternate Name:** AE1/AE3 (Stain Only)

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461-TC (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Ref Range:** See Report

**ALK by FISH**

**A703-1**

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88368 (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** The detection of EML4-ALK fusion is used as a screening assay to determine a lung cancer patient's eligibility for crizotinib, a tyrosine kinase inhibitor.

**Ref Range:** See Report

**ALK by FISH (FDA)**

**A241-2**

**Alternate Name:** ALK Status

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88368 (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** FISH for EML4-ALK is used to detect the presence of a fusion gene that can be targeted with an FDA approved tyrosine kinase inhibitor, crizotinib. All NSCLC adenocarcinoma patients can be tested for EML4-ALK but clinicopathologic features favor patients with little to no smoking history and those that are younger. CAP guidelines recommend EGFR and ALK testing in advanced stage adenocarcinoma regardless of sex, smoking history, and other clinical factors. Expert consensus opinion written in the CAP guidelines recommend EGFR and ALK testing for all stages of adenocarcinoma. ALK by FISH can also be used to confirm a diagnosis of Anaplastic Large Cell Lymphoma (ALCL) because it covers ALK1 status.

**Ref Range:** See Report

**ALK by FISH- TC Only**

**B236-1**

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88367-TC (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** FISH for EML4-ALK is used to detect the presence of a fusion gene that can be targeted with an FDA approved tyrosine kinase inhibitor, crizotinib. All NSCLC adenocarcinoma patients can be tested for EML4-ALK but clinicopathologic features favor patients with little to no smoking history and those that are younger. CAP guidelines recommend EGFR and ALK testing in advanced stage adenocarcinoma regardless of sex, smoking history, and other clinical factors. Expert consensus opinion written in the CAP guidelines recommend EGFR and ALK testing for all stages of adenocarcinoma. ALK by FISH can also be used to confirm a diagnosis of Anaplastic Large Cell Lymphoma (ALCL) because it covers ALK1 status.

**Ref Range:** See Report

**ALK by IHC - TC Only**

**B603-2**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88342-TC (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** \*Provide Source\* Will also accept 2 unstained slides form FFPE tissue.

**Storage Instruction:** Room Temp

**Turn Around Time:** 1 day

**Clinical Indication:** The detection of EML4-ALK protein overexpression is used as a screening assay to determine a lung cancer patient's eligibility for crizotinib, a tyrosine kinase inhibitor.

**Ref Range:** See Report

**ALL Prognosis Panel by FISH**
**P260-3**
**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (3)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Components:** BCR/ABL, MLL, 11q23

**Clinical Indication:** Used to detect common genetic aberrations in B-cell Lymphoblastic Leukemia/Lymphoma.

**Ref Range:** See Report

**Alpha Fetoprotein, Tumor Marker (AFP)**
**0025-7**
**Alternate Name:** AFP, Tumor Marker

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 82105 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Alpha Fetoprotein marker is used in the management of hepatocellular carcinoma and germ cell tumors.

**Ref Range:** <8.4 ng/mL

**AML - CEBPA Mutational Analysis**
**8860-9**
**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81403 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-4 days

**Clinical Indication:** In the context of normal cytogenetics AML patients with biallelic CEBPA mutations have a favorable prognosis. Risk adopted treatment strategies can be adopted for such patients.

**Ref Range:** See Report

**AML - M2 (AML/ETO) (RUNX1/RUNX1T1) by FISH**
**5024-5**
**Alternate Name:** Acute Myeloid Leukemia with t(8;21)

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** FISH for t(8;21) is both diagnostic and prognostic for AML. AML patients with translocations between chromosomes 8 and 21 are a specific WHO subset defined as AML/ETO. Approximately 5-12% of all AML patients share a t(8;21) mutation which is regarded as a favorable prognostic marker.

**Ref Range:** See Report

**AML - M2 (AML/ETO) (RUNX1/RUNX1T1) by RT-PCR**
**5034-4**
**Alternate Name:** Acute Myeloid Leukemia with t(8;21)

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81401 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Turn Around Time:** 2 days

**Clinical Indication:** Serial monitoring of patients for minimal residual disease and determine treatment efficacy.

**Ref Range:** See Report

### AML - M3 (PML/RARA) by FISH

5260-5

**Alternate Name:** Acute Promyelocytic Leukemia with t(15;17)

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367 (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** FISH for the detection of translocation between the PML and RARA genes is used for diagnostic and therapeutic management. The WHO defines patients with t(15;17)(q22;q12) as a subset of AML that is associated with favorable prognosis.

**Ref Range:** See Report

### AML - M3 (PML/RARA) by RT-PCR

5261-3

**Alternate Name:** Acute Promyelocytic Leukemia with t(15;17)

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81315 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2-3 days

**Clinical Indication:** RT-PCR for PML/RARA has a similar utility as the FISH assay. However, RT-PCR has a lower limit of detection and is useful for serial monitoring of patients for MRD.

**Ref Range:** See Report

### AML - M4 & M5 by FISH

5427-0

**Alternate Name:** MLL, 11q23

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** AML patients with 11q23 rearrangement define a specific WHO subcategory of AML. These patients typically have monocytic features and comprise 5-6% of all AML patients. AML with 11q23 is more common in children. It is typically a poor prognostic factor.

**Ref Range:** See Report

### AML - M4Eo inv(16) by FISH

5025-2

**Alternate Name:** Acute Myelomonocytic Leukemia with Eosinophilia

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** FISH to detect the inversion of chromosome 16 is diagnostic and prognostic for patients with Acute Myelomonocytic Leukemia. AML patients with inversion 16 have a more favorable prognosis than those with normal karyotype.

**Ref Range:** See Report

**AML - M4Eo inv(16) by PCR**
**5035-1**

**Alternate Name:** Acute Myelomonocytic Leukemia with Eosinophilia

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81401 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 4 days

**Clinical Indication:** RT-PCR testing for chromosome 16 inversion has similar utility to that of the FISH assay but can be additively used for MRD and monitoring of treatment effectiveness.

**Ref Range:** See Report

**AML Diagnostic Panel by FISH**
**P261-1**

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (8)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Components:** BCR/ABL, MLL, 11q23, AML1/ETO,t(8;21), FISH, PML/RARA,t(15;17),FISH, CBFβ/MYH11 (inv16), FISH

**Clinical Indication:** Comprehensive FISH panel that interrogates all common chromosome abnormalities for accurate WHO subset classification.

**Ref Range:** See Report

**AML Prognostic Panel: FLT3 & NPM1**
**5988-1**

**Alternate Name:** AML Prognostic Panel

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81245 (1), 81310 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 4-7 days

**Components:** FLT-3 MUTATION, NPM1 MUTATION ANALYSIS

**Clinical Indication:** Panel used as predictors for risk stratification for patients with AML.

**Ref Range:** See Report

**AML-M3(PML/RARA) by FISH- TC Only**
**A881-5**

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** Diagnostic assay for the detection of translocation between PML and RARA genes. Patients positive for t(15;17) represent a WHO defined subset whose prognosis is favorable and are managed accordingly.

**Ref Range:** See Report

**AML: NPM1 Mutation Analysis**
**5269-6**

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81310 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-4 days

**Clinical Indication:** Prognostic indicator for patients with AML. It is recommended that FLT3 be run before ordering NPM1.

**Ref Range:** See Report

### Anti-Thyroglobulin Antibody (ATA)

0041-4

**Alternate Name:** Thyroglobulin Antibody  
**Methodology:** Chemiluminescence  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 86800 (1)  
**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Clinical Indication:** Detect and confirm autoimmune thyroiditis, Hashimoto's thyroiditis.  
**Ref Range:** <or=40 IU/mL

### Antinuclear Antibody (ANA)

0038-0

**Alternate Name:** ANA; FANA  
**Methodology:** Indirect Fluorescence Assay  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 86038 (1)  
**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum, Red Top, Microtainer - Pediatric Red  
**Specimen Comment:** Positive result will reflex to ANA TITER-3185 at additional charge  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** Used to screen for certain autoimmune disorders, such as systemic lupus erythematosus (SLE) and others.  
**Ref Range:** Neg=<1:80

### Antistreptolysin O (ASO) Titer

0042-2

**Alternate Name:** ASO  
**Methodology:** Immunoturbidometric  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 86060 (1)  
**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** Used to assess whether a person has had a recent streptococcal infection.  
**Ref Range:** See Report

### Automated UroVysion By FISH

5030-2

**Methodology:** FISH  
**Preferred Specimen:** 50 mL ThinPrep Cytolyte Solution **CPT Code:** 88121 (1)  
**Specimen Comment:** Please include specimen collection date on requisition.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Clinical Indication:** For help detecting and monitoring bladder cancer (urothelial or transitional cell carcinoma).  
**Ref Range:** See Report

### B-Cell, IGH by FISH

5032-8

**Alternate Name:** IGH, B-cell  
**Methodology:** FISH  
**Preferred Specimen:** 2 mL Bone Marrow - Green Top **CPT Code:** 88368 (1)  
**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI  
**Specimen Comment:** Please include specimen collection date on requisition  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Clinical Indication:** Useful for assessment of B-cell clonality, as seen in B-cell lymphoma.  
**Ref Range:** See Report

**B-Cell, IGH by PCR**
**5278-7**

**Alternate Name:** IgH Gene Rearrangement

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81261 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Tissue in RPMI, Formalin-fixed, Paraffin-embedded Tissue, Peripheral Blood - Green Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-4 days

**Clinical Indication:** Useful for assessment of B-cell clonality, as seen in B-cell lymphoma.

**Ref Range:** See Report

**BCL1, BCL2, BCL6 (FISH Panel)**
**5273-8**

**Alternate Name:** FISH Panel: t(11;14), t(14;18), 3q27, t(8;14)

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (5)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Components:** BCL1,t(11;14),FISH, BCL-2,t(14;18),FISH, LG.CELL LYMPHOMA(BCL-6)FISH

**Clinical Indication:** Useful for assessment of Non-Hodgkin Lymphoma.

**Ref Range:** See Report

**BCL1/IGH (CCND1/IGH) by FISH**
**5026-0**

**Alternate Name:** t(11;14), CCND1, CYCLIN D1

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Useful for assessment of Mantle cell lymphoma and as a prognostic indicator for plasma cell myeloma.

**Ref Range:** See Report

**BCL1/IGH (CCND1/IGH) by FISH-TC Only**
**A873-2**

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Prognostic for patients with Plasma Cell Myeloma. Commonly ordered through the Multiple Myeloma FISH panel (TC Only), P961-6.

**Ref Range:** See Report

**BCL2/IGH by FISH**
**5270-4**

**Alternate Name:** t(14;18)

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI

**Specimen Comment:** Please include specimen collection date on requisition

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Useful for assessment of follicle center lymphomas.

**Ref Range:** See Report

**BCL2/IGH by PCR**

**5271-2**

**Alternate Name:** t(14;18), Follicular Lymphoma  
**Preferred Specimen:** 2 Bone Marrow - Lavender Top **CPT Code:** 81402 (1)  
**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Tissue in RPMI  
**Specimen Comment:** Ship with cold pack during warm weather.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 5 days  
**Clinical Indication:** Useful for assessment of follicle center lymphomas.  
**Ref Range:** See Report

**BCL2/IGH: t(14;18) by FISH- TC Only**

**B350-0**

**Methodology:** FISH  
**Preferred Specimen:** 2 mL Bone Marrow - Green Top **CPT Code:** 88367-TC (2)  
**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI  
**Specimen Comment:** Please include specimen collection date on requisition  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Clinical Indication:** Useful for assessment of follicle center lymphomas.  
**Ref Range:** See Report

**BCL6 by FISH**

**5028-6**

**Alternate Name:** DLBCL; BCL6, 3q27  
**Methodology:** FISH  
**Preferred Specimen:** 2 mL Bone Marrow - Green Top **CPT Code:** 88368 (1)  
**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI  
**Specimen Comment:** Please include specimen collection date on requisition.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Clinical Indication:** Useful for assessment of Diffuse Large B-cell Lymphoma (DLBCL) and Follicular Lymphoma (FL). BCL6 3q27 is found in up to 35% of DLBCL and 6-14% of FL.  
**Ref Range:** See Report

**BCL6: 3q27 by FISH- TC Only**

**B348-4**

**Methodology:** FISH  
**Preferred Specimen:** 2 mL Bone Marrow - Green Top **CPT Code:** 88367-TC (1)  
**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI  
**Specimen Comment:** Please include specimen collection date on requisition  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Clinical Indication:** Useful for assessment of Diffuse Large B-cell Lymphoma (DLBCL) and Follicular Lymphoma (FL). BCL6 3q27 is found in up to 35% of DLBCL and 6-14% of FL.  
**Ref Range:** See Report

**BCR/ABL by FISH-TC Only**

**A880-7**

**Methodology:** FISH  
**Preferred Specimen:** 5 mL Peripheral Blood - Green Top **CPT Code:** 88367-TC (2)  
**Alternate Specimen:** 2 mL Bone Marrow - Green Top  
**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3 days  
**Clinical Indication:** FISH for BCR/ABL is used to diagnose CML, is a prognostic indicator for B-cell Lymphoblastic Leukemia/Lymphoma, and is used to monitor patients response to tyrosine kinase inhibitor therapy. Before initiating treating with a TKI it may be helpful to order ABL Kinase analysis in order to better inform on which TKI to utilize.  
**Ref Range:** See Report



**BCR/ABL Quantification by RT-PCR**
**5858-6**

**Alternate Name:** BCR/ABL for CML Monitoring, Philadelphia Chromosome Analysis

**Methodology:** PCR

**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top

**CPT Code:** 81206 (1), 81207 (1)

**Alternate Specimen:** 2 mL Bone Marrow - Lavender Top, Green top, Microtainer - Pediatric Green Top, Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2 days

**Clinical Indication:** The detection of BCR/ABL by RT-PCR has similar utility as the FISH assay. However, RT-PCR is generally used for MRD and response to tyrosine kinase inhibitor therapy due to its greater sensitivity, approximately .01%.

**Ref Range:** See Report

**BCR/ABL: t(9;22) by FISH**
**5265-4**

**Alternate Name:** Philadelphia Chromosome Analysis

**Methodology:** FISH

**Preferred Specimen:** 5 mL Peripheral Blood - Green Top

**CPT Code:** 88367 (2)

**Alternate Specimen:** 2 mL Bone Marrow - Green Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** FISH for BCR/ABL is used to diagnose CML, is a prognostic indicator for B-cell Lymphoblastic Leukemia/Lymphoma, and is used to monitor patient response to tyrosine kinase inhibitor therapy. Before initiating treating with a TKI it may be helpful to order ABL Kinase analysis in order to better inform on which TKI to utilize.

**Ref Range:** See Report

**Beta-2-Microglobulin, Serum**
**0262-6**

**Alternate Name:** B2-Microglobulin, Serum

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 82232 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Beta-2 microglobulin has prognostic utility and can be used as a tumor marker for plasma cell myeloma, lymphoma, and CLL.

**Ref Range:** <2.16 mg/L

**Beta-2-Microglobulin, Urine, Random**
**1754-1**

**Alternate Name:** B2-Microglobulin, Urine, Random

**Methodology:** Chemiluminescence

**Preferred Specimen:** 4 mL Urine Cup

**CPT Code:** 82232 (1)

**Alternate Specimen:** Cup-other (source required), Urine Urinalysis Tube - Yellow, Urine tube without preservative

**Specimen Comment:** use NaOH to adjust PH to 6-8 (ship cold).

**Turn Around Time:** 2 days

**Clinical Indication:** Evaluate the severity and prognosis of multiple myeloma, chronic lymphocytic leukemia, or non-Hodgkin's lymphoma; detect kidney damage and distinguish between glomerular and tubular kidney disorders.

**Ref Range:** <0.300 mg/L

**Bone Marrow Morphology**
**5199-5**

**Methodology:** Morphology

**Preferred Specimen:** Core in Formalin

**CPT Code:** 88313 (4), 88311 (1), 85097 (1), 88305 (2)

**Alternate Specimen:** Clot in Formalin

**Specimen Comment:** Submit core/clot in formalin. Send smear in slide holder.

**Turn Around Time:** 1-2 days

**Clinical Indication:** Bone marrow analysis is used to detect the presence of neoplasia in the bone marrow and as the primary means for the classification of most hematological malignancies.

**Ref Range:** See Report

**Bone Marrow Morphology - Clot Only**

**5202-7**

**Methodology:** Morphology

**Preferred Specimen:** Clot in Formalin

**CPT Code:** 88305 (1), 88313 (2)

**Turn Around Time:** 1-2 days

**Clinical Indication:** Bone marrow analysis is used to detect the presence of neoplasia in the bone marrow and as the primary means for the classification of most hematological malignancies.

**Ref Range:** See Report

**Bone Marrow Morphology - Core Only**

**5200-1**

**Methodology:** Morphology

**Preferred Specimen:** Core in Formalin

**CPT Code:** 88305 (1), 88313 (2), 88311 (1)

**Turn Around Time:** 1-2 days

**Clinical Indication:** Bone marrow analysis is used to detect the presence of neoplasia in the bone marrow and as the primary means for the classification of most hematological malignancies.

**Ref Range:** See Report

**Bone Marrow Morphology - Smears**

**5211-8**

**Methodology:** Morphology

**Preferred Specimen:** Smear(s) in Slide Carrier

**CPT Code:** 88313 (1), 85097 (1)

**Turn Around Time:** 1-2 days

**Clinical Indication:** Bone marrow analysis is used to detect the presence of neoplasia in the bone marrow and as the primary means for the classification of most hematological malignancies.

**Ref Range:** See Report

**Bone Marrow Slide Consult**

**5207-6**

**Methodology:** Morphology

**Preferred Specimen:** Smear(s) in Slide Carrier

**CPT Code:** 88321 (1)

**Turn Around Time:** 1-2 days

**Clinical Indication:** Bone marrow analysis is used to detect the presence of neoplasia in the bone marrow and as the primary means for the classification of most hematological malignancies.

**Ref Range:** See Report

**Bone Marrow Smear Interpretation**

**5285-2**

**Methodology:** Morphology

**Preferred Specimen:** Smear(s) in Slide Carrier

**CPT Code:** 85097 (1)

**Specimen Comment:** Submit bone marrow smear.

**Turn Around Time:** 2 days

**Ref Range:** See Report

**BRAF V600E**

**5893-3**

**Alternate Name:** BRAF by Pyrosequencing

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81210 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 2-3 days

**Clinical Indication:** BRAF V600E/K mutational analysis is useful in the context of melanoma, colon cancer, thyroid cancer, and hairy cell leukemia. Melanoma patients, metastatic or unresectable, with V600E (and in some cases V600K) are eligible for treatment with tyrosine kinase inhibitor therapy. In colon cancer BRAF may be used as a screening assay for MSI high positive or unstable patients suspected of Lynch Syndrome. BRAF V600E can aid the diagnosis of papillary thyroid cancer (PTC) from cytology samples. It is specifically helpful in cases of undeterminate cytology. Numerous studies have shown BRAF to be associated with aggressive clinicopathologic features of PTC. It can also be used to confirm a diagnosis of hairy cell leukemia.

**Ref Range:** See Report

**BRAF V600E (FDA)**
**A566-2**

**Alternate Name:** FDA companion diagnostic to vemurafenib

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81210 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather. Source and pathology report is required.

**Turn Around Time:** 2-3 days

**Clinical Indication:** BRAF V600E mutation by COBAS is an FDA approved companion diagnostic for the indication of vemurafenib in metastatic or unresectable melanoma.

**Ref Range:** See Report

**Breast Carcinoma, Marrow, IHC Micromets**
**5118-5**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship block with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Assess for bone marrow micrometastasis in breast cancer.

**Ref Range:** See Report

**Breast Carcinoma, rule out Microinvasion**
**5176-3**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (3)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship block with cold pack during warm weather. The components of this panel include: Calponin, CD10, p63 and SMM-HWC.

**Turn Around Time:** 1 day

**Clinical Indication:** Used to rule out microinvasion.

**Ref Range:** See Report

**Breast Carcinoma, rule out Microinvasion- TC Only**
**A952-4**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461-TC (1), G0462-TC (3)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship block with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Used to rule out microinvasion. The components of this panel include: Calponin, CD10, p63 and SMM-HWC.

**Ref Range:** See Report

**Breast Carcinoma/Lymph Nodes/MM Metastasis**
**5170-6**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship block with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Assess for nodal metastatic carcinoma.

**Ref Range:** See Report

**C-Reactive Protein (hs-CRP), High Sensitivity**
**3320-9**

**Alternate Name:** C-RP, High Sensitivity

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86141 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

**CA 125, Serum**

**0536-3**

**Methodology:** Chemiluminescence  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 86304 (1)  
**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** Tumor marker used to monitor treatment of ovarian cancer and to detect possible recurrence.  
**Ref Range:** <36.0 U/mL

**CA 15-3, Serum**

**2130-3**

**Methodology:** Chemiluminescence  
**Preferred Specimen:** 1 mL Red Top **CPT Code:** 86300 (1)  
**Alternate Specimen:** SST Tube, Microtainer - Pediatric SST, Microtainer - Pediatric Red, Aliquot Tube-Serum  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** Used to monitor the response to treatment of invasive breast cancer and detect recurrence of the disease.  
**Ref Range:** <or=32.4 U/mL

**CA 19-9, Serum**

**0535-5**

**Methodology:** Chemiluminescence  
**Preferred Specimen:** 2 mL Red Top **CPT Code:** 86301 (1)  
**Alternate Specimen:** SST Tube, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** Used for the prognosis of pancreatic carcinoma.  
**Ref Range:** <or=35.0 U/mL

**CA 27.29, Serum**

**0823-5**

**Methodology:** Chemiluminescence  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 86300 (1)  
**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum, Red Top, Microtainer - Pediatric Red  
**Specimen Comment:** RED-TOP ACCEPTABLE BUT SERUM MUST BE SEPARATED. DO NOT ADD AFTER 24 HRS.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** For detection of breast cancer recurrence.  
**Ref Range:** <or=38.6 U/mL

**Calcium, Urine, 24 Hours**

**0359-0**

**Alternate Name:** Ca, Urine, 24 Hours  
**Methodology:** Colorimetry  
**Preferred Specimen:** 10 mL Urine Container - 24hr **CPT Code:** 82340 (1)  
**Alternate Specimen:** Urine Cup 24 hour, Urine Tube 24 hour  
**Specimen Comment:** No preservative required. Refrigerate.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** For diagnosis and monitoring of a wide range of disorders including disorders of protein, vitamin D, and diseases of bone, kidney, parathyroid gland, or gastrointestinal tract  
**Ref Range:** 100-300 mg/24hr

**Carcinoembryonic Antigen (CEA)**
**0055-4**

**Alternate Name:** CEA

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 82378 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube - Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Intended for the in vitro quantitative determination of carcinoembryonic antigen in human serum and plasma

**Ref Range:** See Report

**CBC w/Diff, Platelet Ct.**
**0053-9**

**Alternate Name:** Complete Blood Count (CBC), Includes Differential and Platelets

**Preferred Specimen:** Lavender top- EDTA

**CPT Code:** 85025 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Components:** HCT, WBC, RBC, HGB, PLATELET COUNT, BANDS, ABS. COUNT

**Clinical Indication:** Broad assessment of white blood cell count with differential, red cell counts and indices, and platelet count.

**Ref Range:** See Report

**Chlamydia trachomatis (CT), Urine, Probetec**
**2665-8**

**Methodology:** PCR

**Preferred Specimen:** Urine Tube BD

**CPT Code:** 87491 (1)

**Alternate Specimen:** Urine Cup, Urine tube without preservative

**Specimen Comment:** COLLECT FIRST MORNING URINE (NO PRESERVATIVES)

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** Negative

**Chromosome Analysis**
**5250-6**

**Alternate Name:** Cytogenetics, Karyotype

**Methodology:** Cytogenetics

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88237 (1), 88262 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition. Peripheral blood accepted only for leukemias.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 5-7 days

**Clinical Indication:** Cytogenetic analysis used to determine chromosomal abnormalities important in diagnosis of hematologic malignancies, disease monitoring, and response to certain treatments.

**Ref Range:** See Report

**Circulating Tumor Cells (CTC)**
**6237-2**

**Alternate Name:** CTC for Prognostics (Breast, Colon, Prostate)

**Methodology:** Indirect Fluorescence Assay

**Preferred Specimen:** 7.5 mL Whole Blood - Cell Save Preservative Tube

**CPT Code:** 86152 (1), 86153 (1)

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** Measures number circulating tumor cells and can assess for residual disease.

**Ref Range:** See Report

**Citrate, 24Hr. Urine**

**0021-6**

**Preferred Specimen:** 4 mL Urine Container - 24hr **CPT Code:** 82507 (1)  
**Alternate Specimen:** Urine Cup 24 hour,Urine Tube 24 hour  
**Specimen Comment:** Record total volume, collection time interval, and pH on transport tube.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3 days  
**Ref Range:** See Report

**CK-903 for Prostate Cancer**

**5434-6**

**Alternate Name:** CK-903, IHC  
**Methodology:** IHC  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** G0461 (1)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Ship block with cold pack during warm weather.  
**Turn Around Time:** 1 day  
**Ref Range:** See Report

**CK-903- TC Only**

**5404-9**

**Methodology:** IHC  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** G0461-TC (1)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Ship block with cold pack during warm weather.  
**Turn Around Time:** 1 day  
**Ref Range:** See Report

**CLL FISH Panel**

**5280-3**

**Methodology:** FISH  
**Preferred Specimen:** 5 mL Peripheral Blood - Green Top **CPT Code:** 88368 (4)  
**Alternate Specimen:** 2 mL Bone Marrow - Green Top  
**Specimen Comment:** Please include specimen collection date on requisition  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Components:** p53, D13S319, ATM, +12  
**Clinical Indication:** The CLL FISH panel is a comprehensive prognostic panel for treatment stratification.  
**Ref Range:** See Report

**CLL FISH Panel- TC Only**

**P962-4**

**Methodology:** FISH  
**Preferred Specimen:** 5 mL Peripheral Blood - Green Top **CPT Code:** 88367-TC (4)  
**Alternate Specimen:** 2 mL Bone Marrow - Green Top  
**Specimen Comment:** Please include specimen collection date on requisition  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Components:** TRISOMY 12 BY FISH-TC, 13Q14.3 BY FISH-TC ONLY, 17P13 BY FISH-TC ONLY, 11Q22.3 BY FISH-TC ONLY  
**Clinical Indication:** The CLL FISH panel is a comprehensive prognostic panel to allow for enhanced disease management.  
**Ref Range:** See Report

**CML: ABL Kinase Mutation Analysis**
**6290-1**

**Alternate Name:** Gleevec Resistance, Imatinib Resistance

**Methodology:** PCR

**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top

**CPT Code:** 81401 (1)

**Alternate Specimen:** 2 mL Bone Marrow - Lavender Top, Peripheral Blood - Green Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-4 days

**Clinical Indication:** Measures unfavorable response to Imatinib mesylate (Gleevec) in patients with CML. Assesses for ABL mutations, including T315I, which may confer resistance to TKIs.

**Ref Range:** See Report

**Colon DNA Mismatch Repair Reflex**
**P264-5**

**Alternate Name:** MMR by IHC reflex to MLH1 by Hypermethylation

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81301 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship block with cold pack during warm weather. Please provide a copy of the pathology report.

**Turn Around Time:** 3 days

**Components:** MICRO SATELLITE INSTABILITY

**Clinical Indication:** Useful in the assessment of Lynch Syndrome.

**Ref Range:** See Report

**Colon Reflex Dx**
**B365-8**

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81301 (1), 81275 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** Testing algorithm designed to provide a comprehensive analysis of common colon cancer genetic abnormalities. KRAS and MSI testing are performed to detect abnormalities that affect treatment decision; tyrosine kinase inhibitor therapy and chemotherapy, respectively. The latter half of the algorithm is intended to rule out Lynch Syndrome. KRAS and MSI with a reflex to BRAF and MLH1 to screen for Lynch Syndrome.

**Ref Range:** See Report

**Complement C3, Serum**
**0532-2**

**Alternate Name:** C3, Serum

**Methodology:** Immunoturbidometric

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86160 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Used in the diagnosis of C3 deficiency and investigation of a patient with a low to absent total complement (CH[50]) level.

**Ref Range:** 90-180 mg/dL

**Complement C4, Serum**
**0533-0**

**Alternate Name:** C4, Serum

**Methodology:** Immunoturbidometric

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86160 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Used in the diagnosis of C4 deficiency and investigation of a patient with a low to absent total complement (CH[50]) level.

**Ref Range:** 10-40 mg/dL



**Comprehensive Metabolic Panel (CMP)**

**3427-2**

**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 80053 (1)  
**Alternate Specimen:** Aliquot Tube-Serum, Microtainer - Pediatric SST  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Components:** Total Protein, Albumin, Calcium, Creatinine, Bilirubin, Total, Alk Phos, AST, Sodium, Potassium, Chloride, CO2, BUN, Glucose, ALT  
**Clinical Indication:** For determining status of kidneys, liver, electrolytes, acid/base balance and blood sugar and protein levels.  
**Ref Range:** See Report

**Comprehensive Slide Consult**

**5256-3**

**Methodology:** Morphology  
**Preferred Specimen:** Smear(s) in Slide Carrier **CPT Code:** 88325 (1)  
**Turn Around Time:** 1-2 days  
**Clinical Indication:** Slide consultation  
**Ref Range:** See Report

**Comprehensive Urine Pathology**

**5324-9**

**Alternate Name:** UroVysion and Urine Cytology  
**Methodology:** FISH, Cytology  
**Preferred Specimen:** 50 mL Voided Urine - Urocyte Collection Kit **CPT Code:** 88121 (1), 88112 (1)  
**Specimen Comment:** Please include specimen collection date on requisition.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Clinical Indication:** To aid in the diagnosis of bladder cancer.  
**Ref Range:** See Report

**Comprehensive Urine Pathology- TC Only**

**0086-9**

**Alternate Name:** UroVysion and Urine Cytology- TC Only  
**Methodology:** FISH, Cytology  
**Preferred Specimen:** 50 mL Voided Urine - Urocyte Collection Kit, ThinPrep Cytolyte **CPT Code:** 88121-TC (1), 88112-TC (1)  
 Solution  
**Specimen Comment:** Please include specimen collection date on requisition.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Clinical Indication:** To aid in the diagnosis of bladder cancer.  
**Ref Range:** See Report

**Coombs Test, Direct**

**0064-6**

**Alternate Name:** Direct Coombs  
**Preferred Specimen:** Pink Tube-EDTA **CPT Code:** 86880 (1)  
**Alternate Specimen:** Microtainer - Pediatric Lavender, Lavender top- EDTA, Yellow top- ACD  
**Specimen Comment:** Submit an extra lavender top tube if ordering CBC.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Clinical Indication:** To detect antibodies bound to red cells in autoimmune or allo-immune hemolytic anemia.  
**Ref Range:** Negative

**Cortisol, Serum, Random**

**0900-1**

**Alternate Name:** Compound F, Serum, Random; Hydrocortisone, Serum, Random  
**Methodology:** Chemiluminescence  
**Preferred Specimen:** 1 mL Red Top **CPT Code:** 82533 (1)  
**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum, SST Tube, Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Ref Range:** 2.5-25.0 ug/dL

**Creatinine Clearance, Urine, 24 Hours**
**0072-9**

**Preferred Specimen:** 2 mL SST Tube,Urine Container - 24hr **CPT Code:** 82575 (1)  
**Specimen Comment:** Provide total volume on requisition and on container  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Components:** CREATININE, URINE 24 HR, Creatinine, CREAT.URN.24HR(mg/dL)  
**Ref Range:** See Report

**Culture, Blood**
**0341-8**

**Alternate Name:** Blood Culture  
**Methodology:** Bacterial Culture  
**Preferred Specimen:** Blood Culture Bottles-Aerobic/Anaerobic **CPT Code:** 87040 (1)  
**Alternate Specimen:** Yellow top- SPS  
**Specimen Comment:** Observe Aerobic/Anerobic Collection instructions  
**Storage Instruction:** Room Temp  
**Turn Around Time:** 6 days  
**Clinical Indication:** Isolate and identify potentially pathogenic organisms causing bacteremia.  
**Ref Range:** See Report

**Culture, Urine**
**0080-2**

**Alternate Name:** Urine Culture  
**Methodology:** Bacterial Culture  
**Preferred Specimen:** 10 mL Urine Container-Boricult **CPT Code:** 87086 (1)  
**Alternate Specimen:** Urine Tube - Grey Top,Urine Cup,Urine tube without preservative  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 4 days  
**Ref Range:** No Growth

**Culture, Wound, Aerobic Only**
**0082-8**

**Alternate Name:** Wound, Aerobic Only, Culture  
**Methodology:** Bacterial Culture  
**Preferred Specimen:** Swab-E **CPT Code:** 87205 (1), 87077 (1), 87075 (1)  
**Alternate Specimen:** Swab-Bacterial Culture,Cup-other (source required),Swab-Amies with Charcoal-Black,Other (forced comment) ?  
**Turn Around Time:** 5 days  
**Components:** GRAM STAIN, WOUND CULTURE, AEROBIC, CULTURE, ANAEROBIC, WOUND  
**Ref Range:** No Growth

**CYP2C19 Pharmacogenomic (Plavix)**
**5847-9**

**Methodology:** PCR  
**Preferred Specimen:** 5 mL Lavender top- EDTA **CPT Code:** 81225 (1)  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 7 days  
**Clinical Indication:** Measures response to the usual standard dose of clopidogrel and determines if patient requires alternate forms of anti-platelet therapy.  
**Ref Range:** See Report

**CYP2D6 (NY Only): Tamoxifen Resistance**
**5296-9**

**Methodology:** PCR  
**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top **CPT Code:** 81225  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 6-8 days  
**Clinical Indication:** Assessment for efficacy of tamoxifen.  
**Ref Range:** See Report

**CYP2D6: Tamoxifen Resistance (non-NY only)**

**5287-8**

**Methodology:** PCR  
**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top **CPT Code:** 81226 (1)  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 7 days  
**Clinical Indication:** Assessment for efficacy of tamoxifen.  
**Ref Range:** See Report

**Cytomegalovirus (CMV) Antibody, IgG**

**0400-2**

**Alternate Name:** Cytomegalovirus Antibody, IgG  
**Methodology:** Chemiluminescence  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 86644 (1)  
**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** Aid in diagnosis of CMV infection.  
**Ref Range:** Neg=<0.9

**Cytomegalovirus (CMV) Antibody, IgM**

**0461-4**

**Alternate Name:** Cytomegalovirus Antibody IgM  
**Methodology:** Enzyme Linked Immunoabsorbance  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 86645 (1)  
**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Clinical Indication:** Aid in diagnosis of CMV infection.  
**Ref Range:** <0.91

**DNA Ploidy for Molar Pregnancy**

**5555-8**

**Methodology:** Flow Cytometry  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** 88182 (1)  
**Specimen Comment:** Ship with cold pack during warm weather.  
**Turn Around Time:** 1 day  
**Clinical Indication:** Assess for Partial Hydatidiform Mole.  
**Ref Range:** See Report

**DNA Ploidy/S-Phase by Flow Cytometry**

**5575-6**

**Methodology:** Flow Cytometry  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** 88182 (1)  
**Specimen Comment:** Ship with cold pack during warm weather.  
**Turn Around Time:** 1 day  
**Clinical Indication:** Prognostic indicator in breast cancer patients.  
**Ref Range:** See Report

**DPD 5-FU Genotype**

**6285-1**

**Methodology:** PCR  
**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top **CPT Code:** 81400 (1)  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 7 days  
**Clinical Indication:** Partial or complete deficiency of DPD activity has been associated with an increased risk for severe adverse reactions when treated with pyrimidine-based chemotherapeutic agents, such as 5-fluorouracil (5-FU). The test can also be used to confirm the clinical diagnosis of dihydropyrimidine dehydrogenase (DPD) deficiency in affected patients and for the detection of the IVS14+1G>A mutation in asymptomatic carriers.  
**Ref Range:** See Report

**EBV Capsid Ab, IgG**
**0234-5**

**Alternate Name:** Epstein-Barr Virus, IgG

**Methodology:** Multiplex Flow Immunoassay

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86665 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** <0.9 AI

**EBV Capsid Ab, IgM**
**0580-1**

**Alternate Name:** Epstein-Barr Virus, IgM

**Methodology:** Multiplex Flow Immunoassay

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86665 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** <0.9 AI

**EBV, Early Antigen Ab**
**0582-7**

**Alternate Name:** Epstein-Barr Virus

**Methodology:** Multiplex Flow Immunoassay

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86663 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** <0.9 AI

**EBV, Nuclear Antigen Ab, IgG**
**0583-5**

**Alternate Name:** Epstein-Barr Virus, IgG

**Methodology:** Multiplex Flow Immunoassay

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86664 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** <0.9 AI

**EGFR by PCR**
**5295-1**

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81235 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 3-4 days

**Clinical Indication:** NCCN recommended test for assessment of the effectiveness of erlotinib and other TKI therapies.

**Ref Range:** See Report

**EGFR by PCR if neg. reflex to ALK**
**A675-1**

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81235 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 3-5 days

**Clinical Indication:** This test is used for patients with non-small-cell lung cancer, primarily adenocarcinoma histology, to determine appropriateness of tyrosine kinase inhibitor therapy. CAP guidelines recommend EGFR and ALK testing in advanced stage adenocarcinoma regardless of sex, smoking history, and other clinical factors. Expert consensus opinion written in the CAP guidelines recommend EGFR and ALK testing for all stages of adenocarcinoma.

**Ref Range:** See Report

**Electrolytes, Serum**

**0002-6**

**Preferred Specimen:** 2 mL SST Tube **CPT Code:** 80051 (1)  
**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum  
**Specimen Comment:** Do not use Red-top tube.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Components:** Sodium, Potassium, Chloride, CO2  
**Ref Range:** See Report

**Electrophoresis, Urine Protein (UPEP)**

**0404-4**

**Alternate Name:** Protein Electrophoresis, Urine  
**Methodology:** Electrophoresis  
**Preferred Specimen:** 1 mL Urine Cup **CPT Code:** 84166 (7), 84156 (1)  
**Alternate Specimen:** Urine tube without preservative  
**Specimen Comment:** Use code Q069 for 24 hr urine.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3 days  
**Components:** M SPIKE, UPEP, PROTEIN, URN.TIMED/RAND  
**Clinical Indication:** Detects urine albumin, urine alpha, urine beta, and urine gamma globulin fractions if present, including various patterns of proteinuria (glomerular, tubular, Bence Jones monoclonal light chains).  
**Ref Range:** See Report

**EML4-ALK by IHC**

**B565-3**

**Methodology:** IHC  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** G0461 (1)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Ship with cold pack during warm weather.  
**Storage Instruction:** Room Temp  
**Turn Around Time:** 1 day  
**Clinical Indication:** The detection of EML4-ALK protein overexpression is used as a screening assay to determine a lung cancer patient's eligibility for crizotinib, a tyrosine kinase inhibitor.  
**Ref Range:** See Report

**ER / PR - w/Interpretation**

**5198-7**

**Methodology:** IHC  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** 88361 (2)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Ship block with cold pack during warm weather.  
**Turn Around Time:** 1 day  
**Clinical Indication:** IHC analysis of hormone receptors ER and PR are used for treatment stratification and to subtype breast carcinomas. Hormone directed therapies such as selective estrogen receptor modulators (SERMS) are appropriately utilized in the context of ER results.  
**Ref Range:** See Report

**ER / PR / DNA / Ki-67 - w/Interpretation**

**5160-7**

**Methodology:** IHC  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** 88361 (3), 88182 (1)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Ship block with cold pack during warm weather. DNA testing by FLOW cytometry.  
**Turn Around Time:** 1 day  
**Clinical Indication:** IHC analysis of hormone receptors ER and PR are used for treatment stratification and to subtype breast carcinomas. DNA and Ki-67 are prognostic markers for disease progression.  
**Ref Range:** See Report

**ER / PR / Ki-67 / HER2- TC Only**
**5433-8**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (4)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship block with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Hormone receptor (ER/PR) and HER2 status in breast carcinoma at diagnosis has been established as a clinically useful standard of care parameter to determine treatment options and prediction of patient response. Accurate IHC analysis is critical to setting the appropriate treatment strategy for patients with breast carcinoma. Ki-67 is a cell proliferation marker used in breast carcinoma for prognosis prediction.

**Ref Range:** See Report

**ER / PR / Ki-67/ HER2 - w/Interpretation**
**5163-1**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (4)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Hormone receptor (ER/PR) and HER2 status in breast carcinoma at diagnosis has been established as a clinically useful standard of care parameter to determine treatment options and prediction of patient response. Accurate IHC analysis of ER/PR/HER2 is critical to setting the appropriate treatment strategy for patients with breast carcinoma. Ki-67 is a cell proliferation marker used in breast carcinoma for prognosis prediction.

**Ref Range:** See Report

**ER / PR / Ki-67 / HER2 (Tech Only), plus DNA (Global)**
**5131-8**

**Alternate Name:** Breast Cancer IHC Tech Only: ER, PR, Ki-67, HER2, DNA (Global)

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (4), 88182 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather. DNA testing by FLOW cytometry.

**Turn Around Time:** 1 day

**Clinical Indication:** Hormone receptor (ER/PR) and HER2 status in breast carcinoma at diagnosis has been established as a clinically useful standard of care parameter to determine treatment options and prediction of patient response. Accurate IHC analysis of ER/PR/HER2 is critical to setting the appropriate treatment strategy for patients with breast carcinoma. Ki-67 is a cell proliferation marker used in breast carcinoma for prognosis prediction. DNA ploidy measures the amount of DNA content and proliferative activity (cell cycle/S-phase fraction) in analyzed tumor cells as predictors of prognosis.

**Ref Range:** See Report

**ER / PR / DNA / Ki-67 / HER2 - w/Interpretation**
**5162-3**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (4), 88182 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather. DNA testing by FLOW cytometry.

**Turn Around Time:** 1 day

**Clinical Indication:** Hormone receptor (ER/PR) and HER2 status in breast carcinoma at diagnosis has been established as a clinically useful standard of care parameter to determine treatment options and prediction of patient response. Accurate IHC analysis of ER/PR/HER2 is critical to setting the appropriate treatment strategy for patients with breast carcinoma. Ki-67 is a cell proliferation marker used in breast carcinoma for prognosis prediction. DNA ploidy measures the amount of DNA content and proliferative activity (cell cycle/S-phase fraction) in analyzed tumor cells as predictors of prognosis.

**Ref Range:** See Report

**ER / PR / DNA / Ki-67 / HER2 - Reflex to HER2 by FISH**
**5408-0**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (4), 88182 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather. DNA testing by FLOW cytometry.

**Turn Around Time:** 3-5 days

**Clinical Indication:** Comprehensive breast cancer profile that is useful for subtyping and treatment selection.

**Ref Range:** See Report

**ER / PR / HER2 - w/Interpretation**

**5161-5**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (3)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Useful to determine appropriate treatment for breast cancer, hormonal therapy and targeted HER2 therapy.

**Ref Range:** See Report

**ER / PR / HER2 - Reflex to HER2 by FISH**

**5406-4**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (3)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 3-5 days

**Clinical Indication:** Useful to determine appropriate treatment for breast cancer, hormonal therapy and targeted HER2 therapy.

**Ref Range:** See Report

**ER / PR / HER2 FISH- TC Only**

**A277-6**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (2), 88367-TC (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Turn Around Time:** 3 days

**Clinical Indication:** Useful to determine appropriate treatment for breast cancer, hormonal therapy and targeted HER2 therapy.

**Ref Range:** See Report

**ER / PR / HER2- TC Only**

**5127-6**

**Alternate Name:** Breast Cancer IHC Tech Only: ER, PR, HER2

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (3)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Useful to determine appropriate treatment for breast cancer, hormonal therapy and targeted HER2 therapy.

**Ref Range:** See Report

**ER / PR / Ki-67 / p53 / HER2 FISH- TC Only**

**A278-4**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (4), 88367-TC (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Turn Around Time:** 3 days

**Clinical Indication:** Comprehensive breast cancer profile that is useful for subtyping and treatment selection.

**Ref Range:** See Report

**ER / PR / Ki-67 / HER2 - Reflex to HER2 by FISH**

**5407-2**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (4)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 3-5 days

**Clinical Indication:** Useful to determine appropriate treatment for breast cancer, hormonal therapy and targeted HER2 therapy. Ki-67 is a cell proliferation marker used for prognosis in breast cancer.

**Ref Range:** See Report



**ER / PR / Ki-67 / HER2 / p53, TC Only**
**A951-6**
**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (5)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Hormone receptor (ER/PR) and HER2 status in breast carcinoma at diagnosis has been established as a clinically useful standard of care parameter to determine treatment options and prediction of patient response. Accurate IHC analysis is critical to setting the appropriate treatment strategy for patients with breast carcinoma. Ki-67 is a cell proliferation marker used in breast carcinoma for prognosis prediction.

**Ref Range:** See Report

**ER / PR / Ki-67- TC Only, plus DNA- Global**
**5129-2**
**Alternate Name:** Breast Cancer IHC Tech Only: ER, PR, Ki67, DNA (Global)

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (3), 88182 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** IHC analysis of hormone receptors ER and PR are used to subtype breast carcinomas and for treatment selection. DNA and Ki-67 are prognostic markers for disease progression.

**Ref Range:** See Report

**ER / PR / Ki67 / p53 / HER2 FISH -TC Only plus DNA- Global**
**A276-8**
**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (4), 88367-TC (1), 88182 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition. DNA testing by FLOW cytometry.

**Turn Around Time:** 3 days

**Clinical Indication:** Comprehensive breast cancer profile that is useful for subtyping and treatment selection.

**Ref Range:** See Report

**ER / PR- TC Only**
**5425-4**
**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (2)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** IHC analysis of hormone receptors ER and PR are used to subtype breast carcinomas. Hormone directed therapies such as selective estrogen receptor modulators (SERMS) are appropriately utilized in the context of ER results.

**Ref Range:** See Report

**ERCC1**
**A300-6**
**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81479 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 5-7 days

**Clinical Indication:** ERCC1 mRNA expression is a prognosis marker and clinical biomarker for cisplatin-based chemotherapies in lung cancer.

**Ref Range:** See Report

**Erythropoietin, Serum**

**0183-4**

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 82668 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Low levels of EPO are associated with anemia of decreased cell production and Polycythemia vera. Elevated levels of EPO are associated with anemia of increased red cell destruction.

**Ref Range:** 3.7-31.5 mIU/mL

**Estradiol, Serum**

**0516-5**

**Alternate Name:** 17 Beta-Estradiol, Free, Serum; 17 Beta-Estradiol, Free, Serum

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 82670 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

**Estrogen, Total, Serum**

**0562-9**

**Preferred Specimen:** 3 mL SST Tube

**CPT Code:** 82672 (1)

**Alternate Specimen:** Microtainer - Pediatric Red, Microtainer - Pediatric SST, Aliquot Tube-Serum, Red Top, Green top, Microtainer - Pediatric Green Top, Aliquot Plasma Heparinized-green top, Aliquot Tube-Plasma

**Storage Instruction:** Refrigerate

**Turn Around Time:** 5 days

**Ref Range:** See Report

**Factor V (R2) Polymorphism**

**5727-3**

**Methodology:** PCR

**Preferred Specimen:** 4 mL Yellow top- ACD

**CPT Code:** 81400 (1)

**Alternate Specimen:** 4 mL Lavender top- EDTA

**Specimen Comment:** Sendout

**Turn Around Time:** 18 days

**Ref Range:** See Report

**Factor V Mutation (Leiden)**

**5726-5**

**Methodology:** PCR

**Preferred Specimen:** 4 mL Lavender top- EDTA

**CPT Code:** 81241 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender, 4 mL Yellow top- ACD

**Storage Instruction:** Refrigerate

**Turn Around Time:** 5 days

**Clinical Indication:** This test is used to detect mutations in clotting factor V that may lead to an increased risk for deep vein thrombosis and miscarriage.

**Ref Range:** See Report

**Ferritin, Serum**

**0088-5**

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 82728 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** This test measures the level of ferritin, a primary iron storage in the body. Low levels of ferritin are indicative of iron deficiency, a cause of anemia.

**Ref Range:** See Report

**FLT3 Mutation Analysis**
**5178-9**
**Methodology:** PCR

**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top

**CPT Code:** 81245 (1)

**Alternate Specimen:** 3 mL Bone Marrow - Green Top, Peripheral Blood - Green Top, 3 mL Bone Marrow - Lavender Top

**Specimen Comment:** Performed at LabPMM for NY and NON-NY

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-7 days

**Clinical Indication:** FLT3 (fms-like tyrosine kinase 3) is a tyrosine kinase receptor expressed on hematopoietic progenitor cells and is important in stem cell survival and differentiation. FLT3 mutation is a poor prognostic marker in AML. It also has additional therapeutic utility as a potential target for inhibitor therapy.

**Ref Range:** See Report

**Folate, Serum**
**0090-1**
**Alternate Name:** Folate Acid, Folic Acid

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 82746 (1)

**Alternate Specimen:** Aliquot Tube-Serum, Red Top, Microtainer - Pediatric SST, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Testing for folic acid is clinically useful to determine a possible cause of macrocytic anemia.

**Ref Range:** >5.38 ng/mL

**Follicle Stimulating Hormone (FSH)**
**0092-7**
**Alternate Name:** FSH

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 83001 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

**Free Kappa & Lambda Light Chain (serum)**
**3893-5**
**Methodology:** Immunoturbidometric

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 83520 (2)

**Storage Instruction:** Refrigerate

**Turn Around Time:** 4 days

**Components:** KAPPA FREE LIGHT CHAIN, LAMBDA FREE LIGHT CHAIN, KAPPA/LAMBDA RATIO

**Clinical Indication:** Useful in monitoring of Plasma Cell Myeloma.

**Ref Range:** See Report

**GenArray Molecular Karyotyping**
**5306-6**
**Alternate Name:** Array Comparative Genomic Hybridization (aCGH)

**Methodology:** Array CGH

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81406 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** Array CGH identifies aneusomal DNA copy number alterations (losses and gains of DNA) in myeloid, lymphoid, and plasma cell neoplasms. Copy number changes have significant diagnostic, prognostic, and therapeutic implications. Array CGH offers superior resolution to that of conventional cytogenetics and FISH for copy number change detection. In addition, Array CGH does not require metaphase analysis (dividing cells), overcoming the inherent limitation of required cell growth for lymphoid-derived neoplasms by cytogenetic analysis.

**Ref Range:** See Report

### Germ Cell Tumor IHC Panel

5194-6

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (8)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Useful for assessment of germ cell tumors. The components of this panel include: AFP, CAM 5.2, CD30, CD117, HCG, Oct 3/4, PLAP, Podoplanin and SALL4.

**Ref Range:** See Report

### GIST Profile

5175-5

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (5)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Useful for assessment of gastrointestinal stromal tumors. The components of this panel include: Actin, CD34, CD117, DOG-1, S100 and SMA.

**Ref Range:** See Report

### Gonorrhea (GC), Urine, Probetec

2666-6

**Methodology:** PCR

**Preferred Specimen:** Urine Tube BD

**CPT Code:** 87591 (1)

**Alternate Specimen:** Urine Cup, Urine tube without preservative

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** Negative

### Haptoglobin, Serum

0514-0

**Methodology:** Immunoturbidometric

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 83010 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Specimen Comment:** Avoid hemolysis

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2 days

**Clinical Indication:** Used to assess intravascular hemolysis

**Ref Range:** 30-200 mg/dL

### Helicobacter pylori, IgA

1766-5

**Alternate Name:** H. pylori, IgA

**Methodology:** Enzyme Linked Immunoabsorbance

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86677 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** The detection of high titer of antibody IgA to Helicobacter pylori (H. pylori) is used to screen for active infection and cause of gastrointestinal disease. The presence of high titers of IgA only suggests infection and should be confirmed with other tests. High titers of both IgA and IgG antibodies to H. pylori may be considered to represent a chronic active infection.

**Ref Range:** See Report

**Helicobacter pylori, IgG**
**1765-7**

**Alternate Name:** H. pylori, IgG

**Methodology:** Enzyme Linked Immunoabsorbance

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86677 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** The detection of high titer of antibody IgG to Helicobacter pylori (H. pylori) is used to screen for active infection and cause of gastrointestinal disease. High titers of both IgA and IgG antibodies to H. pylori may be considered to represent a chronic active infection.

**Ref Range:** See Report

**Helicobacter pylori, IgM**
**7736-2**

**Alternate Name:** H. pylori, IgM

**Methodology:** Enzyme Linked Immunoabsorbance

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86677 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Clinical Indication:** The detection of IgM may be useful to determine causes of gastritis.

**Ref Range:** See Report

**Hemoglobin A1C**
**0102-4**

**Alternate Name:** Glycohgb, Glycated Hemoglobin

**Methodology:** Immunoturbidometric

**Preferred Specimen:** 0.5 mL Lavender top- EDTA

**CPT Code:** 83036 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Diabetic monitoring.

**Ref Range:** <5.7 %

**Hemoglobin Fractionation, HPLC**
**0216-2**

**Alternate Name:** Hgb electro, S Solubility; Sickle Cell Conf., Hemoglobinopathy

**Methodology:** High Pressure Liquid Chromatography

**Preferred Specimen:** 1 mL Lavender top- EDTA

**CPT Code:** 83021 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2 days

**Components:** Hb A, Hb A2, Hb F, Hb S, Hb C

**Clinical Indication:** Assesses for Beta-thalassemia and sickling hemoglobinopathies.

**Ref Range:** See Report

**Hepatic Function Panel**
**3422-3**

**Preferred Specimen:** 2 mL SST Tube

**CPT Code:** 80076 (1)

**Alternate Specimen:** Aliquot Tube-Serum, Microtainer - Pediatric SST

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Components:** Total Protein, Albumin, Bilirubin, Total, Alk Phos, AST, Bilirubin, Direct, ALT

**Clinical Indication:** For evaluating liver function.

**Ref Range:** See Report

### Hepatocellular vs. Cholangiocarcinoma vs. Metastasis IHC Panel

5193-8

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (10)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Differential diagnosis between Hepatocellular, Cholangiocarcinoma and GI/pulmonary metastasis. The components of this panel include: AFP, CA19.9, CAM 5.2, CDX2, CEAm, CK7, CK20, Glypican-3, Hepatocyte, PODXL-1 and TTF-1. Supplementary IHC may be necessary for definitive characterization if metastatic disease is identified.

**Ref Range:** See Report

### HER2 by IHC

5171-4

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** HER2 by IHC is used to set treatment strategics in breast carcinoma. Results may predict response to tyrosine kinase inhibitor therapy.

**Ref Range:** See Report

### HER2 by FISH

5262-1

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88367 (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** HER2 by FISH is used to determine prognosis and for predictive response to tyrosine kinase inhibitor therapy. FISH is commonly used to confirm borderline IHC results and/or as an additional confirmation of HER2 status.

**Ref Range:** See Report

### HER2 by FISH - Gastric/GEJ

A427-7

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88367 (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** HER2 by FISH is used to predict response to tyrosine kinase inhibitor therapy. FISH is often used as secondary confirmation for borderline 2+ cases.

**Ref Range:** See Report

### HER2 by FISH for Gastric/GEJ- TC Only

A428-5

**Alternate Name:** Herceptin for Gastric

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88367-TC (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** HER2 by FISH is used to predict response to tyrosine kinase inhibitor therapy. FISH is often used as secondary confirmation for borderline 2+ cases.

**Ref Range:** See Report

**HER2 by IHC - Reflex +2 to HER2 by FISH**
**5428-8**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 3-5 days

**Clinical Indication:** HER2 by IHC is used to set treatment strategics in breast carcinoma. Results may predict response to tyrosine kinase inhibitor therapy. Borderline 2+ cases are automatically reflexed to FISH.

**Ref Range:** See Report

**HER2 by IHC in Gastric/Gastroesophageal Carcinoma**
**A972-2**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** To assess for the indication of trastuzumab.

**Ref Range:** See Report

**HER2 by IHC- TC Only**
**5405-6**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** HER2 by IHC is used to determine if patient is a candidate for trastuzumab therapy. Results may predict response to tyrosine kinase inhibitor therapy.

**Ref Range:** See Report

**HER2 FISH- TC Only**
**5259-7**

**Alternate Name:** HER2 by FISH: TC

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88367-TC (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Turn Around Time:** 3-5 days

**Clinical Indication:** HER2 by FISH is used to determine prognosis and for predictive response to tyrosine kinase inhibitor therapy. FISH is commonly used to confirm borderline IHC results and/or as an additional confirmation of HER2 status.

**Ref Range:** See Report

**Hereditary Hemochromatosis (HFE): C282Y, H63D, S65C**
**3420-7**

**Alternate Name:** HFE-C282Y-H63D-S65C

**Methodology:** PCR

**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top

**CPT Code:** 81256 (1)

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-4 days

**Clinical Indication:** Interrogation of genes, C282Y, H63D, and S65C, that assess risk for hereditary hemochromatosis (HFE). HFE is a common autosomal recessive disorder leading to the excessive accumulation of iron in the parenchymal organs.

**Ref Range:** See Report



**HIV-1/HIV-2 Antibody Screen**

**0360-8**

**Alternate Name:** HIV 1/2 Ab  
**Methodology:** Chemiluminescence  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 86703 (1)  
**Alternate Specimen:** Microtainer - Pediatric SST, Red Top, Microtainer - Pediatric Red, Aliquot Tube-Serum  
**Specimen Comment:** Positive result will auto-reflex to 0625-HIV WB at additional charge  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Ref Range:** Negative

**HLA-B27**

**0375-6**

**Methodology:** Flow Cytometry  
**Preferred Specimen:** 5 mL Green top **CPT Code:** 86812 (1)  
**Alternate Specimen:** Lavender top- EDTA, Yellow top- ACD, Microtainer - Pediatric Green Top, Microtainer - Pediatric Lavender  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3 days  
**Ref Range:** Negative

**Hodgkin Lymphoma IHC Panel**

**5101-1**

**Methodology:** IHC  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** G0461 (1), G0462 (8)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Ship with cold pack during warm weather.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Clinical Indication:** Differential diagnosis between NHL and Hodgkin Lymphoma (HL). The components of this panel include: CD3, CD15, CD20, CD30, CD45, CD79a, EBV, Fascin and PAX-5.  
**Ref Range:** See Report

**HPV High by ISH**

**8714-8**

**Methodology:** In Situ Hybridization  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** 88365 (1)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Unstained slides on Fisherbrand Superfrost PLUS microscope slides ONLY  
**Turn Around Time:** 1 day  
**Clinical Indication:** Useful for assessment of high risk Human Papillomavirus  
**Ref Range:** Negative

**HPV High by ISH- TC Only**

**8689-2**

**Methodology:** In Situ Hybridization  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** 88365-TC (1)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Unstained slides on Fisherbrand Superfrost PLUS microscope slides ONLY  
**Turn Around Time:** 1 day  
**Clinical Indication:** Useful for assessment of high risk Human Papillomavirus  
**Ref Range:** See Report

**HPV High/Low by ISH- TC Only**

**8696-7**

**Methodology:** In Situ Hybridization  
**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue **CPT Code:** 88365-TC (2)  
**Alternate Specimen:** Unstained Slide  
**Specimen Comment:** Unstained slides on Fisherbrand Superfrost PLUS microscope slides ONLY  
**Turn Around Time:** 1 day  
**Clinical Indication:** Useful for assessment of low and high risk Human Papillomavirus  
**Ref Range:** See Report

**HPV High/Low Risk by ISH**
**3412-4**

**Methodology:** In Situ Hybridization

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88365 (2)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Unstained slides on Fisherbrand Superfrost PLUS microscope slides ONLY

**Turn Around Time:** 1 day

**Clinical Indication:** Useful for assessment of low and high risk Human Papillomavirus

**Ref Range:** Negative

**Human Chorionic Gonadotropin (HCG), Quantitative, Tumor Marker**
**1201-3**

**Alternate Name:** hCG, Quantitative, Tumor Marker

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 84702 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

**IgH/TCR-GAMMA by PCR**
**5080-7**

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81342 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Tissue in RPMI

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1-2 days

**Components:** TCR-gamma, PCR, IGH, PCR

**Clinical Indication:** IgH assesses B-cell clonality, while TCR-gamma is used to assess for T-cell clonality.

**Ref Range:** See Report

**IgVH Mutation Analysis**
**5223-3**

**Alternate Name:** IgVH

**Methodology:** PCR

**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top

**CPT Code:** 81263 (1)

**Alternate Specimen:** 2 mL Bone Marrow - Lavender Top, Peripheral Blood - Green Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Prognostic marker for patients with CLL. Hypermutated IgVH is a favorable prognostic indicator in CLL.

**Ref Range:** See Report

**Immunofixation, Serum**
**0413-5**

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86334 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Specimen Comment:** Replaces Immunoelectrophoresis

**Storage Instruction:** Refrigerate

**Turn Around Time:** 4 days

**Clinical Indication:** Immunofixation is used to characterize an abnormal population of monoclonal immunoglobulin proteins, or an M-spike, usually associated with a plasma cell myeloma.

**Ref Range:** Negative

**Immunofixation, Urine, Random**

**1644-4**

**Alternate Name:** Bence Jones Protein

**Methodology:** Electrophoresis

**Preferred Specimen:** 9 mL Urine Cup

**CPT Code:** 86335 (1)

**Alternate Specimen:** Urine Container - 24hr,Urine tube without preservative,Urine Urinalysis Tube - Yellow,Urine Cup 24 hour,Urine Tube 24 hour

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2 days

**Clinical Indication:** Immunofixation is used to characterize an abnormal population of monoclonal immunoglobulin proteins and/or free light chains (Bence Jones proteins) in the urine, usually associated with plasma cell myeloma.

**Ref Range:** Negative

**Immunoglobulins, Serum**

**0520-7**

**Methodology:** Immunoturbidometric

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 82784 (3)

**Alternate Specimen:** Red Top,Microtainer - Pediatric Red,Microtainer - Pediatric SST,Aliquot Tube-Serum

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Components:** IgG, SERUM, IgM, SERUM, IgA, SERUM

**Ref Range:** See Report

**Iron + TIBC**

**0250-1**

**Preferred Specimen:** 2 mL SST Tube

**CPT Code:** 83540 (1), 83550 (1)

**Alternate Specimen:** Microtainer - Pediatric SST,Aliquot Tube-Serum

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Components:** Iron, TIBC

**Clinical Indication:** Assess iron stores and transferrin. See ferritin test.

**Ref Range:** See Report

**JAK2 Exon 12**

**5307-4**

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81403 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top,Peripheral Blood - Green Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 4 days

**Clinical Indication:** Useful for assessment of Polycythemia vera in patients who are JAK2 V617F-negative.

**Ref Range:** See Report

**JAK2 V617F**

**5157-3**

**Alternate Name:** JAK2 V617 in Myeloproliferative Neoplasms

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81270 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top,Peripheral Blood - Green Top

**Turn Around Time:** 2 days

**Clinical Indication:** Assess for non-CML Chronic Myeloproliferative Neoplasms (Essential Thrombocythemia, Polycythemia vera, Myelofibrosis).

**Ref Range:** See Report

**Ki-67 by IHC**

**5152-4**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Assess tumor cell proliferation.

**Ref Range:** See Report

**Ki-67 by IHC- TC Only**
**A346-9**
**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 1 day

**Clinical Indication:** To assess for proliferation in breast cancer.

**Ref Range:** See Report

**KIT (D816V) by PCR**
**5179-7**
**Alternate Name:** Systemic Mastocytosis

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81402 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top

**Specimen Comment:** Please include specimen collection date on requisition, Time Sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-4 days

**Clinical Indication:** Systemic mastocytosis is characterized by the infiltration of clonal mast cells in the bone marrow, tissue, liver, and skin. Mutational testing for KIT D816V is a diagnostic tool for systemic mastocytosis because the majority of confirmed diagnoses harbor this mutation. Bone marrow evaluation is the primary diagnostic tool for systemic mastocytosis and provides the most reliable prognosis. Patients that harbor the KIT mutation exhibit resistance to tyrosine kinase inhibitor therapy, such as imatinib. When KIT is mutated in the presence of RUNX1 the patient prognosis is unfavorable.

**Ref Range:** See Report

**KIT/PDGFR A for GIST by PCR**
**A344-4**
**Alternate Name:** KIT for Imatinib Resistance

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81404 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 5-7 days

**Clinical Indication:** KIT mutations in exons 9 and 11 are present in ~85% of GIST patients. This test is helpful to determine patient response to imatinib. Patients with PDGFRA mutations are more likely to respond to imatinib while secondary KIT mutations in exons 13, 14, 17, and 18 are common in patients with acquired imatinib resistance.

**Ref Range:** See Report

**KRAS**
**5288-6**
**Alternate Name:** KRAS Gene Mutation

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81275 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 2-3 days

**Clinical Indication:** Assessment for resistance to tyrosine kinase inhibitor therapy, used primarily in lung and colon cancer.

**Ref Range:** See Report

**KRAS if Negative Reflex to BRAF**
**5891-7**
**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81275 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 3-4 days

**Clinical Indication:** Assessment for resistance to tyrosine kinase inhibitor therapy used in colon cancer.

**Ref Range:** See Report

**Lactate Dehydrogenase (LDH), Serum**

**0117-2**

**Alternate Name:** Lactic Acid Dehydrogenase; LD; LDH

**Methodology:** UV

**Preferred Specimen:** 2 mL SST Tube

**CPT Code:** 83615 (1)

**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Helpful in the diagnostic and prognostic assessment for hematological malignancies.

**Ref Range:** 135-225 U/L, 135-214 U/L

**Lipid Panel**

**0009-1**

**Alternate Name:** Basic Lipid Panel; Lipid Screen

**Preferred Specimen:** 2 mL SST Tube

**CPT Code:** 80061 (1)

**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Components:** Cholesterol, HDL CHOL., DIRECT, Triglycerides

**Ref Range:** See Report

**Low-density lipoprotein (LDL) Direct**

**2194-9**

**Alternate Name:** LDL Direct

**Methodology:** Enzyme Immunoassay

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 83721 (1)

**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Risk factor for developing coronary artery disease (CAD).

**Ref Range:** <100 mg/dL

**Lung Adeno Reflex Dx**

**B367-4**

**Alternate Name:** EGFR and KRAS reflex to ALK reflex to ROS1

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81275 (1), 88381 (1), 81235 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 5-7 days

**Clinical Indication:** This reflex biomarker panel is useful to determine eligibility and response to targeted therapies. EGFR and KRAS with negative reflexes to ALK and ROS1

**Ref Range:** See Report

**Lung Adeno Reflex Panel: EGFR --> KRAS--> ALK**

**P263-7**

**Alternate Name:** EGFR reflex to KRAS reflex to ALK

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81235 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 5-7 days

**Components:** EGFR BY PCR

**Clinical Indication:** This reflex biomarker panel is useful to determine eligibility and response to targeted therapies.

**Ref Range:** See Report

**Lung Adenocarcinoma Targeted Therapy Profile**
**B369-0**
**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81235 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** This test is used for patients with non-small-cell lung cancer, primarily adenocarcinoma histology, to determine appropriateness of tyrosine kinase inhibitor therapy. CAP guidelines recommend EGFR in advanced stage adenocarcinoma regardless of sex, smoking history, and other clinical factors. Expert consensus opinion written in the CAP guidelines recommend EGFR testing for all stages of adenocarcinoma. EGFR with a negative reflex to ALK. If ALK is negative a reflex to ROS1 will be added.

**Ref Range:** See Report

**Lung Histology IHC Panel**
**A130-7**
**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88342 (5)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Classification of histology subtype (adenocarcinoma vs. squamous cell carcinoma) in patients with lung cancer. The components of this panel include: CK5/6, Napsin A, p40 and TTF-1.

**Ref Range:** See Report

**Lung Profile: KRAS, EGFR, EML4-ALK, ROS1**
**B368-2**
**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81275 (1), 88381 (1), 81235 (1), 88368 (4)

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** This lung biomarker panel is useful to determine eligibility and response to targeted therapies.

**Ref Range:** See Report

**Luteinizing Hormone (LH)**
**0342-6**
**Alternate Name:** LH; Follitropin; ICSH; Interstitial Cell Stimulating Hormone

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 83002 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

**Lyme Disease Antibody, Serum**
**0568-6**
**Methodology:** Enzyme Linked Immunoabsorbance

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86618 (1)

**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum, Red Top, Microtainer - Pediatric Red

**Specimen Comment:** Positive result will auto-reflex to LYME IgM-1615 at additional charge

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2 days

**Clinical Indication:** For determining antibodies to Borrelia burgdorferi, which causes Lyme disease.

**Ref Range:** <0.91

### Lymphoproliferative Disorder Analysis

5535-0

**Alternate Name:** Lymphoproliferative Disorder Flow Analysis

**Methodology:** Flow Cytometry

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88184 (1), 88185 (17), 88189 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI, Peripheral Blood - Lavender Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Flow Cytometry is useful in the detection and diagnostic subclassification of lymphoma. It is specifically important in the subclassification of B-cell malignancies such as chronic lymphocytic leukemia, mantle cell lymphoma, lymphoplasmacytic lymphoma, follicle center and Burkitt's lymphoma, and plasmacytoma.

**Ref Range:** See Report

### Lymphoproliferative Disorder Analysis (Technical Only)

5536-8

**Methodology:** Flow Cytometry

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88184 (1), 88185 (17)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI, Peripheral Blood - Lavender Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Flow Cytometry is useful in the detection and diagnostic subclassification of lymphoma. It is specifically important in the subclassification of B-cell malignancies such as chronic lymphocytic leukemia, mantle cell lymphoma, lymphoplasmacytic lymphoma, follicle center and Burkitt's lymphoma, and plasmacytoma.

**Ref Range:** See Report

### Lynch Syndrome Reflex Screening

B366-6

**Alternate Name:** BRAF -> MLH1

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81210 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather. Please attach MSI results. Test cannot be performed without MSI results. Source and pathology report is required.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3 days

**Clinical Indication:** Testing algorithm designed to rule out Lynch Syndrome.

**Ref Range:** See Report

### MDS FISH Panel

5281-1

**Alternate Name:** Myelodysplastic Syndrome FISH Panel: +8, -5q, -7q, 20q-

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (4)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Components:** -8, -5/5q-, -7/7q-, 20q-

**Clinical Indication:** Useful for assessment of primary myeloid disorders, including MDS. Patients with 5q- are eligible for treatment with lenalidomide.

**Ref Range:** See Report



**MDS FISH Panel- TC Only**
**P960-8**

**Alternate Name:** Myelodysplastic Syndrome FISH Panel: +8, -5q, -7q, 20q-

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (4)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Components:** -7/7Q- BY FISH-TC ONLY, -5/5Q- BY FISH-TC ONLY, TRISOMY 8 BY FISH-TC, 20Q12 BY FISH-TC ONLY

**Clinical Indication:** Useful for assessment of primary myeloid disorders, including MDS. Patients with 5q- are eligible for treatment with lenalidomide.

**Ref Range:** See Report

**MET by FISH**
**B335-1**

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88368 (2)

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 7-10 days

**Clinical Indication:** Detects MET amplification that has prognostic and therapeutic implications in various solid tumors, such as NSCLC.

**Ref Range:** See Report

**MET by FISH - TC Only**
**B336-9**

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88367 (2)

**Specimen Comment:** SHIP WITH ICE PACK DURING WARM WEATHER.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** Detects MET amplification that has diagnostic and prognostic utility for various solid tumors, such as NSCLC.

**Ref Range:** See Report

**MET by IHC**
**A612-4**

**Alternate Name:** MET amplification

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88342

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** To assess for MET protein overexpression that may drive cancer proliferation in epithelial cancers such as NSCLC.

**Ref Range:** See Report

**Metastatic Carcinoma (Breast, Colon) - Lymph Node**
**5124-3**

**Alternate Name:** Lymph Node for Micrometasis

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Assess for nodal metastatic carcinoma with antibody AE1/AE3. Three levels are examined.

**Ref Range:** See Report

### Metastatic Melanoma - Lymph Node

5126-8

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (2)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Assess for nodal metastatic carcinoma. The components of this panel include: S100, HMB45 and Melan A.

**Ref Range:** See Report

### Microsatellite Instability (MSI-H) by PCR

3371-2

**Alternate Name:** MSI, Mismatch Repair Protein Deficiency

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81301 (1), 88381 (1)

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** MSI by PCR is useful to detect deficiencies in mismatch repair genes. Stage II colorectal cancer patients with Microsatellite unstable tumors typically do not respond favorably to chemotherapy. An alternative test is MSI by IHC.

**Ref Range:** See Report

### Minimal Residual Disease for CLL/SLL

5155-7

**Alternate Name:** CLL MRD Panel

**Methodology:** Flow Cytometry

**Preferred Specimen:** 5 mL Peripheral Blood - Green Top

**CPT Code:** 88184 (1), 88185 (8), 88188 (1)

**Alternate Specimen:** 2 mL Bone Marrow - Green Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 24 hours

**Clinical Indication:** Flow Cytometry panel that focuses on B-cell markers used to assess MRD in CLL/SLL patients.

**Ref Range:** See Report

### Mismatch Repair Protein (MMR) for Lynch Syndrome by IHC

A943-3

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (3)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** MSI by IHC is useful to detect deficiencies in mismatch repair genes. Stage II colorectal cancer patients with Microsatellite unstable tumors typically do not respond favorably to chemotherapy. Mismatch repair protein defect(s) by IHC is also an initial screening test for Lynch syndrome. An alternative test is MSI by PCR. The components of this panel include: MLH1, MSH2, MSH6 and PMS2.

**Ref Range:** See Report

### Mismatch Repair Protein (MMR) for Lynch Syndrome by IHC- TC Only

A944-1

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461-TC (1), G0462-TC (3)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** MSI by IHC is useful to detect deficiencies in mismatch repair genes. Stage II colorectal cancer patients with Microsatellite unstable tumors typically do not respond favorably to chemotherapy. Mismatch repair protein defect(s) by IHC is also an initial screening test for Lynch syndrome. An alternative test is MSI by PCR. The components of this panel include: MLH1, MSH2, MSH6 and PMS2.

**Ref Range:** See Report

**MLH1 Promoter Hypermethylation**
**A313-9**
**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81479 (1)

**Specimen Comment:** Ship with cold pack during warm weather. Please attach MSI results. Test cannot be performed without MSI results. Source and pathology report is required.

**Turn Around Time:** 4-5 days

**Clinical Indication:** Hypermethylation test used to help differentiate colon tumors between those with sporadic vs hereditary lineage. This test should only be used after a mismatch repair deficiency has been established for MLH1 (IHC or PCR).

**Ref Range:** See Report

**MPL515**
**5272-0**
**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81402 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Bone Marrow - Green Top, Peripheral Blood - Green Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2-3 days

**Clinical Indication:** Assessment of JAK2 V617F-negative Chronic Myeloproliferative Neoplasms (ET, Myelofibrosis)

**Ref Range:** No Mutation

**MTHFR A1298C**
**5765-3**
**Methodology:** PCR

**Preferred Specimen:** 1 mL Lavender top- EDTA

**CPT Code:** 81291 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender

**Storage Instruction:** Room Temp

**Turn Around Time:** 5 days

**Ref Range:** No Mutation

**MTHFR C677T Gene Mutation**
**5764-6**
**Methodology:** PCR

**Preferred Specimen:** 4 mL Lavender top- EDTA

**CPT Code:** 81291 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender

**Storage Instruction:** Room Temp

**Turn Around Time:** 5 days

**Ref Range:** No Mutation

**Multiple Myeloma FISH Panel**
**5282-9**
**Alternate Name:** FISH Panel: 13q14, t(11;14) & +11, 17p13, t(4;14), 1q21

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (8)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition. CD138 magnetic enrichment of plasma cells is available (submit 1.5 cc of marrow).

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Components:** FGFR3, RB1, BCL1, p53, 1q21

**Clinical Indication:** FISH offers a sensitive method for the detection of chromosomal abnormalities, often found in plasma cell myeloma. Chromosomal abnormalities are important prognostic indicators. All 5 FISH probes are recommended by the International Myeloma Working Group.

**Ref Range:** See Report

**Multiple Myeloma FISH Panel-TC Only**

**P961-6**

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (8)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Components:** 13Q14 BY FISH-TC ONLY, T(11;14)+11 BY FISH-TC, 17P13 BY FISH-TC ONLY, T(4;14) BY FISH-TC ONLY, 1Q21 BY FISH-TC ONLY

**Clinical Indication:** FISH offers a sensitive method for the detection of chromosomal abnormalities, often found in plasma cell myeloma. Chromosomal abnormalities are important prognostic indicators. All 5 FISH probes are recommended by the International Myeloma Working Group.

**Ref Range:** See Report

**Multiple Myeloma IHC Panel**

**5579-8**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (10)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Useful for assessment of multiple myeloma/ plasma cell myeloma. The components of this panel include: CD20, CD45, CD56, CD79a, CD138, Cyclin D1, IgA, IgG, IgM, Kappa and Lambda.

**Ref Range:** See Report

**MYC/IGH by FISH**

**5027-8**

**Alternate Name:** MYC/IGH, t(8;14) for Burkitt Lymphoma, c-MYC

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2 days

**Clinical Indication:** Useful for assessment of Burkitt lymphoma.

**Ref Range:** See Report

**MYC/IGH: t(8;14) by FISH- TC Only**

**B349-2**

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Useful for assessment of Burkitt lymphoma.

**Ref Range:** See Report

**Myeloid & Lymphoid Analysis (Short Panel) - TC Only**

**B338-5**

**Methodology:** Flow Cytometry

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88181 (1), 88185 (13)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI, Peripheral Blood - Lavender Top

**Storage Instruction:** Room Temp

**Turn Around Time:** 1 day

**Clinical Indication:** This flow cytometry test is similar in clinical use to the expanded Acute and Lymphoid panel (5515) but utilizes less antibodies and is less comprehensive in scope.

**Ref Range:** See Report

**Myeloid and Lymphoid Short Panel**
**B271-8**

**Methodology:** Flow Cytometry

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88184 (1), 88185 (13), 88188 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Tissue in RPMI, Peripheral Blood - Lavender Top

**Storage Instruction:** Room Temp

**Turn Around Time:** 1 day

**Clinical Indication:** This flow cytometry test is similar in clinical use to the expanded Acute and Lymphoid panel (5515) but utilizes less antibodies and is less comprehensive in scope.

**Ref Range:** See Report

**Neuroendocrine Neoplasm IHC Panel**
**5195-3**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (5)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Useful for assessment of neuroendocrine neoplasms. The components of this panel include: CAM 5.2, CD56, Chromogranin, Ki-67, Synaptophysin and TTF-1.

**Ref Range:** See Report

**Non-Automated UroVysion**
**6274-5**

**Alternate Name:** Bladder Cancer

**Methodology:** FISH

**Preferred Specimen:** 50 mL Voided Urine - Urocyte Collection Kit

**CPT Code:** 88120 (1)

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** The test is useful for monitoring for tumor recurrence in patients with a history of urothelial carcinoma involving the bladder or upper urinary tract and for assessing patients with hematuria for urothelial carcinoma.

**Ref Range:** See Report

**OneCheck Hematopathology**
**5500-4**

**Alternate Name:** OneCheck

**Preferred Specimen:** Core in Formalin, Clot in Formalin, Smear(s) in Slide Carrier, 2 mL Green Aspirate, 2 mL Lavender Aspirate

**CPT Code:** 99999

**Storage Instruction:** Refrigerate

**Turn Around Time:** 7 days

**Clinical Indication:** Comprehensive hematopathology diagnostic workup with appropriate tests selected by GenPath hematopathologists.

**Ref Range:** See Report

**OneCheck Plus GenArray**
**A500-1**

**Preferred Specimen:** Lavender Aspirate

**CPT Code:** 99999

**Alternate Specimen:** Core in Formalin, Clot in Formalin, Slides, Green Aspirate, Peripheral Blood - Lavender Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 10 days

**Clinical Indication:** Comprehensive hematopathology diagnostic workup with appropriate tests selected by GenPath hematopathologists. Array CGH analysis will be run as part of this assessment.

**Ref Range:** See Report

**OnkoMatch + for Lung, if ALK negative reflex to ROS1**

**Q429-3**

**Alternate Name:** Onkomatch + for Lung, reflex ALK negative to ROS1 by FISH

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81210 (1), 81235 (1), 81275 (1), 81323 (1), 88368 (2), 88342 (1), 88381 (1)

**Alternate Specimen:** H & E SLIDE, Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 7 days

**Components:** EGFR EXON 19 DELETION, ONKOMATCH + Lung, MET BY IHC, EML4/ALK

**Clinical Indication:** This test is utilized to determine available genetic targets in lung adenocarcinoma for personalized medicine therapy.

**Ref Range:** See Report

**OnkoMatch Tumor Genotyping**

**A635-5**

**Alternate Name:** SNaPshot Tumor Genotyping

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81210 (1), 81235 (1), 81275 (1), 81323 (1)

**Alternate Specimen:** Unstained Slide, H & E SLIDE

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 5 days

**Components:** ONKOMATCH + Lung, EGFR EXON 19 DELETION

**Clinical Indication:** To assess a patient's solid tumor for 14 oncogenes across 68 mutational hotspots that may be treated with targeted therapies.

**Ref Range:** See Report

**OnkoMatch Tumor Genotyping + for Lung**

**A642-1**

**Alternate Name:** Tumor Genotyping for Lung Cancer

**Methodology:** PCR

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81210 (1), 81235 (1), 81275 (1), 81323 (1), G0461 (1), 88368 (2)

**Alternate Specimen:** Unstained Slide, H & E SLIDE

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 7 days

**Components:** ONKOMATCH + Lung, EGFR EXON 19 DELETION, MET BY IHC, EML4/ALK

**Clinical Indication:** This test is utilized to determine available genetic targets in lung cancer for personalized medicine therapy.

**Ref Range:** See Report

**p53 by IHC**

**5153-2**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** This protein induces cell cycle arrest or apoptosis in response to sublethal or severe DNA damage, respectively, by differential transcription of target genes and through transcription-independent apoptotic functions. Associated with aggressive forms of breast cancer and other malignancies.

**Ref Range:** See Report

**p53 by IHC- TC Only**
**A347-7**
**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88361-TC (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Room Temp

**Turn Around Time:** 1 day

**Clinical Indication:** This protein induces cell cycle arrest or apoptosis in response to sublethal or severe DNA damage, respectively, by differential transcription of target genes and through transcription-independent apoptotic functions. Associated with aggressive forms of breast cancer.

**Ref Range:** See Report

**Paroxysmal Nocturnal Hemoglobinuria (PNH) Test**
**5564-0**
**Alternate Name:** PNH Test

**Methodology:** Flow Cytometry

**Preferred Specimen:** 2 mL Peripheral Blood - Lavender Top

**CPT Code:** 88184 (1), 88185 (6), 88187 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Submit within 24hrs of collection, time sensitive

**Storage Instruction:** Room Temp

**Turn Around Time:** 1 day

**Clinical Indication:** Diagnostic for Paroxysmal Nocturnal Hemoglobinuria (PNH).

**Ref Range:** See Report

**Pathology Peripheral Smear Review**
**5106-0**
**Methodology:** Microscopic Examination

**Preferred Specimen:** Lavender top- EDTA

**CPT Code:** 85060 (1)

**Alternate Specimen:** Lavender top- EDTA, Microtainer - Pediatric Lavender, Green top, Microtainer - Pediatric Green Top, Slides, Light blue top

**Turn Around Time:** 1 day

**Clinical Indication:** Pathologist consultation on peripheral blood smear.

**Ref Range:** See Report

**Pathology Slide Consultation**
**5111-0**
**Methodology:** Morphology

**Preferred Specimen:** Slides in Slide Carrier

**CPT Code:** 88321 (1)

**Storage Instruction:** Room Temp

**Turn Around Time:** 1-2 days

**Clinical Indication:** Slide consultation

**Ref Range:** See Report

**PDGFR alpha**
**A430-1**
**Methodology:** PCR

**Preferred Specimen:** 5 mL Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 81404 (1)

**Specimen Comment:** See test code A344 for all Non-NY clients.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 7 days

**Clinical Indication:** GISTs with PDGFRA mutations (except D842V) are likely to respond to imatinib therapy.

**Ref Range:** See Report



**PDGFR alpha/FIP1L1 by FISH**

**5182-1**

**Alternate Name:** FIP1L1-PDGFR by FISH

**Methodology:** FISH

**Preferred Specimen:** 5 mL Peripheral Blood - Green Top

**CPT Code:** 88365 (1)

**Alternate Specimen:** 2 mL Bone Marrow - Green Top

**Specimen Comment:** Please include specimen collection date on requisition

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Mutations in the FIP1L1-PDGFR gene may be useful in the diagnosis of a subset of chronic eosinophilic leukemias, termed hypereosinophilic syndrome (HES). Patients with HES have shown favorable response to tyrosine kinase inhibitor therapy, imatinib. FIP1L1-PDGFR is also present in a subset of patients with systemic mastocytosis and these patients may respond to imatinib. In both HES and systemic mastocytosis, testing for FIP1L1-PDGFR may be used for disease monitoring of patients on tyrosine kinase inhibitor therapy.

**Ref Range:** See Report

**PDGFRbeta/TEL**

**5219-1**

**Alternate Name:** PDGFR beta

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88271 (2), 88275 (2), 88291 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 5-8 days

**Clinical Indication:** Useful in assessment of chronic myelomonocytic leukemia (CMML).

**Ref Range:** Negative

**Phosphates, Urine, 24 Hours**

**0411-9**

**Preferred Specimen:** 10 mL Urine Container - 24hr

**CPT Code:** 81050 (2), 84105 (1)

**Alternate Specimen:** Urine Cup 24 hour,Urine Tube 24 hour

**Specimen Comment:** Adjust pH level with HCL preservatives. Record total volume on req.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3 days

**Ref Range:** See Report

**Plasma Cell Analysis**

**5573-1**

**Alternate Name:** Myeloma Panel by Flow Cytometry

**Methodology:** Flow Cytometry

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88184 (1), 88185 (11), 88188 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top,Peripheral Blood - Lavender Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Flow Cytometry is useful in characterizing and distinguishing normal from neoplastic plasma cells based on the degree of surface antigen expression, presence of aberrant antigens, and detection of intracytoplasmic immunoglobulin heavy and light chains. Flow can assess for clonality but may underestimate plasma cell percentages.

**Ref Range:** See Report

**Plasma Cell Analysis - TC Only**

**5574-9**

**Methodology:** Flow Cytometry

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88184 (1), 88185 (11)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top,Peripheral Blood - Lavender Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Flow Cytometry is useful in characterizing and distinguishing normal from neoplastic plasma cells based on the degree of surface antigen expression, presence of aberrant antigens, and detection of intracytoplasmic immunoglobulin heavy and light chains. Flow can assess for clonality but may underestimate plasma cell percentages.

**Ref Range:** See Report

**PNH- TC Only**
**5185-4**

**Alternate Name:** Paroxysmal Nocturnal Hemoglobinuria Technical Component

**Methodology:** Flow Cytometry

**Preferred Specimen:** 2 mL Peripheral Blood - Lavender Top

**CPT Code:** 88184 (1), 88185 (6)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Submit within 24hrs of collection, time sensitive

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Diagnostic for Paroxysmal Nocturnal Hemoglobinuria (PNH).

**Ref Range:** See Report

**Prostate Cancer/ Lymph Nodes**
**5122-7**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Assess for nodal metastatic carcinoma.

**Ref Range:** See Report

**Prostate Specific Antigen (PSA)**
**0190-9**

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 84153 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** <4.00 ng/mL

**Prostate Specific Antigen (PSA), Free and Total, Serum**
**2088-3**

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 84153 (1), 84154 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Microtainer - Pediatric Red, Aliquot Tube-Serum

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Components:** PSA Total, PSA, FREE

**Ref Range:** See Report

**Prostate Triple Stain**
**5097-1**

**Alternate Name:** Prostate Cancer Profile

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (2)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Clinical Indication:** Useful for assessment of prostate carcinoma. The components of this panel include: CK903, p504S and p63.

**Ref Range:** See Report

**Prostate Triple Stain- TC Only**
**5104-5**

**Alternate Name:** Prostate Cancer (Stain Only)

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461-TC (1), G0462-TC (2)

**Alternate Specimen:** Unstained Slide

**Turn Around Time:** 1 day

**Clinical Indication:** Ship with cold pack during warm weather. The components of this panel include: CK903, p504S and p63.

**Ref Range:** See Report

### Protein Electrophoresis, Serum (SPEP)

0085-1

**Alternate Name:** Electrophoresis, Serum; Serum Protein Electrophoresis; Zone Electrophoresis

**Preferred Specimen:** 2 mL SST Tube

**CPT Code:** 84155 (1), 84165 (7)

**Alternate Specimen:** Microtainer - Pediatric SST, Aliquot Tube-Serum

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2 days

**Clinical Indication:** Serum proteins are separated into albumin, alpha, beta, and gamma globulins. Gamma globulins are assessed for a monoclonal spike (M protein) seen in plasma cell dyscrasias.

**Ref Range:** See Report

### Prothrombin G20210A Mutation

5795-0

**Methodology:** PCR

**Preferred Specimen:** 5 mL Lavender top- EDTA

**CPT Code:** 81240 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender

**Storage Instruction:** Room Temp

**Turn Around Time:** 5 days

**Ref Range:** See Report

### Reactive Hyperplasia vs. Lymphoma (NHL) IHC Panel

5103-7

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G4062 (12)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Rule out lymphoma vs. reactive lymphoid hyperplasia. The components of this panel include: BCL-2, BCL-6, CD3, CD5, CD10, CD20, CD23, CD43, CD79a, Cyclin D1, Kappa, Ki-67 and Lambda.

**Ref Range:** See Report

### Reticulocyte Count

0141-2

**Alternate Name:** Retic Count

**Preferred Specimen:** 4 mL Lavender top- EDTA

**CPT Code:** 85045 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender

**Specimen Comment:** Sample is stable at room temperature for 48 hours.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

### Rheumatoid Arthritis (RA) Factor

0796-3

**Alternate Name:** RA Latex; RA Latex, Turbidimetry; RF Titer; Rheumatoid Factor (RF)

**Methodology:** Immunoturbidometric

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 86431 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** <14 IU/mL

### ROS1 by FISH

B334-4

**Methodology:** FISH

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** 88368 (2)

**Specimen Comment:** Ship with cold pack during warm weather. Please include specimen collection date on requisition.

**Storage Instruction:** Room Temp

**Turn Around Time:** 3-5 days

**Clinical Indication:** Diagnostic for ROS1 rearrangements. Useful in determining patient's eligibility for crizotinib.

**Ref Range:** See Report

**Sedimentation Rate, Erythrocyte (ESR)**
**0086-9**

**Alternate Name:** Erythrocyte Sedimentation Rate (ESR); Sed-Rate

**Preferred Specimen:** Lavender top- EDTA

**CPT Code:** 85651 (1)

**Alternate Specimen:** Microtainer - Pediatric Lavender

**Specimen Comment:** ESR will be ran STAT if ordered in conjunction with CBC.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** <21 mm/hr, <26 mm/hr

**Small Round Cell Tumor IHC Panel**
**5177-1**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (12)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Useful for assessment of small round cell tumors. The components of this panel include: CAM 5.2, CK7, CK20, Chromogranin, Synaptophysin, CD99, CD45, CD56, S100, TTF-1, Vimentin, Desmin and NF.

**Ref Range:** See Report

**Spindle Cell Neoplasm IHC Panel**
**5191-2**

**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (10)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** Useful for assessment of spindle cell neoplasms. The components of this panel include: Actin, AE1/AE3, CD34, CD68, CD117, Desmin, Factor XIIIa, Ki-67, S100, SMA and Vimentin.

**Ref Range:** See Report

**Strep Screen, Group A, Beta-Hemolytic**
**0079-4**

**Methodology:** DNA Probe

**Preferred Specimen:** Swab-E

**CPT Code:** 87650 (1)

**Alternate Specimen:** Swab-Bacterial Culture

**Turn Around Time:** 2 days

**Ref Range:** Negative

**t(4;14) by FISH-TC Only**
**A875-7**

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Prognostic for patients with Plasma Cell Myeloma. Commonly ordered through the Multiple Myeloma FISH panel (TC Only), P961-6.

**Ref Range:** See Report

**T3 Uptake, Serum (T3U)**
**0152-9**

**Methodology:** Enzyme Immunoassay

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 84479 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** 24.3-39.0 %

### T3, Total

0150-3

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 84480 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

### TCR gamma by PCR

5031-0

**Alternate Name:** TCR, T-Cell Gene Rearrangement

**Methodology:** PCR

**Preferred Specimen:** 2 mL Bone Marrow - Lavender Top

**CPT Code:** 81342 (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Lavender Top, Tissue in RPMI, Peripheral Blood - Green Top, Formalin-fixed, Paraffin-embedded Tissue, Bone Marrow - Green Top

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Assess clonality in T-cells. Useful for assessment of T-cell lymphoma.

**Ref Range:** See Report

### TEL/AML1: t(12;21) by FISH

5038-5

**Alternate Name:** TEL/AML1 Gene Rearrangement by FISH, t(12;21)

**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88368 (2)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition

**Storage Instruction:** Refrigerate

**Turn Around Time:** 5 days

**Clinical Indication:** Useful for assessment of a subtype of B-lymphoblastic leukemia/lymphoma, usually in childhood.

**Ref Range:** See Report

### Thyroid Stimulating Hormone (TSH)

0153-7

**Alternate Name:** TSH; Thyroidopin; Ultrasensitive TSH

**Methodology:** Chemiluminescence

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 84443 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

### Thyroxine (T4), Serum

0151-1

**Alternate Name:** T4; Tetraiodothyronine;

**Methodology:** Enzyme Immunoassay

**Preferred Specimen:** 1 mL SST Tube

**CPT Code:** 84436 (1)

**Alternate Specimen:** Red Top, Microtainer - Pediatric SST, Aliquot Tube-Serum, Microtainer - Pediatric Red

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

**Trisomy 12 by FISH-TC Only**
**A877-3**
**Methodology:** FISH

**Preferred Specimen:** 5 mL Peripheral Blood - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 2 mL Bone Marrow - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Trisomy 12 by FISH is used for diagnostic and prognostic purposes in patients with CLL. Commonly ordered through the CLL FISH panel (TC Only), P962-4.

**Ref Range:** See Report

**Trisomy 8 By FISH-TC Only**
**A870-8**
**Methodology:** FISH

**Preferred Specimen:** 2 mL Bone Marrow - Green Top

**CPT Code:** 88367-TC (1)

**Alternate Specimen:** 5 mL Peripheral Blood - Green Top

**Specimen Comment:** Please include specimen collection date on requisition.

**Storage Instruction:** Refrigerate

**Turn Around Time:** 3-5 days

**Clinical Indication:** Useful for assessment of primary myeloid disorders, including MDS. Commonly ordered through the MDS FISH panel (TC Only), P960-8.

**Ref Range:** See Report

**Tumor of Unknown Primary IHC Panel**
**5190-4**
**Methodology:** IHC

**Preferred Specimen:** Formalin-fixed, Paraffin-embedded Tissue

**CPT Code:** G0461 (1), G0462 (13)

**Alternate Specimen:** Unstained Slide

**Specimen Comment:** Ship with cold pack during warm weather.

**Turn Around Time:** 1 day

**Clinical Indication:** The tumor of unknown primary IHC panel is used to determine the primary tumor site. Number of IHC markers will vary based on each case.

**Ref Range:** See Report

**UGT1A1 Mutation Analysis**
**5183-9**
**Alternate Name:** Irinotecan Toxicity

**Methodology:** PCR

**Preferred Specimen:** 5 mL Peripheral Blood - Lavender Top

**CPT Code:** 81350 (1)

**Storage Instruction:** Refrigerate

**Turn Around Time:** 7 days

**Clinical Indication:** UGT1A1 analysis detects enzyme deficiencies that lead to impaired metabolism of chemotherapy. Clinicians may titrate colorectal patients harboring UGT1A1 mutations for irinotecan.

**Ref Range:** See Report

**Uric Acid, Urine, 24 Hours**
**0158-6**
**Alternate Name:** Urate, Urine

**Preferred Specimen:** 5 mL Urine Container - 24hr

**CPT Code:** 84560 (1)

**Alternate Specimen:** Urine Cup 24 hour,Urine Tube 24 hour

**Storage Instruction:** Refrigerate

**Turn Around Time:** 2 days

**Ref Range:** 0.25-0.75 gm/24hr

**Urinalysis, Routine**
**0159-4**
**Preferred Specimen:** 12 mL Urine Urinalysis Tube - Yellow

**CPT Code:** 81001 (1)

**Alternate Specimen:** Urine Cup,Urine Container - 24hr,Urine tube without preservative,Urine Cup 24 hour,Urine Tube 24 hour

**Storage Instruction:** Refrigerate

**Turn Around Time:** 1 day

**Ref Range:** See Report

**Urine Cytology- TC Only**

**5218-3**

**Preferred Specimen:** 50 mL Voided Urine - Urocyte Collection Kit **CPT Code:** 88112-TC (1)  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3 days  
**Clinical Indication:** To aid in the diagnosis of bladder cancer.  
**Ref Range:** See Report

**Urine Cytopathology, Global**

**5254-8**

**Preferred Specimen:** 50 mL ThinPrep Cytolyte Solution **CPT Code:** 88112 (1)  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3 days  
**Clinical Indication:** To aid in the diagnosis of bladder cancer.  
**Ref Range:** See Report

**UroVysion- TC Only**

**5249-8**

**Alternate Name:** UroVysion for Bladder Cancer: Technical Component Only  
**Methodology:** FISH  
**Preferred Specimen:** 50 mL Voided Urine - Urocyte Collection Kit **CPT Code:** 88121-TC (1)  
**Specimen Comment:** Please include specimen collection date on requisition.  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3-5 days  
**Clinical Indication:** Technical component for the diagnostic of bladder cancer.  
**Ref Range:** See Report

**Vitamin B12, Serum**

**0160-2**

**Methodology:** Chemiluminescence  
**Preferred Specimen:** 1 mL SST Tube **CPT Code:** 82607 (1)  
**Alternate Specimen:** Aliquot Tube-Serum,Red Top,Microtainer - Pediatric SST,Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 1 day  
**Ref Range:** 211-911 pg/mL

**Vitamin D, 25-Hydroxy, Serum**

**0286-5**

**Methodology:** Chemiluminescence  
**Preferred Specimen:** 2 mL SST Tube **CPT Code:** 82306 (1)  
**Alternate Specimen:** Red Top,Microtainer - Pediatric SST,Aliquot Tube-Serum,Microtainer - Pediatric Red  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 2 days  
**Ref Range:** 32.0-100.0 ng/mL

**Warfarin Sensitivity**

**6261-2**

**Alternate Name:** Coumadin Sensitivity  
**Methodology:** PCR  
**Preferred Specimen:** 2 mL Lavender top- EDTA **CPT Code:** 81355 (1)  
**Alternate Specimen:** Microtainer - Pediatric Lavender  
**Storage Instruction:** Refrigerate  
**Turn Around Time:** 3 days  
**Clinical Indication:** Provides guidance to clinicians in warfarin dosing. This test includes VKOR and CYP.  
**Ref Range:** See Report



**X/Y Bone Marrow Transplant Monitoring****5066-6****Methodology:** FISH**Preferred Specimen:** 2 mL Bone Marrow - Green Top**CPT Code:** 88368 (2)**Alternate Specimen:** 5 mL Peripheral Blood - Green Top**Specimen Comment:** Please include specimen collection date on requisition**Storage Instruction:** Refrigerate**Turn Around Time:** 3-5 days**Clinical Indication:** For identification and monitoring of sex-mismatched bone marrow transplants.**Ref Range:** See Report**ZAP-70 by Flow Cytometry****5409-8****Methodology:** Flow Cytometry**Preferred Specimen:** 2 mL Bone Marrow - Green Top**CPT Code:** 88184 (1), 88185 (3), 88187 (1)**Alternate Specimen:** 5 mL Peripheral Blood - Green Top, Peripheral Blood - Lavender Top**Storage Instruction:** Refrigerate**Turn Around Time:** 1 day**Clinical Indication:** ZAP-70 analysis is an independent CLL prognostic marker and surrogate marker for IgVH. Flow cytometry quantitates the level of ZAP-70 expression in CLL cells.**Ref Range:** See Report**ZAP-70- TC Only****5110-2****Alternate Name:** ZAP-70 Prognosis for CLL**Methodology:** Flow Cytometry**Preferred Specimen:** 5 mL Peripheral Blood - Green Top**CPT Code:** 88184 (1), 88185 (3)**Alternate Specimen:** 2 mL Bone Marrow - Green Top, Peripheral Blood - Lavender Top**Storage Instruction:** Refrigerate**Turn Around Time:** 1 day**Clinical Indication:** ZAP-70 analysis is an independent CLL prognostic marker and surrogate marker for IgVH. Flow cytometry quantitates the antibody levels.**Ref Range:** See Report



## By Test Name

Test Code	Test Name	Page
A869-0	-5/5q- by FISH- TC Only	A1
A868-2	-7/7q- by FISH- TC Only	A1
A879-9	11q22.3 by FISH- TC Only	A1
A872-4	13q14 by FISH- TC Only	A1
A878-1	13q14.3 by FISH- TC Only	A2
A874-0	17p13 by FISH- TC Only	A2
A311-3	1p/19q by FISH	A2
A876-5	1q21 by FISH- TC Only	A2
A871-6	20q12 by FISH- TC Only	A2
3283-9	Acute Hepatitis Panel for Medicare	A3
5515-2	Acute Leukemia & Myeloid Disorders Analysis	A3
5516-0	Acute Leukemia & Myeloid Disorders Analysis- TC Only	A3
5116-9	Acute Leukemia/MDS IHC Panel	A3
5181-3	Adenocarcinoma vs. Mesothelioma IHC Panel	A3
5108-6	AE1/AE3- TC Only	A4
A703-1	ALK by FISH	A4
A241-2	ALK by FISH (FDA)	A4
B236-1	ALK by FISH- TC Only	A4
B603-2	ALK by IHC - TC Only	A4
P260-3	ALL Prognosis Panel by FISH	A5
0025-7	Alpha Fetoprotein, Tumor Marker (AFP)	A5
8860-9	AML - CEBPA Mutational Analysis	A5
5024-5	AML - M2 (AML/ETO) (RUNX1/RUNX1T1) by FISH	A5
5034-4	AML - M2 (AML/ETO) (RUNX1/RUNX1T1) by RT-PCR	A5
5260-5	AML - M3 (PML/RARA) by FISH	A6
5261-3	AML - M3 (PML/RARA) by RT-PCR	A6
5427-0	AML - M4 & M5 by FISH	A6
5025-2	AML - M4Eo inv(16) by FISH	A6
5035-1	AML - M4Eo inv(16) by PCR	A7
P261-1	AML Diagnostic Panel by FISH	A7
5988-1	AML Prognostic Panel: FLT3 & NPM1	A7
A881-5	AML-M3(PML/RARA) by FISH- TC Only	A7
5269-6	AML: NPM1 Mutation Analysis	A7
0041-4	Anti-Thyroglobulin Antibody (ATA)	A8
0038-0	Antinuclear Antibody (ANA)	A8
0042-2	Antistreptolysin O (ASO) Titer	A8
5030-2	Automated UroVysion By FISH	A8
5032-8	B-Cell, IGH by FISH	A8
5278-7	B-Cell, IGH by PCR	A9
5273-8	BCL1, BCL2, BCL6 (FISH Panel)	A9
5026-0	BCL1/IGH (CCND1/IGH) by FISH	A9
A873-2	BCL1/IGH (CCND1/IGH) by FISH-TC Only	A9
5270-4	BCL2/IGH by FISH	A9
5271-2	BCL2/IGH by PCR	A10
B350-0	BCL2/IGH: t(14;18) by FISH- TC Only	A10
5028-6	BCL6 by FISH	A10
B348-4	BCL6: 3q27 by FISH- TC Only	A10
A880-7	BCR/ABL by FISH-TC Only	A10
5858-6	BCR/ABL Quantification by RT-PCR	A11
5265-4	BCR/ABL: t(9;22) by FISH	A11
0262-6	Beta-2-Microglobulin, Serum	A11
1754-1	Beta-2-Microglobulin, Urine, Random	A11
5199-5	Bone Marrow Morphology	A11
5202-7	Bone Marrow Morphology - Clot Only	A12
5200-1	Bone Marrow Morphology - Core Only	A12
5211-8	Bone Marrow Morphology - Smears	A12

## By Test Name

Test Code	Test Name	Page
5207-6	Bone Marrow Slide Consult	A12
5285-2	Bone Marrow Smear Interpretation	A12
5893-3	BRAF V600E	A12
A566-2	BRAF V600E (FDA)	A13
5118-5	Breast Carcinoma, Marrow, IHC Micromets	A13
5176-3	Breast Carcinoma, rule out Microinvasion	A13
A952-4	Breast Carcinoma, rule out Microinvasion- TC Only	A13
5170-6	Breast Carcinoma/Lymph Nodes/MM Metastasis	A13
3320-9	C-Reactive Protein (hs-CRP), High Sensitivity	A13
0536-3	CA 125, Serum	A14
2130-3	CA 15-3, Serum	A14
0535-5	CA 19-9, Serum	A14
0823-5	CA 27.29, Serum	A14
0359-0	Calcium, Urine, 24 Hours	A14
0055-4	Carcinoembryonic Antigen (CEA)	A15
0053-9	CBC w/Diff, Platelet Ct.	A15
2665-8	Chlamydia trachomatis (CT), Urine, Probetec	A15
5250-6	Chromosome Analysis	A15
6237-2	Circulating Tumor Cells (CTC)	A15
0021-6	Citrate, 24Hr. Urine	A16
5434-6	CK-903 for Prostate Cancer	A16
5404-9	CK-903- TC Only	A16
5280-3	CLL FISH Panel	A16
P962-4	CLL FISH Panel- TC Only	A16
6290-1	CML: ABL Kinase Mutation Analysis	A17
P264-5	Colon DNA Mismatch Repair Reflex	A17
B365-8	Colon Reflex Dx	A17
0532-2	Complement C3, Serum	A17
0533-0	Complement C4, Serum	A17
3427-2	Comprehensive Metabolic Panel (CMP)	A18
5256-3	Comprehensive Slide Consult	A18
5324-9	Comprehensive Urine Pathology	A18
0086-9	Comprehensive Urine Pathology- TC Only	A18
0064-6	Coombs Test, Direct	A18
0900-1	Cortisol, Serum, Random	A18
0072-9	Creatinine Clearance, Urine, 24 Hours	A19
0341-8	Culture, Blood	A19
0080-2	Culture, Urine	A19
0082-8	Culture, Wound, Aerobic Only	A19
5847-9	CYP2C19 Pharmacogenomic (Plavix)	A19
5296-9	CYP2D6 (NY Only): Tamoxifen Resistance	A19
5287-8	CYP2D6: Tamoxifen Resistance (non-NY only)	A20
0400-2	Cytomegalovirus (CMV) Antibody, IgG	A20
0461-4	Cytomegalovirus (CMV) Antibody, IgM	A20
5555-8	DNA Ploidy for Molar Pregnancy	A20
5575-6	DNA Ploidy/S-Phase by Flow Cytometry	A20
6285-1	DPD 5-FU Genotype	A20
0234-5	EBV Capsid Ab, IgG	A21
0580-1	EBV Capsid Ab, IgM	A21
0582-7	EBV, Early Antigen Ab	A21
0583-5	EBV, Nuclear Antigen Ab, IgG	A21
5295-1	EGFR by PCR	A21
A675-1	EGFR by PCR if neg. reflex to ALK	A21
0002-6	Electrolytes, Serum	A22
0404-4	Electrophoresis, Urine Protein (UPEP)	A22
B565-3	EML4-ALK by IHC	A22

## By Test Name

Test Code	Test Name	Page
5198-7	ER / PR - w/Interpretation	A22
5160-7	ER / PR / DNA / Ki-67 - w/Interpretation	A22
5433-8	ER / PR / Ki-67 / HER2- TC Only	A23
5163-1	ER / PR / Ki-67/ HER2 - w/Interpretation	A23
5131-8	ER / PR / Ki-67 / HER2 (Tech Only), plus DNA (Global)	A23
5162-3	ER / PR / DNA / Ki-67 / HER2 - w/Interpretation	A23
5408-0	ER / PR / DNA / Ki-67 / HER2 - Reflex to HER2 by FISH	A23
5161-5	ER / PR / HER2 - w/Interpretation	A24
5406-4	ER / PR / HER2 - Reflex to HER2 by FISH	A24
A277-6	ER / PR / HER2 FISH- TC Only	A24
5127-6	ER / PR / HER2- TC Only	A24
A278-4	ER / PR / Ki-67 / p53 / HER2 FISH- TC Only	A24
5407-2	ER / PR / Ki-67 / HER2 - Reflex to HER2 by FISH	A24
A951-6	ER / PR / Ki-67 / HER2 / p53, TC Only	A25
5129-2	ER / PR / Ki-67- TC Only, plus DNA- Global	A25
A276-8	ER / PR / Ki67 / p53 / HER2 FISH -TC Only plus DNA- Global	A25
5425-4	ER / PR- TC Only	A25
A300-6	ERCC1	A25
0183-4	Erythropoietin, Serum	A26
0516-5	Estradiol, Serum	A26
0562-9	Estrogen, Total, Serum	A26
5727-3	Factor V (R2) Polymorphism	A26
5726-5	Factor V Mutation (Leiden)	A26
0088-5	Ferritin, Serum	A26
5178-9	FLT3 Mutation Analysis	A27
0090-1	Folate, Serum	A27
0092-7	Follicle Stimulating Hormone (FSH)	A27
3893-5	Free Kappa & Lambda Light Chain (serum)	A27
5306-6	GenArray Molecular Karyotyping	A27
5194-6	Germ Cell Tumor IHC Panel	A28
5175-5	GIST Profile	A28
2666-6	Gonorrhea (GC), Urine, Probetec	A28
0514-0	Haptoglobin, Serum	A28
1766-5	Helicobacter pylori, IgA	A28
1765-7	Helicobacter pylori, IgG	A29
7736-2	Helicobacter pylori, IgM	A29
0102-4	Hemoglobin A1C	A29
0216-2	Hemoglobin Fractionation, HPLC	A29
3422-3	Hepatic Function Panel	A29
5193-8	Hepatocellular vs. Cholangiocarcinoma vs. Metastasis IHC Panel	A30
5171-4	HER2 by IHC	A30
5262-1	HER2 by FISH	A30
A427-7	HER2 by FISH - Gastric/GEJ	A30
A428-5	HER2 by FISH for Gastric/GEJ- TC Only	A30
5428-8	HER2 by IHC - Reflex +2 to HER2 by FISH	A31
A972-2	HER2 by IHC in Gastric/Gastroesophageal Carcinoma	A31
5405-6	HER2 by IHC- TC Only	A31
5259-7	HER2 FISH- TC Only	A31
3420-7	Hereditary Hemochromatosis (HFE): C282Y, H63D, S65C	A31
0360-8	HIV-1/HIV-2 Antibody Screen	A32
0375-6	HLA-B27	A32
5101-1	Hodgkin Lymphoma IHC Panel	A32
8714-8	HPV High by ISH	A32
8689-2	HPV High by ISH- TC Only	A32
8696-7	HPV High/Low by ISH- TC Only	A32
3412-4	HPV High/Low Risk by ISH	A33

## By Test Name

Test Code	Test Name	Page
1201-3	Human Chorionic Gonadotropin (HCG), Quantitative, Tumor Marker	A33
5080-7	IgH/TCR-GAMMA by PCR	A33
5223-3	IgVH Mutation Analysis	A33
0413-5	Immunofixation, Serum	A33
1644-4	Immunofixation, Urine, Random	A34
0520-7	Immunoglobulins, Serum	A34
0250-1	Iron + TIBC	A34
5307-4	JAK2 Exon 12	A34
5157-3	JAK2 V617F	A34
5152-4	Ki-67 by IHC	A34
A346-9	Ki-67 by IHC- TC Only	A35
5179-7	KIT (D816V) by PCR	A35
A344-4	KIT/PDGFR for GIST by PCR	A35
5288-6	KRAS	A35
5891-7	KRAS if Negative Reflex to BRAF	A35
0117-2	Lactate Dehydrogenase (LDH), Serum	A36
0009-1	Lipid Panel	A36
2194-9	Low-density lipoprotein (LDL) Direct	A36
B367-4	Lung Adeno Reflex Dx	A36
P263-7	Lung Adeno Reflex Panel: EGFR --> KRAS--> ALK	A36
B369-0	Lung Adenocarcinoma Targeted Therapy Profile	A37
A130-7	Lung Histology IHC Panel	A37
B368-2	Lung Profile: KRAS, EGFR, EML4-ALK, ROS1	A37
0342-6	Luteinizing Hormone (LH)	A37
0568-6	Lyme Disease Antibody, Serum	A37
5535-0	Lymphoproliferative Disorder Analysis	A38
5536-8	Lymphoproliferative Disorder Analysis (Technical Only)	A38
B366-6	Lynch Syndrome Reflex Screening	A38
5281-1	MDS FISH Panel	A38
P960-8	MDS FISH Panel- TC Only	A39
B335-1	MET by FISH	A39
B336-9	MET by FISH - TC Only	A39
A612-4	MET by IHC	A39
5124-3	Metastatic Carcinoma (Breast, Colon) - Lymph Node	A39
5126-8	Metastatic Melanoma - Lymph Node	A40
3371-2	Microsatellite Instability (MSI-H) by PCR	A40
5155-7	Minimal Residual Disease for CLL/SLL	A40
A943-3	Mismatch Repair Protein (MMR) for Lynch Syndrome by IHC	A40
A944-1	Mismatch Repair Protein (MMR) for Lynch Syndrome by IHC- TC Only	A40
A313-9	MLH1 Promoter Hypermethylation	A41
5272-0	MPL515	A41
5765-3	MTHFR A1298C	A41
5764-6	MTHFR C677T Gene Mutation	A41
5282-9	Multiple Myeloma FISH Panel	A41
P961-6	Multiple Myeloma FISH Panel-TC Only	A42
5579-8	Multiple Myeloma IHC Panel	A42
5027-8	MYC/IGH by FISH	A42
B349-2	MYC/IGH: t(8;14) by FISH- TC Only	A42
B338-5	Myeloid & Lymphoid Analysis (Short Panel) - TC Only	A42
B271-8	Myeloid and Lymphoid Short Panel	A43
5195-3	Neuroendocrine Neoplasm IHC Panel	A43
6274-5	Non-Automated UroVysion	A43
5500-4	OneCheck Hematopathology	A43
A500-1	OneCheck Plus GenArray	A43
Q429-3	OnkoMatch + for Lung, if ALK negative reflex to ROS1	A44
A635-5	OnkoMatch Tumor Genotyping	A44

## By Test Name

<b>Test Code</b>	<b>Test Name</b>	<b>Page</b>
A642-1	OnkoMatch Tumor Genotyping + for Lung	A44
5153-2	p53 by IHC	A44
A347-7	p53 by IHC- TC Only	A45
5564-0	Paroxysmal Nocturnal Hemoglobinuria (PNH) Test	A45
5106-0	Pathology Peripheral Smear Review	A45
5111-0	Pathology Slide Consultation	A45
A430-1	PDGFR alpha	A45
5182-1	PDGFR alpha/FIP1L1 by FISH	A46
5219-1	PDGFRbeta/TEL	A46
0411-9	Phosphates, Urine, 24 Hours	A46
5573-1	Plasma Cell Analysis	A46
5574-9	Plasma Cell Analysis - TC Only	A46
5185-4	PNH- TC Only	A47
5122-7	Prostate Cancer/ Lymph Nodes	A47
0190-9	Prostate Specific Antigen (PSA)	A47
2088-3	Prostate Specific Antigen (PSA), Free and Total, Serum	A47
5097-1	Prostate Triple Stain	A47
5104-5	Prostate Triple Stain- TC Only	A47
0085-1	Protein Electrophoresis, Serum (SPEP)	A48
5795-0	Prothrombin G20210A Mutation	A48
5103-7	Reactive Hyperplasia vs. Lymphoma (NHL) IHC Panel	A48
0141-2	Reticulocyte Count	A48
0796-3	Rheumatoid Arthritis (RA) Factor	A48
B334-4	ROS1 by FISH	A48
0086-9	Sedimentation Rate, Erythrocyte (ESR)	A18
5177-1	Small Round Cell Tumor IHC Panel	A49
5191-2	Spindle Cell Neoplasm IHC Panel	A49
0079-4	Strep Screen, Group A, Beta-Hemolytic	A49
A875-7	t(4;14) by FISH-TC Only	A49
0152-9	T3 Uptake, Serum (T3U)	A49
0150-3	T3, Total	A50
5031-0	TCR gamma by PCR	A50
5038-5	TEL/AML1: t(12;21) by FISH	A50
0153-7	Thyroid Stimulating Hormone (TSH)	A50
0151-1	Thyroxine (T4), Serum	A50
A877-3	Trisomy 12 by FISH-TC Only	A51
A870-8	Trisomy 8 By FISH-TC Only	A51
5190-4	Tumor of Unknown Primary IHC Panel	A51
5183-9	UGT1A1 Mutation Analysis	A51
0158-6	Uric Acid, Urine, 24 Hours	A51
0159-4	Urinalysis, Routine	A51
5218-3	Urine Cytology- TC Only	A52
5254-8	Urine Cytopathology, Global	A52
5249-8	UroVysion- TC Only	A52
0160-2	Vitamin B12, Serum	A52
0286-5	Vitamin D, 25-Hydroxy, Serum	A52
6261-2	Warfarin Sensitivity	A52
5066-6	X/Y Bone Marrow Transplant Monitoring	A53
5409-8	ZAP-70 by Flow Cytometry	A53
5110-2	ZAP-70- TC Only	A53



## By Test Code

Test Code	Test Name	Page
0002-6	Electrolytes, Serum	A22
0009-1	Lipid Panel	A36
0021-6	Citrate, 24Hr. Urine	A16
0025-7	Alpha Fetoprotein, Tumor Marker (AFP)	A5
0038-0	Antinuclear Antibody (ANA)	A8
0041-4	Anti-Thyroglobulin Antibody (ATA)	A8
0042-2	Antistreptolysin O (ASO) Titer	A8
0053-9	CBC w/Diff, Platelet Ct.	A15
0055-4	Carcinoembryonic Antigen (CEA)	A15
0064-6	Coombs Test, Direct	A18
0072-9	Creatinine Clearance, Urine, 24 Hours	A19
0079-4	Strep Screen, Group A, Beta-Hemolytic	A49
0080-2	Culture, Urine	A19
0082-8	Culture, Wound, Aerobic Only	A19
0085-1	Protein Electrophoresis, Serum (SPEP)	A48
0086-9	Sedimentation Rate, Erythrocyte (ESR)	A18
0086-9	Comprehensive Urine Pathology- TC Only	A18
0088-5	Ferritin, Serum	A26
0090-1	Folate, Serum	A27
0092-7	Follicle Stimulating Hormone (FSH)	A27
0102-4	Hemoglobin A1C	A29
0117-2	Lactate Dehydrogenase (LDH), Serum	A36
0141-2	Reticulocyte Count	A48
0150-3	T3, Total	A50
0151-1	Thyroxine (T4), Serum	A50
0152-9	T3 Uptake, Serum (T3U)	A49
0153-7	Thyroid Stimulating Hormone (TSH)	A50
0158-6	Uric Acid, Urine, 24 Hours	A51
0159-4	Urinalysis, Routine	A51
0160-2	Vitamin B12, Serum	A52
0183-4	Erythropoietin, Serum	A26
0190-9	Prostate Specific Antigen (PSA)	A47
0216-2	Hemoglobin Fractionation, HPLC	A29
0234-5	EBV Capsid Ab, IgG	A21
0250-1	Iron + TIBC	A34
0262-6	Beta-2-Microglobulin, Serum	A11
0286-5	Vitamin D, 25-Hydroxy, Serum	A52
0341-8	Culture, Blood	A19
0342-6	Luteinizing Hormone (LH)	A37
0359-0	Calcium, Urine, 24 Hours	A14
0360-8	HIV-1/HIV-2 Antibody Screen	A32
0375-6	HLA-B27	A32
0400-2	Cytomegalovirus (CMV) Antibody, IgG	A20
0404-4	Electrophoresis, Urine Protein (UPEP)	A22
0411-9	Phosphates, Urine, 24 Hours	A46
0413-5	Immunofixation, Serum	A33
0461-4	Cytomegalovirus (CMV) Antibody, IgM	A20
0514-0	Haptoglobin, Serum	A28
0516-5	Estradiol, Serum	A26
0520-7	Immunoglobulins, Serum	A34
0532-2	Complement C3, Serum	A17
0533-0	Complement C4, Serum	A17
0535-5	CA 19-9, Serum	A14
0536-3	CA 125, Serum	A14
0562-9	Estrogen, Total, Serum	A26
0568-6	Lyme Disease Antibody, Serum	A37

## By Test Code

<b>Test Code</b>	<b>Test Name</b>	<b>Page</b>
0580-1	EBV Capsid Ab, IgM	A21
0582-7	EBV, Early Antigen Ab	A21
0583-5	EBV, Nuclear Antigen Ab, IgG	A21
0796-3	Rheumatoid Arthritis (RA) Factor	A48
0823-5	CA 27.29, Serum	A14
0900-1	Cortisol, Serum, Random	A18
1201-3	Human Chorionic Gonadotropin (HCG), Quantitative, Tumor Marker	A33
1644-4	Immunofixation, Urine, Random	A34
1754-1	Beta-2-Microglobulin, Urine, Random	A11
1765-7	Helicobacter pylori, IgG	A29
1766-5	Helicobacter pylori, IgA	A28
2088-3	Prostate Specific Antigen (PSA), Free and Total, Serum	A47
2130-3	CA 15-3, Serum	A14
2194-9	Low-density lipoprotein (LDL) Direct	A36
2665-8	Chlamydia trachomatis (CT), Urine, Probetec	A15
2666-6	Gonorrhea (GC), Urine, Probetec	A28
3283-9	Acute Hepatitis Panel for Medicare	A3
3320-9	C-Reactive Protein (hs-CRP), High Sensitivity	A13
3371-2	Microsatellite Instability (MSI-H) by PCR	A40
3412-4	HPV High/Low Risk by ISH	A33
3420-7	Hereditary Hemochromatosis (HFE): C282Y, H63D, S65C	A31
3422-3	Hepatic Function Panel	A29
3427-2	Comprehensive Metabolic Panel (CMP)	A18
3893-5	Free Kappa & Lambda Light Chain (serum)	A27
5024-5	AML - M2 (AML/ETO) (RUNX1/RUNX1T1) by FISH	A5
5025-2	AML - M4Eo inv(16) by FISH	A6
5026-0	BCL1/IGH (CCND1/IGH) by FISH	A9
5027-8	MYC/IGH by FISH	A42
5028-6	BCL6 by FISH	A10
5030-2	Automated UroVysion By FISH	A8
5031-0	TCR gamma by PCR	A50
5032-8	B-Cell, IGH by FISH	A8
5034-4	AML - M2 (AML/ETO) (RUNX1/RUNX1T1) by RT-PCR	A5
5035-1	AML - M4Eo inv(16) by PCR	A7
5038-5	TEL/AML1: t(12;21) by FISH	A50
5066-6	X/Y Bone Marrow Transplant Monitoring	A53
5080-7	IgH/TCR-GAMMA by PCR	A33
5097-1	Prostate Triple Stain	A47
5101-1	Hodgkin Lymphoma IHC Panel	A32
5103-7	Reactive Hyperplasia vs. Lymphoma (NHL) IHC Panel	A48
5104-5	Prostate Triple Stain- TC Only	A47
5106-0	Pathology Peripheral Smear Review	A45
5108-6	AE1/AE3- TC Only	A4
5110-2	ZAP-70- TC Only	A53
5111-0	Pathology Slide Consultation	A45
5116-9	Acute Leukemia/MDS IHC Panel	A3
5118-5	Breast Carcinoma, Marrow, IHC Micromets	A13
5122-7	Prostate Cancer/ Lymph Nodes	A47
5124-3	Metastatic Carcinoma (Breast, Colon) - Lymph Node	A39
5126-8	Metastatic Melanoma - Lymph Node	A40
5127-6	ER / PR / HER2- TC Only	A24
5129-2	ER / PR / Ki-67- TC Only, plus DNA- Global	A25
5131-8	ER / PR / Ki-67 / HER2 (Tech Only), plus DNA (Global)	A23
5152-4	Ki-67 by IHC	A34
5153-2	p53 by IHC	A44
5155-7	Minimal Residual Disease for CLL/SLL	A40

## By Test Code

Test Code	Test Name	Page
5157-3	JAK2 V617F	A34
5160-7	ER / PR / DNA / Ki-67 - w/Interpretation	A22
5161-5	ER / PR / HER2 - w/Interpretation	A24
5162-3	ER / PR / DNA / Ki-67 / HER2 - w/Interpretation	A23
5163-1	ER / PR / Ki-67/ HER2 - w/Interpretation	A23
5170-6	Breast Carcinoma/Lymph Nodes/MM Metastasis	A13
5171-4	HER2 by IHC	A30
5175-5	GIST Profile	A28
5176-3	Breast Carcinoma, rule out Microinvasion	A13
5177-1	Small Round Cell Tumor IHC Panel	A49
5178-9	FLT3 Mutation Analysis	A27
5179-7	KIT (D816V) by PCR	A35
5181-3	Adenocarcinoma vs. Mesothelioma IHC Panel	A3
5182-1	PDGFR alpha/FIP1L1 by FISH	A46
5183-9	UGT1A1 Mutation Analysis	A51
5185-4	PNH- TC Only	A47
5190-4	Tumor of Unknown Primary IHC Panel	A51
5191-2	Spindle Cell Neoplasm IHC Panel	A49
5193-8	Hepatocellular vs. Cholangiocarcinoma vs. Metastasis IHC Panel	A30
5194-6	Germ Cell Tumor IHC Panel	A28
5195-3	Neuroendocrine Neoplasm IHC Panel	A43
5198-7	ER / PR - w/Interpretation	A22
5199-5	Bone Marrow Morphology	A11
5200-1	Bone Marrow Morphology - Core Only	A12
5202-7	Bone Marrow Morphology - Clot Only	A12
5207-6	Bone Marrow Slide Consult	A12
5211-8	Bone Marrow Morphology - Smears	A12
5218-3	Urine Cytology- TC Only	A52
5219-1	PDGFRbeta/TEL	A46
5223-3	IgVH Mutation Analysis	A33
5249-8	UroVysion- TC Only	A52
5250-6	Chromosome Analysis	A15
5254-8	Urine Cytopathology, Global	A52
5256-3	Comprehensive Slide Consult	A18
5259-7	HER2 FISH- TC Only	A31
5260-5	AML - M3 (PML/RARA) by FISH	A6
5261-3	AML - M3 (PML/RARA) by RT-PCR	A6
5262-1	HER2 by FISH	A30
5265-4	BCR/ABL: t(9;22) by FISH	A11
5269-6	AML: NPM1 Mutation Analysis	A7
5270-4	BCL2/IGH by FISH	A9
5271-2	BCL2/IGH by PCR	A10
5272-0	MPL515	A41
5273-8	BCL1, BCL2, BCL6 (FISH Panel)	A9
5278-7	B-Cell, IGH by PCR	A9
5280-3	CLL FISH Panel	A16
5281-1	MDS FISH Panel	A38
5282-9	Multiple Myeloma FISH Panel	A41
5285-2	Bone Marrow Smear Interpretation	A12
5287-8	CYP2D6: Tamoxifen Resistance (non-NY only)	A20
5288-6	KRAS	A35
5295-1	EGFR by PCR	A21
5296-9	CYP2D6 (NY Only): Tamoxifen Resistance	A19
5306-6	GenArray Molecular Karyotyping	A27
5307-4	JAK2 Exon 12	A34
5324-9	Comprehensive Urine Pathology	A18

### By Test Code

Test Code	Test Name	Page
5404-9	CK-903- TC Only	A16
5405-6	HER2 by IHC- TC Only	A31
5406-4	ER / PR / HER2 - Reflex to HER2 by FISH	A24
5407-2	ER / PR / Ki-67 / HER2 - Reflex to HER2 by FISH	A24
5408-0	ER / PR / DNA / Ki-67 / HER2 - Reflex to HER2 by FISH	A23
5409-8	ZAP-70 by Flow Cytometry	A53
5425-4	ER / PR- TC Only	A25
5427-0	AML - M4 & M5 by FISH	A6
5428-8	HER2 by IHC - Reflex +2 to HER2 by FISH	A31
5433-8	ER / PR / Ki-67 / HER2- TC Only	A23
5434-6	CK-903 for Prostate Cancer	A16
5500-4	OneCheck Hematopathology	A43
5515-2	Acute Leukemia & Myeloid Disorders Analysis	A3
5516-0	Acute Leukemia & Myeloid Disorders Analysis- TC Only	A3
5535-0	Lymphoproliferative Disorder Analysis	A38
5536-8	Lymphoproliferative Disorder Analysis (Technical Only)	A38
5555-8	DNA Ploidy for Molar Pregnancy	A20
5564-0	Paroxysmal Nocturnal Hemoglobinuria (PNH) Test	A45
5573-1	Plasma Cell Analysis	A46
5574-9	Plasma Cell Analysis - TC Only	A46
5575-6	DNA Ploidy/S-Phase by Flow Cytometry	A20
5579-8	Multiple Myeloma IHC Panel	A42
5726-5	Factor V Mutation (Leiden)	A26
5727-3	Factor V (R2) Polymorphism	A26
5764-6	MTHFR C677T Gene Mutation	A41
5765-3	MTHFR A1298C	A41
5795-0	Prothrombin G20210A Mutation	A48
5847-9	CYP2C19 Pharmacogenomic (Plavix)	A19
5858-6	BCR/ABL Quantification by RT-PCR	A11
5891-7	KRAS if Negative Reflex to BRAF	A35
5893-3	BRAF V600E	A12
5988-1	AML Prognostic Panel: FLT3 & NPM1	A7
6237-2	Circulating Tumor Cells (CTC)	A15
6261-2	Warfarin Sensitivity	A52
6274-5	Non-Automated UroVysion	A43
6285-1	DPD 5-FU Genotype	A20
6290-1	CML: ABL Kinase Mutation Analysis	A17
7736-2	Helicobacter pylori, IgM	A29
8689-2	HPV High by ISH- TC Only	A32
8696-7	HPV High/Low by ISH- TC Only	A32
8714-8	HPV High by ISH	A32
8860-9	AML - CEBPA Mutational Analysis	A5
A130-7	Lung Histology IHC Panel	A37
A241-2	ALK by FISH (FDA)	A4
A276-8	ER / PR / Ki67 / p53 / HER2 FISH -TC Only plus DNA- Global	A25
A277-6	ER / PR / HER2 FISH- TC Only	A24
A278-4	ER / PR / Ki-67 / p53 / HER2 FISH- TC Only	A24
A300-6	ERCC1	A25
A311-3	1p/19q by FISH	A2
A313-9	MLH1 Promoter Hypermethylation	A41
A344-4	KIT/PDGFRA for GIST by PCR	A35
A346-9	Ki-67 by IHC- TC Only	A35
A347-7	p53 by IHC- TC Only	A45
A427-7	HER2 by FISH - Gastric/GEJ	A30
A428-5	HER2 by FISH for Gastric/GEJ- TC Only	A30
A430-1	PDGFR alpha	A45

## By Test Code

Test Code	Test Name	Page
A500-1	OneCheck Plus GenArray	A43
A566-2	BRAF V600E (FDA)	A13
A612-4	MET by IHC	A39
A635-5	OnkoMatch Tumor Genotyping	A44
A642-1	OnkoMatch Tumor Genotyping + for Lung	A44
A675-1	EGFR by PCR if neg. reflex to ALK	A21
A703-1	ALK by FISH	A4
A868-2	-7/7q- by FISH- TC Only	A1
A869-0	-5/5q- by FISH- TC Only	A1
A870-8	Trisomy 8 By FISH-TC Only	A51
A871-6	20q12 by FISH- TC Only	A2
A872-4	13q14 by FISH- TC Only	A1
A873-2	BCL1/IGH (CCND1/IGH) by FISH-TC Only	A9
A874-0	17p13 by FISH- TC Only	A2
A875-7	t(4;14) by FISH-TC Only	A49
A876-5	1q21 by FISH- TC Only	A2
A877-3	Trisomy 12 by FISH-TC Only	A51
A878-1	13q14.3 by FISH- TC Only	A2
A879-9	11q22.3 by FISH- TC Only	A1
A880-7	BCR/ABL by FISH-TC Only	A10
A881-5	AML-M3(PML/RARA) by FISH- TC Only	A7
A943-3	Mismatch Repair Protein (MMR) for Lynch Syndrome by IHC	A40
A944-1	Mismatch Repair Protein (MMR) for Lynch Syndrome by IHC- TC Only	A40
A951-6	ER / PR / Ki-67 / HER2 / p53, TC Only	A25
A952-4	Breast Carcinoma, rule out Microinvasion- TC Only	A13
A972-2	HER2 by IHC in Gastric/Gastroesophageal Carcinoma	A31
B236-1	ALK by FISH- TC Only	A4
B271-8	Myeloid and Lymphoid Short Panel	A43
B334-4	ROS1 by FISH	A48
B335-1	MET by FISH	A39
B336-9	MET by FISH - TC Only	A39
B338-5	Myeloid & Lymphoid Analysis (Short Panel) - TC Only	A42
B348-4	BCL6: 3q27 by FISH- TC Only	A10
B349-2	MYC/IGH: t(8;14) by FISH- TC Only	A42
B350-0	BCL2/IGH: t(14;18) by FISH- TC Only	A10
B365-8	Colon Reflex Dx	A17
B366-6	Lynch Syndrome Reflex Screening	A38
B367-4	Lung Adeno Reflex Dx	A36
B368-2	Lung Profile: KRAS, EGFR, EML4-ALK, ROS1	A37
B369-0	Lung Adenocarcinoma Targeted Therapy Profile	A37
B565-3	EML4-ALK by IHC	A22
B603-2	ALK by IHC - TC Only	A4
P260-3	ALL Prognosis Panel by FISH	A5
P261-1	AML Diagnostic Panel by FISH	A7
P263-7	Lung Adeno Reflex Panel: EGFR --> KRAS--> ALK	A36
P264-5	Colon DNA Mismatch Repair Reflex	A17
P960-8	MDS FISH Panel- TC Only	A39
P961-6	Multiple Myeloma FISH Panel-TC Only	A42
P962-4	CLL FISH Panel- TC Only	A16
Q429-3	OnkoMatch + for Lung, if ALK negative reflex to ROS1	A44



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