

Analytes Requested by the Alabama Department of Public Health (ADPH) - Bureau of Clinical Laboratories (BCL)

Microbiology – Conventional & Emerging Infectious Diseases (EID) Branches

Contact #: 334-260-3400

Analyte	Branch	Specimen/ Sample	Requisition/ Collection Kit	Storage	Special Instructions	BCL Test Method	Turn-Around-Time	Shipping/ Handling
<i>Bacillus anthracis</i>	Conventional & EID	<ul style="list-style-type: none"> • Pure culture • Lesion/cutaneous swab • CSF • Stool (≤ 5 g) • Pleural fluid • Transtracheal aspirate • Bronchial lavage • Whole blood (in EDTA) • serum • Plasma • Sputum (3-5 ml of any liquid specimen listed)	HGR or RFLT (ADPH Website)	After isolating suspected organism, send immediately.	<ul style="list-style-type: none"> • Consult ASM (https://www.asm.org/) for specific sentinel lab protocols. • Call BCL prior to shipment. 	Biochemicals & PCR	1-3 days for positive isolates from pure culture	Category A Infectious Substance Ship any liquid specimens on frozen cold packs.
Botulism (Food Samples)	Conventional & EID	<ul style="list-style-type: none"> • Retain sample in original container if possible. Otherwise, use sterile techniques to collect at least 50 g of food. • Place sample in sterile container & seal so it does not leak. • Place container in secondary leak-proof container. 	HGR or RFLT (ADPH Website)	Refrigerate at 2–8°C.	<ul style="list-style-type: none"> • Requires prior consultation with ID&O before submission. • Call BCL prior to shipment. 	Biochemicals, ELISA, & PCR	7-14 days	Biological Substance, Category B Ship on frozen cold packs. Ship food samples separately from clinical specimens.
Botulism (Clinical Specimens)	Conventional & EID	<ul style="list-style-type: none"> • Serum (5 ml) • Whole stool (10 - 50 g but will test less than 10 g if necessary) • Vomitus (20 ml) • Wound swab (in anaerobic medium such as Port-a Cul tubes) • Enema (20 ml) • Pure culture (sent anaerobically) 	HGR or RFLT (ADPH Website)	Ship immediately.	<ul style="list-style-type: none"> • Consult ASM (https://www.asm.org/) for specific sentinel lab protocols. • Prior consultation with ID&O is required before submission. • Call BCL for specific collection instructions and prior to shipment. 	Biochemicals, Mouse bioassay, & PCR	1-14 days	Biological Substance, Category B Ship on frozen cold packs. Ship food samples separately from clinical specimens.

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<i>Brucella</i> species	Conventional & EID	<ul style="list-style-type: none"> Pure culture (chocolate agar slant or other acceptable media to support growth) Spleen tissue Liver tissue Bone marrow Joint fluid Whole blood (3-5 ml in EDTA) Serum (3-5 ml) 	HGR or RFLT (ADPH Website)	After isolating suspected organism, send immediately.	<ul style="list-style-type: none"> Consult ASM (https://www.asm.org/) for specific sentinel lab protocols. Call BCL prior to shipment. 	Biochemicals & PCR	2 -10 days	Infectious Substance Category A Ship non-culture specimens on frozen cold packs.
<i>Burkholderia mallei/ pseudomallei</i>	Conventional & EID	<ul style="list-style-type: none"> Pure culture (chocolate agar slant or other acceptable media to support growth) Lesion swab Whole blood (in EDTA) Sputum Serum Urine (3-5 ml of any liquid specimen listed) 	HGR or RFLT (ADPH Website)	After isolating suspected organism, send immediately.	<ul style="list-style-type: none"> Consult ASM (https://www.asm.org/) for specific sentinel lab protocols. Call BCL prior to shipment. 	Biochemicals & PCR	5-7 days	Infectious Substance Category A Ship non culture specimens on frozen cold packs.
<i>Campylobacter</i> species	Conventional	<ul style="list-style-type: none"> Pure culture (CAMPY blood agar or other acceptable media to support growth) 1 teaspoon of stool (Cary-Blair transport media) 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	<ul style="list-style-type: none"> Culture: Incubate pure culture for 24 hours prior to shipping. Transport media: Send with next shipment. 	Biochemicals	5–10 days	Biological Substance, Category B
Carbapenem-resistant Enterobacteriaceae (Includes KPC, OXA-48)	Conventional	<ul style="list-style-type: none"> Pure culture 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	<ul style="list-style-type: none"> None 	Biochemicals & PCR	5-7 days	Biological Substance, Category B Ship refrigerated specimens on frozen cold packs.
<i>Clostridium botulinum</i>	See Botulism							
Coronavirus (MERS-CoV)	EID	<ul style="list-style-type: none"> Nasopharyngeal swab (in viral transport media) Sputum (in sterile tube) Lower respiratory aspirate (in sterile tube) Serum (3 ml) 	HGR or RFLT (ADPH Website)	Refrigerate at 2–8°C for up to 72 hours, then freeze at -20°C.	<ul style="list-style-type: none"> Prior consultation with ID&O is required before submission. Do not use calcium alginate swabs. 	PCR	2-5 days	Biological Substance, Category B Ship on frozen cold packs or dry ice.
<i>Coxiella burnetii</i> (Q Fever)	EID	<ul style="list-style-type: none"> Whole blood (3 ml in purple-top EDTA tube) Serum (1 ml) 	RFLT (ADPH Website)	Refrigerate at 2–8°C.	None	PCR	2–3 days	Biological Substance, Category B Ship on frozen cold packs.

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<i>Cryptosporidium</i>	Conventional & EID	<ul style="list-style-type: none"> Stool (1 teaspoonful in Cary Blair) 	HGR or RFLT (ADPH Website)	At room temperature until shipped.	None	Kinyoun acid fast stain & PCR	3 -5 days	Biological Substance, Category B
Ebola virus	EID	<ul style="list-style-type: none"> Whole blood (3 ml collected in purple top tube with EDTA) 	RFLT (ADPH Website)	Ship immediately.	<ul style="list-style-type: none"> Prior consultation with ID&O is required before submission. Call BCL prior to shipment. Consult CDC (https://www.cdc.gov/vhf/ebola/laboratory-personnel/index.html) for specific instructions. 	PCR	1-3 days	Infectious Substance Category A Ship on frozen cold packs.
<i>Escherichia coli</i> (Suspected Shiga toxin producers)	Conventional	<ul style="list-style-type: none"> Pure culture Raw stool (1 teaspoon in sterile container or in Cary Blair) 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	Incubate pure culture for 24 hours prior to shipping.	Biochemicals & PCR	7-14 days	<i>E. coli</i> 0157:H7 or suspected toxigenic strains (pure culture) – ship as Infectious Substance Category A. Raw stool shipped on frozen cold packs as Biological Substance, Category B
<i>Francisella tularensis</i> (tularemia)	Conventional & EID	<ul style="list-style-type: none"> Pure culture (on chocolate agar) Lesion swab Whole blood (3 ml) Ulcer biopsy or aspirate 	HGR or RFLT (ADPH Website)	Send immediately	Call BCL prior to shipment	Biochemicals & PCR	7-14 days	Infectious Substance Category A Ship blood on frozen cold packs.
<i>Haemophilus influenzae</i>	Conventional & EID	<ul style="list-style-type: none"> Pure culture from normally sterile site (chocolate agar or other acceptable media to support growth) 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	Incubate pure culture for 24 hours prior to shipping.	Biochemicals & PCR	4-6 days	Biological Substance, Category B
<i>Hantavirus</i>	EID	<ul style="list-style-type: none"> Whole Blood Fresh Tissue Serum 	HGR or RFLT (ADPH Website)	Ship immediately.	<ul style="list-style-type: none"> Prior consultation with ID&O is required before submission. Call BCL prior to shipment. Consult CDC (https://www.cdc.gov/hantavirus/health-care-workers/specimen-submission/protocol.html) for specific instructions. 	Referral to CDC	2 months	Ship on frozen cold packs as Infectious Substance Category A

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Influenza Type A- unsubtype-able	EID	<ul style="list-style-type: none"> Upper and lower respiratory specimens, i.e. nasopharyngeal swab (in viral transport media) NO calcium alginate swabs. 	HGR or RFLT (ADPH Website), request influenza collection and shipping kit by email at FluTestKit@adph.state.al.us	Refrigerate at 2–8°C.	Contact ID&O or the BCL. See http://www.alabamapublichealth.gov/bcl/influenza-specimens.html “Influenza Specimens” for detailed instructions (Guidance for Laboratory Testing for Influenza Viruses)	PCR	2 -5 days	Ship on frozen cold packs as Biological Substance, Category B except on Friday & holidays. For detailed instructions see Guidance for Laboratory Testing for Influenza Viruses at http://www.alabamapublichealth.gov/bcl/influenza-specimens.html
<i>Legionella</i> species	Conventional	<ul style="list-style-type: none"> Pure culture (buffered charcoal yeast extract with cysteine or other media to support growth) Lung tissue (in saline) Pleural fluid Transtracheal aspirates Bronchial washings Sputum (Original samples in sterile container; not formalized) 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	Incubate pure culture for 24 hours prior to shipping.	Biochemicals	4–12 days	Biological Substance, Category B
<i>Listeria monocytogenes</i>	Conventional	Pure culture	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate culture and stool at 2–8°C.	Incubate pure culture for 24 hours prior to shipping.	Biochemicals	5–7 days	Biological Substance, Category B
<i>Neisseria meningitidis</i>	Conventional & EID	<ul style="list-style-type: none"> Pure culture from normally sterile site 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	Incubate pure culture for 24 hours prior to shipping.	Biochemicals & PCR	4-14 days	Biological Substance, Category B
Q Fever	See <i>Coxiella burnetii</i>							
<i>Salmonella</i> species	Conventional	<ul style="list-style-type: none"> Pure culture Stool (feces), 1 teaspoonful Blood (10 ml) Urine (10 ml) 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	None	Biochemicals & PCR	5-7 days	Biological Substance, Category B Ship refrigerated specimens on frozen cold packs.
<i>Shigella</i> species	Conventional	<ul style="list-style-type: none"> Pure culture Stool (feces), 1 teaspoonful Blood (10 ml) Urine (10 ml) 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	None	Biochemicals & PCR	5-7 days	Biological Substance, Category B Ship refrigerated specimens on frozen cold packs.

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Smallpox	See Variola virus							
<i>Streptococcus pneumoniae</i>	Conventional	<ul style="list-style-type: none"> Pure culture from normally sterile site No older than 12 years with history of vaccination 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	Incubate pure culture for 24 hours prior to shipping.	Referral to CDC or WSLH	2 months	Biological Substance, Category B
Variola virus (Smallpox)	EID	<ul style="list-style-type: none"> Lesion material Swab of vesicular or pustular fluid Serum (3 ml) 	HGR or RFLT (ADPH Website)	Send immediately	<ul style="list-style-type: none"> Requires prior consultation with ID&O before submission. Call BCL prior to shipment. 	PCR	1-3 days	Infectious Substance Category A
<i>Vibrio</i> species	Conventional	<ul style="list-style-type: none"> Pure culture Stool (1 teaspoonful in Cary Blair) 	HGR or RFLT (ADPH Website)	If unable to ship after 24 hour growth, refrigerate at 2–8°C.	Incubate pure culture for 24 hours prior to shipping.	Biochemicals	3–8 days	Biological Substance, Category B
<i>Yersinia pestis</i>	Conventional & EID	<ul style="list-style-type: none"> Pure culture Lymph node aspirate or biopsy Bronchial or tracheal wash/aspirate or other lower respiratory tract specimen Blood Sputum Nasopharyngeal swab 	HGR or RFLT (ADPH Website)	Send immediately	Call BCL prior to shipment	Biochemicals & PCR	7-14 days	Infectious Substance Category A

Acronyms

ASM – American Society for Microbiology
 CSF - Cerebrospinal Fluid
 EDTA - Ethylenediamine Tetraacetic Acid
 ELISA – Enzyme-linked Immunosorbent Assay
 CDC – Centers for Disease Control and Prevention
 CSF - Cerebrospinal Fluid
 g - Grams
 HGR – Horizon Generated Request

ID - Identification
 ID&O – Infectious Diseases & Outbreaks Division
 KPC – *Klebsiella pneumoniae* carbapenemase
 ml – Milliliters
 PCR – Polymerase Chain Reaction
 RFLT – Requisition Form for Laboratory Testing
 WSLH – Wisconsin State Laboratory of Hygiene