

### Catecholamines, Fractionated, 24-Hour Urine

Order Name: **CAT FRAC U**Test Number: 3808550

TEST COMPONENTS	REV DATE:6/6/2011	
Test Name:	Methodology:	
Catecholamines, Fractionated, 24-Hour Urine	HPLC	

SPECIMEN REQIREMENTS					
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment	
Preferred Specimen:		Urine, 24-hour	24 hour Urine Container	Refrigerated	
Instructions:	Adequate refrigeration is the most important aspect of specimen preservation. Preservation can be enhanced by adjusting the pH to 2-3 by adding an acid such as 6 mol/L HCl. Catecholamines are not stable above pH 7. The pH of such specimens must be adjusted by the addition of acid prior to transport. A pH less than 2 can cause assay interference. Mark collection duration and total volume on transport tube and test request form.  Stability: Ambient= N/A; Refrigerated= 1 month; Frozen= 6 months.  Dietary Instructions: Patient should avoid alcohol, coffee, tea, tobacco and strenuous exercise prior to collection.				

#### **GENERAL INFORMATION**

**Testing Schedule:** Sun-Sat **Expected TAT:** 2-3 Days

Clinical Use: This test includes: Dopamine, Epinephrine and Norepinephrine.

Notes: It is preferable for the patient to be off medications for three days prior to collection. However, common

antihypertensives (diuretics, ACE inhibitors, calcium channel blockers, alpha and beta blockers) cause minimal or

no interference. The physician may want to take this into consideration when interpreting the results.



### Chlamydia pneumoniae Culture

Order Name: **C CHLAM PN**Test Number: 6000225

TEST COMPONENTS		REV DATE:6/14/2011
Test Name:	Methodology:	
Chlamydia pneumoniae Culture	Cult	

SPECIMEN REQIREMENTS					
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment	
Preferred Specimen:	5mL (2mL)	Respiratory specimen	Universal Transport Media (UTM)	Refrigerated	
Alternate Specimen:	5mL (2mL)	See Instructions	Viral Transport Media (VTM)	Refrigerated	
-	Please Indicate Source on the Specimen! Specimen: Nasopharyngeal aspirate, bronchoalveolar lavage (BAL), or throat swab refrigerated in UTM culture media immediately. Stability: Ambient: 1 hour; Refrigerated: 2 days; Frozen: Unacceptable. Unacceptable Conditions: Samples not in UTM or Viral culture media. Dry swabs, wood swabs, and calcium alginate swabs.				

#### **GENERAL INFORMATION**

**Testing Schedule:** Sun-Sat **Expected TAT:** 7-9 days

Notes: Due to short refrigerated stability, please send in samples ASAP!

**Cpt Code(s):** 87110; 87140



### Chlamydia trachomatis Culture

Order Name: **C CHLAM TR**Test Number: 6000575

TEST COMPONENTS		REV DATE:6/14/2011
Test Name:	Methodology:	
Chlamydia trachomatis Culture	Cult	

SPECIMEN REQIREMENTS					
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment	
Preferred Specimen:	5mL (2mL)	See Instructions	Universal Transport Media (UTM)	Refrigerated	
Alternate Specimen:	5mL (2mL)	See Instructions	Viral Transport Media (VTM)	Refrigerated	
-	Please Indicate Source on the Specimen!  Specimen: Cervical, urethral, rectal, or eye swab. Preserve specimen refrigerated in Universal Transport Media (UTM) immediately.  Note: Pediatric, newborns specimens: nasopharyngeal aspirate/washing/swab Preserved refrigerated in UTM.  Stability: Ambient: 1 hour; Refrigerated: 2 days; Frozen: Unacceptable  Unacceptable Conditions: Urine. Samples not collected in UTM media. Dry swabs, wood swabs, and calcium alginate swabs.				

### **GENERAL INFORMATION**

**Testing Schedule:** Sun-Sat **Expected TAT:** 3-4 days

Notes: Due to short refrigerated stability, please send in samples ASAP!

**Cpt Code(s):** 87110; 87140



### Chromosome Analysis - Lymph Node or Solid Tissue

Order Name: CHROMO LYM

Test Number: 114150

TEST COMPONENTS		REV DATE:6/13/2011
Test Name:	Methodology:	
Chromosome Analysis - Lymph Node or Solid Tissue	Karyotype	

SPECIMEN REQIRE	SPECIMEN REQIREMENTS					
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment		
Preferred Specimen:		Tissue	RPMI Solution	Refrigerated		
Instructions:	At least 5x5 mm section of viable tissue submitted in RPMI with antibiotics or sterile Ringer's solution using a sterile container. Please send <b>Refrigerated (DO NOT FREEZE)</b> . Frozen samples will be rejected. Specifically label the container to be used for cytogenetic testing, indicating the patient name, that it is for cytogenetic testing, and the date that it was acquired.					

#### **GENERAL INFORMATION**

Testing Schedule: Daily

Expected TAT: 4-5 Days

Clinical Use: Performed on tissue biopsy from lymph node and other solid tissues, a cell culture and karyotype is used to

identify chromosomal abnormalities in suspected lymphoma.

**Cpt Code(s):** 88237; 88264; 88291



# **Chromosome Analysis - Solid Tumor** (Non-Lymphoma)

Order Name: CHROMO ST

Test Number: 116125

TEST COMPONENTS		REV DATE:6/13/2011
Test Name:	Methodology:	
Chromosome Analysis - Solid Tumor (Non-Lymphoma)	Karyotype	

SPECIMEN REQIREMENTS				
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen:		Tissue	RPMI Solution	Refrigerated
	At least 5x5 mm section of viable tissue submitted in RPMI with antibiotics or sterile Ringer's solution using a sterile container. Please send <b>Refrigerated (DO NOT FREEZE)</b> . Frozen samples will be rejected. Specifically label the container to be used for cytogenetic testing, indicating the patient name, that it is for cytogenetic testing, and the date that it was acquired.			

#### **GENERAL INFORMATION**

Testing Schedule: Daily

**Expected TAT:** 4-5 Days

Clinical Use: Performed on tissue biopsy. A cell culture and karyotype is used to identify chromosomal abnormalities for

Non-lymphoma cases.

**Cpt Code(s):** 88239; 88264; 88291



### Chromosome Analysis, Hematologic Malignancy

Order Name: **CHROMO HM**Test Number: 113150

TEST COMPONENTS		REV DATE:6/22/2011
Test Name:	Methodology:	
Chromosome Analysis, Hematologic Malignancy	Karyotype	

SPECIMEN REQIREMENTS					
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment	
Preferred Specimen:	3 mL (1.5)	<b>Bone Marrow</b>	Sodium Heparin (Green Top)	Room Temperature	
Alternate Specimen:	3 mL (1.5)	Whole Blood	Sodium Heparin (Green Top)	Room Temperature	
Special Instructions:	Bone marrow 1-3 mL or whole blood 5-10 mL in Sodium Heparin Dark Green tube.				

#### **GENERAL INFORMATION**

Testing Schedule: Mon - Sun

**Expected TAT:** 8-12 Days

Clinical Use: This is a bone marrow or peripheral blood chromosome analysis to aid in the identification leukemia.

**Notes:** For more information on this test, access our "Specialized Tests" section.

**Cpt Code(s):** 88237; 88264; 88291



# Cortisol, Free, 24-Hour Urine

Order Name: **CORT FR U** Test Number: 3602275

TEST COMPONENTS		REV DATE:6/7/2011
Test Name:	Methodology:	
Cortisol, Free, 24-Hour Urine	TMS	

SPECIMEN REQIREMENTS					
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment	
Preferred Specimen:	· ,	Urine, 24-hour	24 hour Urine Container	Refrigerated	
Alternate Specimen:	` '	Urine, Random	Sterile Urine container	Refrigerated	
Special Do Not Use Acid for Preservative!  Instructions: Adequate refrigeration is the most important aspect of specimen preservation. Mark collection duration and total volume on transport tube and test request form. Stability: Ambient= Unacceptable; Refrigerated= 2 weeks; Frozen= 6 months.					

### **GENERAL INFORMATION**

Testing Schedule: Sun-Sat

Expected TAT: 2-3 Days



### Gabapentin, Plasma

Order Name: GABAPENTIN

Test Number: 3658100

TEST COMPONENTS		REV DATE:6/7/2011
Test Name:	Methodology:	
Gabapentin, Plasma	HPLC	

SPECIMEN REQIREMENTS				
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen:	2mL (1.5)	Plasma	EDTA (Lavender Top)	Room Temperature
Alternate Specimen:	2mL (1.5)	Serum	Clot Activator (Red Top, No-Gel)	Room Temperature
	Collect two hours after last dose at a steady state. (Pediatric Collection: 0. 7 mL)  Stability after separation from cells: Ambient= 5 weeks, Refrigerated= 6 weeks, Frozen= 2 months. Avoid use of separator tubes and gels.			

### **GENERAL INFORMATION**

Testing Schedule: Sun-Sat

Expected TAT: 2-5 Days



### Histone Antibodies

Order Name: **HISTONE AB** 

Test Number: 5564350

TEST COMPONENTS		REV DATE:6/7/2011
Test Name:	Methodology:	
Histone Antibodies	ELISA	

SPECIMEN REQIREMENTS				
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen:	1 mL (0.5)	Serum	Clot Activator SST (Red/Gray or Tiger Top)	Refrigerated
	[Pediatric minimum (0. 3mL) No repeats] Unacceptable: Plasma, Urine, Severely lipemic, Icteric, bacterially contaminated, or hemolyzed specimens. Stability after separation from cells: Ambient= 2 days, Refrigerated= 2 weeks, Frozen= 1 year (avoid repeated freeze/thaw cycles).			

### **GENERAL INFORMATION**

Testing Schedule: Mon, Wed-Sat

**Expected TAT:** 3-6 Days

Clinical Use: Histone Antibody is present in 80-95% of patients with drug-induced systemic lupus erythematosus (SLE),

20-50% of patients with idiopathic SLE, and infrequently in patients with other autoimmune connective tissue

diseases.



### Immune Cell Function Assay (ImmuKnow®)

Order Name: **IMMUKNOW** Test Number: 5501275

TEST COMPONENTS		REV DATE:6/2/2011
Test Name:	Methodology:	
Immune Cell Function Assay (ImmuKnow®)	CIA	

SPECIMEN REQIRE	MENTS			
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen:	3mL (0.5)	Whole Blood	Sodium Heparin (Green Top)	Room Temperature
	Special Instructions:  Collect Monday - Thursday Only!LIVE LYMPHOCYTES REQUIRED.  Keep Room Temperature Do not refrigerate or freeze.  The specimen must reach our reference testing laboratory within 30 hours of collection.  Specimens must be collected and sent to RML main lab before 3pm the same day of collection.  For Collection Outside the Tulsa Area- Please make arrangements before collection to insure the specimen can be transported to RML Main Laboratory for processing to send specimen to the performing laboratory the SAME DAY of Collection.  Call the RML Main Lab Processing to let them know when a Specimen is on the way (918) 744-3131 x17398.			

	INFO	

**Testing Schedule:** Mon-Sat **Expected TAT:** 2-3 Days

Clinical Use: This is an immune cell function assay that looks for levels of cell-mediated immunity in an immunosuppressed

patient.

Notes: Test Methodology: Cell Culture/Chemiluminescence



### Lymphocyte Proliferation to Antigens

Order Name: LYM AG PRO

Test Number: 5600570

TEST COMPONENTS		REV DATE:6/6/2011
Test Name:	Methodology:	
Lymphocyte Proliferation to Antigens	Cult	

SPECIMEN REQIREMENTS				
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen:	10 mL (5.0)	Whole Blood	Sodium Heparin (Green Top)	Room Temperature
Special Collect Monday-Wednesday only, No weekends or Holidays - Before Collection Call RML Processing at The Instructions: 744-3131 x17398.			RML Processing at	

Patient Specimen: 10 mL (5. 0) Whole Blood from Sodium Heparin (Green Top) Non-Gel tubes. Keep Room Temperature! The Specimen Must Reach RML Main Lab by 3:30pm Same Day of collection so it can be sent to testing laboratory within 30hrs. of collection.

**Control Specimen:** Please collect a separate Sodium Heparin tube from a non-related healthy individual clearly marked as Control. This is to used to detect any reduced immune response caused during shipment of the patient sample.

#### **GENERAL INFORMATION**

**Testing Schedule:** Mon -Thurs. **Expected TAT:** 12-14 Days

**Clinical Use:** Testing Immunocompetency by stimulation from Candida and Tetanus Antigens.

**Cpt Code(s):** 86353x2



### Lymphocyte Proliferation to Mitogens (Blastogenesis)

Order Name: **LYM MIT PR** Test Number: 5500565

TEST COMPONENTS		REV DATE:6/6/2011
Test Name:	Methodology:	
Lymphocyte Proliferation to Mitogens (Blastogenesis)	Cult	

SPECIMEN REQIREMENTS				
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen	10 mL (5.0)	Whole Blood	Sodium Heparin (Green Top)	Room Temperature
Specia	Collect Monday	-Wednesday only. No	weekends or Holidays - Before Collection Call R	RMI Processing at

**Special Collect Monday-Wednesday only, No weekends or Holidays -** Before Collection Call RML Processing at **Instructions:** 744-3131 x17398.

Patient Specimen: 10 mL (5. 0) Whole Blood from Sodium Heparin (Green Top) Non-Gel tubes. Keep Room Temperature! The Specimen Must Reach RML Main Lab by 3:30pm Same Day of collection so it can be sent to testing laboratory within 30hrs. of collection.

**Control Specimen:** Please collect a separate Sodium Heparin tube from a non-related healthy individual clearly marked as Control. This is to used to detect any reduced immune response caused during shipment of the patient sample.

#### **GENERAL INFORMATION**

**Testing Schedule:** Mon - Thurs. **Expected TAT:** 12-14 Days

**Clinical Use:** Testing Immunocompetency by stimulation from PHA, ConA and PWM mitogens.

**Cpt Code(s):** 86353x3



### Lymphocyte Proliferation, Antigens & Mitogens

Order Name: LYM AG/MIT Test Number: 5600590

TEST COMPONENTS	REV DATE:6/6/2011	
Test Name:	Methodology:	
Lymphocyte Proliferation, Antigens & Mitogens	Cult	

SPECIMEN REQIREMENTS				
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen:	10 mL (5.0)	Whole Blood	Sodium Heparin (Green Top)	Room Temperature
Special	Collect Monday-	Wednesday only, No	weekends or Holidays - Before Collection Call R	RML Processing at

**Special Collect Monday-Wednesday only, No weekends or Holidays -** Before Collection Call RML Processing at **Instructions:** 744-3131 x17398.

Patient Specimen: 10 mL (5. 0) Whole Blood from Sodium Heparin (Green Top) Non-Gel tubes. Keep Room Temperature! The Specimen Must Reach RML Main Lab by 3:30pm Same Day of collection so it can be sent to testing laboratory within 30hrs. of collection.

**Control Specimen:** Please collect a separate Sodium Heparin tube from a non-related healthy individual clearly marked as Control. This is to used to detect any reduced immune response caused during shipment of the patient sample.

#### **GENERAL INFORMATION**

**Testing Schedule:** Mon - Thurs. **Expected TAT:** 12-14 Days

Clinical Use: Testing Immunocompetency by stimulation from PHA, ConA adn PWM Mitogens, also Candida and Tetanus

Antigens.

**Cpt Code(s):** 86353x5



### Metanephrines, Urine 24-Hour

Order Name: METANEPH U

Test Number: 3800350

TEST COMPONENTS		REV DATE:6/7/2011
Test Name:	Methodology:	
Metanephrines, Urine 24-Hour	GC/MS	

SPECIMEN REQIREMENTS					
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment	
Preferred Specimen:	5 mL (1.5)	Urine, 24-hour	24 hour Urine Container	Refrigerated	
	Adequate refrigeration is the most important aspect of specimen preservation. Preservation can be helped by adding 25mL 6N HCL. A pH lower than 2 may cause assay interference. Mark collection duration and total volume on transport tube and test request form. Stability: Ambient= Unacceptable; Refrigerated= 2 weeks; Frozen= 1 month.				

#### **GENERAL INFORMATION**

**Testing Schedule:** Sun-Sat **Expected TAT:** 2-4 Days

Clinical Use: The diagnosis of pheochromocytoma can be confirmed by increased levels of the catecholamine metabolites,

metanephrines, and vanillylmandelic acid (VMA). Urinary metanephrine determinations have been recommended

as the most accurate screening method for patients suspected of having pheochromocytoma.

 $\textbf{Notes:} \ \ \textbf{Test reports Metanephrine, Normetanephrine and Interpretation.}$ 



## Methylmalonic Acid

Order Name: METHYLMA S

Test Number: 2051075

TEST COMPONENTS		REV DATE:6/7/2011
Test Name:	Methodology:	
Methylmalonic Acid	TMS	

SPECIMEN REQIREMENTS				
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen:	3 mL (1.5)	Serum	Clot Activator SST (Red/Gray or Tiger Top)	Frozen
Alternate Specimen:	3 mL (1.5)	Plasma	EDTA (Lavender Top)	Frozen
Special Allow serum to clot then centrifuge and remove serum or plasma from cells within 2 hours of collection.  Instructions: Stability: After separation from cells: Ambient: Unacceptable; Refrigerated: 4 days; Frozen: 1 month. Unacceptable Specimens: Grossly hemolyzed or lipemic specimens.				

### **GENERAL INFORMATION**

**Testing Schedule:** Sun-Sat **Expected TAT:** 2-3 Days

**Notes:** For more information on this test, access our "Specialized Tests" section.



### Porphobilinogen, Quantitative, 24-Hour Urine

Order Name: **PBG QN U**Test Number: 3001210

TEST COMPONENTS		REV DATE:6/20/2011
Test Name:	Methodology:	
Porphobilinogen, Quantitative, 24-Hour Urine	COLO	

SPECIMEN REQIREMENTS					
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment	
Preferred Specimen:	10 mL (2)	Urine, 24-hour	24 hour Urine Container	Refrigerated	
Special Do Not Use Acid for Preservative. Keep collection jug refrigerate during and after collection. 24-hour tot volume must be provided on the test request form. Wrap tube in aluminum foil or use amber tube to protect from light.  If needed the jug can be alkalinized with sodium carbonate (5g Na2CO3) to a pH of 6-7.					

#### **GENERAL INFORMATION**

Testing Schedule: Mon - Fri
Expected TAT: 3-4 Days

Clinical Use: Urinary Porphobilinogen is the first step in the diagnosis of acute intermittent prophyria (AIP). AIP is an

autosomal dominant disorder characterized by deficiency of porphobilinogen deaminase. An acute attack usually

includes gastrointestinal disturbance and neuropsychiatric disorders.



### Vasoactive Intestinal Polypeptide (VIP)

Order Name: **VAS PEPTI**Test Number: 3703800

TEST COMPONENTS	REV DATE:6/8/2011	
Test Name:	Methodology:	
Vasoactive Intestinal Polypeptide (VIP)	RIA	

SPECIMEN REQIREMENTS					
		Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
	Preferred Specimen:	3 mL (1.1)	Plasma	EDTA (Lavender Top)	Frozen
	Special Instructions: Immediately centrifuge, separate plasma from cells and freeze ASAP! Unacceptable Conditions: Nonfrozen or hemolyzed specimens. Stability after separation from cells: Ambient= Unacceptable, Refrigerated= 7 days, Frozen= 28 days.				

#### **GENERAL INFORMATION**

**Testing Schedule:** Tue, Fri **Expected TAT:** 5-8 Days

Clinical Use: VIP is a neurotransmitter. VIP-secreting tumors, most commonly found in the tail of the pancreas, can cause

secretory diarrhea. In children, the tumors are ganglioneuromas or ganglioneuroblastomas and commonly occur

in the adrenal glands.



> Vitamin K

Order Name:  ${f VITAMIN}\ {f K}$ 

Test Number: 3603630

TEST COMPONENTS		REV DATE:6/8/2011
Test Name:	Methodology:	
Vitamin K	HPLC	

SPECIMEN REQIREMENTS				
	Specimen Volume(min)	Specimen Type	Specimen Container	Transport Environment
Preferred Specimen:	3 mL (1.2)	Serum	Clot Activator SST (Red/Gray or Tiger Top)	Frozen
Alternate Specimen:	3 mL (1.2)	Plasma	EDTA (Lavender Top)	Frozen
	Draw specimen following an overnight (12-hour) fast. Patient should not consume alcohol for one day prior to blood draw. Avoid hemolysis. <b>Protect from light during collection, storage, and shipment</b> Separate specimens must be submitted when multiple tests are ordered.  Stability: After separation from cells: Ambient: Unacceptable; Refrigerated: 1 month; Frozen: 6 months.			

#### **GENERAL INFORMATION**

Testing Schedule: Sun, Tue-Sat

Expected TAT: 3-6 Days

Cpt Code(s): 84597