



**APSN HEALTHCARE & DIAGNOSTICS SDN BHD**  
201801006332 (1268346-M)



# LABORATORY SERVICE GUIDE

*Provision of human healthcare & diagnostics services*

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## **OVERVIEW**

APSN Healthcare & Diagnostics (APSN HC) Sdn Bhd is a subsidiary of APSN Lifescience Sdn Bhd, which is also under a holding company- Rhone Ma Holding Berhad.

Together with Rhone Ma Malaysia Sdn. Bhd. and APSN Lifescience Sdn Bhd, we able to better optimize resources, share technologies and strategies to promote total quality and services in medical laboratory sector. With our commitment, we able to provide excellent customer service through as a Total Solution Provider (TSP<sup>®</sup>) via smart collaborations and partnerships.

We are providing the following healthcare services:

- Diagnostic testing & services
- Distributing human healthcare related products

### **Objective**

To provide Quality Medical Laboratory service in terms of generating reliable patient test reports, on time, through committed and competent staffs, who always abide by the policies and procedures of the laboratory and to satisfy customers' need.

### **Quality Vision and Mission**

Continually improve and review customer satisfaction and the effectiveness of Quality Management system in line with the requirement of MS ISO/IEC 15189:2014 which includes:

- ✓ To comply with ISO 15189 standards at all time.
- ✓ To maintain excellence in medical laboratory services using standard technology.
- ✓ To ensure compliance with the statutory and regulatory requirements.
- ✓ To ensure adequate resources and staff competence, enabling effective professional services.
- ✓ To complete the laboratory tests and report the results in an effective and timely manner.
- ✓ To ensure continued customer satisfaction.

## **LOCATION OF THE LABORATORY AND CONTACT DETAILS**

APSN Healthcare & Diagnostics Sdn Bhd  
Lot 18A & 18B, Jalan 241  
Seksyen 51A  
46100 Petaling Jaya, Selangor  
Malaysia

Tel: (603) 7873 7355  
Fax: (603) 2770 0119  
Email: [lab@apsnhealthcare.com](mailto:lab@apsnhealthcare.com)  
Website: <https://www.apsnhealthcare.com/>

## **OPENING HOURS OF LABORATORY**

Operation hour for APSN Healthcare & Diagnostics Sdn Bhd

Mon-Fri: 8:30 am to 5:15 pm

Sat, Sun & Public Holidays: Closed

### **Specimens Pick Up Services**

Kindly call up our service call line provided below for specimen pick up service. Specimen pick up service is available during the operating hours as stated below:

Mon-Fri: 8:30 am to 4.30 pm

Sat, Sun & Public Holidays: Closed

Contact number:

1. Mr. Tham: +60 12-940 1421
2. Office: +603 7873 7355, ext. 351

## **TYPES OF CLINICAL SERVICES**

APSN HC laboratory provides routine immunological assays for the following Allergen Screen Test and Food Intolerance Test:

- 1) 66 Specific IgE Screening Test
- 2) 101 Specific IgG Screening Test
- 3) 224 Specific IgE/IgG Screening Test


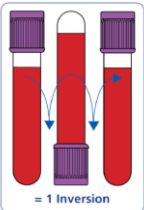

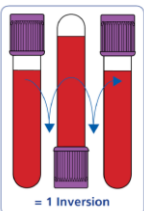
## **GUIDELINE FOR SPECIMEN COLLECTION AND HANDLING**

In order to achieve the optimal specimen condition for testing, a guideline on how to collect and handle blood samples will be described in this section. Specimen Integrity plays a crucial role for providing reliable and timely laboratory test results to assist Physicians in accurate diagnostic decision for patients. Improper collection and handling of samples could lead to erroneous results. Therefore, specimens must be properly collected, obtained in proper tubes or containers, correctly labeled, and then promptly transported to the laboratory by following the laboratory guidelines.

### **Vacutainer Blood Collection Tubes**

Following table shows the type of vacutainer blood collection tubes suitable for serum determinations. Do not use expired tubes. Expiration dates can be found on paper label of each tube.

Table 1: Type of vacutainer blood collection tubes suitable for serum determinations

<b>BD Vacutainer® Tubes</b>	<b>Additive</b>	<b>Inversions at blood collection</b>	<b>Laboratory use</b>	<b>Draw Volume</b>
 Red	Clot activator, Silicone coated (plastic)	5 times 	<ul style="list-style-type: none"> <li>- For serum determinations in chemistry.</li> <li>- May be used for routine blood donor screening and diagnostic testing of serum for infectious disease.</li> <li>- Tube inversions ensure mixing of clot activator with blood.</li> <li>- Blood clotting time: 60 minutes.</li> </ul>	5 mL
 Gold	Clot activator and gel for serum separation	5 times 	<ul style="list-style-type: none"> <li>- For serum determinations in chemistry.</li> <li>- May be used for routine blood donor screening and diagnostic testing of serum for infectious disease.</li> <li>- Tube inversions ensure mixing of clot activator with blood.</li> <li>- Blood clotting time: 30 minutes.</li> </ul>	5 mL











Source: BD Global Technical Services: 1.800.631.0174

### Collecting and Labelling the Specimen

A proper phlebotomy technique must be followed in preventing hemolysis and inaccurate test results later. For more details may refer to Procedure for drawing blood (section 2.2.3), WHO Guidelines on Drawing Blood: Best Practices in Phlebotomy at website: <https://www.ncbi.nlm.nih.gov/books/NBK138665/>

For multiple tube collections to serve for different test purposes, blood collection tubes must be drawn in a specific order to avoid cross-contamination of additives between tubes as shown in the chart below:

Chart 1: Recommended order of draw for plastic vacuum tubes.

Closure Color	Collection Tube
	Blood Cultures
	Serum (glass tube)
	Citrate
	BD SST™ Gel Separator Tube
	BD SST Gel Separator Tube
	Serum (plastic tube)
	Heparin
	BD PST™ Gel Separator Tube With Heparin
	EDTA
	Fluoride (glucose tube)

Source: BD Vacutainer Technical Services 1.800.631.0174

For specimen labelling, two specimen identifiers must be used and labeled at the blood collection tube for patient identification as below:

- a. Patient's first and last name
- b. Unique identifying number to assist with identification (e.g.: Identification card number or passport number)

### **General Specimen Handling and Storage**

All collected samples are kept within the recommended temperature while waiting for laboratory pick-up services.

Whole blood can be stored at 4–8°C for up to 24 hours before the serum is separated, but it must not be frozen. Call for pick up.

For sending the specimen in serum, whole blood should be allowed to clot and then centrifuged at 3000rpm for 10 minutes to separate the serum. If you do not have a centrifuge on the premises, the blood can be kept in a refrigerator (4–8°C) until there is complete retraction of the clot from the serum (no longer than 24 hours). The serum should be carefully removed with a fine-bore pipette to avoid extracting red cells, and transferred aseptically to a sterile vial labeled with the patient's name, identifier, and date of collection.

Serum should be stored at 4–8°C until shipment takes place, or for a maximum of 7 days. When kept for longer periods, serum samples should be frozen at –20°C or lower and transported to the testing laboratory on frozen ice packs. Avoid freezing and thawing repeatedly.

As a general rule, specimens should be shipped to the laboratory as soon as possible.

### **General Principles in Handling Laboratory Specimens**

Proper handling of laboratory specimens is important to keep the specimen integrity and minimize risk of introducing errors and unwanted cross contaminations. Here are some general principles listed as below:

- Ensure the correct type of blood collection tube is used.
- Do not use the expired blood collection tube.
- Secure the cap of blood collection tube tightly to prevent leakage.
- Mix the specimen gently by inverting the specimen tubes. Avoid vigorous shaking to prevent blood specimen hemolysis.
- Store the whole blood at 4–8°C for up to 24 hours before pick up and call for specimen collection as soon as possible.
- Do not place specimen in extreme temperature, e.g. hot or freeze.
- Place specimens in the inner pocket of the specimen carrier bag and seal the zip.
- Place the request form at the outer pocket of the specimen carrier bag.
- Send specimen(s) together with a request form to the laboratory for testing as soon as possible after collection to ensure best turnaround time and most accurate results. It is highly recommended that the specimen should arrive in the laboratory within the same day of collection.

### **INSTRUCTIONS FOR COMPLETION OF TEST REQUISITION FORM**

Test request shall be attached with APSN HC Specimens Submission and Requisition Form and submitted to the laboratory (Refer to the appendix A). This requisition form must contain essential information in order to proceed for laboratory testing. The essential elements of the requisition form are:

- a. Patient's Full Name & second identifier (NRIC or Passport)
- b. Patient's age, date of birth & gender
- c. Date & time of specimen collection
- d. Diagnosis or Clinical History (Where Applicable)
- e. Name and signature of requesting doctor, clinic stamp and telephone number
- f. Special attention if required (Urgent//Phone/Fax No.)
- g. Nature / source of specimen
- h. Examination required

### **PACKAGING & STORAGE OF SPECIMEN**

Specimen should be placed in a sealed biohazard bags for transport to the Laboratory.

All collected samples are kept within the recommended temperature while waiting for laboratory pick-up services.

### **TEST REQUEST & COLLECTION / TRANSPORTATION OF SPECIMEN**

#### **For Klang Valley Area**

1. Collect up to 5mL of blood in a plain tube for each patient.
2. Invert the content 5 to 6 times.
3. Label with AT LEAST TWO PATIENT IDENTIFIERS at the specimen container.
4. Put the specimen in the inner pocket of the biohazard bag and seal the zip.
5. Place the Specimen Submission Form (Lab Request Form) at the outer layer pocket of the biohazard bag.
6. Contact lab/ sales representative to arrange for pick up.
7. Store blood samples at 4-8 °C. DO NOT FREEZE.
8. If the specimen is expected to take more than 24 hours (e.g. weekend, public holiday) to reach the Laboratory, please separate serum from the whole blood sample into the Eppendorf tube provided by the lab. (Please refer to the guide below (page 8) on how to separate serum from whole blood and may request Eppendorf tubes from the lab in advanced).

#### **For Out of Klang Valley Area**

1. Collect up to 5mL of blood in a plain tube for each patient.
2. Invert the content 5 to 6 times.
3. Label with using AT LEAST TWO PATIENT IDENTIFIERS at the specimen container.
4. Contact lab/ sales representative to arrange for pick up.
5. If the specimen is expected to take more than 24 hours separate serum from the whole blood cells into the Eppendorf tube provided by the lab. (Please refer to the guide below on how to separate serum from whole blood).
6. Place the sample in a biohazard bag.
7. Place absorbent material between the blood tubes and the first layer of secondary packaging. Use adequate absorbent material to absorb the entire contents of the blood tubes.
8. Pack the sample package into the secondary receptacles and seal (For whole blood tube).

9. Place the secondary receptacles into Styrofoam box together with sufficient ice brick/gel to maintain the temperature at 4–8°C.
10. Place sufficient packing materials to prevent secondary receptacles to move around.
11. Close and seal the lid of Styrofoam box. Put box into outer packaging if any and seal the box.
12. Write the laboratory address on top of the box as below:

APSN Healthcare & Diagnostics Sdn Bhd  
Lot 18B, Jalan 241, Seksyen 51A,  
46100 Petaling Jaya, Selangor,  
Malaysia.

**[Guide on how to separate serum from whole blood]**

1. Disposable Pasteur pipette (*Picture 1*) & Eppendorf tube (*Picture 2*) will be provided by the lab.
2. [Centrifuge Machine] Put the specimen in to a centrifuge machine and centrifuge at 3000rpm for 10 minutes to separate the serum. [without centrifuge: Put aside the specimen at room temperature for at least 3 hours (not more than 6 hours in room temperature) to separate the serum].
3. Use the disposable Pasteur pipette to draw the serum out from the blood tube and transfer it to the Eppendorf tube. Store in fridge at 4-8 °C. Contact lab/ sales representative to arrange for pick up.



Picture 1: Disposable Pasteur pipette



Picture 2: Eppendorf tube

Please refer below for our working hours:

Monday – Friday: 8:30am – 5:15pm  
Saturday, Sunday & Public Holiday: Closed

Note: All collected samples are kept within the recommended temperature while waiting for laboratory pick-up services.

1. Please call/ WhatsApp +60 12-940 1421 (Mr. Tham) for arrange pick up.
2. Same day collection: order received before 10am; Next day collection: order received after 10am.

\*If there are any changes of collection time, clinic will be informed in advance.



### **LABORATORY'S CRITERIA FOR REJECTING SAMPLE**

The specimens receive by the lab will be examined by lab personnel to ensure the labelling and quality of the specimen is met before proceeding to the test request. Therefore, to avoid specimen rejection or any delay of the turnaround times, please check specimen requirements to ensure appropriate criteria are met.

In general, specimens will be rejected for the following reasons:

- a. Specimens which are improperly labeled.
- b. Specimens received with no Specimens Submission and Requisition Form.
- c. Specimen ID does not match the patient information in Specimens Submission and Requisition Form.
- d. Specimens in which the quantity is not sufficient for proper processing.
- e. Specimens in which there has been a significant time delay between specimen collection and specimen receipt (more than 24 hours), for which a transport tube/medium was not used and/or specimen results would be compromised.
- f. Leaking blood collection tubes.
- g. SPECIMENS IN SYRINGE WITH NEEDLE ATTACHED is not accepted.
- h. Hemolyzed blood specimens.
- i. Use expired blood collection tube.

The sender will be informed about the sample rejection by phone immediately.

### **FACTOR THAT AFFECTS THE TEST PERFORMANCE**

Hemolysis is the breakdown of red blood cells, which can have an effect on laboratory results. Serum samples containing more than 100 mg/dL of hemoglobin can cause non-specific binding in serologic tests. Therefore, serologic testing is not recommended for a serum sample containing more than this amount of hemoglobin.

Best Practices to Prevent Hemolysis

- a. Use the correct needle size for blood collection (20-22 gauge).
- b. Avoid using butterfly needles, unless specifically requested by patients.
- c. Warm up the venipuncture site to increase blood flow.
- d. Allow disinfectant on venipuncture site to dry completely.
- e. Collect blood sample in the correct blood collection tube (red cap/tiger tube = without anticoagulants).
- f. Collect the correct volume for the tube size. Use smaller tubes for difficult draws.
- g. Coagulation: place the tube in an upright position for 15-30 minutes at room temperature. Then store at 4°C.
- h. Centrifuge samples for serum separation within 4 hours of sample collection.
- i. If tests are performed within 48 hours of collection, transfer serum to a sample tube (cryovial) and store at 4°C.
- j. If tests will be performed more than 48 hours after collection, aliquot samples and store at -20°C or lower.

Resource: A Quick-Reference Tool for Hemolysis Status, CDC

## **REPORT AND TURNAROUND TIME**

### **Reporting Of Laboratory Results**

Completed report will be delivered in both softcopy and hardcopy by email and by hand respectively. All laboratory personnel are strictly adhering to Personal Data Protection Act and code of ethics of private and confidentiality of result.

### **Turnaround Time**

Laboratory reports are usually completed within 7 days upon receipt of the specimen unless an urgent request has been made to laboratory. Further inquiries regarding turnaround time, feel free to contact the representatives of APSN HC.

## **LABORATORY'S POLICY CONFIDENTIALITY OF PATIENT INFORMATION**

Access to patients' information and results on the Laboratory Information System is restricted to authorized staffs who have signed Letter of Undertaking of Confidentiality. Information received and test results carried out for customers and clients for " APSN Healthcare & Diagnostics Sdn. Bhd. (201801006332 (1268346-M))" perusal shall not be divulged to 'unauthorized persons'.

"Unauthorized persons" include those persons not involved with the case or cases submitted to "APSN Healthcare & Diagnostics Sdn Bhd (201801006332 (1268346-M))" unless it is necessary for second opinion and/or with the consent of the sender.

Records, customer information and laboratory data shall be kept safely and shall extend to the transmission of the results to the customers.

Customers may view our Privacy Policy information via our website at <https://www.apsnhealthcare.com/> for the latest information.

## **LABORATORY'S COMPLAINT PROCEDURE**


Last, we would like to hear from you if you have any concerns or complaints to improve our services or policies. It is at our responsibility to resolve your complaint as soon as possible. You may reach us at (603) 7873 7355 or send us an email at [lab@apsnhealthcare.com](mailto:lab@apsnhealthcare.com)

**Appendix A**

Example of Specimens Submission and Requisition Form

APSN Healthcare & Diagnostics Sdn Bhd  
 FR510550895

20220901-897567-233681-001



**APSN**  
 HEALTHCARE & DIAGNOSTICS SDN BHD  
 201801006332 (1268346-M)

NO

RESERVED FOR BARCODE LABEL /  
 APSNHC REFERENCE

**SPECIMENS SUBMISSION AND REQUISITION FORM**

A. PATIENT INFORMATION	B. TEST REQUESTED
Patient's Name (CAPITAL LETTER) <span style="float: right;">MRN: _____</span> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 5px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 5px;"></div> Identification Card (IC) / Passport No. <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 5px;"></div> Date of Birth: <span style="border: 1px solid black; padding: 2px 5px;">d</span> <span style="border: 1px solid black; padding: 2px 5px;">d</span> <span style="border: 1px solid black; padding: 2px 5px;">/</span> <span style="border: 1px solid black; padding: 2px 5px;">m</span> <span style="border: 1px solid black; padding: 2px 5px;">m</span> <span style="border: 1px solid black; padding: 2px 5px;">/</span> <span style="border: 1px solid black; padding: 2px 5px;">y</span> <span style="border: 1px solid black; padding: 2px 5px;">y</span>  Age: <span style="border: 1px solid black; padding: 2px 5px;"> </span> <span style="border: 1px solid black; padding: 2px 5px;"> </span> Gender: <span style="border: 1px solid black; padding: 2px 5px;">M</span> / <span style="border: 1px solid black; padding: 2px 5px;">F</span>  Nationality: <input type="checkbox"/> Malaysian <input type="checkbox"/> Non-Malaysian: _____  Ethnicity: <input type="checkbox"/> Malay <input type="checkbox"/> Chinese <input type="checkbox"/> Indian <input type="checkbox"/> Others: _____  Sample Collection Date: <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 5px;"></div>	<b>I. Allergy Blood Screening:</b> <input type="checkbox"/> E66 <input type="checkbox"/> G101 <input type="checkbox"/> GE224  <b>II. Others:</b> <input type="checkbox"/> please specify: _____
<b>E. REMARKS</b> <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>	<b>C. REPORT FORMAT</b> Language: <input type="checkbox"/> English <input type="checkbox"/> Chinese <input type="checkbox"/> Japanese (only applicable for test)
<b>F. DOCTOR'S SIGN &amp; CLINIC STAMP</b> <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div>	<b>D. SPECIMEN</b> Sample Type: <input type="checkbox"/> Whole Blood <input type="checkbox"/> Serum <input type="checkbox"/> Dried Blood Spot (DBS) <input type="checkbox"/> Others: _____
<b>FOR APSNHC USE ONLY</b>	
Sample received by: (Date, Time, Name & Signature)	Completed test: <input type="checkbox"/> E66 Date: _____ Slide: _____ <input type="checkbox"/> G101 Date: _____ Slide: _____ <input type="checkbox"/> GE224 i. G101 Date: _____ Slide: _____ ii. E123 Date: _____ Slide: _____
Reviewed by: (Date, Time, Name & Signature)	

Lot 18A & 18B, Jalan 241, Seksyen 51A, 46100 Petaling Jaya, Selangor, Malaysia  
 T: +603 - 7873 7355    F: +603 - 2770 0119    E: lab@apshhealthcare.com

FR510550895[;]20220901-897567-233681-001[;]Specimens Submission and Requisition Form[;]ISO15189(4.4)[;]LYS[;]CHC[;]Lab