

# New York City Public Health Laboratory Tests and Services Manual

Updated 11/16/2022

# Contents

Clinical.....	6
A.....	6
Antibiotic resistance testing.....	6
Antimicrobial susceptibility testing.....	6
B.....	7
<i>Bordetella pertussis</i> .....	7
C.....	7
<i>Campylobacter</i> spp.....	7
<i>Clostridium botulinum</i> toxin.....	8
<i>Chlamydia trachomatis</i> / <i>Neisseria gonorrhoeae</i> .....	8
E.....	9
Ebola virus.....	9
Enteric isolate.....	9
G.....	10
Gastrointestinal Pathogen Panel.....	10
General bacteriology culture.....	11
General bacteriology isolate.....	11
H.....	12
<i>Haemophilus influenzae</i> .....	12
Hepatitis A virus.....	12
Human Immunodeficiency Virus (HIV).....	13
I.....	15
Influenza A and B viruses.....	15
L.....	16
<i>Legionella</i> .....	16
<i>Listeria monocytogenes</i> .....	17
M.....	18
Measles virus.....	18
Middle East Respiratory Syndrome (MERS) coronavirus.....	19
MRSA/VISA.....	20

Mumps virus.....	20
Mycobacteria (AFB) .....	22
<i>Mycobacterium tuberculosis</i> .....	24
Mycobacteria (AFB), non-MTB isolates .....	25
N.....	26
<i>Neisseria gonorrhoeae</i> .....	26
<i>Neisseria meningitidis</i> .....	26
Norovirus.....	27
O.....	27
Orthopox viruses .....	27
R .....	28
Rabies virus.....	28
Respiratory Pathogen Panel .....	29
Rubella virus .....	30
S.....	31
<i>Salmonella enterica</i> ser. Typhi/Paratyphi.....	31
SARS-CoV-2 Influenza A Influenza B .....	31
SARS-CoV-2 Influenza A Influenza B RSV .....	32
SARS-CoV-2.....	32
Shiga toxin-producing <i>Escherichia coli</i> .....	35
<i>Shigella</i> spp.....	35
Stool culture .....	36
V .....	36
Varicella zoster virus.....	36
<i>Vibrio</i> spp.....	37
Y.....	38
<i>Yersinia</i> spp.....	38
Environmental.....	39
A .....	39
Aerobes .....	39
Alkalinity .....	39
B .....	40
<i>Bacillus cereus</i> .....	40

C.....	40
Calcium .....	40
Calcium Hardness .....	41
<i>Campylobacter</i> .....	41
Chloride .....	42
<i>Clostridium perfringens</i> .....	42
Coliforms .....	43
E.....	45
Enterococci .....	45
<i>Escherichia coli</i> .....	45
F.....	47
Fluoride .....	47
G.....	47
Gastrointestinal Pathogen Panel <i>Salmonella, Escherichia coli, Shigella, Listeria, Campylobacter</i> ....	47
H.....	48
Heterotrophic Plate Count .....	48
Histamine .....	48
L.....	49
<i>Legionella</i> .....	49
<i>Listeria monocytogenes</i> .....	53
M.....	54
Magnesium.....	54
MRSA, Legionella, Enterobacter, Neisseria meningitidis .....	54
N.....	55
Nitrate .....	55
O.....	55
Orthophosphate .....	55
S.....	56
<i>Salmonella</i> .....	56
<i>Shigella</i> .....	56
Solids, Total Dissolved .....	57
Specific Conductance.....	57
<i>Staphylococcus aureus</i> .....	58

Shiga-toxin-producing <i>Escherichia coli</i> (STEC) .....	59
Sulfate .....	59
T.....	60
Tick-borne pathogen panel <i>Borrelia burgdorferi</i> , <i>Anaplasma phagocytophilum</i> , <i>Babesia microti</i> , <i>Borrelia miyamotoi</i> , Powassan virus.....	60
Turbidity .....	60
V .....	61
<i>Vibrio parahaemolyticus</i> , <i>Vibrio cholerae</i> , <i>Vibrio vulnificus</i> .....	61
W.....	61
West Nile virus .....	61
Y.....	62
<i>Yersinia enterocolitica</i> .....	62
<b>Biothreat.....</b>	<b>63</b>
B .....	63
<i>Bacillus anthracis</i> .....	63
<i>Brucella</i> spp .....	63
<i>Burkholderia mallei</i> .....	64
<i>Burkholderia pseudomallei</i> .....	64
C.....	65
Clinical Biothreat PCR Panel .....	65
<i>Clostridium botulinum</i> toxin .....	65
F.....	65
<i>Francisella tularensis</i> .....	65
Y.....	65
<i>Yersinia pestis</i> .....	65

# Clinical

## A

<b>Suspected Agent</b>	Antibiotic resistance testing
<b>Test Name</b>	Antibiotic Resistance Testing
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Molecular and culture-based tests
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Antimicrobial Susceptibility Testing</a>

<b>Suspected Agent</b>	Antimicrobial susceptibility testing
<b>Test Name</b>	Antimicrobial Susceptibility Testing
<b>Approval Required</b>	N/A
<b>Methodology</b>	E-test gradient minimum inhibitory concentration
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Antibiotic Resistance Testing</a>

## B

<b>Suspected Agent</b>	<i>Bordetella pertussis</i>
<b>Test Name</b>	<i>Bordetella pertussis</i> Culture
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Conventional microbiological methods, MALDI-TOF
<b>Acceptable Specimen(s)</b>	Isolate or primary specimens
<b>Specimen Collection/ Preparation</b>	Isolates: pure culture on Regan-Lowe agar slant Primary specimens: collect in sterile container
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-5 business days
<b>Related Tests</b>	N/A

## C

<b>Suspected Agent</b>	<i>Campylobacter</i> spp.
<b>Test Name</b>	<i>Campylobacter</i> spp. Isolate Identification
<b>Approval Required</b>	N/A
<b>Methodology</b>	Conventional biochemicals
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/ Preparation</b>	Streak on Campy BA media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	2-4 business days
<b>Related Tests</b>	- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental) - <a href="#">Gastrointestinal Pathogen PCR Panel</a>

<b>Suspected Agent</b>	<i>Clostridium botulinum</i> toxin
<b>Test Name</b>	<i>Clostridium botulinum</i> Toxin Identification
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Mouse bioassay
<b>Acceptable Specimen(s)</b>	Serum (Adult: 5–15 ml; Pediatric: 4 ml); Stool (Adult: 10-20 g; Pediatric: 10 g)
<b>Specimen Collection/Preparation</b>	<b>Collect/Preparation:</b> <b>Serum or Whole blood</b> in Serum Separator Tube (SST) or red-top tube without additive or anticoagulant. Blood and serum must be collected before antitoxin treatment. After collection, allow blood to clot completely at room temperature. Separate serum from cells by centrifugation and draw off serum into a sterile container. <b>Stool</b> collected in a leak-proof, sterile container. Do not add specimen to container with preservative/transport medium. <b>NOTE:</b> <i>Smaller quantities of stool (0.5–1.0 g) may be tested. If needed, enema can be obtained with sterile non-bacteriostatic water (not tap water).</i>
<b>Storage/Transport Conditions</b>	Store and transport with cold packs at 2–8°C.
<b>Turnaround Time</b>	4-5 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	<i>Chlamydia trachomatis/Neisseria gonorrhoeae</i>
<b>Test Name</b>	CT/NG NAAT
<b>Approval Required</b>	Bureau of Hepatitis, HIV and STIs
<b>Methodology</b>	Nucleic acid amplification
<b>Acceptable Specimen(s)</b>	Urine (neat), urine in transport tubes, swabs (endocervical, urethral, rectal, oropharyngeal)
<b>Specimen Collection/Preparation</b>	Specimens must be submitted in manufacturer's approved collection devices.
<b>Storage/Transport Conditions</b>	neat urine: 2-30°C within 24 hours; urine in transport tube: 2-30°C within 30 days; swabs 2-30°C within 60 days
<b>Turnaround Time</b>	3 business days
<b>Related Tests</b>	N/A



## E

<b>Suspected Agent</b>	Ebola virus ( <i>Zaire ebolavirus</i> )
<b>Test Name</b>	Ebola Virus Real-Time RT-PCR
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Qualitative real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Blood; plasma; serum; urine (when tested in conjunction with blood, plasma, or serum); Minimum volume: 4 ml (adult); 1 ml (pediatric)
<b>Specimen Collection/Preparation</b>	Follow specimen collection and storage guidelines provided by DOHMH. For additional details, refer to CDC "Guidance for Collection, Transport, and Submission of Specimens for Ebola Testing".
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 24 hours. Additional guidelines and details are provided by DOHMH.
<b>Turnaround Time</b>	≤1 business day (Presumptive results)
<b>Related Tests</b>	- <a href="#">Clinical Biothreat Agent PCR Panel (biothreat)</a>

<b>Suspected Agent</b>	Enteric isolate
<b>Test Name</b>	Enteric Isolate Identification
<b>Approval Required</b>	N/A
<b>Methodology</b>	Conventional biochemicals and serotyping, MALDI-TOF
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	3-10 business days
<b>Related Tests</b>	- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental) - <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)

## G

	<p>Gastrointestinal Pathogen Panel</p> <p><i>Campylobacter (jejuni, coli, and upsaliensis)</i></p> <p><i>Clostridium difficile</i> (toxin A/B)</p> <p><i>Plesiomonas shigelloides</i></p> <p><i>Salmonella</i></p> <p><i>Yersinia enterocolitica</i></p> <p><i>Vibrio (parahaemolyticus, vulnificus, and cholerae)</i></p> <p>Enteraggregative <i>Escherichia coli</i> (EAEC)</p> <p>Enteropathogenic <i>Escherichia coli</i> (EPEC)</p> <p>Enterotoxigenic <i>Escherichia coli</i> (ETEC) lt/st</p> <p>Shiga-like toxin-producing <i>Escherichia coli</i> (STEC) stx1/stx2</p> <p><i>Escherichia coli</i> O157</p> <p><i>Shigella</i>/Enteroinvasive <i>Escherichia coli</i> (EIEC)</p> <p><i>Cryptosporidium</i></p> <p><i>Cyclospora cayetanensis</i></p> <p><i>Entamoeba histolytica</i></p> <p><i>Giardia lamblia</i></p> <p>Adenovirus F40/41</p> <p>Astrovirus</p> <p>Norovirus GI/GII</p> <p>Rotavirus A</p> <p>Sapovirus (I, II, IV, and V)</p>
<b>Suspected Agent</b>	
<b>Test Name</b>	Gastrointestinal Pathogen PCR Panel
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative multiplex real-time PCR
<b>Acceptable Specimen(s)</b>	Stool in Cary-Blair Transport Medium (≥ 1 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Fresh stool in Cary-Blair Transport Medium. <b>Prepare:</b> Collect fresh stool specimen and place specimen in transport medium within 2 hours of collection. Add stool until level indicated on transport media container. Do not over fill.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Stool Culture</a></li> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental)</li> <li>- <a href="#">Campylobacter spp. Isolate Identification</a></li> <li>- <a href="#">Norovirus Group 1 and 2 Real-Time RT-PCR</a></li> <li>- <a href="#">Salmonella enterica ser. Typhi/Paratyphi Rule Out</a></li> <li>- <a href="#">Vibrio spp. Isolate Identification</a></li> <li>- <a href="#">Yersinia spp. Isolate Identification</a></li> <li>- <a href="#">Shiga Toxin-Producing Escherichia coli Rule Out</a></li> <li>- <a href="#">Shigella spp. Serotyping and Antimicrobial Susceptibility Testing</a></li> </ul>

<b>Suspected Agent</b>	General bacteriology culture
<b>Test Name</b>	General Bacteriology Culture
<b>Approval Required</b>	Approved for NYC Office of Chief Medical Examiner only
<b>Methodology</b>	Conventional microbiological methods, MALDI-TOF
<b>Acceptable Specimen(s)</b>	Primary specimens
<b>Specimen Collection/Preparation</b>	Collect in a sterile container
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	3-14 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	General bacteriology isolate
<b>Test Name</b>	General Bacteriology Isolate
<b>Approval Required</b>	N/A
<b>Methodology</b>	Conventional microbiological methods, MALDI-TOF
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	2-14 business days
<b>Related Tests</b>	N/A

## H

<b>Suspected Agent</b>	<i>Haemophilus influenzae</i>
<b>Test Name</b>	<i>Haemophilus influenzae</i> Serotyping
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Conventional microbiological methods, MALDI-TOF
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	Hepatitis A virus
<b>Test Name</b>	Hepatitis A virus, IgM Antibodies
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative chemiluminescent immunoassay
<b>Acceptable Specimen(s)</b>	Plasma ( $\geq 1$ ml); serum ( $\geq 1$ ml); blood ( $\geq 4$ ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Plasma in Green (Sodium Heparin), Pink (K2EDTA), Light Blue (Sodium Citrate), or Yellow (ACD) Tube. Blood or serum in Red-top tube or Serum Separator Tube (SST, red-speckled or gold top tube). <b>Prepare:</b> Separate plasma or serum from cells within 24 hours of collection by centrifugation. Blood can be collected in Red-top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship blood specimens refrigerated with cold packs within 72 hours. Serum and plasma must be refrigerated with cold packs up to 7 days or frozen at $-20^{\circ}\text{C}$ or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Hepatitis A Virus, Total Antibodies</a>

<b>Suspected Agent</b>	Hepatitis A virus
<b>Test Name</b>	Hepatitis A Virus, Total Antibodies
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative chemiluminescent immunoassay
<b>Acceptable Specimen(s)</b>	Plasma ( $\geq 1$ ml); serum ( $\geq 1$ ml); blood ( $\geq 4$ ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Plasma in Green (Sodium Heparin). Blood or serum in Red-top tube or Serum Separator Tube (SST, red-speckled or gold-top tube). <b>Prepare:</b> Separate plasma from cells by centrifugation. Blood can be collected in Red-top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship blood specimens refrigerated with cold packs within 72 hours. Serum and plasma must be refrigerated with cold packs up to 7 days or frozen at $-20^{\circ}\text{C}$ or below and shipped with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	<a href="#">Hepatitis A Virus, IgM Antibodies</a>

<b>Suspected Agent</b>	Human Immunodeficiency Virus (HIV)
<b>Test Name</b>	HIV Ag/Ab Combo Assay
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative enzyme-linked immunoassay
<b>Acceptable Specimen(s)</b>	Plasma ( $\geq 1$ ml); serum ( $\geq 1$ ml); blood ( $\geq 4$ ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Plasma Preparation Tube (PPT). Blood or serum in Red-top tube or Serum Separator Tube (SST, red-speckled or gold-top tube). <b>Prepare:</b> Separate plasma or serum from cells by centrifugation. Blood can be collected in Red-top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated plasma or serum at $-20^{\circ}\text{C}$ or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">HIV-1 Quantitative NAAT</a> - <a href="#">HIV-1 Genotype and Drug Resistance</a>

<b>Suspected Agent</b>	Human Immunodeficiency Virus (HIV)
<b>Test Name</b>	HIV-1 Quantitative NAAT
<b>Approval Required</b>	PHL HIV unit Phone: 212-671-5919 or 212-671-5890
<b>Methodology</b>	Quantitative transcription-mediated amplification
<b>Acceptable Specimen(s)</b>	Plasma (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Plasma Preparation Tube (PPT). Relatedly, Lavender (EDTA) and Pink (K2EDTA) Tubes are accepted. <b>Prepare:</b> Separate plasma from cells within 24 hours of collection by centrifugation.
<b>Storage/Transport Conditions</b>	Store refrigerated and ship in with cold packs within 60 hours. Relatedly, freeze separated plasma at -70°C and ship with dry ice.
<b>Turnaround Time</b>	5-10 business days
<b>Related Tests</b>	- <a href="#">HIV Ag/Ab Combo Assay</a> - <a href="#">HIV-1 Genotype and Drug Resistance</a>

<b>Suspected Agent</b>	Human Immunodeficiency Virus (HIV)
<b>Test Name</b>	HIV-1 Genotype and Drug Resistance
<b>Approval Required</b>	PHL HIV unit Phone: 212-671-5919 or 212-671-5890
<b>Methodology</b>	Next Generation Sequencing
<b>Acceptable Specimen(s)</b>	Plasma ( $\geq 4$ ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Plasma Preparation Tube (PPT). Relatedly, Lavender (EDTA) and Pink (K2EDTA) Tubes are accepted. <b>Prepare:</b> Separate plasma or serum from cells within 24 hours of collection by centrifugation.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 24 hours. Relatedly, freeze separated plasma at $-70^{\circ}\text{C}$ and ship with dry ice.
<b>Turnaround Time</b>	5-16 business days
<b>Related Tests</b>	- <a href="#">HIV Ag/Ab Combo Assay</a> - <a href="#">HIV-1 Quantitative NAAT</a>

<b>Suspected Agent</b>	Influenza A and B viruses
<b>Test Name</b>	Influenza A and B Virus Real-Time RT-PCR with Subtyping
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Nasopharyngeal swab, nasal swab, throat swab or dual nasopharyngeal/throat swab in viral transport medium (3 ml); nasal aspirate ( $\geq 3$ ml)
<b>Specimen Collection/Preparation</b>	N/A
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection. If specimens are shipped after 72 hours from collection, freeze at $-70^{\circ}\text{C}$ and ship with dry ice. NOTE: Specimens received older than 72 hours (refrigerated) or older than 30 days (frozen) will be rejected.
<b>Turnaround Time</b>	3-5 business days
<b>Related Tests</b>	- <a href="#">CDC SARS-CoV-2/Influenza A and B Real-Time RT-PCR</a>

## L

<b>Suspected Agent</b>	<i>Legionella</i>
<b>Test Name</b>	<i>Legionella Culture</i>
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Conventional microbiological methods, MALDI-TOF, direct fluorescent antibody test, real-time PCR
<b>Acceptable Specimen(s)</b>	Primary specimens
<b>Specimen Collection/Preparation</b>	Collect in a sterile container
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-7 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Legionella Isolate Serotyping</a> (clinical)</li> <li>- <a href="#">Legionella Water Screening Real-Time PCR</a> (environmental)</li> <li>- <a href="#">Legiolert</a> (environmental)</li> <li>- <a href="#">Legionella Detection and Enumeration in Water, ISO11731:2017(E)</a> (environmental)</li> <li>- <a href="#">Legionella Species Confirmation and Serotyping</a> (environmental)</li> <li>- <a href="#">Subtyping of Legionella spp. by Whole Genome Sequencing</a> (environmental)</li> <li>- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)</li> </ul>



<b>Suspected Agent</b>	Legionella
<b>Test Name</b>	<i>Legionella</i> Isolate Serotyping
<b>Approval Required</b>	N/A
<b>Methodology</b>	Direct fluorescent antibody, Real-time PCR
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-7 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Legionella Culture</a> (clinical)</li> <li>- <a href="#">Legionella Water Screening Real-Time PCR</a> (environmental)</li> <li>- <a href="#">Legiolert</a> (environmental)</li> <li>- <a href="#">Legionella Detection and Enumeration in Water, ISO11731:2017(E)</a> (environmental)</li> <li>- <a href="#">Legionella Species Confirmation and Serotyping</a> (environmental)</li> <li>- <a href="#">Subtyping of Legionella spp. by Whole Genome Sequencing</a> (environmental)</li> <li>- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)</li> </ul>

<b>Suspected Agent</b>	<i>Listeria monocytogenes</i>
<b>Test Name</b>	<i>Listeria monocytogenes</i> Isolate Serotyping
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Conventional microbiological methods, MALDI-TOF
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Listeria monocytogenes Detection in Food</a></li> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: Salmonella, Escherichia coli, Shigella, Listeria and Campylobacter</a> (environmental)</li> </ul>

## M

<b>Suspected Agent</b>	Measles virus
<b>Test Name</b>	Measles (Rubeola) Virus, IgG Antibodies
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative chemiluminescent immunoassay
<b>Acceptable Specimen(s)</b>	Serum (≥ 1 ml); blood (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Blood in red-top tube or serum in Serum Separator Tube (SST; red-speckled or gold top tube). <b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Measles (Rubeola) Virus, IgM Antibodies</a> - <a href="#">Measles Virus Real-Time RT-PCR</a>

## Clinical

<b>Suspected Agent</b>	Measles virus
<b>Test Name</b>	Measles (Rubeola) Virus, IgM Antibodies
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative enzyme-linked immunoassay
<b>Acceptable Specimen(s)</b>	Serum (≥ 1 ml); blood (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Blood in red-top tube or serum in Serum Separator Tube (SST; red-speckled or gold top tube). <b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Measles (Rubeola) Virus, IgG Antibodies</a> - <a href="#">Measles Virus Real-Time RT-PCR</a>

<b>Suspected Agent</b>	Measles virus
<b>Test Name</b>	Measles Virus Real-Time RT-PCR
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Nasopharyngeal swab or throat swab in viral transport medium (3 ml)
<b>Specimen Collection/Preparation</b>	N/A
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection. If specimens are to be shipped after 72 hours from collection freeze at -70°C and ship with dry ice. NOTE: Specimens received older than 72 hours (refrigerated) or older than 30 days (frozen) will be rejected.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Measles (Rubeola) Virus, IgG Antibodies</a> - <a href="#">Measles (Rubeola) Virus, IgM Antibodies</a>

<b>Suspected Agent</b>	Middle East Respiratory Syndrome (MERS) coronavirus
<b>Test Name</b>	MERS-CoV Real-Time RT-PCR
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Nasopharyngeal swab or oropharyngeal swab in viral transport medium (3 ml); sputum (≥ 3 ml); bronchial aspirate/wash (≥ 3 ml)
<b>Specimen Collection/Preparation</b>	Use a flocked, flexible-shaft nasopharyngeal or oropharyngeal swab and place in 3 ml of viral transport medium. Other specimen types should be collected in a sterile, leak-proof container.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection. If specimens are shipped after 72 hours from collection, freeze at -70°C and ship with dry ice.
<b>Turnaround Time</b>	3-5 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	MRSA/VISA
<b>Test Name</b>	MRSA/VISA Isolate Confirmation
<b>Approval Required</b>	N/A
<b>Methodology</b>	E-test gradient minimum inhibitory concentration
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)

<b>Suspected Agent</b>	Mumps virus
<b>Test Name</b>	Mumps Virus, IgG Antibodies
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative chemiluminescent immunoassay
<b>Acceptable Specimen(s)</b>	Serum (≥ 1 ml); blood (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Blood in red-top tube or serum in Serum Separator Tube (SST, red-speckled or gold-top tube). <b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red-top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Mumps Virus, IgM Antibodies</a> - <a href="#">Mumps Virus Real-Time RT-PCR</a>

<b>Suspected Agent</b>	Mumps virus
<b>Test Name</b>	Mumps Virus, IgM Antibodies
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative enzyme-linked immunoassay
<b>Acceptable Specimen(s)</b>	Serum (≥ 1 ml); blood (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Blood in red-top tube or serum in Serum Separator Tube (SST, red-speckled or gold-top tube). <b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red-top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Mumps Virus, IgG Antibodies</a> - <a href="#">Mumps Virus Real-Time RT-PCR</a>

<b>Suspected Agent</b>	Mumps virus
<b>Test Name</b>	Mumps Virus Real-Time RT-PCR
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Buccal/oral swab or oropharyngeal swab in viral transport medium (3 ml)
<b>Specimen Collection/Preparation</b>	Use a flexible-shaft buccal or oropharyngeal swab and place in 3 ml of viral transport medium.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection. If specimens are shipped after 72 hours from collection, freeze at -70°C and ship with dry ice.
<b>Turnaround Time</b>	3-5 business days
<b>Related Tests</b>	- <a href="#">Mumps Virus, IgG Antibodies</a> - <a href="#">Mumps Virus, IgM Antibodies</a>

<b>Suspected Agent</b>	Mycobacteria (AFB)
<b>Test Name</b>	<i>Mycobacteria (AFB) Culture and Smear</i>
<b>Approval Required</b>	N/A
<b>Methodology</b>	Fluorescent acid-fast bacilli smear; mycobacterial culture identification by MALDI-TOF, HPLC or nucleic acid probe
<b>Acceptable Specimen(s)</b>	Sputum or other lower respiratory (e.g. BAL, bronchial/tracheal aspirates) or body fluids ( $\geq 3$ ml); CSF or gastric aspirates ( $\geq 3$ ml); tissue or lymph node ( $>1$ g); urine ( $\geq 10$ ml)
<b>Specimen Collection/Preparation</b>	Collect in a sterile container. Patient is to rinse mouth with boiled/sterile/bottled or distilled water prior to sputum collection. Gastric aspirates must be neutralized (pH 7.0) with sodium carbonate within 1 hour of collection
<b>Storage/Transport Conditions</b>	Sputum or other lower respiratory (e.g. BAL, bronchial/tracheal aspirates) or body fluids: 2-8°C  CSF or gastric aspirates: room temperature  Tissue or lymph node: 2-8°C  Urine: 2-8°C
<b>Turnaround Time</b>	AFB smear: 1 business day Mycobacterial culture: 70 days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Mycobacteria Culture and Smear with Reflex to NAAT</a></li> <li>- <a href="#">Mycobacterium tuberculosis Culture Identification and Antimicrobial Susceptibility Testing with Reflex to Genotyping</a></li> <li>- <a href="#">Mycobacteria (Non-Mycobacterium tuberculosis isolates) Referral Culture Identification</a></li> </ul>

<b>Suspected Agent</b>	Mycobacteria (AFB)
<b>Test Name</b>	<i>Mycobacteria Culture and Smear with Reflex to NAAT</i>
<b>Approval Required</b>	N/A
<b>Methodology</b>	Fluorescent acid-fast bacilli smear; mycobacterial culture identification by MALDI-TOF, HPLC or nucleic acid probe; NAAT
<b>Acceptable Specimen(s)</b>	Processed sputum preferred ( $\geq 1.5$ ml); raw sputum or other lower respiratory (e.g. BAL, bronchial/tracheal aspirates) or body fluids ( $\geq 3$ ml); CSF or gastric aspirates ( $\geq 3$ ml); tissue or lymph node ( $>1$ g); urine ( $\geq 10$ ml)
<b>Specimen Collection/Preparation</b>	Collect in a sterile container. Patient is to rinse mouth with boiled/sterile/bottled or distilled water prior to sputum collection.
<b>Storage/Transport Conditions</b>	Sputum or other lower respiratory (e.g. BAL, bronchial/tracheal aspirates) or body fluids: 2-8°C  CSF or gastric aspirates: room temperature  Tissue or lymph node: 2-8°C  Urine: 2-8°C
<b>Turnaround Time</b>	AFB smear: 1 business day NAAT: 1-4 business days Mycobacterial culture: 70 days
<b>Related Tests</b>	- <a href="#">Mycobacteria (AFB) Culture and Smear</a> - <a href="#">Mycobacterium tuberculosis Culture Identification and Antimicrobial Susceptibility Testing with Reflex to Genotyping</a> - <a href="#">Mycobacteria (Non-Mycobacterium tuberculosis isolates) Referral Culture Identification</a>

<b>Suspected Agent</b>	<i>Mycobacterium tuberculosis</i>
<b>Test Name</b>	<i>Mycobacterium tuberculosis</i> Culture Identification and Antimicrobial Susceptibility Testing with Reflex to Genotyping
<b>Approval Required</b>	N/A
<b>Methodology</b>	<p>Identification methods include MALDI-TOF, HPLC and nucleic acid probe.</p> <p>First-line antimicrobial susceptibility testing by MGIT 960 broth method performed on the first MTBC culture-positive isolate received from a new patient. Isolates resistant to any first-line drug (except PZA mono-resistance) are reflexed to second-line drug susceptibility testing by agar proportion method.</p>
<b>Acceptable Specimen(s)</b>	<i>M. tuberculosis</i> complex isolate on appropriate media
<b>Specimen Collection/Preparation</b>	<p>Isolate on solid slanted medium: -Volume: visible growth on LJ, 7H10, etc. (minimum: &gt;5 colonies)</p> <p>Isolate in liquid medium: -Volume: 3 ml of MGIT, 7H9 broth, etc. (minimum: 1.5 ml)</p>
<b>Storage/Transport Conditions</b>	N/A
<b>Turnaround Time</b>	<p>Identification: 21 business days  MGIT 960 broth: 30 business days  Agar proportion: 45 business days</p>
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Mycobacteria (AFB) Culture and Smear</a></li> <li>- <a href="#">Mycobacteria Culture and Smear with Reflex to NAAT</a></li> <li>- <a href="#">Mycobacteria (Non-<i>Mycobacterium tuberculosis</i> isolates) Referral Culture Identification</a></li> </ul>



<b>Suspected Agent</b>	Mycobacteria (AFB), non-MTB isolates
<b>Test Name</b>	Mycobacteria (Non- <i>Mycobacterium tuberculosis</i> isolates) Referral Culture Identification
<b>Approval Required</b>	N/A
<b>Methodology</b>	MALDI-TOF, HPLC, nucleic acid probe
<b>Acceptable Specimen(s)</b>	Mycobacteria (AFB) isolate on appropriate media (see specimen collection)
<b>Specimen Collection/Preparation</b>	For specimen collection/preparation, follow special requirements for " <a href="#">Mycobacterium tuberculosis Culture Identification and Antimicrobial Susceptibility Testing with Reflex to Genotyping</a> "
<b>Storage/Transport Conditions</b>	N/A
<b>Turnaround Time</b>	21 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Mycobacteria (AFB) Culture and Smear</a></li> <li>- <a href="#">Mycobacteria Culture and Smear with Reflex to NAAT</a></li> <li>- <a href="#">Mycobacterium tuberculosis Culture Identification and Antimicrobial Susceptibility Testing with Reflex to Genotyping</a></li> </ul>

## N

<b>Suspected Agent</b>	<i>Neisseria gonorrhoeae</i>
<b>Test Name</b>	<i>Neisseria gonorrhoeae</i> Culture
<b>Approval Required</b>	Bureau of Hepatitis, HIV and STIs
<b>Methodology</b>	Conventional microbiological methods, MALDI-TOF, antimicrobial susceptibility testing for positive culture
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on In-Tray media only
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">CT/NG NAAT</a>

<b>Suspected Agent</b>	<i>Neisseria meningitidis</i>
<b>Test Name</b>	<i>Neisseria meningitidis</i> Serotyping
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Conventional microbiological methods, MALDI-TOF, molecular methods and antimicrobial susceptibility testing
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	24-72 hours
<b>Related Tests</b>	- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)

<b>Suspected Agent</b>	Norovirus
<b>Test Name</b>	Norovirus Group 1 and 2 Real-Time RT-PCR
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative multiplex real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Stool ( $\geq 0.5$ ml; 0.5 g)
<b>Specimen Collection/Preparation</b>	Transfer stool to a leak-proof, sterile container. Do not add specimen to container with preservative/transport medium.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection. If specimens are shipped after 72 hours from collection, freeze at $-70^{\circ}\text{C}$ and ship with dry ice. NOTE: Specimens received older than 72 hours (refrigerated) will be rejected.
<b>Turnaround Time</b>	3-5 business days
<b>Related Tests</b>	- <a href="#">Gastrointestinal Pathogen PCR Panel</a>

## O

<b>Suspected Agent</b>	Orthopox viruses (i.e., Non-Variola Orthopoxvirus, MPV)
<b>Test Name</b>	Clinical poxvirus
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Dry swab, Swab in VTM
<b>Specimen Collection/Preparation</b>	Collect two swabs from each lesion collected. Transfer swab in its own separate sterile container (i.e., conical tube or urine cup) or VTM. Break off the end of the applicator if possible.
<b>Storage/Transport Conditions</b>	Within one hour of collection, place specimens in a refrigerator ( $2-8^{\circ}\text{C}$ ) or freezer ( $-20^{\circ}\text{C}$ or lower). Refrigerated or frozen specimens should be sent to PHL within 5 days of collection. Refrigerated specimens must be sent with cold packs, while frozen specimens must be sent on dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	N/A

## R

<b>Suspected Agent</b>	Rabies virus
<b>Test Name</b>	<i>Rabies Virus Direct Fluorescent Antibody Test (animal specimens)</i>
<b>Approval Required</b>	Veterinary Public Health Service
<b>Methodology</b>	Direct fluorescent antibody test
<b>Acceptable Specimen(s)</b>	Refrigerated head of suspected animal only. Bats (killed) may be submitted as whole carcass.
<b>Specimen Collection/Preparation</b>	All animals for rabies diagnosis should be reported first to Veterinary Public Health Service 212-676-2120 between 9am–5pm weekdays and to Poison Control 212-POISONS after normal working hours.
<b>Storage/Transport Conditions</b>	Store and ship at 2-8°C with cold packs as soon as possible
<b>Turnaround Time</b>	24 hours (Emergency Turn-around-time: 6 hours after received by the Rabies Laboratory)
<b>Related Tests</b>	- <a href="#">Rabies Virus Clinical Ante-Mortem Diagnosis of Human Rabies</a>

<b>Suspected Agent</b>	Rabies virus
<b>Test Name</b>	<i>Rabies Virus Clinical Ante-Mortem Diagnosis of Human Rabies</i>
<b>Approval Required</b>	N/A
<b>Methodology</b>	Send out (NYS Wadsworth)
<b>Acceptable Specimen(s)</b>	See: <a href="http://www.wadsworth.org/rabies/prof/ante.htm">http://www.wadsworth.org/rabies/prof/ante.htm</a>
<b>Specimen Collection/Preparation</b>	See: <a href="http://www.wadsworth.org/rabies/prof/ante.htm">http://www.wadsworth.org/rabies/prof/ante.htm</a>
<b>Storage/Transport Conditions</b>	See: <a href="http://www.wadsworth.org/rabies/prof/ante.htm">http://www.wadsworth.org/rabies/prof/ante.htm</a>
<b>Turnaround Time</b>	1-4 weeks
<b>Related Tests</b>	- <a href="#">Rabies Virus Direct Fluorescent Antibody Test (animal specimens)</a>

<b>Suspected Agent</b>	Respiratory Pathogen Panel Adenovirus Coronavirus 229E Coronavirus HKU1 Coronavirus NL63 Coronavirus OC43 Influenza A Influenza A/H3 Influenza A/2009-H1 Influenza B Human Metapneumovirus Human Rhinovirus/Enterovirus Parainfluenza 1 (PIV1) Parainfluenza 2 (PIV2) Parainfluenza 3 (PIV3) Parainfluenza 4 (PIV4) Respiratory Syncytial Virus <i>Bordetella parapertussis</i> <i>Bordetella pertussis</i> <i>Chlamydophila/Chlamydia pneumoniae</i> <i>Mycoplasma pneumoniae</i>
<b>Test Name</b>	Respiratory Pathogen PCR Panel (excludes SARS-CoV-2)
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	Qualitative multiplex real-time PCR
<b>Acceptable Specimen(s)</b>	Nasopharyngeal swab in viral transport medium (3 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Use a flocked, flexible-shaft nasopharyngeal swab and place in 3 ml of viral transport medium.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection. Relatedly, freeze at -70°C and ship with dry ice. NOTE: Specimens received older than 72 hours (refrigerated) or older than 30 days (frozen) will be rejected.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Influenza A and B Virus Real-Time RT-PCR with Subtyping</a> - <a href="#">CDC SARS-CoV-2/Influenza A and B Real-Time RT-PCR</a> - <a href="#">Bordetella pertussis Culture</a>

<b>Suspected Agent</b>	Rubella virus
<b>Test Name</b>	Rubella Virus, IgG Antibodies
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative chemiluminescent immunoassay
<b>Acceptable Specimen(s)</b>	Serum (≥ 1 ml); blood (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Blood in red-top tube or serum in Serum Separator Tube (SST; red-speckled or gold top tube). <b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Rubella Virus, IgM Antibodies</a>

<b>Suspected Agent</b>	Rubella virus
<b>Test Name</b>	Rubella Virus, IgM Antibodies
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative chemiluminescent immunoassay
<b>Acceptable Specimen(s)</b>	Serum (≥ 1 ml); blood (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Blood in red-top tube or serum in Serum Separator Tube (SST; red-speckled or gold top tube). <b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Rubella Virus, IgG Antibodies</a>

## S

<b>Suspected Agent</b>	<i>Salmonella enterica</i> ser. Typhi/Paratyphi
<b>Test Name</b>	<i>Salmonella enterica</i> ser. Typhi/Paratyphi Rule Out
<b>Approval Required</b>	Department of Health and Mental Hygiene only
<b>Methodology</b>	Identification by conventional biochemicals and serotyping by serology
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	3-10 business days
<b>Related Tests</b>	- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental) - <a href="#">Gastrointestinal Pathogen PCR Panel</a>

## Clinical

<b>Suspected Agent</b>	SARS-CoV-2 Influenza A Influenza B
<b>Test Name</b>	CDC SARS-CoV-2/Influenza A and B Real-Time RT-PCR
<b>Approval Required</b>	PHL: 212-671-5890
<b>Methodology</b>	Qualitative multiplex real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Nasopharyngeal swab in viral transport medium (3 ml)
<b>Specimen Collection/Preparation</b>	Use a flocked, flexible-shaft nasopharyngeal swab and place in 3 ml of viral transport medium.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection. If specimens are shipped after 72 hours from collection, freeze at -70°C and ship with dry ice
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Influenza A and B Virus Real-Time RT-PCR with Subtyping</a> - <a href="#">XpertXpress SARS-CoV-2/Influenza A and B/RSV Real-Time RT-PCR</a> - <a href="#">SARS-CoV-2 Subtyping by Whole Genome Sequencing (WGS)</a> - <a href="#">SARS-CoV-2 Virus Spike, IgG Antibodies</a> - <a href="#">SARS-CoV-2 Virus Nucleocapsid, Total Antibodies</a>

<b>Suspected Agent</b>	SARS-CoV-2 Influenza A Influenza B RSV
<b>Test Name</b>	Xpert Xpress SARS-CoV-2/Influenza A and B/RSV Real-Time RT-PCR
<b>Approval Required</b>	PHL: 212-671-5890
<b>Methodology</b>	Qualitative multiplex real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Nasopharyngeal swab in viral transport medium (3 ml)
<b>Specimen Collection/Preparation</b>	Use a flocked, flexible-shaft nasopharyngeal swab and place in 3 ml of viral transport medium.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours from collection. Relatedly, freeze at -70°C and ship with dry ice
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Influenza A and B Virus Real-Time RT-PCR with Subtyping</a></li> <li>- <a href="#">CDC SARS-CoV-2/Influenza A and B Real-Time RT-PCR</a></li> <li>- <a href="#">SARS-CoV-2 Subtyping by Whole Genome Sequencing (WGS)</a></li> <li>- <a href="#">SARS-CoV-2 Virus Spike, IgG Antibodies</a></li> <li>- <a href="#">SARS-CoV-2 Virus Nucleocapsid, Total Antibodies</a></li> </ul>



<b>Suspected Agent</b>	SARS-CoV-2
<b>Test Name</b>	SARS-CoV-2 Subtyping by Whole Genome Sequencing (WGS)
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 347-396-2600
<b>Methodology</b>	ARTIC PCR tiling of SARS-CoV-2 cDNA and Illumina/Nanopore sequencing
<b>Acceptable Specimen(s)</b>	Nasopharyngeal swab in viral transport medium (3 ml)
<b>Specimen Collection/Preparation</b>	Use a flocked, flexible-shaft nasopharyngeal swab and place in 3 ml of viral transport medium.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated (with cold packs) within 72 hours from collection. Relatedly, freeze at -70°C and ship with dry ice
<b>Turnaround Time</b>	3-8 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">CDC SARS-CoV-2/Influenza A and B Real-Time RT-PCR</a></li> <li>- <a href="#">XpertXpress SARS-CoV-2/Influenza A and B/RSV Real-Time RT-PCR</a></li> <li>- <a href="#">SARS-CoV-2 Virus Spike, IgG Antibodies</a></li> <li>- <a href="#">SARS-CoV-2 Virus Nucleocapsid, Total Antibodies</a></li> </ul>

<b>Suspected Agent</b>	SARS-CoV-2
<b>Test Name</b>	SARS-CoV-2 Virus Spike, IgG Antibodies
<b>Approval Required</b>	Testing is only approved for use by DOHMH (seroprevalence studies)
<b>Methodology</b>	Qualitative chemiluminescent immunoassay
<b>Acceptable Specimen(s)</b>	Plasma (≥ 1 ml); serum (≥ 1 ml); blood (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<p><b>Collect:</b> Plasma in Green (Sodium/Lithium Heparin) or Pink (K2EDTA). Serum in Serum Separator Tube (SST, red-speckled or gold-top tube).</p> <p><b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red-top tube and submitted to PHL for processing</p>
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated plasma or serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-10 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">CDC SARS-CoV-2/Influenza A and B Real-Time RT-PCR</a></li> <li>- <a href="#">XpertXpress SARS-CoV-2/Influenza A and B/RSV Real-Time RT-PCR</a></li> <li>- <a href="#">SARS-CoV-2 Subtyping by Whole Genome Sequencing (WGS)</a></li> <li>- <a href="#">SARS-CoV-2 Virus Nucleocapsid, Total Antibodies</a></li> </ul>

<b>Suspected Agent</b>	SARS-CoV-2
<b>Test Name</b>	SARS-CoV-2 Virus Nucleocapsid, Total Antibodies
<b>Approval Required</b>	Testing is only approved for use by DOHMH (seroprevalence studies)
<b>Methodology</b>	Qualitative enzyme-linked immunoassay
<b>Acceptable Specimen(s)</b>	Plasma ( $\geq 1$ ml); serum ( $\geq 1$ ml); blood ( $\geq 4$ ml)
<b>Specimen Collection/Preparation</b>	<p><b>Collect:</b> Plasma in Lavender (EDTA), Pink (K2EDTA), or Plasma Preparation Tube (PPT). Serum in Serum Separator Tube (SST, red-speckled or gold-top tube).</p> <p><b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells within 2 hours of collection by centrifugation. Specimens not separated within 2 hours should be refrigerated immediately. Blood specimens must be received within 72 hours after collection</p>
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated plasma or serum at $-20^{\circ}\text{C}$ or below and ship with dry ice.
<b>Turnaround Time</b>	1-10 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">CDC SARS-CoV-2/Influenza A and B Real-Time RT-PCR</a></li> <li>- <a href="#">Xpert Xpress SARS-CoV-2/Influenza A and B/RSV Real-Time RT-PCR</a></li> <li>- <a href="#">SARS-CoV-2 Subtyping by Whole Genome Sequencing (WGS)</a></li> <li>- <a href="#">SARS-CoV-2 Virus Spike, IgG Antibodies</a></li> </ul>

<b>Suspected Agent</b>	Shiga toxin-producing <i>Escherichia coli</i>
<b>Test Name</b>	Shiga Toxin-Producing <i>Escherichia coli</i> Rule Out
<b>Approval Required</b>	N/A
<b>Methodology</b>	Culture; enzyme immunoassay for Shiga toxin I & II. If positive, identification and serotyping
<b>Acceptable Specimen(s)</b>	Stool or GN broth
<b>Specimen Collection/Preparation</b>	Collect in a sterile container
<b>Storage/Transport Conditions</b>	Send on cold pack
<b>Turnaround Time</b>	2-4 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental)</li> <li>- <a href="#">STEC (non-O157:H7) Detection in Food</a> (environmental)</li> <li>- <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)</li> </ul>

<b>Suspected Agent</b>	<i>Shigella</i> spp.
<b>Test Name</b>	<i>Shigella</i> spp. Serotyping and Antimicrobial Susceptibility Testing
<b>Approval Required</b>	N/A
<b>Methodology</b>	Conventional biochemical serotyping and antimicrobial susceptibility testing
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	3-10 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental)</li> <li>- <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)</li> </ul>

<b>Suspected Agent</b>	Stool culture
<b>Test Name</b>	Stool Culture
<b>Approval Required</b>	Bureau of Communicable Diseases/Office of Environmental Investigations only
<b>Methodology</b>	Conventional biochemicals and serotyping
<b>Acceptable Specimen(s)</b>	Stool
<b>Specimen Collection/Preparation</b>	Collect in a sterile container
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	3-10 business days
<b>Related Tests</b>	- <a href="#">Gastrointestinal Pathogen PCR Panel</a>

V

<b>Suspected Agent</b>	Varicella zoster virus
<b>Test Name</b>	Varicella Zoster Virus (VZV), IgG Antibodies
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative chemiluminescent immunoassay
<b>Acceptable Specimen(s)</b>	Serum ( $\geq 1$ ml); blood ( $\geq 4$ ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Blood in red-top tube or serum in Serum Separator Tube (SST, red-speckled or gold-top tube). <b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red-top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 72 hours. Relatedly, freeze separated serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Varicella Zoster Virus (VZV), IgM Antibodies</a>

<b>Suspected Agent</b>	Varicella zoster virus
<b>Test Name</b>	Varicella Zoster Virus (VZV), IgM Antibodies
<b>Approval Required</b>	Bureau of Immunization Phone: 347-396-2402
<b>Methodology</b>	Qualitative enzyme-linked immunoassay
<b>Acceptable Specimen(s)</b>	Serum (≥ 1 ml); blood (≥ 4 ml)
<b>Specimen Collection/Preparation</b>	<b>Collect:</b> Blood in red-top tube or serum in Serum Separator Tube (SST, red-speckled or gold-top tube). <b>Prepare:</b> After collection, allow specimen to clot completely at room temperature. Separate serum from cells by centrifugation. Blood can be collected in red-top tube and submitted to PHL for processing.
<b>Storage/Transport Conditions</b>	Store and ship refrigerated with cold packs within 48 hours. Relatedly, freeze separated serum at -20°C or below and ship with dry ice.
<b>Turnaround Time</b>	1-3 business days
<b>Related Tests</b>	- <a href="#">Varicella Zoster Virus (VZV), IgG Antibodies</a>

<b>Suspected Agent</b>	<i>Vibrio</i> spp.
<b>Test Name</b>	<i>Vibrio</i> spp. Isolate Identification
<b>Approval Required</b>	N/A
<b>Methodology</b>	Conventional biochemicals and serotyping
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	3-10 business days
<b>Related Tests</b>	- <a href="#">Vibriobacter spp. Detection in Food</a> (environmental) - <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)

## Y

<b>Suspected Agent</b>	<i>Yersinia</i> spp.
<b>Test Name</b>	<i>Yersinia</i> spp. Isolate Identification
<b>Approval Required</b>	N/A
<b>Methodology</b>	Conventional biochemicals, MALDI-TOF
<b>Acceptable Specimen(s)</b>	Isolate
<b>Specimen Collection/Preparation</b>	Streak on appropriate media
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	3-10 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Yersinia enterocolitica Detection in Food</a> (environmental)</li> <li>- <a href="#">Yersinia pestis Identification</a> (biothreat)</li> <li>- <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)</li> </ul>

# Environmental

## A

<b>Suspected Agent</b>	Aerobes
<b>Test Name</b>	Aerobic Plate Count in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Dilution plating with molten standard plate count agar. Enumerations following incubation 48 hours later.
<b>Acceptable Specimen(s)</b>	Any Food (≥ 11 g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	2 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	Alkalinity
<b>Test Name</b>	Alkalinity (SM23 2320B)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Titration method per SM2320B
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 250 ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	14 business days
<b>Related Tests</b>	N/A

## B

<b>Suspected Agent</b>	<i>Bacillus cereus</i>
<b>Test Name</b>	<i>Bacillus cereus</i> Detection and Enumeration in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Dilution plating on selective media followed by enumeration of potential colonies, biochemical testing, and microscopy.
<b>Acceptable Specimen(s)</b>	Any Food ( $\geq 11$ g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	4-6 business days
<b>Related Tests</b>	N/A

## C

<b>Suspected Agent</b>	Calcium
<b>Test Name</b>	Ca, Total (SM 23 3111B)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Flame atomic absorption spectrometry per SM 3111B
<b>Acceptable Specimen(s)</b>	Potable Water ( $\geq 50$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	28 business days
<b>Related Tests</b>	- <a href="#">Calcium Hardness (SM 2340B)</a>



<b>Suspected Agent</b>	Calcium Hardness
<b>Test Name</b>	Calcium Hardness (SM 2340B)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Calculation method per SM 2340B
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 50 ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	28 business days
<b>Related Tests</b>	- <a href="#">Ca, Total (SM 23 3111B)</a>

<b>Suspected Agent</b>	<i>Campylobacter</i>
<b>Test Name</b>	<i>Campylobacter jejuni</i> detection in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Enrichment in a microaerophilic environment, PCR and immunological pre-screening of enrichments, followed by biochemical testing, latex agglutination, and microscopy.
<b>Acceptable Specimen(s)</b>	Any Food (≥ 25 g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	5-7 business days
<b>Related Tests</b>	- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental) - <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)

<b>Suspected Agent</b>	Chloride
<b>Test Name</b>	Chloride (EPA 300.0,R.2.1)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Ion chromatography EPA300.0
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 50 ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	28 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	<i>Clostridium perfringens</i>
<b>Test Name</b>	<i>Clostridium perfringens</i> Detection and Enumeration in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Dilution plating and culture under anaerobic conditions. Followed by enumeration of potential colonies, biochemical testing, and microscopy.
<b>Acceptable Specimen(s)</b>	Any Food (≥ 11 g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	3-5 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	Coliforms
<b>Test Name</b>	Total and Fecal Coliforms in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Dilutions in select liquid medium tubes with Durham vials. Incubation is followed by scoring growth reactions using a published standard table for most probable number estimations.
<b>Acceptable Specimen(s)</b>	Any Food ( $\geq 11$ g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	2-4 business days
<b>Related Tests</b>	- <a href="#">Total Coliforms, SM23 9223B (Colilert)</a> - <a href="#">Fecal Coliforms, Colilert-18</a> - <a href="#">Coliform Enumeration in Pools, Colilert-18</a>

<b>Suspected Agent</b>	Coliforms
<b>Test Name</b>	<i>Total Coliforms, SM23 9223B (Colilert)</i>
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	SM23 9223B (Colilert)
<b>Acceptable Specimen(s)</b>	Potable water ( $\geq 100$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in sterile wide-mouth collection bottles. For samples that contain or suspected to contain chlorine, a sodium thiosulfate tablet is included in the collection bottle
<b>Storage/Transport Conditions</b>	Samples are transported on ice. Time from collection to testing shall not exceed 30 hours for potable water samples.
<b>Turnaround Time</b>	2 business days
<b>Related Tests</b>	- <a href="#">Total and Fecal Coliforms in Food</a> - <a href="#">Fecal Coliforms, Colilert-18</a> - <a href="#">Coliform Enumeration in Pools, Colilert-18</a>

<b>Suspected Agent</b>	Coliforms
<b>Test Name</b>	<i>Fecal Coliforms, Colilert-18</i>
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Colilert-18
<b>Acceptable Specimen(s)</b>	Non-potable water ( $\geq 100$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in sterile wide-mouth collection bottles. For samples that contain or suspected to contain chlorine, a sodium thiosulfate tablet is included in the collection bottle
<b>Storage/Transport Conditions</b>	Samples are transported on ice. Time from collection to testing shall not exceed 8 hours for non-potable water samples.
<b>Turnaround Time</b>	2 business days
<b>Related Tests</b>	- <a href="#">Total and Fecal Coliforms in Food</a> - <a href="#">Total Coliforms, SM23 9223B (Colilert)</a> - <a href="#">Coliform Enumeration in Pools, Colilert-18</a>

<b>Suspected Agent</b>	Coliforms
<b>Test Name</b>	<i>Coliform Enumeration in Pools, Colilert-18</i>
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Colilert-18
<b>Acceptable Specimen(s)</b>	Non-potable water ( $\geq 100$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in sterile wide-mouth collection bottles. For samples that contain or suspected to contain chlorine, a sodium thiosulfate tablet is included in the collection bottle
<b>Storage/Transport Conditions</b>	Samples are transported on ice. Time from collection to testing shall not exceed 8 hours for non-potable water samples.
<b>Turnaround Time</b>	2 business days
<b>Related Tests</b>	- <a href="#">Total and Fecal Coliforms in Food</a> - <a href="#">Total Coliforms, SM23 9223B (Colilert)</a> - <a href="#">Fecal Coliforms, Colilert-18</a>

## E

<b>Suspected Agent</b>	Enterococci
<b>Test Name</b>	Enterolert, SM23 9230D
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	SM23 9230D
<b>Acceptable Specimen(s)</b>	Non-potable water ( $\geq 100$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in sterile wide-mouth collection bottles. For samples that contain or suspected to contain chlorine, a sodium thiosulfate tablet is included in the collection bottle
<b>Storage/Transport Conditions</b>	Samples are transported on ice. Time from collection to testing shall not exceed 8 hours for non-potable water samples.
<b>Turnaround Time</b>	2 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	<i>Escherichia coli</i>
<b>Test Name</b>	<i>Escherichia coli</i> O157:H7 Detection in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Enrichment in selective media followed by plating on differential media. PCR and immunological pre-screening of enrichments. Biochemical testing, latex agglutination, and serology for confirmation.
<b>Acceptable Specimen(s)</b>	Any Food ( $\geq 25$ g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	5-10 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Escherichia coli (Enumeration), SM23 9223B (Colilert)</a></li> <li>- <a href="#">Escherichia coli Enumeration, Colilert-18</a></li> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: Salmonella, Escherichia coli, Shigella, Listeria and Campylobacter</a></li> </ul>

<b>Suspected Agent</b>	<i>Escherichia coli</i>
<b>Test Name</b>	<i>Escherichia coli (Enumeration), SM23 9223B (Colilert)</i>
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	SM23 9223B (Colilert)
<b>Acceptable Specimen(s)</b>	Potable water ( $\geq 100$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in sterile wide-mouth collection bottles. For samples that contain or suspected to contain chlorine, a sodium thiosulfate tablet is included in the collection bottle
<b>Storage/Transport Conditions</b>	Samples are transported on ice. Time from collection to testing shall not exceed 30 hours for potable water samples and 8 hours for non-potable samples.
<b>Turnaround Time</b>	2 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Escherichia coli O157:H7 Detection in Food</a></li> <li>- <a href="#">Escherichia coli Enumeration, Colilert-18</a></li> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: Salmonella, Escherichia coli, Shigella, Listeria and Campylobacter</a></li> </ul>

<b>Suspected Agent</b>	<i>Escherichia coli</i>
<b>Test Name</b>	<i>Escherichia coli Enumeration, Colilert-18</i>
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Colilert-18
<b>Acceptable Specimen(s)</b>	Non-potable water ( $\geq 100$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in sterile wide-mouth collection bottles. For samples that contain or suspected to contain chlorine, a sodium thiosulfate tablet is included in the collection bottle
<b>Storage/Transport Conditions</b>	Samples are transported on ice. Time from collection to testing shall not exceed 8 hours for non-potable water samples.
<b>Turnaround Time</b>	2 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Escherichia coli O157:H7 Detection in Food</a></li> <li>- <a href="#">Escherichia coli (Enumeration), SM23 9223B (Colilert)</a></li> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: Salmonella, Escherichia coli, Shigella, Listeria and Campylobacter</a></li> </ul>

## F

<b>Suspected Agent</b>	Fluoride
<b>Test Name</b>	Fluoride, Total (EPA 300.0,R.2.1)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Ion chromatography EPA300.0
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 50 ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	28 business days
<b>Related Tests</b>	N/A

## G

<b>Suspected Agent</b>	Gastrointestinal Pathogen Panel <i>Salmonella</i> , <i>Escherichia coli</i> , <i>Shigella</i> , <i>Listeria</i> , <i>Campylobacter</i>
<b>Test Name</b>	Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i> , <i>Escherichia coli</i> , <i>Shigella</i> , <i>Listeria</i> and <i>Campylobacter</i>
<b>Approval Required</b>	N/A
<b>Methodology</b>	Whole genome sequencing
<b>Acceptable Specimen(s)</b>	Bacterial isolate
<b>Specimen Collection/Preparation</b>	Pure cultures re-streaked from confirmed isolates
<b>Storage/Transport Conditions</b>	Isolates should be as fresh as possible (generally a few days). Transport and storage at ambient temperature
<b>Turnaround Time</b>	7-15 business days
<b>Related Tests</b>	- <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)

## H

<b>Suspected Agent</b>	Heterotrophic Plate Count
<b>Test Name</b>	Heterotrophic Plate Count, SM23 9215B
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Pour plate method per SM23 9215B
<b>Acceptable Specimen(s)</b>	Potable water ( $\geq 100$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in sterile wide-mouth collection bottles. For samples that contain or suspected to contain chlorine, a sodium thiosulfate tablet is included in the collection bottle
<b>Storage/Transport Conditions</b>	Samples are transported on ice. Time from collection to testing shall not exceed 30 hours for potable water samples.
<b>Turnaround Time</b>	3 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	Histamine
<b>Test Name</b>	Histamine in Fish
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Competitive exclusion enzyme-linked immunosorbent assay
<b>Acceptable Specimen(s)</b>	Variety of fish ( $\geq 10$ g) including tuna, mahi-mahi, marlin, bluefish, sardines, anchovy, bonito, herring and mackerel
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	1 business day
<b>Related Tests</b>	N/A



L

<b>Suspected Agent</b>	<i>Legionella</i>
<b>Test Name</b>	<i>Legionella Water Screening Real-Time PCR</i>
<b>Approval Required</b>	Office of Building Water System Oversight Phone: 718-786-5610
<b>Methodology</b>	Qualitative multiplex real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Potable, Non-Potable Water ( $\geq 15$ ml) and Swabs
<b>Specimen Collection/Preparation</b>	Samples are collected in sterilized 250 ml bottles with sodium thiosulfate added to inactivate 15 mg/ml chlorine. Swabs contain a few ml of sample source water with sodium thiosulfate added.
<b>Storage/Transport Conditions</b>	Samples delivered to the lab and tested within 48 hours of collection and protected from sunlight and temperatures exceeding ambient. Samples received by the lab stored refrigerated until tested.
<b>Turnaround Time</b>	1-2 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Legionella Culture</a> (clinical)</li> <li>- <a href="#">Legionella Isolate Serotyping</a> (clinical)</li> <li>- <a href="#">Legiolert</a> (environmental)</li> <li>- <a href="#">Legionella Detection and Enumeration in Water, ISO11731:2017(E)</a> (environmental)</li> <li>- <a href="#">Legionella Species Confirmation and Serotyping</a> (environmental)</li> <li>- <a href="#">Subtyping of Legionella spp. by Whole Genome Sequencing</a> (environmental)</li> <li>- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)</li> </ul>

<b>Suspected Agent</b>	<i>Legionella</i>
<b>Test Name</b>	<a href="#">Legiolert</a>
<b>Approval Required</b>	Office of Building Water System Oversight Phone: 718-786-5610
<b>Methodology</b>	Selective media for <i>Legionella pneumophila</i> based upon most probable number calculations
<b>Acceptable Specimen(s)</b>	Potable, Non-Potable Water (≥ 100 ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in sterilized 250 ml bottles with sodium thiosulfate added to inactivate 15 mg/ml chlorine.
<b>Storage/Transport Conditions</b>	Samples delivered to the lab and tested within 48 hours of collection and protected from sunlight and temperatures exceeding ambient. Samples received by the lab stored refrigerated until tested.
<b>Turnaround Time</b>	7 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Legionella Culture</a> (clinical)</li> <li>- <a href="#">Legionella Isolate Serotyping</a> (clinical)</li> <li>- <a href="#">Legionella Water Screening Real-Time PCR</a> (environmental)</li> <li>- <a href="#">Legionella Detection and Enumeration in Water, ISO11731:2017(E)</a> (environmental)</li> <li>- <a href="#">Legionella Species Confirmation and Serotyping</a> (environmental)</li> <li>- <a href="#">Subtyping of Legionella spp. by Whole Genome Sequencing</a> (environmental)</li> <li>- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)</li> </ul>

<b>Suspected Agent</b>	<i>Legionella</i>
<b>Test Name</b>	<i>Legionella Detection and Enumeration in Water, ISO11731:2017(E)</i>
<b>Approval Required</b>	Office of Building Water System Oversight Phone: 718-786-5610
<b>Methodology</b>	Classical microbiology using selective media, and physical and chemical pretreatments
<b>Acceptable Specimen(s)</b>	Potable, Non-Potable Water ( $\geq 200$ ml) and Swabs
<b>Specimen Collection/Preparation</b>	Samples are collected in sterilized 250 ml bottles with sodium thiosulfate added to inactivate 15 mg/ml chlorine. Swabs contain a few ml of sample source water with sodium thiosulfate added.
<b>Storage/Transport Conditions</b>	Samples delivered to the lab and tested within 48 hours of collection and protected from sunlight and temperatures exceeding ambient. Samples received by the lab stored refrigerated until tested.
<b>Turnaround Time</b>	10-14 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Legionella Culture</a> (clinical)</li> <li>- <a href="#">Legionella Isolate Serotyping</a> (clinical)</li> <li>- <a href="#">Legionella Water Screening Real-Time PCR</a> (environmental)</li> <li>- <a href="#">Legiolert</a> (environmental)</li> <li>- <a href="#">Legionella Species Confirmation and Serotyping</a> (environmental)</li> <li>- <a href="#">Subtyping of Legionella spp. by Whole Genome Sequencing</a> (environmental)</li> <li>- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)</li> </ul>

<b>Suspected Agent</b>	<i>Legionella</i>
<b>Test Name</b>	<a href="#">Legionella Species Confirmation and Serotyping</a>
<b>Approval Required</b>	Office of Building Water System Oversight Phone: 718-786-5610
<b>Methodology</b>	Qualitative multiplex real-time RT-PCR; Direct fluorescent antibody
<b>Acceptable Specimen(s)</b>	Pure culture colonies on agar plates or slants
<b>Specimen Collection/Preparation</b>	Pure cultures re-streaked from a suspected Legionella isolated colony grown on agar.
<b>Storage/Transport Conditions</b>	Agar plates and tubes should be freshly streaked cultures (few to several days), but isolates may be from samples received within the past year.
<b>Turnaround Time</b>	1-2 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Legionella Culture</a> (clinical)</li> <li>- <a href="#">Legionella Isolate Serotyping</a> (clinical)</li> <li>- <a href="#">Legionella Water Screening Real-Time PCR</a> (environmental)</li> <li>- <a href="#">Legiolert</a> (environmental)</li> <li>- <a href="#">Legionella Detection and Enumeration in Water, ISO11731:2017(E)</a> (environmental)</li> <li>- <a href="#">Subtyping of Legionella spp. by Whole Genome Sequencing</a> (environmental)</li> <li>- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)</li> </ul>

<b>Suspected Agent</b>	<i>Legionella</i>
<b>Test Name</b>	<i>Subtyping of Legionella spp. by Whole Genome Sequencing</i>
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Whole genome sequencing
<b>Acceptable Specimen(s)</b>	Bacterial isolate
<b>Specimen Collection/Preparation</b>	Pure cultures re-streaked from confirmed isolates
<b>Storage/Transport Conditions</b>	Isolates should be as fresh as possible (generally a few days). Transport and storage at ambient temperature
<b>Turnaround Time</b>	5 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Legionella Culture</a> (clinical)</li> <li>- <a href="#">Legionella Isolate Serotyping</a> (clinical)</li> <li>- <a href="#">Legionella Water Screening Real-Time PCR</a> (environmental)</li> <li>- <a href="#">Legiolert</a> (environmental)</li> <li>- <a href="#">Legionella Detection and Enumeration in Water, ISO11731:2017(E)</a> (environmental)</li> <li>- <a href="#">Legionella Species Confirmation and Serotyping</a> (environmental)</li> <li>- <a href="#">Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, Legionella, Enterobacter and Neisseria meningitidis</a> (environmental)</li> </ul>

<b>Suspected Agent</b>	<i>Listeria monocytogenes</i>
<b>Test Name</b>	<i>Listeria monocytogenes</i> Detection in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Enrichment in selective media followed by plating on differential media. PCR and immunological pre-screening of enrichments. Biochemical testing, microscopy, and serology for confirmation.
<b>Acceptable Specimen(s)</b>	Any Food (≥ 25 g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	7-10 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Listeria monocytogenes Isolate Serotyping</a> (clinical)</li> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: Salmonella, Escherichia coli, Shigella, Listeria and Campylobacter</a> (environmental)</li> </ul>

## M

<b>Suspected Agent</b>	Magnesium
<b>Test Name</b>	Mg, Total (SM 23 3111B)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Flame atomic absorption spectrometry per SM 3111B
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 50 ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	28 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	MRSA, Legionella, Enterobacter, Neisseria meningitidis
<b>Test Name</b>	Bacterial Subtyping by Pulsed-Field Gel Electrophoresis: MRSA, <i>Legionella</i> , <i>Enterobacter</i> and <i>Neisseria meningitidis</i>
<b>Approval Required</b>	N/A
<b>Methodology</b>	Pulsed-field gel electrophoresis
<b>Acceptable Specimen(s)</b>	Bacterial isolate
<b>Specimen Collection/Preparation</b>	Pure cultures re-streaked from confirmed isolates
<b>Storage/Transport Conditions</b>	Isolates should be as fresh as possible (generally a few days). Transport and storage at ambient temperature
<b>Turnaround Time</b>	4 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">MRSA/VISA Isolate Confirmation</a> (clinical)</li> <li>- <a href="#">Legionella Culture</a> (clinical)</li> <li>- <a href="#">Legionella Isolate Serotyping</a> (clinical)</li> <li>- <a href="#">Legiolert</a> (environmental)</li> <li>- <a href="#">Legionella Detection and Enumeration in Water, ISO11731:2017(E)</a> (environmental)</li> <li>- <a href="#">Legionella Species Confirmation and Serotyping</a> (environmental)</li> <li>- <a href="#">Subtyping of Legionella spp. by Whole Genome Sequencing</a> (environmental)</li> <li>- <a href="#">Neisseria meningitidis Isolate Serotyping</a> (clinical)</li> </ul>

## N

<b>Suspected Agent</b>	Nitrate
<b>Test Name</b>	Nitrate (as N) (EPA 300.0,R.2.1)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Ion chromatography EPA300.0
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 50 ml)
<b>Specimen Collection/ Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	48 hours
<b>Related Tests</b>	N/A

## O

<b>Suspected Agent</b>	Orthophosphate
<b>Test Name</b>	Orthophosphate (as P) (EPA 300.0,R.2.1)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Ion chromatography EPA300.0
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 50 ml)
<b>Specimen Collection/ Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	48 hours
<b>Related Tests</b>	N/A

## S

<b>Suspected Agent</b>	<i>Salmonella</i>
<b>Test Name</b>	<i>Salmonella</i> Detection in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Enrichment in sequential selective media followed by plating on differential media. PCR and immunological pre-screening of enrichments. Biochemical testing and serology for confirmation.
<b>Acceptable Specimen(s)</b>	Any Food (≥ 25 g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	7-14 business days
<b>Related Tests</b>	- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental) - <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)

<b>Suspected Agent</b>	<i>Shigella</i>
<b>Test Name</b>	<i>Shigella</i> Detection in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Enrichment in selective media followed by plating on differential media. PCR pre-screening of enrichments. Biochemical testing for confirmation.
<b>Acceptable Specimen(s)</b>	Any Food (≥ 25 g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	5-7 business days
<b>Related Tests</b>	- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental) - <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)



<b>Suspected Agent</b>	Solids, Total Dissolved
<b>Test Name</b>	Solids, Total Dissolved (SM 23 2540C)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Gravimetric method per SM 2540C
<b>Acceptable Specimen(s)</b>	Potable Water ( $\geq 250$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	7 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	Specific Conductance
<b>Test Name</b>	Specific Conductance (SM 23 2510B)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Electrometric method per SM 2510B
<b>Acceptable Specimen(s)</b>	Potable Water ( $\geq 250$ ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	28 business days
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	<i>Staphylococcus aureus</i>
<b>Test Name</b>	<i>Staphylococcus aureus Enterotoxin in Food</i>
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Enzyme-linked fluorescent immunoassay
<b>Acceptable Specimen(s)</b>	Any Food ( $\geq 25$ g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation. Refrigerate until testing is initiated.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	1 business day
<b>Related Tests</b>	- <a href="#">Staphylococcus aureus Detection and Enumeration in Food</a>

<b>Suspected Agent</b>	<i>Staphylococcus aureus</i>
<b>Test Name</b>	<i>Staphylococcus aureus Detection and Enumeration in Food</i>
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Dilution plating on selective media followed by biochemical testing (coagulase confirmatory) and microscopy.
<b>Acceptable Specimen(s)</b>	Any Food ( $\geq 11$ g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	5-7 business days
<b>Related Tests</b>	- <a href="#">Staphylococcus aureus Enterotoxin in Food</a>

<b>Suspected Agent</b>	Shiga-toxin-producing <i>Escherichia coli</i> (STEC)
<b>Test Name</b>	STEC (non-O157:H7) Detection in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Enrichment in selective media followed by plating on differential media. PCR and immunological pre-screening of enrichments. Biochemical testing, latex agglutination, and serology for confirmation.
<b>Acceptable Specimen(s)</b>	Any Food (≥ 25 g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	5-10 business days
<b>Related Tests</b>	<ul style="list-style-type: none"> <li>- <a href="#">Shiga Toxin-Producing <i>Escherichia coli</i> Rule Out</a> (clinical)</li> <li>- <a href="#">Bacterial Subtyping by Whole Genome Sequencing: <i>Salmonella</i>, <i>Escherichia coli</i>, <i>Shigella</i>, <i>Listeria</i> and <i>Campylobacter</i></a> (environmental)</li> <li>- <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)</li> </ul>

<b>Suspected Agent</b>	Sulfate
<b>Test Name</b>	Sulfate (as SO <sub>4</sub> ) (EPA 300.0,R.2.1)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Ion chromatography EPA300.0
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 50 ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	28 business days
<b>Related Tests</b>	N/A

## T

<b>Suspected Agent</b>	Tick-borne pathogen panel <i>Borrelia burgdorferi</i> , <i>Anaplasma phagocytophilum</i> , <i>Babesia microti</i> , <i>Borrelia miyamotoi</i> , Powassan virus
<b>Test Name</b>	Tick Panel A Multiplex Real-Time RT-PCR
<b>Approval Required</b>	Office of Vector Surveillance Phone: 646-632-6640
<b>Methodology</b>	Qualitative multiplex real-time RT-PCR
<b>Acceptable Specimen(s)</b>	Tick
<b>Specimen Collection/Preparation</b>	Ticks are collected by vector control and stored in 2ml tube with pure ethanol.
<b>Storage/Transport Conditions</b>	Each tick samples in pure ethanol are stored in -70 freezer once Vector Control group submit the samples to the lab.
<b>Turnaround Time</b>	Two weeks
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	Turbidity
<b>Test Name</b>	Turbidity (SM23 2130 B)
<b>Approval Required</b>	Office of Public Health Engineering Phone: 718-786-6044
<b>Methodology</b>	Nephelometry method per SM 2130B
<b>Acceptable Specimen(s)</b>	Potable Water (≥ 100 ml)
<b>Specimen Collection/Preparation</b>	Samples are collected in clean water bottles with no treatment.
<b>Storage/Transport Conditions</b>	Sample to be kept cool and deliver to the lab within 8 hours after collection.
<b>Turnaround Time</b>	48 hours
<b>Related Tests</b>	N/A

## V

<b>Suspected Agent</b>	<i>Vibrio parahaemolyticus</i> , <i>Vibrio cholerae</i> , <i>Vibrio vulnificus</i>
<b>Test Name</b>	Vibriobacter spp. Detection in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Enrichment in selective media followed by plating on differential media. PCR pre-screening of enrichments. Potential colonies are cross-transferred to differential chromogenic media. Biochemical testing, microscopy, and serology are used for confirmation.
<b>Acceptable Specimen(s)</b>	Any Food (≥ 25 g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	8-14 business days
<b>Related Tests</b>	- <a href="#">Vibrio spp. Isolate Identification</a> (clinical) - <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)

## W

<b>Suspected Agent</b>	West Nile virus
<b>Test Name</b>	West Nile Virus in Mosquito
<b>Approval Required</b>	Office of Vector Surveillance Phone: 646-632-6640
<b>Methodology</b>	Quantitative RT-PCR
<b>Acceptable Specimen(s)</b>	Mosquito or mosquito pool
<b>Specimen Collection/Preparation</b>	Mosquitoes are trapped in a nest and transported to the Entomological Laboratory in a cooler with dry ice. After species identification using the microscope, they were pooled and stored in a 2ml centrifuge tube.
<b>Storage/Transport Conditions</b>	Mosquito pool samples were stored -70 freezer.
<b>Turnaround Time</b>	2 business days
<b>Related Tests</b>	N/A

## Y

<b>Suspected Agent</b>	<i>Yersinia enterocolitica</i>
<b>Test Name</b>	<i>Yersinia enterocolitica</i> Detection in Food
<b>Approval Required</b>	Office of Environmental Investigations Phone: 347-865-5625
<b>Methodology</b>	Dilution plating on selective media followed by enumeration and confirmation using biochemical testing and microscopy.
<b>Acceptable Specimen(s)</b>	Any Food ( $\geq 11$ g)
<b>Specimen Collection/Preparation</b>	Samples are collected in original container or transferred to sterile bags or containers that are labeled with a unique identifier and accompanying documentation.
<b>Storage/Transport Conditions</b>	Refrigerate samples until testing is initiated. No phase changes (solid to liquid or liquid to solid) prior to testing.
<b>Turnaround Time</b>	4-5 business days
<b>Related Tests</b>	- <a href="#">Yersinia spp. Isolate Identification</a> (clinical) - <a href="#">Gastrointestinal Pathogen PCR Panel</a> (clinical)

# Biothreat

## B

<b>Suspected Agent</b>	<i>Bacillus anthracis</i>
<b>Test Name</b>	<i>Bacillus anthracis</i> Identification
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 1-866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Qualitative real-time PCR, culture-based tests
<b>Acceptable Specimen(s)</b>	Bacterial culture isolate(s). For all other sample types please contact the laboratory to discuss. Phone: 212-671-5834
<b>Specimen Collection/Preparation</b>	Bacterial culture isolate on a blood agar plate with no additives/antibiotics, or blood slant. Plates must be taped shut prior to submission.
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1 business day (Presumptive results)
<b>Related Tests</b>	- <a href="#">Clinical Biothreat Agent PCR Panel (biothreat)</a>

<b>Suspected Agent</b>	<i>Brucella spp.</i>
<b>Test Name</b>	<i>Brucella spp.</i> Identification
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 1-866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Qualitative real-time PCR, culture-based tests
<b>Acceptable Specimen(s)</b>	Bacterial culture isolate(s). For all other sample types please contact the laboratory to discuss. Phone: 212 671 5834
<b>Specimen Collection/Preparation</b>	Bacterial culture isolate on a chocolate agar plate with no additives/antibiotics, or chocolate slant. Plates must be taped shut prior to submission.
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1 business day (Presumptive results)
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	<i>Burkholderia mallei</i>
<b>Test Name</b>	<i>Burkholderia mallei</i> Identification
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 1-866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Qualitative real-time PCR, culture-based tests
<b>Acceptable Specimen(s)</b>	Bacterial culture isolate(s). For all other sample types please contact the laboratory to discuss. Phone: 212-671-5834
<b>Specimen Collection/Preparation</b>	Bacterial culture isolate on a blood agar plate with no additives/antibiotics, or blood slant Plates must be taped shut prior to submission.
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1 business day (Presumptive results)
<b>Related Tests</b>	N/A

<b>Suspected Agent</b>	<i>Burkholderia pseudomallei</i>
<b>Test Name</b>	<i>Burkholderia pseudomallei</i> Identification
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 1-866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Qualitative real-time PCR, culture-based tests
<b>Acceptable Specimen(s)</b>	Bacterial culture isolate(s). For all other sample types please contact the laboratory to discuss. Phone: 212-671-5834
<b>Specimen Collection/Preparation</b>	Bacterial culture isolate on a blood agar plate with no additives/antibiotics, or blood slant Plates must be taped shut prior to submission.
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1 business day (Presumptive results)
<b>Related Tests</b>	N/A



## C

<b>Suspected Agent</b>	Clinical Biothreat Agent PCR Panel <i>Bacillus anthracis</i> <i>Francisella tularensis</i> <i>Yersinia pestis</i> Ebola virus (incl. <i>Bundibugyo</i> , <i>Tai Forest</i> , <i>Sudan</i> , <i>Zaires species</i> ) Marburg virus
<b>Test Name</b>	Clinical Biothreat Agent PCR Panel
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 1-866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Qualitative multiplex real-time PCR
<b>Acceptable Specimen(s)</b>	Whole Blood (EDTA) Minimum volume: 4 ml (adult); 1 ml (pediatric)
<b>Specimen Collection/Preparation</b>	Collect two tubes of whole blood in tubes containing EDTA. Follow specimen collection, storage, and transport guidance provided by NYC DOHMH. For additional details, refer to CDC "Guidance for Collection, Transport, and Submission of Specimens for Ebola Testing".
<b>Storage/Transport Conditions</b>	Store and ship specimens refrigerated with cold packs within 24 hours of collection. Additional guidance and details will be provided by NYC DOHMH.
<b>Turnaround Time</b>	1 business day (Presumptive results)
<b>Related Tests</b>	- <i>Bacillus anthracis</i> Identification (biothreat) - <i>Francisella tularensis</i> Identification (biothreat) - <i>Yersinia pestis</i> Identification (biothreat) - Ebola Virus Real-Time RT-PCR (clinical)

<b>Suspected Agent</b>	<i>Clostridium botulinum</i> toxin
<b>See</b>	<a href="#">Clostridium botulinum Toxin Identification (clinical)</a>

## F

<b>Suspected Agent</b>	<i>Francisella tularensis</i>
<b>Test Name</b>	<i>Francisella tularensis</i> Identification
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 1-866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Qualitative real-time PCR, direct fluorescent antibody test, culture-based tests
<b>Acceptable Specimen(s)</b>	Bacterial culture isolate(s). For all other sample types please contact the laboratory to discuss. Phone: 212-671-5834
<b>Specimen Collection/Preparation</b>	Bacterial culture isolate on a chocolate agar plate with no additives/antibiotics, or chocolate slant Plates must be taped shut prior to submission.
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1 business day (Presumptive results)
<b>Related Tests</b>	<a href="#">- Clinical Biothreat Agent PCR Panel (biothreat)</a>

## Y

<b>Suspected Agent</b>	<i>Yersinia pestis</i>
<b>Test Name</b>	<i>Yersinia pestis</i> Identification
<b>Approval Required</b>	Bureau of Communicable Diseases Phone: 1-866-692-3641 After hours contact Poison Control and ask for the PHL Duty Officer on Call. Phone: 212-764-7667
<b>Methodology</b>	Qualitative real-time PCR, direct fluorescent antibody test, culture-based tests
<b>Acceptable Specimen(s)</b>	Bacterial culture isolate(s). For all other sample types please contact the laboratory to discuss. Phone: 212-671-5834
<b>Specimen Collection/Preparation</b>	Bacterial culture isolate on a blood agar plate with no additives/antibiotics, or blood slant Plates must be taped shut prior to submission.
<b>Storage/Transport Conditions</b>	Room temperature
<b>Turnaround Time</b>	1 business day (Presumptive results)
<b>Related Tests</b>	<a href="#">- Clinical Biothreat Agent PCR Panel (biothreat)</a>