




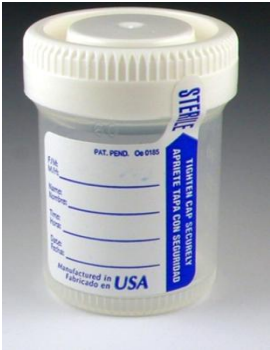




## SPECIMEN COLLECTION GUIDELINE



- All samples must be properly collected, labelled and processed before transported to Neogenix LAB.
- Samples are rejected in case of:
  - a) Incomplete Laboratory Test Service Request Form
    - Absence of clinician's name / signature
    - Absence of date / time of sampling
    - Unclear patient data
  - b) Mismatch patient details on specimen and request form
  - c) Unclear test requested
  - d) Insufficient specimen
  - e) Leaking specimen
  - f) Clotted specimen
  - g) Delayed sample
  - h) Wrong specimen storage condition
  - i) Improper transport condition for specimen
  - j) No sample received
  - k) Test not offered
  - l) Broken tube
  
- As the performance may be affected by prolonged storage of specimens, it is advisable to send specimens directly after collection




No.	Test	Requirements	Container	Picture	Storage Condition
<b>Immunosuppression Panels and Bloodborne Infectious Diseases</b>					
1	<ul style="list-style-type: none"> <li>➤ BK Virus (BKV) Viral Load</li> <li>➤ Cytomegalovirus (CMV) Viral Load</li> <li>➤ BKV and CMV Combo</li> <li>➤ Epstein-Barr (EBV) Viral Load</li> <li>➤ Adenovirus Viral Load</li> <li>➤ Human Immunodeficiency virus (HIV) Viral Load</li> <li>➤ Hepatitis C virus (HCV) Viral Load</li> <li>➤ Hepatitis B virus (HBV) Viral Load</li> </ul>	<ul style="list-style-type: none"> <li>• Required specimen volume: 2x3 mL EDTA blood</li> </ul>	EDTA Tube		<ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> </ul> <p>For areas outside Klang Valley:</p> <ul style="list-style-type: none"> <li>• Store and transport in cold chain (2-8 °C) to the lab</li> </ul>
		<ul style="list-style-type: none"> <li>• BKV, CMV,EBV, Adenovirus: 2 mL EDTA plasma</li> <li>• HIV, HCV, HBV: 3 mL EDTA plasma</li> </ul>	EDTA plasma in cryo-vial		<ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• For areas outside Klang Valley: <ul style="list-style-type: none"> <li>a. Blood collected in EDTA tube</li> <li>b. Centrifuged at 2500 rpm for 10 mins</li> <li>c. Collect 3 mL EDTA plasma into cryo-vial</li> <li>d. Stored at ≤ -20°C</li> <li>e. Seal with Parafilm</li> <li>f. Transport in cold chain to the lab</li> </ul> </li> </ul>



No.	Test	Requirements	Container	Picture	Storage and Transport Condition
2	<ul style="list-style-type: none"> <li>➤ CD4 Count and Haemoglobin Concentration Assay</li> </ul>	<ul style="list-style-type: none"> <li>• Required specimen volume: 3 mL EDTA blood</li> </ul>	EDTA tube		<ul style="list-style-type: none"> <li>• Store at room temperature or at 2-8 °C for longer storage</li> <li>• Specimen must be reach lab within 24 hours after collection</li> </ul>
3	<ul style="list-style-type: none"> <li>➤ Quantiferon Monitor</li> <li>➤ Quantiferon CMV</li> </ul>	<ul style="list-style-type: none"> <li>• Quantiferon Monitor: 3 mL heparinized blood</li> <li>• Quantiferon CMV: 2x3 mL heparinized blood</li> </ul>	Sodium Heparin Tube/ Lithium Heparin Tube (without gel)		<ul style="list-style-type: none"> <li>• <b>Do not store in fridge</b></li> <li>• Keep at room temperature</li> <li>• Specimen must reach lab within 12 hours after collection</li> </ul>

No.	Test	Requirements	Container	Picture	Storage and Transport Condition
<b>Testing for Tuberculosis (TB)</b>					
4	➤ <i>Mycobacterium tuberculosis</i> (TB-PCR)	<ul style="list-style-type: none"> <li>3-5 mL heparinized blood</li> </ul>	Sodium Heparin Tube/ Lithium Heparin Tube (without gel)		<ul style="list-style-type: none"> <li>Store at 2-8 °C</li> <li>Transport in cold chain to the lab</li> </ul>
		<ul style="list-style-type: none"> <li>5 mL sputum /induced sputum</li> <li>5 mL broncho-alveolar lavage (BAL)</li> <li>5 mL tracheal wash</li> <li>10 mL urine</li> <li>5 mL pus from abscess</li> <li>5 mL synovial fluid</li> <li>5 mL pleural fluid</li> <li>Min 2 cm fresh tissue/ tissue biopsy (synovial biopsy, endometrial biopsy, tissue biopsy/scrapings)</li> </ul>	Sterile universal container		<ul style="list-style-type: none"> <li>Store at 2-8 °C</li> <li>Transport in cold chain to the lab</li> </ul>


No.	Test	Requirements	Container	Picture	Storage and Transport Condition
	<ul style="list-style-type: none"> <li>➤ <i>Mycobacterium tuberculosis</i> (TB-PCR) cont.</li> </ul>	<ul style="list-style-type: none"> <li>• 0.5-1 mL lymph node aspirate</li> <li>• 1-2 mL cerebrospinal fluid</li> <li>• 0.5-1 mL bone marrow</li> </ul>	25 mL sterile universal container		<ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• Transport in cold chain to the lab</li> </ul>
5	<ul style="list-style-type: none"> <li>➤ T-Spot TB</li> </ul>	<ul style="list-style-type: none"> <li>• Adults and children 10 years old and over: 6 mL heparinized blood</li> <li>• Children 2-9 years old: 4 mL heparinized blood</li> <li>• Children below 2 years old: 2 mL heparinized blood.</li> </ul>	Sodium Heparin Tube/ Lithium Heparin Tube (without gel)		<ul style="list-style-type: none"> <li>• <b>Do not store in fridge</b></li> <li>• Keep at room temperature and send within 24 hours, <b>not more than 30 hours</b></li> </ul>



No.	Test	Requirements	Container	Picture	Storage and Transport Condition
6	➤ Quantiferon TB Gold Plus	<ul style="list-style-type: none"> <li>6 mL heparinized blood</li> </ul>	Sodium Heparin Tube/ Lithium Heparin Tube (without gel)		<ul style="list-style-type: none"> <li>Sample may be kept at room temperature up to 3 hours</li> <li>For &gt; 3 hours, keep at 2-8°C</li> <li>For area outside Klang Valley, sample must be sent as soon as possible and must reach lab within 24 hours</li> </ul>
		<p>For onsite incubation:</p> <ul style="list-style-type: none"> <li>1 mL blood in each QFT tubes</li> <li>incubate within 8 hrs at 37 °C for 16-24 hrs</li> <li>Centrifuge 3000 x g, 15 mins</li> <li>Keep at 2-8 °C</li> </ul>	Quantiferon TB Gold Plus tubes		<ul style="list-style-type: none"> <li>Must reach lab within 72 hours</li> </ul>



No.	Test	Requirements	Container	Picture	Storage and Transport Condition
<b>Mycology Testing</b>					
7	<ul style="list-style-type: none"> <li>➤ <i>Aspergillus</i> Galactomannan Assay</li> <li>➤ <i>Aspergillus fumigatus</i> IgG Assay</li> </ul>	<ul style="list-style-type: none"> <li>• 3 mL whole blood</li> </ul>	Plain tube		<ul style="list-style-type: none"> <li>• Store at 2-8 °C for longer storage</li> <li>• Transport in cold chain to the lab</li> </ul>
		<ul style="list-style-type: none"> <li>• 600 µL serum</li> </ul>	cryo-vial/serum vial		<ul style="list-style-type: none"> <li>• Store at 2-8 °C for longer storage</li> <li>• Transport in cold chain to the lab</li> </ul> <p>For areas outside Klang Valley:</p> <ol style="list-style-type: none"> <li>a. Blood collected in plain tube</li> <li>b. Centrifuged at 2500 rpm for 10 mins</li> <li>c. Collect 3 mL serum into cryo-vial</li> <li>d. Stored at -20°C or -80°C</li> <li>e. Transport in cold chain to the lab</li> </ol>
	<ul style="list-style-type: none"> <li>➤ <i>Aspergillus</i> Galactomannan Assay</li> </ul>	<ul style="list-style-type: none"> <li>• 1 mL BAL</li> </ul>	Universal container		<ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• Transport in cold chain to the lab</li> </ul>




No.	Test	Requirements	Container	Picture	Storage and Transport Condition
8	<ul style="list-style-type: none"> <li>➤ Molecular identification of fungi (internal transcribed spacer region) and bacteria (16S rRNA or 50S rRNA)</li> <li>➤ Molecular identification of bacteria (16S rRNA or 50S rRNA)</li> </ul>	<ul style="list-style-type: none"> <li>• Pure culture of fungi on appropriate agar</li> <li>• Pure culture of bacteria on appropriate agar</li> </ul>	Agar plate		<ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• Transport in cold chain to the lab</li> </ul>
<b>Sexually Transmitted Diseases and Women Health Screening</b>					
9	<ul style="list-style-type: none"> <li>➤ Essential Screening Panel (STI-7)</li> <li>➤ Genital Ulcer Screening Panel</li> <li>➤ Sexually Transmitted Infections Combo Panel (STI-14)</li> </ul>	<ul style="list-style-type: none"> <li>• 5 mL urine</li> </ul>	Urine container		<ul style="list-style-type: none"> <li>• Store at 2-8 °C for longer storage</li> </ul> <p>For areas outside Klang Valley:</p> <ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• Transport in cold chain to the lab</li> </ul>








No.	Test	Requirements	Container	Picture	Storage and Transport Condition
10	<ul style="list-style-type: none"> <li>➤ Essential Screening Panel (STI-7)</li> <li>➤ Genital Ulcer Screening Panel</li> <li>➤ Combo Panel (STI-14)</li> <li>➤ Premium Panel</li> <li>➤ HPV DNA genotyping</li> </ul>	<ul style="list-style-type: none"> <li>• Genital swab specimen (urethral, vaginal, rectal and cervical)</li> </ul>	<ul style="list-style-type: none"> <li>• Dacron®, rayon- tipped plastic swab</li> <li>• eNAT PM 2 mL Regular Applicator</li> <li>• Swab specimen Collection Kit</li> <li>• UTM with flocced swab</li> </ul>		<ul style="list-style-type: none"> <li>• Store in 2-8°C for longer storage</li> </ul> <p>For areas outside Klang Valley:</p> <ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• Transport in cold chain to the lab</li> </ul>

No.	Test	Requirements	Container	Picture	Storage and Transport Condition
11	<ul style="list-style-type: none"> <li>➤ Essential Screening Panel (STI-7)</li> <li>➤ Genital Ulcer Screening Panel</li> <li>➤ Combo Panel (STI-14)</li> <li>➤ Premium Panel</li> <li>➤ HPV DNA genotyping</li> </ul>	<ul style="list-style-type: none"> <li>• Liquid based cytology specimen (ThinPrep and SurePath)</li> </ul>	ThinPrep/ SurePath brush		<ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• Transport in cold chain to the lab</li> </ul> <p>For areas outside Klang Valley:</p> <ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• Transport in cold chain to the lab</li> </ul>
12	<ul style="list-style-type: none"> <li>➤ Human Papillomavirus (HPV) Screening Assay</li> </ul>	<ul style="list-style-type: none"> <li>• Swab using careBrush</li> </ul>	careHPV Collection Medium		<ul style="list-style-type: none"> <li>• Store at room temperature/ 2-8 °C for longer storage</li> </ul> <p>For areas outside Klang Valley:</p> <ul style="list-style-type: none"> <li>• Store and transport at room temperature</li> <li>• samples can be kept up to 5 days</li> </ul>

No.	Test	Requirements	Container	Picture	Storage and Transport Condition
<b>Gastrointestinal Panel</b>					
13	<ul style="list-style-type: none"> <li>➤ Rapid PCR for Gastrointestinal Pathogen Panel (RPGPP)</li> <li>➤ Gastrointestinal Pathogen Full Panel (GPP)</li> <li>➤ Gastrointestinal Pathogen Assay- Bacteria I Panel</li> <li>➤ Gastrointestinal Pathogen Assay- Bacteria II Panel</li> <li>➤ Gastrointestinal Pathogen Assay- Virus Panel</li> <li>➤ Gastrointestinal Pathogen Assay- Parasite Panel</li> </ul>	<ul style="list-style-type: none"> <li>• Stool sample</li> </ul>	Stool container		<ul style="list-style-type: none"> <li>• Send directly to laboratory, if delay of more than 2 hour anticipated; storage of specimens:               <ul style="list-style-type: none"> <li>- Within 24-48 hours: Refrigerate at 2°C-8°C</li> <li>- More than 48 hours: Frozen in ≤-20°C</li> </ul> </li> <li>• (Note : freezing and thawing of the specimen may cause loss of activity due to degradation of the toxins.)</li> </ul> <p>For areas outside Klang Valley:</p> <ul style="list-style-type: none"> <li>• Store at -20°C</li> <li>• Transport in cold chain to the lab</li> </ul>
<b>Respiratory Panels</b>					
14	<ul style="list-style-type: none"> <li>➤ Respiratory Full Panel Assay (RP26)</li> <li>➤ Respiratory Panel Assay- Virus Panel 1</li> <li>➤ Respiratory Panel Assay- Virus Panel 2</li> <li>➤ Respiratory Panel Assay- Virus Panel 3</li> <li>➤ Respiratory Panel Assay- Viral Panel (RV19)</li> <li>➤ Respiratory Panel Assay- Bacterial Panel (RB7)</li> </ul>	<ul style="list-style-type: none"> <li>• Nasopharyngeal aspirate</li> <li>• Nasopharyngeal swab</li> <li>• Bronchoalveolar lavage</li> <li>• Sputum</li> </ul>	<ul style="list-style-type: none"> <li>• eNAT PM 2 mL Regular Applicator</li> <li>• UTM with flocced swab</li> <li>• ESwab</li> <li>• UTM with Flexible Minitip Flocced Swab</li> </ul>		<ul style="list-style-type: none"> <li>• Store at 2-8 °C</li> <li>• Transport in cold chain to the lab</li> </ul>

No.	Test	Requirements	Container	Picture	Storage and Transport Condition
<b>Other Infectious Diseases Panels</b>					
15	➤ Dengue, Chikungunya and Zika RT-PCR Assay	<ul style="list-style-type: none"> <li>5 mL EDTA blood</li> </ul>	EDTA Tube		<ul style="list-style-type: none"> <li>Store at 2-8 °C for long term storage</li> </ul> For areas outside Klang Valley: <ul style="list-style-type: none"> <li>Transport in cold-chain</li> </ul>
		<ul style="list-style-type: none"> <li>2 mL EDTA plasma</li> </ul>	cryo-vial/serum vial		<ul style="list-style-type: none"> <li>Store at 2-8 °C</li> </ul> For areas outside Klang Valley: <ul style="list-style-type: none"> <li>Blood collected in EDTA tube</li> <li>Centrifuged at 2500 rpm for 10 mins</li> <li>Collect 3 mL EDTA plasma into cryo-vial</li> <li>Stored at -20°C or -80°C</li> <li>Seal with Parafilm</li> <li>Transport in cold chain to the lab</li> </ul>
		<ul style="list-style-type: none"> <li>3 mL Urine</li> </ul>	Urine container		For areas outside Klang Valley: <ul style="list-style-type: none"> <li>Transport in cold-chain</li> </ul>

No.	Test	Requirements	Container	Picture	Storage and Transport Condition
16	➤ Rapid PCR for Meningitis/Encephalitis Panel (ME)	<ul style="list-style-type: none"> <li>0.2-0.4 mL cerebrospinal fluid (CSF)</li> </ul>	25 mL sterile universal container		<ul style="list-style-type: none"> <li>Store at 2-8 °C</li> <li>Transport in cold chain to the lab</li> </ul>
17	➤ Rapid PCR for Blood Culture Identification Panel (BCID)	<ul style="list-style-type: none"> <li>1 mL of sample from positive blood culture (Eg: BioMerieux BACT/ALERT Blood Culture Bottles, BD Bectec Blood Culture Bottles)</li> </ul>	Blood culture bottle		<ul style="list-style-type: none"> <li>Use sterile syringe.</li> <li>Wipe the Bactec bottles head with 70 % alcohol prior to take the positive culture if not sending the whole culture bottle.</li> <li>Transfer into sterile container.</li> <li>Transport to lab for testing as soon as the blood culture positive</li> </ul>

No.	Test	Requirements	Container	Picture	Storage and Transport Condition
<b>Food Intolerance Panels</b>					
18	<ul style="list-style-type: none"> <li>➤ Food Intolerance Premium Panel</li> <li>➤ Food Intolerance Basic Panel</li> </ul>	<ul style="list-style-type: none"> <li>• 3 mL EDTA blood</li> </ul>	EDTA tube		<ul style="list-style-type: none"> <li>• Store in 2-8 °C for longer storage</li> </ul> <p>For areas outside Klang Valley:</p> <ul style="list-style-type: none"> <li>• Transport in cold chain to the lab</li> </ul>
		<ul style="list-style-type: none"> <li>• 3 mL whole blood</li> </ul>	Plain tube		<ul style="list-style-type: none"> <li>• Store in 2-8 °C for longer storage</li> </ul> <p>For areas outside Klang Valley:</p> <ul style="list-style-type: none"> <li>• Transport in cold chain to the lab</li> </ul>
		<ul style="list-style-type: none"> <li>• 300 µL EDTA plasma/ serum</li> </ul>	cryo-vial/serum vial		<ul style="list-style-type: none"> <li>• Store in 2-8 °C</li> <li>• Store at ≤ -20 °C for longer storage</li> <li>• Transport in cold chain to the lab</li> </ul>