

# HemeMARK™ Test Order Form (FORM A)

## PATIENT INFORMATION

**NOTE: USE PATIENT STICKER IF AVAILABLE**

FULL NAME \_\_\_\_\_

DATE OF BIRTH \_\_\_\_\_ PATIENT ID / NRIC / FIN \_\_\_\_\_

GENDER \_\_\_\_\_ PHONE NO. \_\_\_\_\_  
 Male  Female

ADDRESS \_\_\_\_\_

ETHNICITY \_\_\_\_\_  
 Chinese  Malay  Indian  Others: \_\_\_\_\_

## PATIENT CLINICAL INFORMATION

CLINICAL DIAGNOSIS: \_\_\_\_\_  
 (e.g Normal karyotype AML, MPN transformed AML)

HAS A CONFIRMATORY BIOPSY/BLOOD TEST BEEN DONE?  
 YES (Please attach all histopathology/blood test report)  
 NO  PENDING

HAS MOLECULAR TESTING BEEN DONE?  
 (E.G. *FLT3-ITD*, *NPM1*)  
 YES (Please attach relevant mutation records)  
 NO  PENDING

TREATMENT HISTORY

No treatment received yet

FIRST LINE: \_\_\_\_\_  
 PR  SD  PD  CR

SECOND LINE: \_\_\_\_\_  
 PR  SD  PD  CR

THIRD LINE: \_\_\_\_\_  
 PR  SD  PD  CR

OTHER LINE: \_\_\_\_\_  
 PR  SD  PD  CR

## SPECIMEN INFORMATION

SAMPLE COLLECTED AT (please tick):  
 IN-PATIENT HOSPITAL  OUT-PATIENT LABORATORY  CLINIC  
 GEH  MEH  MNH  PEH  
 WARD/OT/OTHERS (please specify): \_\_\_\_\_

[Charges for multiple selections apply.]  
 Peripheral whole blood in 2 Streck Tubes (9mL each, 18mL in total) **OR/AND**  
 Bone marrow aspirate in 1 EDTA Tube (3mL)

**COLLECTION DATE AND TIME:** \_\_\_\_\_ **COLLECTED BY:** \_\_\_\_\_

Note: If "collection time" is not indicated, 0900 will be used.

## FOR PARKWAY LABORATORY SERVICES USE

\_\_\_\_\_

## PAYMENT (please tick):

INPATIENT (for Parkway Hospitals Only) Refer to CDM codes stated for billing  
 BILL CLINIC (specify)  PATIENT TO PAY  OTHERS (specify)

## PHYSICIAN INFORMATION

ORDERING PHYSICIAN NAME \_\_\_\_\_

CLINIC / HOSPITAL NAME, PHONE NO. AND ADDRESS (CLINIC STAMP MANDATORY)  
 \_\_\_\_\_

REPORT PREFERENCE (FILL IN EMAIL OR FAX NO. IF SELECTED)  
 Email: \_\_\_\_\_  Fax No.: \_\_\_\_\_





## TEST INFORMATION

**HemeMARK™**

- Haematological malignancies
- 72 genes for SNVs & Indels, 8 CNVs, 20 RNA fusions, and 6 MSI [Refer to next page for genes tested]
- Turnaround time: 10 working days

## RECOMMENDED SPECIMEN TYPE

**NOTE: ASSAY SENSITIVITY WILL BE REDUCED IF RECOMMENDED SPECIMEN TYPE IS NOT PROVIDED.**

LEUKEMIA, MDS & MPN	MULTIPLE MYELOMA	LYMPHOMA
<p>PRIMARY SPECIMEN TYPE</p> <p> 1 EDTA TUBE (3ML) OF BONE MARROW ASPIRATE</p>	<p>PRIMARY SPECIMEN TYPE</p> <p> 1 EDTA TUBE (3ML) OF BONE MARROW ASPIRATE</p>	<p>SECONDARY SPECIMEN TYPE</p> <p> 2 STRECK TUBE (9ML EACH, 18ML TOTAL) OF PERIPHERAL WHOLE BLOOD</p> <p>PRIMARY SPECIMEN TYPE</p> <p> 2 STRECK TUBE (9ML EACH, 18ML TOTAL) OF PERIPHERAL WHOLE BLOOD</p>

## ORDERING PHYSICIAN'S SIGNATURE & DATE HERE

\_\_\_\_\_

I confirm that I have obtained the consent of the patient to: 1) perform the tests requested herein; 2) disclose his/her personal data stated herein to Parkway Laboratory Services Ltd ("PLS") and its Affiliates for (i) the purposes of carrying out of the tests requested and all other related matters before and after and (ii) for purposes stated in the Parkway Data Privacy Policy (available at <https://www.parkwaypantai.com/privacy>). The patient understands that the use, collection and disclosure of his/her personal data by PLS and its Affiliates shall be in accordance with the Parkway Data Privacy Policy. I acknowledge and agree that PLS may at any time, whether upon request from the patient or otherwise, disclose and release to the patient the patient's personal data, report and specimens. I indemnify PLS for any loss or damage which PLS and its Affiliates may suffer arising from or in connection with the release of the patient's personal data, report and specimens to the patient.

## FOR LUCENCE LABORATORY USE

\_\_\_\_\_

**Additional Comments [If any]:**

This test is not intended for confirmation of germline status. Variants detected may be of tumor-derived somatic, germline, or non-tumor somatic origins, including mosaicism, clonal hematopoiesis (CH) and clonal hematopoiesis of indeterminate potential (CHIP). This test is not intended for confirmation of, and will not be able to confirm the cis and trans status of CEBPA double mutation.

All turnaround times for tests administered by Lucence Diagnostics Pte Ltd (“Lucence”) are provided as an indicative guide only and are based on Lucence’s experience of the time taken for the majority of such test results to be delivered. ‘Working day’ refers to Mondays-Fridays, 9am-6pm only, excluding Saturdays, Sundays, public holidays, and eves of public holidays. The cut-off time for sample receipt in Lucence laboratory is 5.00pm on working days. Samples that arrived in our laboratory after 5.00pm shall only be accepted the following working day. As the performance of the tests may require the input of third parties and involve factors that are not within Lucence’s control, Lucence is unable to guarantee the turnaround time. However, Lucence shall keep the ordering physician informed if there are any unusual delays. Lucence shall not be liable for any indirect, consequential or special damages or losses suffered by the ordering physician or the Patient in connection with the use of the services hereunder, including but not limited to any delays in the delivery of the test results.

The ordering physician undertakes that all necessary consents from the Patient to whom the Personal Data relates either have been obtained, or at the time of disclosure will have been obtained, for the disclosure of their personal data to Lucence, for Lucence’s collection, processing, use and/or disclosure for the services specified in this form and that such consents are valid and have not been withdrawn. For the purposes of this form, “Personal Data” means any data which can be used to identify an individual, either on its own or together with other data to which the ordering Physician or Lucence have access. Please refer to the Privacy Policy publicly available online at <https://www.lucence.com/personal-data-protection-act/> for details on the management of personal data by Lucence.

The services provided by Lucence are subject to further terms and conditions which are found on the Lucence website at [www.lucence.com/order-terms](http://www.lucence.com/order-terms), all of which are incorporated herein this form by this reference. Such terms and conditions may be changed from time to time and are effective immediately upon posting such changes on the Lucence website. The aforementioned terms and conditions on the Lucence website do not apply to customers with existing service agreements; the terms of such existing service agreement shall supersede.

**TARGETS TYPE TARGETS**

SNV & INDELS	ABL1, ANKRD26, ASXL1, ATM, B2M, BRAF, BTG1, BTG2, BTK, CALR, CBL, CCND1, CCND3, CCR4, CD79B, CDKN2A#, CDKN2B#, CEBPA, CREBBP, CSF3R, CXCR4, DDX41, DNMT3A, ERG, ETV6, EZH2, FBXW7, FGFR3, FLT3#, FOXO1, GATA1, GATA2, HRAS, ID3, IDH1, IDH2, IKZF1#, IKZF3, JAK2, JAK3, KIT, KRAS, MAP2K1, MPL, MYC#, MYD88, NOTCH1, NOTCH2, NPM1, NRAS#, PHF6, PLCG1, PPM1D, PTPN11, RAD21, RHOA, RIT1, RUNX1, SETBP1, SF3B1, SGK1, SOCS1, SRSF2, STAG2, STAG3, TCF3, TERT, TET2#, TP53#, U2AF1, WT1, XPO1
RNA FUSION	ABL1, BCR-RET, CBFB-MYH11, CUX1, ETV6, FGFR1, JAK2, KAT6A, KMT2A, NTRK1, NTRK2, NTRK3, NUP214, PDGFRA, PDGFRB, PICALM-MLLT10, RARA, RUNX1, STIL-TAL1, TCF3
MSI	BAT25, BAT26, NR21, NR24, NR27, MONO27

# Includes detection of gene copy number changes.

**LOCATION OF PARKWAY OUTPATIENT LABORATORIES**

GLENEAGLES HOSPITAL ANNEXE BLOCK, #03-33, 6A NAPIER ROAD, S(258500) FAX: 65 6471 3394
GLENEAGLES HOSPITAL MEDICAL CENTRE, #02-01, 6A NAPIER ROAD,S(258500) FAX: 65 6471 3394
MOUNT ELIZABETH HOSPITAL, 3 MOUNT ELIZABETH, LEVEL 2, TOWER B, S(228510) FAX: 65 6731 2284
MOUNT ELIZABETH NOVENA HOSPITAL, #01-01, 38 IRRAWADDY ROAD, S(329563) FAX: 65 6933 0538
PARKWAY EAST HOSPITAL, 321, JOO CHIAT PLACE, LEVEL 2, S(427990) FAX: 65 6345 5053

**FOR LUCENCE LABORATORY USE ONLY**

RECEIVED DATE AND TIME
LUCENCE STAFF INITIALS AND DATE
CHANGES TO ORDERED TEST (IF DIFFERENT FROM PAGE 1) PLEASE ATTACH PROOF OF REQUEST
DETAILS:
DATE AND TIME:
<b>CHECKED BY:</b>
<b>DATE AND TIME:</b>

<input type="checkbox"/> BLOOD	<input type="checkbox"/> BONE MARROW ASPIRATE
VOL. OF BLOOD/ASPIRATE:	_____
VOLUME OF PLASMA:	_____
ORDER ID:	_____
LUCENCE ID:	_____
SECONDARY ID:	_____
<input type="checkbox"/> SAMPLE ACCEPTED	
<input type="checkbox"/> SAMPLE REJECTED	
REASON:	_____

## Informed Consent and Authorization Form for HemeMARK™ Test (FORM B)

### Instructions:

1. This form must be fully completed and signed by the patient.
2. If the patient is below 21 years old, has never been married and has sufficient capability to understand this procedure, this form should be signed by both the patient and the patient's parent/guardian. If the patient is below 21 years old, has never been married and does not have sufficient capability to understand this procedure, this form should be signed by the patient's parent/guardian.
3. If the patient is unable to give consent due to a lack of mental capacity, consent is required from either the appointed guardian (donee) or deputy who is duly authorised to give such consent; or where there is no appointed guardian (donee) or deputy, and in order of preference: the patient's spouse; adult son or daughter; either parent or guardian; an adult brother or sister; or any other person named by the patient as someone to be consulted on the matter in question or on matters of that kind.

### GENERAL INFORMATION ABOUT GENETIC TESTING

#### What is the purpose of the test?

HemeMARK™ testing is designed to investigate and look at the genetic profile of your haematological malignancy and to look for specific genomic alterations that may be affecting its growth. This information may help your physician determine what targeted therapies may be available to treat your cancer. The test is ordered after discussion and assessment by your physician and will only assess specifically for the clinical condition suspected.

#### What does it involve?

A sample of your blood and/or bone marrow will be taken ("Sample Material") and sent to Lucence Diagnostics Pte Ltd ("Lucence") where it can be examined for genomic alterations. Lucence will then send your physician a detailed report with information about your tumour's genomic makeup and potential treatment options. Your physician and you can then evaluate the results along with other information such as your medical history and results from other tests to determine what next steps are right for you.

#### What are the risks and limitations of genetic analysis?

The most common method of test is via a blood sample, which is removed via a needle. The risks associated with drawing blood are minimal. There may be temporary discomfort, pain, bruising and on rare instances infection. If your test involves any other type of sample, the doctor performing the procedure, or a designated representative, or a genetic counsellor would explain the risks and complications to you before you decide to have the genetic test. A genetic test requested is specific to the condition tested for. There is no single genetic test that detects all genetic diseases, in addition, the accuracy of the test may not be 100%. All results of the analysis and its implications should be discussed with your physician. There are some possible causes of inaccurate or inconclusive results. These include:

1. Sampling problems, e.g. freezing of samples during shipping, poor sample/specimen quality.
2. Technical problems, e.g. rare variation in the DNA of the individual, inability of test to detect rare or previously unknown mutations.
3. Presence of mutations or variations the significance of which is not yet understood.

#### Withdrawal from testing

You may withdraw from testing at any time, or choose not to learn of the results. If the analysis is already underway, however, you will be charged a fee determined by Lucence, based on services provided and any amounts paid will not be refunded

#### Management of results / Personal Data

1. Personal data refers to information which relates to a living individual and can be used to identify that individual, and in a form in which access to or processing of the data is practicable ("Personal Data"). The Personal Data Lucence may, from time to time collect from you include your name, nationality, date of birth, sex, e-mail address, telephone number, mailing address, NRIC/FIN or passport number, your image (in the form of

photographs), your medical history, patient history, allergy information, test results of genetic analysis, and any other medical and health records (such information is "Personal Data").

2. Lucence may collect, use, disclose, process, and transfer your Personal Data for the following purposes, but always in accordance with applicable laws and regulations:
  - a. providing you with healthcare, diagnostic and other services of Lucence, its affiliates, partners and related companies and for its company processes;
  - b. administrative purposes such as processing appointments, bookings, etc; processing and collecting payment for products, treatment and services, creation, storage, hosting, backup of medical records and financial and other business records; verifying identity and conducting screenings, due diligence checks and credit checks; responding to queries or feedback; addressing or investigating complaints, claims or disputes; compliance with internal policies, procedures and directives; enforcing obligations owed to Lucence;
  - c. business operations purposes such as monitoring and assessing the provision of products and services; compliance with regulatory obligations like financial or regulatory reporting, accounting, audit and record keeping, planning, quality control, training, product testing and development;
  - d. research purposes such as conducting research into new treatment, procedures and practices for the improvement of healthcare, subject always to the applicable laws and codes of conduct, including those relating to the protection of research subjects' safety and confidentiality.
3. The results of your test, including your genetic data, will form part of your confidential medical records and Personal Data. These results will be accessible by your treating physician and his/her hospital or clinic, in addition to Lucence, and may be shared with other healthcare providers for medical treatment and healthcare purposes. Each of the foregoing parties has an obligation to keep your records confidential, in accordance with applicable laws and regulations.
4. Your testing results and clinical data may be added to and retained in databases for a reasonable period in accordance with Lucence's legal and business purposes, and subject to applicable laws and regulations.

#### Additional Uses:

5. To the extent your consent is required by law, you authorise Lucence to de-identify your genetic information and results and use or disclose such de-identified genetic information/ results for future research. You agree that Lucence may retain this de-identified information for future research purposes. You understand that this information will be de-identified in a manner that meets de-identification standards under the United States *Health Information Portability and Accountability Act of 1996*, the Singapore *Personal Data Protection Act 2012 (Act 26 of 2012)*, the Hong Kong *Personal Data (Privacy) Ordinance (Cap 486)* and local data protection laws, as applicable.

You agree that Lucence may retain this de-identified information for future research purposes. You understand that this information will be de-identified in a manner that meets de-identification standards under the United States *Health Information Portability and Accountability Act of 1996*, the Singapore *Personal Data Protection Act 2012* (Act 26 of 2012), the Hong Kong *Personal Data (Privacy) Ordinance* (Cap 486) and local data protection laws, as applicable. You understand that once your genetic information and results have been de-identified such that Lucence will not be able to identify you or determine or re-identify which genetic information and results relate to you, and you will no longer be able to withdraw your consent to Lucence’s future use or disclosure of such de-identified data. You understand that you are not required to consent to de-identification of your genetic information/ results as a condition of Lucence providing this service.

6. Your Sample Material will be stored by Lucence or one of our affiliates or subcontractors, and may from time to time be examined again, possibly using new methods or technologies, for the purposes of Lucence’s research.

Should you consent, you hereby renounce any rights to your Sample Material and hereby assign to Lucence any intellectual property rights that may be derived from the use of your Sample Material, whether so derived now or in the future.

7. Lucence will endeavour to utilize an appropriate amount of Sample Material for the test. Where there is Leftover Sample Material that are not used for the purposes of the test (“Leftover Material”), and should you consent, you hereby assign any such Leftover Material to Lucence for Lucence’s and its affiliate’s use, including for quality assurance purposes in order to continually improve the quality of services provided by us (to the extent your consent is required by law).
8. You may, at any time, correct or, have access to your Personal Data, and/or withdraw your consent to any of the above uses of your Personal Data by Lucence (except to the extent that Lucence has already taken action in reliance on your consent). We may charge a reasonable fee for the processing of a request for access to Personal Data. If you wish to access or correct your Personal Data, please contact us at [privacy@lucence.com](mailto:privacy@lucence.com) or visit [www.lucence.com/privacy](http://www.lucence.com/privacy) for more details on Lucence’s privacy policy.

**PATIENT’S RESPONSE**

**By signing this form, you agree that Lucence Diagnostics Pte. Ltd. (and its affiliates) and Parkway Laboratory Services Ltd may collect, use, disclose, process, and transfer out of Singapore, your Personal Data, as provided by you (whether verbally or in writing, in this form or by any other means) in accordance with the Singapore Personal Data Protection Act 2012 (No. 26 of 2012). You agree to the respective personal data protection policies in full, which can be found at [www.lucence.com/privacy](http://www.lucence.com/privacy) and [www.parkwaypantai.com/privacy](http://www.parkwaypantai.com/privacy).**

**I understand that I may withdraw such PDPA Consent to Parkway Group as described above at any time via unsubscribe facilities OR forms available on request from Parkway staff OR by email to Parkway DPO at [pdpo@parkwaypantai.com](mailto:pdpo@parkwaypantai.com). Please contact Lucence if you wish to correct, have access to or withdraw your consent to any use of your personal data or information by Lucence. Lucence may charge a reasonable fee for the processing of a request for access to personal data.**

I understand that my physician ordered the test(s), which includes genetic testing on my behalf.

**[Please tick ONE only]**

- I consent to Lucence performing the **test(s) only** (para. 1-4, excluding 2d above).
- I consent to Lucence performing the **test(s) AND** de-identifying my results, and using my results, Sample Material and any Leftover Material for **research** as described above at para. 1-7.

I hereby declare and confirm that I have been given adequate explanation with respect to the contents of this form, which has been fully explained to me in \_\_\_\_\_(language), and have fully understood the contents of this form, including but not limited to the following:

- The purpose and benefits of genetic testing of blood and/or human tissue;
- The limits and disadvantages of genetic testing of blood and/or human tissue;
- Lucence’s obligations with respect to my Personal Data; and
- My assignment of any Leftover Material to Lucence, and my renunciation of any intellectual property rights that may inure to me with respect to my Sample Material.

I understand that the turnaround time given for the test(s) is an indicative guide only. As the performance of the test(s) may require the input of third parties and involve factors that are not within Lucence’s control, I understand that Lucence is unable to guarantee the turnaround time. However, Lucence shall keep my physician informed in the event of unusual delays in providing the test(s) results and my physician shall have the duty to communicate such information to me.

I agree that I shall not hold Lucence liable for any loss of profits, indirect, consequential or special damages which I may suffer or incur in connection with this test, including but not limited to any delays in the delivery of the test(s) results or any diagnostic information provided to me by my physician in reliance on the results of the test(s). Liability for personal injury or death are not excluded.

Patient’s Name \_\_\_\_\_ Patient’s Signature \_\_\_\_\_ Date \_\_\_\_\_

If the patient is unable to give consent:

Parent/ Guardian’s Name \_\_\_\_\_ Parent/ Guardian’s Signature \_\_\_\_\_ Date \_\_\_\_\_

**PHYSICIAN’S STATEMENT**

I have explained the above information to this individual. I have addressed the limitations outlined above, and I have answered this person’s questions.

Physician’s Name \_\_\_\_\_ Physician’s Signature \_\_\_\_\_ Date \_\_\_\_\_

Customer support: +65 6592 5102 | [sales.asean@lucence.com](mailto:sales.asean@lucence.com)

[lucence.com](http://lucence.com)

**IMPORTANT NOTE:**

1. Use only the tubes provided inside Lucence Blood Collection kit.
2. Improper handling of samples will result in inaccurate analysis of cell-free DNA/RNA.
3. Clinics/wards should obtain test kits from their respective outpatient laboratory.

**1. COMPLETE FORMS**

Ensure both **patient** and **physician** have signed

**2. CHECK & LABEL TUBE(S)**

Within expiry and labeled with **2 patient identifiers**

**3. COLLECTION OF WHOLE BLOOD**

Invert 8-10 times after collection

Ensure **minimum volume** and **sample validity** met

**4. PREPARE SAMPLE COLLECTION KIT**

Place completed **forms** and **copies of other clinical documentation** in box

**Parkway Laboratory Services Ltd**

**2 Aljunied Avenue 1, #04-11**

**Framework 2 Building**

**Singapore 389977**

**For CSF/Effusion fluid samples, please contact Lucence Sales Team at +65 6592 5102 to arrange for collection.**

**PHLEBOTOMY SERVICE & SAMPLE COLLECTION**

**! KEEP SAMPLE AT ROOM TEMPERATURE !**  
Do **NOT** freeze or refrigerate

**NO** collection on Sundays and Public Holidays

**A. For specialist clinics at Parkway Hospitals:**

Mon-Sat: i) Plexus

ii) PLS call centre, 6278 9188

Please follow respective hospital outpatient lab's cut-off timing.

**B. For wards at Parkway Hospitals:**






Mon-Sat: Obtain kits from respective hospitals' outpatient lab during office hours. Specimen & collection kit should be delivered back to the outpatient lab after the necessary forms and signatories have been collected.

**C. For specialist clinics outside Parkway Hospitals:**

Call PLS call centre, 6278 9188 during office hours. Cut off timings are:

i) Mon-Fri: 1630 (provide 45 mins notice if clinic closes early)

ii) Sat: 1200 (provide 45 mins notice if clinic closes early)

TEST	SAMPLE REQUIREMENTS	VALIDITY
LiquidHALLMARK®/ LiquidMARK™	 <b>3</b> Streck Tubes (9mL each, 27mL total)	<b>7</b> days <b>*96</b> hrs for ctRNA
LiquidSCREEN™ Lung		
HemeMARK™	 <b>2</b> Streck Tubes for Peripheral Whole Blood (9mL each, total 18mL) <b>AND / OR</b>  <b>1</b> EDTA Tube for Bone Marrow Aspirate (Total 3mL)	<b>7</b> days <b>5</b> days
LucenceINSIGHT™ / LucenceINSIGHT™ PLUS	 <b>2</b> Streck Tubes (9mL each, total 18mL)	<b>7</b> days
LumiRISK™ / LumiTHERA™ / LumiFOCUS™		
NPC GOLD™	 <b>1</b> Streck Tube (Total 9mL)	<b>7</b> days

Customer support: +65 6592 5102 | [sales.asean@lucence.com](mailto:sales.asean@lucence.com)

[lucence.com](http://lucence.com)

Lucence Service Laboratory 211 Henderson Road #04-01/02, Henderson Industrial Park, Singapore 159552

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System Document D 50425 Version 131 24 May 2024