

# Analytes offered by the Alabama Department of Public Health - Bureau of Clinical Laboratories

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Abrine	CT- Lead	All providers	Urine, 5ml	HGR, or RFLT (ADPH Website)	Urine collection.	Store and ship at ≤-20°C	None	LC/MS/MS	1-2 working days	Biological Substance, Category B	P
Aerobic & Anaerobic Bacteria ID	Micro-Conventional	All providers	Call BCL Micro-Reference Bacteriology	HGR, or RFLT (ADPH Website)	Blood - Venipuncture procedure CSF (see physician) Urine - Urine collection procedure Wounds - Sterile swab	After isolating for pure culture & 24 hrs incubation, ship immediately. If unable to ship, refrigerate at 2-8°C.	None	Conventional tube media	7-14 days	Biological Substance Category B or Infectious Substance Category A	P
Alanine Amino-Transferase (ALT, SGPT)	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Albumin	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Alkaline Phosphatase, Serum	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Amoebae	Micro-Conventional	All providers	See Intestinal Parasite Procedures	Intestinal Parasite (IP) Kit F308 HGR, or RFLT (ADPH Website)	See Stool Collection Procedure/Instructions on back of CL-397	Room temp; refrigerate if a delay in shipping	Send both stool collection vials (formalin & PVA)	Formalin, PVA & acid fast	3-5 working days	Biological Substance, Category B	P
Amylase	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Arbovirus (Dengue, Chikungunya, Zika)	Micro-EID	All providers: requires prior consultation with ID&O before submission	<ul style="list-style-type: none"> <li>• Serum 2-3ml</li> <li>• Urine 2-3ml (for Zika only, must be paired with serum)</li> <li>• Amniotic fluid (for Zika only, must be paired with serum)</li> </ul>	HGR, or RFLT (ADPH Website)	Collect whole blood in tiger-top tube. Separate serum. Collect urine in sterile container. Use provider guidance for amniotic fluid collection.	Refrigerate at 2-8°C until shipped	Requires prior consultation with ID&O before submission	PCR	2-5 working days	Biological Substance, Category B	P

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Arthropods	Micro-Conventional	All providers	Call BCL Micro-Parasitology	IP Kit CL-397 Formalin only, HGR, or RFLT (ADPH Website)	Place intact arthropod in vial containing formalin or alcohol	Send immediately	None	Microscopic exam	3-5 days	Ship at room temp	P
<i>Ascaris</i>	Micro-Conventional	All providers	See Intestinal Parasite Procedures	Intestinal Parasite Kit F308 HGR, or RFLT (ADPH Website)	See Stool Collection Procedure/Instructions on back of CL-397	Room temp; refrigerate if a delay in shipping	Send both stool collection vials (formalin & PVA)	Formalin, PVA & acid fast	3-5 working days	Biological Substance, Category B	P
Aspartate Aminotransferase (AST, SGOT)	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Aspergillus, Culture	Mycotics	See Fungus Culture									P
<i>Bacillus anthracis</i>	Micro-Conventional & EID	All providers	Call BCL Micro-Reference Bacteriology	Form CL 421, HGR, or RFLT (ADPH Website)	Blood Culture Collection  Sputum - Sputum Collection Procedure	Send immediately	Call prior to shipment	Conventional tube media and PCR	1-3 days	DANGEROUS GOODS 6.2 Infectious Substance Category A	P
Basic Metabolic Panel	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture *	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Bay Waters-Fecal Coliform	Mobile	ADPH Bureau of Environmental Services	225 ml sterile bottle	Test request/report form from Mobile lab	Water Collection	Iced & held below 10°C, but not frozen	None	Modified A-1 MPN	1-2 days	Iced; must be tested within 30 hrs of collection	M
Bicarbonate (CO <sub>2</sub> )	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Bilirubin, Total Or Direct	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	Protect specimen from light	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Bioterrorism Sample	Micro-Conventional & EID	FBI consultation required prior to submission									P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Blastomyces, Culture	Mycotics	See Fungus Culture									P
Blood Urea Nitrogen (BUN)	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
<i>Bordetella pertussis</i> , - Culture & PCR	Micro-Conventional & EID	All providers	Nasopharyngeal (NP) aspirate/ wash, 1 ml; NP swab in viral transport media	Jones-Kendrick (JK) media Regan-Lowe Media Form BCL-421 (culture) Form BCL-408 (PCR) HGR, or RFLT (ADPH Website)	Inoculate JK plate using NP swab, & streak for isolation. Incubate plate for 48 hrs in moist environment at 35°C.  See NP Aspirate & Swab Collection Instructions  Regan-Lowe Media - Push swab into media	JK plate - incubate 48 hrs prior to shipping.  Refrigerate aspirates & swab at 2-8°C. If unable to ship within 24 hrs, swab or aspirate must remain under refrigeration during storage & shipment.	Collection of specimen must adhere to instructions for proper specimen. Call Microbiology Division for collection instructions.	Culture-Conventional tube media PCR	Culture: 5-10 days PCR: 2-5 working days;	Overnight courier Mon - Thurs as a Biological Substance, Category B. Specimens collected on Fri should be stored as indicated & shipped next business day. Cultures should be transported to arrive Mon -Thurs.	P
Botulism (Culture; Food Poisoning Investigation)	Micro-Conventional	All providers: requires prior consultation with Central Office - ID&O before submission	Call the Central Office; ID&O	HGR, or RFLT (ADPH Website)	Collect specimen in original container if possible. Use sterile techniques when collecting food specimen. Place specimen in sterile container & seal so it does not leak. Place container in secondary leak-proof container.	Ship immediately (refrigerate until shipped)	Call prior to shipment	Conventional biochemicals	7-14 Days	Ship on cold packs.  Ship food separately from clinical samples.	P
Botulism (Toxicity)	Micro-EID	All providers; Requires prior consultation with Central Office - ID&O before submission	Call BCL, Micro-Emerging Infectious Diseases	HGR, or RFLT (ADPH Website)	Call Microbiology for specific collection.	Refrigerate until shipped	Call lab in advance of shipment	Mouse bioassay, PCR, and ELISA	1-3 days	Ship on cold packs. Ship food separately from clinical samples. Package & ship as an Infectious Substance, Category B	P

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<i>Brucella</i> (Culture)	Micro-Conventional & EID	All providers	Call BCL Micro-Reference Bacteriology  Whole blood or serum	HGR, or RFLT (ADPH Website)	Inoculate blood culture bottle (aerobic) with 10-20 ml of blood. Incubate at 35°C for up to 21 days before reporting negative. Culture isolates: Submit on chocolate agar slant tryptic soy agar or other suitable slant.	Ship cultures at room temp as soon as possible	Ship immediately and call prior to shipment	Conventional tube media ID	7 -10 days  PCR: 2-5 working days	DANGEROUS GOODS 6.2 Infectious Substance Category A	P
Calcium	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
<i>Campylobacter</i> (Culture; Food Poisoning Investigation)	Micro-Conventional	All providers; Food investigation by Central Office - ID&O	Pure culture (Rectal swabs placed in Cary-Blair transport media may be accepted for epidemiologic purposes. Call the BCL, Microbiology Division Bacteriology Section	HGR, or RFLT (ADPH Website)	Pure cultures should be plated & grown on appropriate media; rectal swabs must be placed in Cary-Blair media	Refrigerate at 2-8°C until shipped	Rectal swabs are accepted for epidemiological purposes only. Call Microbiology for assistance.	Conventional tube media ID	5-10 working days	Biological Substance, Category B	P
Candida, Culture	Mycotics	See Fungus Culture									P
Chancroid: <i>Haemophilus ducreyi</i>	Micro-Conventional	All HCP for pure isolates only. CHD for clinical specimens.	Call BCL Micro-Bacteriology	HGR, or RFLT (ADPH Website)  GC + FBS media, CO <sub>2</sub> bag	Use cotton swab or calcium alginate swab to collect exudates from the ulcer after removal of superficial debris & scabs. Directly plate a Chancroid plate (GC+FBS) with the collection swab by rolling the swab across 1 portion of the plate, then streak the inoculum for isolation with a sterile loop or swab.	Place inoculated plate and a moist paper towel into a CO <sub>2</sub> bag; incubate at 31° -33° C for 48 hrs before shipping.	None	Conventional tube media ID	9-10 days	Biological substance Category B	P
Chemistry Profiles	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	Profiles meet HD needs. Refer to requisition for definitions.	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P

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Chikungunya	Micro-EID	All providers	Serum (1ml)	HGR, or RFLT (ADPH Website)	Collect whole blood in tiger-top tube. Separate serum.	Refrigerate at 2-8°C.	None	ELISA (See Arbovirus for PCR)	2-5 working days	Biological substance Category B	P
Chlamydia Trachomatis (CT) &/or Neisseria Gonorrhoeae (GC) Trichomonas Vaginalis (TV)	STD Prattville & Mobile	CHD & Publicly Funded HCP  Private physicians	Male urethral swab, endo- cervical swab, urine specimen, & vaginal swab Oral and rectal swabs are tested for CTNG only.	Web Portal order Serology CT-GC-TV or form ADPH-F-BCL-136 HGR, or RFLT (ADPH Website)	Urine & Swab Collection for CTNGTV using HOLOGIC APTIMA.	Follow instructions for Urine & Swab Collection for CTNGTV using HOLOGIC APTIMA, Specimen Transport & Storage.	First void of urine for the day	Amplified DNA	1-7 working days	See instructions	P M
Chloride	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Cholesterol	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
<i>Clostridium botulinum</i>	Micro-Conventional	See Botulism									P
Coccidioides, Culture	Mycotics	All providers	<u>Clinical</u> Respiratory - 5-10 ml; Tissue - 1g; Body fluids - 10-15 ml; CSF - 2-3 ml, (optimal 10 ml) (minimum recommended volume) <u>Or Pure culture</u>	HGR, or RFLT (ADPH Website)	See "Mycology Specimen Requirements" on ADPH website	<u>Clinical specimen:</u> Refrigerate at 2-8°C <i>except</i> blood, bone marrow, CSF, gastric fluid (keep at ambient temp). Add 100 mg sodium carbonate to gastric within 1 hr. <u>Pure culture:</u> Ambient temp	Sterile 50 ml specimen tube available from BCL. Mailers are provided to HCP.	Microscopy  Culture Morphology  Accuprobe	1 - 4 weeks	<u>Isolates:</u> Ship as Infectious Substance, Category A UN 2814 <u>Clinical specimen:</u> Biological Substance Category B UN 3373	P
Complete Blood Count (CBC), Without Differential	Clinical Chemistry	CHD & Publicly Funded HCP	EDTA Whole Blood (Purple top tube), 5 ml	HGR, or RFLT (ADPH Website)	Venipuncture EDTA	Do NOT store - send immediately	Immediately after collection, invert purple-top tube 8-10 times.	Hema. Analyzer	1-3 working days	Biological Substance, Category B	P
Comprehensive Metabolic	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P

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Coronavirus (MERS-CoV)	Micro-EID	All providers: requires prior consultation with Central Office - ID&O before submission	Nasopharyngeal swab, sputum, lower respiratory aspirate, serum	RFLT (ADPH Website)	Sputum & aspirates collected in a sterile tube. Swabs should be placed in viral transport media.	Refrigerate at 2-8°C for up to 72 hrs, then freeze at -20°C. Ship on cold packs or dry ice.	Do <u>not</u> use calcium alginate swabs.	PCR	PCR: 2-5 working days	Biological Substance, Category B	P	
Crab meat - Fecal Coliform, <i>E. coli</i> , Aerobic Plate Count and <i>Listeria</i>	Mobile	ADPH Bureau of Environmental Services	150 g sample in puncture proof containers	Test request/report form from Mobile lab	Meat from various crab shop stations including cooked crab, lump meat, jumbo lump, claw meat, and claws	Iced & held below 10°C, but not frozen; not submerged in cooler water	None	APHA	1-7 days	Iced; must be tested within 24 hrs of collection	M	
Creatinine	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at >8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P	
Cryptococcus, Culture	Mycotics	See Fungus Culture									P	
<i>Cryptosporidium</i>	Micro-Conventional	All providers	Stool (feces), 1 teaspoonful;  PCR: Stool (feces), 1 teaspoonful in Cary Blair	Intestinal Parasite Kit CL-397, HGR, or RFLT (ADPH Website)	Stool Collection Procedure - Home	Do not store; send immediately	Review stool collection instructions & diagram with patient. Send stool collected in formalin vial	Kinyoun acid fast stain	3 -5 working days	Biological Substance, Category B	P	
Cyanide	CT- Lead	All providers	EDTA whole blood, 1ml	HGR, or RFLT (ADPH Website)	Venipuncture, purple top tube	Refrigerate at 2-8°C	Do not freeze	GC/MS	1-2 working days	Biological Substance, Category B	P	
Dairy Products	Sanitary Bacteriology	State & CHD environmentalists	Call BCL - Sanitary Bacteriology									P
Dengue	See Arbovirus (Dengue, Chikungunya, Zika)										P	
Dermatophytes Culture	Mycotics	See Fungus Culture									P	
Diabetes: Glucose	Clinical Chemistry	See Glucose									P	

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Diphtheria (Culture)	Micro-Conventional	All providers	Pure culture, swab (throat, nasopharynx or cutaneous lesion)	HGR, or RFLT (ADPH Website)	Throat Swab Collection Procedure	Room temp	If using transport tubes with moisture ampoules, ensure swabs are immersed.	Conventional tube media ID. We forward to CDC for toxigenicity testing.	3-12 working days	<u>Pure culture:</u> Biological Substance, Category B <u>Swabs:</u> Category B	P
Ebola virus	Micro-EID	All providers: requires prior consultation with Central Office - ID&O before submission	2-4 ml whole blood collected in EDTA tube (purple top).	RFLT (ADPH Website)	Call BCL, Micro-Emerging Infectious Diseases	Ship immediately (refrigerate until shipped)	Call prior to shipment	PCR	1-3 days	DANGEROUS GOODS 6.2 Infectious Substance Category A	P
Electrolytes (Na, K, Cl, CO <sub>2</sub> )	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
<i>Entamoeba histolytica</i>	Micro-Conventional	See Intestinal Parasites									P
Enteric, Culture ( <i>Salmonella</i> , <i>Shigella</i> , only; also see individual analytes)	Micro-Conventional	All providers	Pure culture; Stool (feces), 1 teaspoonful;  Blood (10 ml)  Urine (10 ml)	HGR, or RFLT (ADPH Website) – 425 Kit	Stool Collection Procedure - Home  Blood - Venipuncture Procedure  Urine – Urine Collection Procedure	Do not store; send immediately	Review Specimen Collection instructions & diagram with patient	Conventional tube media ID	5-10 working days	Biological substance Category B	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
<i>Escherichia coli</i> (Confirmation)	Micro-Conventional	All providers	Pure culture isolates	HGR, or RFLT (ADPH Website)	Blood Culture Collection  Stool Collection Procedure  Urine - Urine Collection Procedure	After isolating pure culture & 24 hr incubation, ship immediately. If unable to ship immediately, refrigerate at 2-8°C.	None	Conventional tube media ID	7-14 working days	Toxigenic strains: DANGEROUS GOODS, 6.2, Infectious Substance Category A. All others ship as Biological Substance, Category B	P
<i>Escherichia coli</i> , 0157:H7 Serotyping	Micro-Conventional	All providers	Pure culture, stool or stool plated on appropriate media (i.e., Sorbitol MacConkey agar plate)	CL-425 kit for feces specimen, HGR, RFLT (ADPH Website) for plated media	Stool Collection Procedure - Home	Stools should be refrigerated at 2-8°C.	Specimen must be collected within first 5 days of illness. Review Stool Collection Procedure with patient.	Slide & tube agglutination	7-14 working days	DANGEROUS GOODS 6.2, Infectious Substance Category A (pure culture, & stool culture broths); Biological Substance, Category B (stool)	P
Ferritin	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Food Poisoning	Micro-Conventional	Central Office - ID&O	Call Central Office - ID&O	Call Central Office - ID&O	Collect samples in a sterile container	Refrigerate at 2-8°C	None	Conventional tube media ID	5-14 days	Ship on cold packs as soon as possible	P
Fungus, Culture	Mycotics	All providers	<u>Sterile clinical:</u> Respiratory - 5-10 ml; Tissue - 1g; Body fluids - 10-15 ml; CSF - 2-3 ml (optimal 10 ml) (minimum recommended volume) OR Pure culture	HGR, or RFLT (ADPH Website)	See "Mycology Specimen Requirements" on ADPH website	<u>Sterile clinical specimen:</u> Refrigerate at 2-8°C <i>except</i> blood, bone marrow, CSF, gastric fluid (keep at ambient temp). Add 100 mg sodium carbonate to gastric within 1 hr. <u>Pure culture:</u> Ambient temp	Sterile 50 ml specimen tube available from BCL. Mailers are provided to HCP.	Microscopy, morphology, biochemicals, Maldi-Tof, Accuprobe, heat tolerance tests	1 day – 4 weeks	<u>Sterile clinical specimen &amp; all isolates</u> Biological Substance, Category B UN 3373	P



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Gamma Glutamyl Transpeptidase (GGTP)	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Gastrointestinal Panel	Micro-EID	Central Office - ID&O	Stool (feces), 1 teaspoonful in Cary Blair	HGR or RFLT (ADPH Website) - 425 Kit	Stool Collection Procedure - Home	Stools should be refrigerated at 2-8°C.	Indicate outbreak number on requisition	Film Array	2-5 working days	Ship on cold packs as Biological substance Category B	P
Genotype, HIV	Clinical Chemistry	HIV/Viral Load Genotype Grant approved participants & CHD	Plasma, 3-5 ml	HGR, or RFLT (ADPH Website)	Venipuncture - lavender top tube. Collect, centrifuge & separate within 2 hrs of collection according to manufacturer or remove plasma right after centrifugation, place in transport tube & label tube "Plasma". Unlabeled specimens will be reported "unsatisfactory."	Separated plasma should be stored at -70°C.	Specimens should be collected Mon-Thurs. Specimens collected on Fri. must be received by lab Fri. before noon. Ship the plasma at 2-8°C for delivery within 24 hrs, or ship the tubes with the plasma at -70°C or less on dry ice. Specimens must have a viral load of $\geq 2000$ copies/ml.	ViroSeq PCR	7-14 working days	Biological Substance Category B	P
Giardiasis ( <i>Giardia</i> )	Micro-Conventional	See Intestinal Parasites									P
Glanders Disease ( <i>Burkholderia mallei</i> )	Micro-Conventional & EID	All providers	Call BCL Micro-Reference Bacteriology	Form CL-421, HGR, or RFLT (ADPH Website)	Blood Collection Sputum - Sputum Collection Procedure Urine - Urine Collection Procedure Skin lesions	After isolating suspected organism, call BCL- Microbiology & ship ASAP	Call lab prior to shipment	Conventional tube media ID & PCR	5-7 days	DANGEROUS GOODS 6.2, Infectious Substance Category A	P
Glucose	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Gonorrhea (GC), Culture, Confirmation	Micro-Conventional	All providers	Pure culture	HGR, or RFLT (ADPH Website)	Blood collection CSF (see physician) Genital discharge	After isolating for pure culture & 24 hrs incubation, ship immediately	None	Biochemical tests (conventional tube media ID)	4-7 working days	Biological Substance, Category B	P

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<i>Haemophilus ducreyi</i>	Micro-Conventional	See Chancroid									P	
<i>Haemophilus</i> , Culture & Serotyping	Micro-Conventional & EID	All providers	Pure culture	Form CL-421, HGR, or RFLT (ADPH Website)	Blood Collection CSF (see physician) Bronchoalveolar lavage Conjunctival swab	After isolating for pure culture & 24 hrs incubation, ship immediately. If unable to ship, refrigerate at 2-8°C.	None	PCR	4-6 working days	Biological Substance, Category B	P	
Hematocrit, Automated	Clinical Chemistry	CHD & Publicly Funded HCP	See Complete Blood Count									P
Hemoglobin, Automated	Clinical Chemistry	CHD & Publicly Funded HCP	See Complete Blood Count									P
Hepatic Function Panel	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P	
Hepatitis A IgM	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C Ship on ice	None	Chem. Analyzer	1-5 working days	Biological Substance, Category B	P	
Hepatitis B Surface Antigen and Surface Antibody	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-5 working days	Biological Substance, Category B	P	
Hepatitis C Screening	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C Ship on ice	None	Chem. Analyzer	1-5 working days	Biological Substance, Category B	P	
Hepatitis C Viral Load	Clinical Chemistry	CHD & Publicly Funded HCP	Plasma, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C Ship on ice	None	Chem. Analyzer	1-5 working days	Biological Substance, Category B	P	
High-Density Lipoprotein (HDL) Cholesterol	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P	
Histoplasmosis Culture	Mycotics	See Fungus Culture									P	

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HIV Ag/AB Screening	STD	CHD Federally-funded HCP  Private physicians	Serum/plasma or whole clotted blood, 3-5 mls	Web Portal Serology HIV SCREEN or CL-109, HGR, or RFLT (ADPH Website)	Venipuncture, red-top tube; 3.5 ml serum separation tube preferred. Specimen must be received in lab within 7 days of collection.	Refrigerate at 2–8°C for <7 days. Do not exceed 4 days at ambient temperature including shipping.	None	Multiplex Immuno-assay	1 -5 working days	Biological Substance, Category B	P
HIV 1 Confirmation NAAT	STD	CHD & publicly funded HCP	2 ml of serum	NAAT testing will only be performed on specimens with a reactive screen and non-reactive or indeterminate Geenius	Venipuncture, red-top tube; serum separation tube	Refrigerate at 2–8°C.	NAAT testing will only be performed on specimens with a reactive screen and non-reactive or indeterminate Geenius	NAAT DNA Amplification test	5-10 working days	Biological Substance, Category B	P
HIV 1/2 Differentiation Geenius	STD	CHD Federally-funded HCP  Private physicians	Serum/plasma or whole clotted blood, 3–5 ml	Geenius is only performed on specimens with a reactive screening result.	Venipuncture, red-top tube; 3.5 ml; serum separation tube preferred	Refrigerate at 2–8°C for <7 days. Do not exceed 48 hours at ambient temperature including shipping.	Geenius is performed only on specimens with a reactive screening result.	Geenius	1-5 Working days	Biological Substance, Category B	P
Hookworm	Micro-Conventional	See Intestinal Parasites									P
Influenza, Bacterial	Micro-Conventional	See <i>Haemophilus</i> culture									P
Influenza, Viral (PCR)	Micro-EID	All providers	Upper and lower respiratory specimens i.e. nasal swabs NO calcium alginate swabs	Flu kit & PCR Form HGR, or RFLT (ADPH Website) Email FluTestKit@adph.state.al.us	See <a href="http://www.adph.org/bcl">www.adph.org/bcl</a> , Seasonal Influenza for detailed instructions (Guidance for Laboratory Testing for Influenza Viruses)	Refrigerate at 2–8°C	If Avian Influenza suspected, contact Central Office-ID&O or the Central State Health Lab for instructions.	PCR	5 -7 working days	Ship on cold packs ASAP except on Fridays and holidays See <a href="http://adph.org/bcl">adph.org/bcl</a> , Seasonal Influenza for detailed instructions.	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Intestinal Parasites	Micro-Conventional	All providers	Stool (feces), 1 teaspoonful, or adult worm	IP Kit F308 HGR, or RFLT (ADPH Website)	Stool Collection Procedure – Home; Place adult worm in bottle containing formalin	Do not store, send immediately	Review Specimen Collection instructions & diagram with patient. Over 1 week, collect 3 specimens. Send both vials.	Formalin/ethyl acetate concentration, PVA & acid fast	3–5 working days	Biological Substance, Category B	P
Iron	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	Patient should be fasting.	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Lactate Dehydrogenase (LDH)	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Lead, Blood	Chemistry-Lead	All providers	EDTA whole blood, 150 µl	HGR, or RFLT (ADPH Website)	Venipuncture, purple top tube, or capillary draw (fingerstick for children >1 yr, or heelstick for infants <1 yr).	Refrigerate at 2-8°C if not shipped immediately	If capillary, clean site thoroughly. Values outside normal range will be flagged (*) on the report. Panic values (≥45 µg/dl) will be telephoned.	Atomic Absorption	1-3 working days	Biological Substance, Category B	P
Legionnaires, Culture	Micro-Conventional	All providers	Pure culture submitted on buffered charcoal yeast extract with cystine agar or clinical specimens (i.e., pleural fluid, trans-tracheal aspirates, bronchial washings, sputum, or lung tissue).	HGR, or RFLT (ADPH Website)	Sputum - Sputum Collection Procedure  Bronchoalveolar lavage	Specimens should be refrigerated at 2-8°C	Certain types of specimens may be accepted only for examination at the CDC (i.e. paraffin embedded tissue.) No formalized specimens are accepted. Call BCL Micro-Bacteriology for assistance.	Conventional tube media ID; DFA.	10-16 working days	Biological Substance, Category B	P
Leptospirosis, Antibody	Micro-Conventional	Call BCL Micro-Bacteriology	Call BCL Micro-Bacteriology	Call BCL Micro-Bacteriology	Call BCL Micro-Bacteriology	Call BCL Micro-Bacteriology	Call BCL Micro-Bacteriology	Forward to CDC for testing	Call BCL Micro-Bacteriology	Biological Substance, Category B	P
Lipid Panel	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	Patient should be fasting.	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Listeriosis, ( <i>Listeria</i> ) Culture	Micro-Conventional	All providers; ( <i>Listeria</i> culturing offered to CHD & HD environmentalists)	Pure culture	HGR, or RFLT (ADPH Website)	Blood - Venipuncture procedure  CSF (see physician)  Stool - Process ASAP or refrigerate up to 48 hrs	After isolating for pure culture & 24 hrs incubation, ship immediately. If unable to ship, refrigerate at 2-8°C.	None	Conventional tube media ID	5-7 working days	Biological Substance, Category B	P
Low-Density Lipoprotein (LDL) Cholesterol	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	Values highlighted**	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Lymphocyte Subset Enumeration (CD4 /CD8-Lymphocyte Count)	Clinical Chemistry	CHD & Publicly Funded HCP	EDTA whole blood, 5 ml	HGR, or RFLT (ADPH Website)	Venipuncture, purple top tube. Immediately after collection, invert tube 8-10 times.	Room temperature. DO NOT REFRIGERATE. Ship/mail immediately	Specimens should be collected Mon-Thurs. If collected Fri, they must be received before noon Fri. Do not collect the day before a state holiday. Collect in a timely manner to be shipped by courier the same day as collected.	Flow Cytometry	1-3 working days	Biological Substance, Category B for arrival at the lab within 24 hrs of collection	P
Malaria	Micro-EID	All providers	Blood smears, thick & thin, 3-4 minimum (microscopy)  Whole blood in EDTA tube (purple top) (PCR)	Form CL-397, HGR, or RFLT (ADPH Website)	Venipuncture or capillary draw. Optimum collection time is halfway between chills. If venipuncture used, use blood remaining in the needle to prepare slides. EDTA blood is acceptable. Citrated, oxalated, or heparinized blood may not adhere to slides & may interfere with staining.	Prepared smears are stored at room temp.  EDTA Blood - Refrigerated	Smears should be made by someone trained in making blood smears. Both thick & thin smears <u>must</u> be included. Allow to air dry thoroughly before packaging. Send 1 pair stained and 1 pair unstained.	Microscopy & PCR	1-2 working days	Biological Substance, Category B	P
Measles Serology	Micro-Conventional	CHD only. Contact the Central Office - Immunization Div.	Whole clotted blood or serum, 3-5 ml	Contact Immunization Div for correct form to send	Venipuncture, red-top tube	Refrigerate at 4°C. Do not freeze. Ship on cold packs.	Serum samples WILL NOT be accepted without a specimen type for Measles PCR	Enzyme Immunoassay (EIA)	3 working days	Biological Substance, Category B	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Measles, German	Micro-Conventional	See Rubella									P
Measles, Red	Micro-Conventional	See Rubeola									P
Meningitis, Meningococcal (Culture & Serotyping) <i>Neisseria meningitides</i>	Micro-Conventional & EID	All providers	Pure culture	HGR, or RFLT (ADPH Website)	Blood CSF Bronchoalveolar lavage Nasopharyngeal or oropharyngeal swabs	Room temp	After 24 hrs incubation at 35°C., ship immediately.	PCR	4-6 working days	Biological Substance, Category B	P
Milk	Sanitary Bacteriology	See Dairy Products									P
Molds	Mycotics	See Fungus Culture									P
<i>Murine Typhus</i> , Antibody	Micro-Conventional	All providers	Paired sera, acute and convalescent, 2 ml each	HGR, or RFLT (ADPH Website)	Venipuncture, red-top tube, remove serum	Freeze acute serum until convalescent specimen is collected.	Acute specimen should be drawn within 7 days of onset & convalescent specimen 3-6 weeks after onset. Submit both specimens simultaneously.	IFA	2-3 weeks	Biological Substance, Category B	P
Mycobacteria, Culture	Mycobacteriology	All providers	<u>Clinical</u> Respiratory - 5-10 ml; Tissue - 1g; Body fluids - 10-15 ml; CSF - 1-3 ml (optimal 10 ml) (minimum recommended volume) <i>Swabs not recommended or pure culture</i>	HGR, or RFLT (ADPH Website)	See TB Specimen Requirements on ADPH website for collection procedure	<u>Clinical specimen:</u> Refrigerate at 2–8°C <i>except</i> blood, bone marrow, CSF, gastric fluid (keep at ambient temp). Add 100 mg sodium carbonate to gastric within 1 hr.  <u>Pure culture:</u> 35°-38° C	Sterile 50 ml specimen tube available from BCL. Mailers are provided to HCP.	Microscopy, morphology, Accuprobe, PCR, Maldi-Tof, 16S	1 day to 6 weeks	<u>Clinical specimens &amp; NTM cultures:</u> Biological Substance, Category B UN 3373  <u>TB cultures,</u> Infectious Substance, Category A UN 2814	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Mycobacteria, Drug Susceptibility (DST) (See Mycobacteria, culture)	Mycobacteriology		DST of <i>M.tuberculosis</i> performed routinely-see criteria-Contact Mycobacteriology Division	HGR, or RFLT (ADPH Website)	See TB Specimen Requirements on ADPH website for collection procedure	<u>Clinical specimen:</u> Refrigerate at 2–8°C <i>except</i> blood, bone marrow, CSF, gastric fluid (keep at ambient temp). Add 100 mg sodium carbonate to gastric within 1 hr.  <u>Pure culture:</u> Ambient temp	Sterile 50 ml specimen tube available from BCL. Mailers are provided to HCP.	BD Bactec 960	Target: 14-28 days from culture identification	<u>Clinical specimens &amp; NTM cultures:</u> Biological Substance, Category B UN 3373  <u>TB cultures,</u> Infectious Substance, Category A UN 2814	P
Mycobacteria, Smear	Mycobacteriology	See Mycobacteria Culture						Flourescent Microscopy	1 working day		P
Mycotics	Mycotics	See Fungus Culture									P
Newborn Screening	NBS	Mandated by law						Blood spot on filter paper	Refer to Newborn Screening Procedures	P	
Nocardia, Culture	Mycobacteriology	All providers	Clinical specimen or pure culture	HGR, or RFLT (ADPH Website)	See TB Specimen Requirements on ADPH website for collection procedure	<u>Clinical specimen:</u> Refrigerate at 2–8°C <i>except</i> blood, bone marrow, CSF, gastric fluid (keep at ambient temp). Add buffer to gastric when collected. <u>Pure culture:</u> 35°-38°C	Sterile 50 ml specimen tube available from BCL. Mailers are provided to HCP.	Microscopy, morphology, Maldi-Tof, 16S (ID to genus level only).	2 days – 6 weeks	<u>Clinical specimen/ Isolate:</u> Biological Substance, Category B UN3373	P
Norovirus	Micro-EID	Contact local CHD. Epidemiological investigation only	Whole unpreserved feces, a minimum of 0.5 grams or 0.5 ml if liquid	Form BCL-408; HGR, or RFLT (ADPH Website) Screw-cap container <b>WITHOUT media</b>	Traditional stool collection procedure	Refrigerate at 2-8°C	Refrigerate specimen; ship on frozen cold packs & complete the requisition form.	PCR	2-5 working days	Biological Substance, Category B on frozen cold packs	P
Organo-phosphate Nerve agent metabolites	CT- Lead	All providers	Serum, 1 ml or urine, 1 ml	HGR, or RFLT (ADPH Website)	Urine collection or serum	Store and ship at ≤-20°C	None	LC/MS/MS	1-2 working days	Biological Substance, Category B	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Paratyphoid, Culture & Serotyping	Micro-Conventional	All providers	Pure culture; Stool (feces), 1 teaspoonful; Blood/ Urine 10 ml of each	Form CL-425 kit, HGR, or RFLT (ADPH Website)	Stool - Home Venipuncture or Urine Collection Procedure.	Do not store; send immediately	Review specimen collection instructions & diagram with patient	Conventional tube media ID, slide & tube agglutination	3-10 working days	Biological Substance, Category B	P
Pertussis, Culture (Whooping Cough)	Micro-Conventional	<i>See Bordetella pertussis</i>									P
Phosphorus	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Pinworm	Micro-Conventional	All providers	Swube™ paddle touched to the perianal region	HGR, or RFLT (ADPH Website) Pinworm Kit	Stool Collection Procedure - Home for pinworms. Collection times: 9:00 pm -12:00 midnight. This is critical for obtaining a proper specimen.	Refrigerate at 2-8°C if not sent same day as collection.	Review Specimen Collection instructions & diagram with patient.	Microscopy	1-2 working days	Biological Substance, Category B	P
Potassium	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Protozoa	Micro-Conventional	<i>See Intestinal Parasites</i>									P
Q-Fever (Coxiella burnetii)	Micro-EID	All providers	Whole blood (EDTA) or serum (1 ml)	Form BCL-408, HGR, or RFLT (ADPH Website)	Venipuncture, red-top tube, remove serum  Purple-top (EDTA) tube for whole blood.	Refrigerate at 2-8°C if not sent same day as collection	None	PCR	2-3 days	Biological Substance, Category B; Ship with cold packs	P



Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Rabies	Micro-Conventional & Mobile	All providers & state citizens	Dead, whole small mammal, head/brain of mammal suspected of rabies, whose skull is intact.  No animals more than 15 lbs or longer than 19 inches will be accepted.	Form BCL-264	Do not club or shoot animal in the head. Decapitate large animals (more than 15 lbs or longer than 19 in). Do not bring in specimens that are decomposed or infested with fleas or maggots.  Do not send specimen in formalin.  Double-bagged dead animal or head	Place specimen under refrigeration. Freeze only if shipment cannot occur within 4 days of collection.	No live animals accepted! Any large animals (bovines, equine, etc.) or animals needing multiple testing should be sent to a veterinary diagnostic lab (Auburn, Boaz, or JB Taylor in Elba) to have brain removed.	DFA	1-2 days	Ship in leak-proof container to Central Lab or Mobile Lab packed in enough ice or ice packs to last 24 hrs. Label outside package "Rabies Specimen".	P M
Renal Function Panel	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Respiratory Panel	Micro-EID	All Providers	Nasopharyngeal swab in viral transport media (VTM)	Flu kit & HGR, or RFLT (ADPH Website) Email FluTestKit@adph.state.al.us	See <a href="http://www.adph.org/bcl">www.adph.org/bcl</a> , Seasonal Influenza for detailed instructions (Guidance for Laboratory Testing for Influenza Viruses)	Refrigerate at 2-8°C	If Avian Influenza suspected, contact Central Office-ID or the Central State Health Lab for instructions.	PCR	2 -5 working days	Ship on cold packs as Biological Substance, Category B	P
Ricinine	CT- Lead	All providers	Urine, 5ml	HGR, or RFLT (ADPH Website)	Urine collection.	Store and ship at ≤-20°C	None	LC/MS/MS	1-2 working days	Biological Substance, Category B	P
Rickettsia, Antibody	Micro-Conventional	All Providers	Paired sera, acute & convalescent. 2 ml each	HGR, or RFLT (ADPH Website)	Venipuncture, red-top or serum separator tube, remove serum	Freeze acute serum until convalescent specimen is collected.	Acute specimen drawn within 7 days of onset & convalescent specimen drawn 3-6 weeks after onset. Submit both.	Forward to CDC for testing	2-3 weeks	Biological Substance, Category B	P
Ringworm	Mycotics	See Fungus Culture									P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Rocky Mountain Spotted Fever, Antibody	Micro-Conventional	All Providers	Paired sera, acute & convalescent. 2 ml each	HGR, or RFLT (ADPH Website)	Venipuncture, red-top or serum separator tube, remove the serum	Freeze acute serum until convalescent specimen is collected.	Acute specimen drawn within 7 days of onset & convalescent specimen drawn 3-6 weeks after onset. Submit both.	Forward to CDC for testing	2-3 weeks	Biological Substance, Category B	P
Roundworm	Micro-Conventional	See Intestinal Parasites									P
RPR	STD Prattville & Mobile	See Syphilis Testing									P M
Rubella (German Measles)	Micro-Conventional	CHD only. Contact the Central Office - Immunization Div.	Nasopharyngeal or throat swab	Contact Immunization Div for correct form to send	Viral transport media	Refrigerate at 4°C if shipping within 24 hours. Ship on cold packs.	Specimen should be collected 8-21 days past onset of rash. List rash onset date.	PCR Genotyping	2 weeks	Biological Substance, Category B	P
Rubeola (Red Measles)	Micro-Conventional	CHD only. Contact the Central Office - Immunization Div.	Nasopharyngeal or throat swab	Contact Immunization Div for correct form to send	Viral transport media Urine: Collect 10-50 mls in sterile container. Do not add virus transport medium to urine.	4°C if shipping within 24 hours. Ship on cold packs. Urine: If shipping is delayed, freeze at -70°C. Ship frozen.	Specimen should be collected 8-21 days past onset of rash. List rash onset date.	PCR Genotyping	2 weeks	Biological Substance, Category B	P
Salmonella, Culture	Micro-Conventional	See Enteric Culture									P
Salmonella, Serotyping	Micro-Conventional	See Enteric Culture									P
SARS-CoV-2	Micro-EID, Mycobacteriology, & STD-Chemistry	All Providers	Nasopharyngeal swab in viral transport media, nasal swab, nasal wash/aspirate	Flu kit & HGR, or RFLT (ADPH Website) Email FluTestKit@adph.state.al.us	See <a href="https://www.alabamapublichealth.gov/covid19/healthcare.html">https://www.alabamapublichealth.gov/covid19/healthcare.html</a> (Specimen Collection and Shipping Guidance)	Refrigerate at 2-8°C	Specimen should be submitted within 3 days of collection.  Specimens placed in viral transport medium containing guanidium thiocyanate will be deemed unsatisfactory.	PCR	5 -7 working days	Specimens should be packaged as Category B in an insulated shipping container with frozen ice packs.	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Scabies	Micro-Conventional	All providers	Skin scraping	HGR, or RFLT (ADPH Website)	Use mineral oil on blade for scraping skin	Place on a slide & seal cover slip with clear fingernail polish. Put in a Petri dish or similar container.	Must be delivered to the lab in 24 hrs or less	Microscopy	1-3 days	Biological Substance, Category B	P
Shellfish-Fecal Coliform <i>E. coli</i> Aerobic Plate Count	Mobile	ADPH Bureau of Environmental Services	12 animals in loosely closed, puncture-proof plastic bags	Test request/report form from Mobile lab	200 g of meat & liquid after shucking; Minimum 12 animals	Iced & held below 10°C, but not frozen; not submerged in cooler water	None	APHA	1-7 days	Iced; must be tested within 24 hrs of collection	M
<i>Shigella</i> , Culture	Micro-Conventional	See Enteric Culture									P
<i>Shigella</i> , Serotyping	Micro-Conventional	See Enteric Culture									P
Smallpox	Micro-EID	All providers: requires prior consultation with Central Office - ID&O before submission	Lesion material	RFLT	Call BCL Micro-Emerging Infectious Diseases	Call BCL Micro-Emerging Infectious Diseases	Call BCL Micro-Emerging Infectious Diseases prior to shipment.	PCR	1-3 days	DANGEROUS GOODS 6.2, Infectious Substance Category A	P
Sodium	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	Values highlighted**	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
<i>Strongyloides</i>	Micro-Conventional	See Intestinal Parasites									P
Sulfur Mustard metabolites	CT- Lead	All providers	Serum, 1- 5 ml or urine, 1.5- 5 ml	HGR, or RFLT (ADPH Website)	Urine collection or serum	Store and ship at ≤-20°C	None	LC/MS/MS	1-2 working days	Biological Substance, Category B	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Syphilis Testing, (Syphilis Screen, RPR, TP-PA)	STD Prattville & Mobile	CHD Federally-funded HCP  Private physicians	Serum/plasma or whole clotted blood, 3 - 5 ml	Web Portal Serology Syphilis Screen or Form CL- 136, HGR, or RFLT (ADPH Website)	Whole blood by Venipuncture, 3.5 ml serum separation tube. Do not centrifuge. Do not separate serum from clot.	Specimen must be received in lab within 3 days of collection at room temperature. After 3 days, refrigerate 2-8°C. Specimen must be received by the lab within 7 days from date of collection. Ship on cold packs.	An RPR will be performed on all reactive Syphilis screens. TPPA will be performed on all nonreactive RPR specimens.	Multiplex Immuno-assay; RPR <i>T. pallidum</i> Particle Agglutination	1-7 working days	Biological Substance, Category B	P M
T4/ TSH, Adult	Clinical Chemistry	CHD & Publicly Funded HCP	See Thyroid Profile for information								P
Tapeworm	Micro-Conventional	See Intestinal Parasites									P
Tetramine	CT- Lead	All providers	Urine, 5ml	HGR, or RFLT (ADPH Website)	Urine collection.	Store and ship at ≤-20°C	Freeze ASAP	GC/MS	1-2 working days	Biological Substance, Category B	P
Tetranitromethane (HNPA)	CT- Lead	All providers	Urine, 5ml	HGR, or RFLT (ADPH Website)	Urine collection.	Store and ship at ≤-20°C	None	LC/MS/MS	1-2 working days	Biological Substance, Category B	P
Thyroid Profile	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Total Iron Binding Capacity/ Unbound Iron Binding Capacity (TIBC/UIBC)	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Total Protein	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	None	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Toxic Elements Screen in Blood	CT- Lead	All providers	Whole blood, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture, EDTA	Refrigerate at 2-8°	Include empty collection tube/ cup from same lot if possible	ICP/MS	1-2 working days	Biological Substance, Category B	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Toxic Elements Screen in urine. As, Be, Cd, Ba, Tl, Pb, U	CT- Lead	All providers	Urine, 5ml	HGR, or RFLT (ADPH Website)	Urine collection.	Refrigerate at 2-8°	Include empty collection tube/ cup from same lot if possible	ICP/MS	1-2 working days	Biological Substance, Category B	P
Trichinosis	Micro-Conventional	All providers	Call BCL Micro-Parasitology								P
<i>Trichuris</i>	Micro-Conventional	See Intestinal Parasites								P	
Triglycerides	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately	Patient should be fasting.	Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Tuberculosis	Mycobacteriology	See Mycobacteria Culture								P	
Tularemia (Francisella tularensis)	Micro-Conventional & EID	All providers	Call BCL Micro-Reference Bacteriology	Universal Form, HGR, or RFLT (ADPH Website)	Chocolate Whole Blood	Send immediately	Call prior to shipment	Conventional tube media & PCR	7-14 days	DANGEROUS GOODS 6.2, Infectious Substance Category A	P
Typhoid	Micro-Conventional	See <i>Salmonella</i> Culture								P	
Uric Acid	Clinical Chemistry	CHD & Publicly Funded HCP	Serum, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture*	Refrigerate at 2-8°C if not shipped immediately		Chem. Analyzer	1-3 working days	Biological Substance, Category B	P
Urine, Culture Sensitivity	Mobile	CHD, maternity programs only, federally funded HCP	Mid-stream, clean-catch urine, or catheterized specimen	Form CL-136, HGR, or RFLT (ADPH Website)	Urine Collection	Refrigerate urine transport tube until shipped	Specimens should be received by lab within 48 hrs of collection	Conventional media, biochemical tests – MIC sensitivity	1-7 working days	Biological Substance, Category B	M
Varicella zoster virus (Chicken Pox)	Micro-EID	All providers: requires prior consultation with Central Office - ID&O before submission.	Cellular material collected from the base of a fresh lesion using Dacron® Swab	PCR Form CL-40, HGR, or RFLT (ADPH Website)	Vigorously scrape at exposed base of lesion. Avoid contamination of the specimen with blood to prevent the possibility of false negative results.	Samples should be placed in viral transport medium & transported on wet ice as soon as possible. If storage is necessary, freeze at ≤ -70°C.	Ship frozen with dry ice or cold packs in leak-proof container to Montgomery Central Lab.	DFA & PCR	1-3 working days	Biological Substance Category B	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
<i>Vibrio cholerae</i> , Serotyping	Micro-Conventional	All providers	Pure culture	HGR, or RFLT (ADPH Website)	Stool - Stool Collection Procedure	After isolating for pure culture & 24 hrs incubation, ship immediately. If unable to ship soon, refrigerate at 2-8°C.	None	Slide agglutination	3-8 working days	Biological Substance Category B	P
<i>Vibrio</i> , Food-Borne Outbreak	Micro-Conventional	All providers: ID&O investigation	Call Central Office-Epidemiology	Call Central Office-ID&O	Collect samples in a sterile container.	Refrigerate at 2-8°C	None	Conventional tube media, isolation & ID	5-14 days	Ship on cold packs as soon as possible	P
Viral Load, HIV	Clinical Chemistry	HIV/Viral Load Grant approved participants & CHD	Plasma, 3-5 ml	Venipuncture, purple top tube, HGR, or RFLT (ADPH Website)	Remove plasma immediately after centrifugation & place in transport tube. Label transport tube "PLASMA." Specimens not labeled "PLASMA" will not be tested but reported "Unsatisfactory."	Plasma should be frozen or refrigerated at 2-8°C until shipped. Refrigerated specimens are acceptable for 5 days. Plasma is stable for 1 day at room temp.	None	Roche PCR	5-10 working days	Biological Substance, Category B in approved cold pack shipping container with sufficient refrigeration.	P
Volatile Organic Compounds (VOC)	CT- Lead	CHD & Publicly Funded HCP	Whole blood, 3 ml	HGR, or RFLT (ADPH Website)	Venipuncture, grey top: potassium oxalate and sodium fluoride	Refrigerate at 2-8°	Do not freeze. Allow alcohol at prep site to evaporate. Invert several times to mix anti-coagulate	GC/MS	1-2 working days	Biological Substance, Category B	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Water, Drinking, Total Coliform & <i>E. coli</i>	Sanitary Bacteriology & Mobile	Private individuals may submit water samples from their private wells only. Consultation with county Environmental staff is encouraged. Public water samples must be submitted by certified collectors. Coordination with ADEM is required	Drinking water, 100 ml. Sample bottles may be obtained from state lab or local CHD.	Form CL-12 kit	Water Collection	Water samples should be submitted to the lab the same day as collected.  Refrigerate, 1 - 5°C (do not freeze) if sample cannot be submitted to the lab the same day as collected.  Samples CANNOT be tested if received more than 30 hours after collection.	Water samples must be received within 30 hrs of collection.  Submit samples Mon - Thurs.  Contact the lab for fee amount.  Fee stamp can be obtained from local CHD or State lab. No charge for samples submitted through & results returned to CHD.  Public Water Systems must have a PWSID #.	SM9223B (Colilert – Prattville and Mobile labs)  SM9221B SM9221F (Multiple Tube Fermentation – Prattville lab only)	24-48 hours for Colilert Method  48-72 hours for Multiple Tube Fermentation Method	Identify bottle(s) sample with supplied ID label.  Complete forms & return with the bottle.	P M
Water, Environmental, Surface, Fecal Coliform, <i>E.coli</i> & <i>Enterococcus</i>	Mobile	County & state environmentalists	Surface water, 225 ml	Test request/report form from Mobile lab	Water Collection	Samples must be iced & collected with a temperature control sample	Arrangements are made with lab prior to submission. Samples must be iced at collection point & submitted to lab within 6 hrs of collection. May submit surface water samples when a public health hazard is suspected.	mTEC membrane filtration for <i>E. coli</i> & fecal coliform. EPA method 1600 for <i>Enterococcus</i> APHA- MPN Fecal Coliform & <i>E. coli</i> .	30 hrs	Hand deliver samples on ice within 6 hrs of collection	M
Water, Fluoride	Sanitary Bacteriology	Samples must be submitted through the ADPH Oral Health Division	Call Prattville Lab	Form ADPH-F- BCL-25/270	Water Collection	Water samples should not be stored	None	SM4500 F <sup>-</sup> Ion Selective Electrode Method	Call BCL/ Sanitary Bacteriology	Identify bottle(s) sample with supplied ID label. Complete forms & return with the bottle.	P

Name	Division	Offered To	Specimen/ Volume	Requisition/ Collection Kit	Collection Procedure	Storage	Special Instructions	Method	Turn-Around-Time	Shipping/ Handling	Lab
Water, Phytoplankton, Harmful Algal Bloom	Mobile	State, county, & municipal agencies or prearranged contract	Water, approximately 1 liter May submit estuarine or marine water to be examined for plankton which may cause illness in humans, marine animals or birds, fish kills and discolored water	Phyto-plankton report,/ water collection jars & preservative are available	Water Collection with acidified Lugol's preservative. Live samples can be analyzed qualitatively, but not quantitatively.	Water samples should not be stored. Preserved samples should be transported as soon as possible. Live samples are wrapped in damp newspaper, but not iced. Shipment of live samples should be done promptly.	Notify lab that samples are on the way. Live samples must be kept cool, not cold (use newspaper to insulate the bottles). Bring to lab as soon as possible.	Utermöhl method settling with microscopic examination	3-4 days	Submit as soon as possible	M
West Nile Virus, Human Serology	Micro-EID	All Providers	Sera	Arboviral Form BCL 140, HGR, or RFLT (ADPH Website)	Collect blood in red-topped or serum-separator tube; submit at least 1 cc of acute ( $\leq 13$ days) & convalescent (14-21 days).	Refrigerate at 2-8°C or freeze at -20°C immediately after collection.	Do NOT use preservatives.	ELISA	5 - 10 working days	Ship frozen with dry ice or cold packs in leak-proof container.	P
Whooping Cough	Micro-Conventional	<i>See Bordetella pertussis</i>									P
Yeast, Culture	Mycotics	<i>See Fungus Culture</i>						Morphology, biochemicals, Maldi-Tof	<i>See Fungus Culture</i>	P	
<i>Yersinia pestis</i>	Micro-Conventional & EID	All providers	Call BCL Micro-Reference Bacteriology	Form CL 421, HGR, or RFLT (ADPH Website)	Pure culture	Send immediately	Call prior to shipment	Conventional tube media, PCR	7-14 days	DANGEROUS GOODS 6.2, Infectious Substance Category A	P
<i>Yersinia</i> , Culture	Micro-Conventional	All providers	Pure culture	HGR, or RFLT (ADPH Website)	Stool - see Stool Collection Procedure Blood - see Blood Collection Procedure Lymph nodes	Pure cultures should be held at room temp until shipped.	Incubate blood cultures at both 28°C & 35°C.	Conventional tube media, biochemical tests.	3-10 working days	Biological Substance Category B	P
<i>Yersinia</i> , Culture, Food Related	Micro-Conventional	All providers-Epidemiological investigation	Call Central Office-ID&O	Call Central Office-ID&O	Call Central Office-ID&O	Collect samples in a sterile container.	Refrigerate at 2- 8°C.	Conventional tube media, isolation & ID	5-14 days	Ship on cold packs as soon as possible	P
Zika	<i>See Arbovirus (Dengue, Chikungunya, Zika)</i>										P

\* Venipuncture serum-separator tube: remove serum immediately after centrifugation & place in serum transport tube.

\*\* Values outside the normal range will be highlighted on the report. Panic values will be called to designated contact.









**Acronyms**

ADEM - Alabama Department of Environmental Management  
 ADPH - Alabama Department of Public Health  
 APHA - American Public Health Association  
 ASAP - As Soon As Possible  
 BCL - Bureau of Clinical Laboratories  
 CHD - County Health Department  
 CSF - Cerebrospinal Fluid  
 CT - Chemical Terrorism  
 DFA - Direct Fluorescent Antibody  
 EID - Emerging Infectious Diseases  
 g - Grams

GC/MS - Gas Chromatography/Mass Spectrometry  
 HCP - Health Care Provider  
 HD - Health Department  
 HGR - Horizon Generated  
 ICP/MS - Inductively coupled plasma mass spectrometry  
 ID&O - Infectious Disease and Outbreaks  
 IFA - Indirect Fluorescent Antibody  
 LC/MS/MS - Liquid Chromatography w/Tandem Mass Spectrometry  
 M - Mobile Division Laboratory  
 mg - Milligram  
 MIC - Minimum Inhibitory Concentration

NAAT - Nucleic Acid Amplification Test  
 NTM - Nontuberculous Mycobacteria  
 P - Prattville Laboratory  
 PCR - Polymerase Chain Reaction  
 PPT - Plasma Preparatory Tube  
 PVA - Polyvinyl Alcohol  
 RPR - Rapid Plasma Reagin  
 STD - Sexually Transmitted Disease  
 temp - Temperature

**Blood tubes utilized by BCL analytes**

Cap color		Additive	Laboratory Use	Note/Comment
 Gold	 Red/Gray	Clot activator and gel for serum separation.	Serum	Also called SST Tube.
 Red	 Red	Glass - Silicone coated Plastic - Clot activator, Silicone coated	Serum or clotted whole blood	Serum must be drawn off, not poured after centrifugation.
 Lavender	 Lavender	Glass - Liquid K <sub>3</sub> EDTA Plastic - Spray-coated K <sub>2</sub> EDTA	Plasma	