Deliver to: Parkway Laboratory Services Ltd (Anatomic Pathology Department)
2 Aljunied Avenue 1, #07-11, Framework 2 Building, Singapore 389977
Tel: 6933 0801 Fax: 6334 2387 Email: sgapadmin@parkwaypantai.com
This test is facilitated by Parkway Laboratory Services Ltd

Form A - Tissue Test Order Form

PATIENT INFORMATION

NOTE: USE PATIENT STICKER IF AVAILABLE

FULL NAME

DATE OF BIRTH | PATIENT ID / NRIC / FIN

GENDER ☐ Male ☐ Female | PHONE NO.

ADDRESS

ETHNICITY
☐ Chinese ☐ Malay ☐ Indian ☐ Others: _____

WARD & BED NO.

PATIENT CLINICAL INFORMATION

CLINICAL DIAGNOSIS: _____

STAGE OF DISEASE: ☐ LOCALISED ☐ METASTATIC
☐ I ☐ II ☐ III ☐ IV

HAS A CONFIRMATORY TISSUE BIOPSY BEEN DONE?
☐ YES (Please attach tumor histology report)
☐ 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

TISSUE COLLECTED AT *(please tick)*:
☐ IN-PATIENT HOSPITAL
☐ GEH ☐ MEH ☐ MNH ☐ PEH
☐ WARD *(please specify)*: _____

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 [Refer to Gene List in Box]

☐ **UNITED™ 600**
Multi-cancer: Therapy selection, Diagnosis
572 DNA targets: SNVs, Indels, CNVs, TMB and MSI
71 RNA targets: Fusions and Splice variants
- Turnaround time: 10 working days

☐ **UNITED™ CNS**
Brain/Central Nervous System Tumors: Therapy selection , Diagnosis, WHO classification
DNA/RNA targets: SNVs, Indels, Fusions, Gene copy number variations, Chromosomal copy number alteration, TMB and MSI
- Turnaround time: 10 working days

Rapid TissueMARK™ [Charges for multiple selections apply]
Cancer specific gene panels: Therapy selection , Diagnosis
Over 50 DNA/RNA targets: SNVs, Indels, CNVs, Fusions, Splice variants and MSI
- Turnaround time: 5 working days

☐ **Lung** ☐ **Pancreas & Bile duct**
☐ **Breast & Ovarian** ☐ **Prostate**
☐ **Colon**

☐ **Standard40 Tissue NGS**
Lung, Colon And Solid Tumors: Therapy Selection, Diagnosis
- Turnaround time: 7 working days

ORDERING PHYSICIAN'S SIGNATURE & DATE

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'S LABORATORY USE

Additional Comments [If any]:
Both somatic and germline variants can be detected on this test. This test is not intended to confirm germline variant status.

Recommeded age of tissue block should not exceed 3 years. Samples older than 3 years will be considered on a case-by-case basis and outcome of quality assessment of extracted nucleic acids.

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/privacy 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, 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.

FOR LUCENCE LABORATORY USE ONLY

RECEIVED DATE AND TIME

LUCENCE STAFF INITIALS AND DATE

TOTAL NO. OF FFPE SECTIONS: _____

ORDER ID: _____

LUCENCE ID: _____

SECONDARY ID: _____

☐ SAMPLE ACCEPTED

☐ SAMPLE REJECTED

REASON: _____

CHANGES TO ORDERED TEST (IF DIFFERENT FROM PAGE 1) PLEASE ATTACH PROOF OF REQUEST

DETAILS:

DATE AND TIME:

CHECKED BY:

DATE AND TIME:

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

System Document D 50453 Version 12.0 1 July 2024

Deliver to: Parkway Laboratory Services Ltd (Anatomic Pathology Department)
2 Aljunied Avenue 1, #07-11, Framework 2 Building, Singapore 389977
Tel: 6933 0801 Fax: 6334 2387 Email: sgapadmin@parkwaypantai.com
This test is facilitated by Parkway Laboratory Services Ltd

Form B - Informed Consent and Authorization Form for Tissue Tests

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 TUMOR-DERIVED PLASMA/TISSUE DNA/RNA

What is the purpose of the test?

Tumor-derived genomic testing is designed to investigate and look at the genetic profile of your tumour 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, tissue and/or bodily fluids 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 genomic analysis?

For plasma, 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.

For tissue and other bodily fluids, the doctor performing the procedure, or a designated representative or a healthcare provider would explain the risks and complications to you before you decide to have the genomic test. Genomic tests do not constitute a definitive test for the selected condition(s) in all individuals. This test should be one of many aspects used by your physician to help with a diagnosis and treatment plan, but it is not a diagnosis itself.

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/RNA 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 means data, whether true or not, about an individual who can be identified from that data; or from that data and other information to which the organization has or is likely to have access ("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, 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.

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 (e.g., processing orders; collecting payment; creation and maintenance of medical and business records; verifying identity and conducting screenings, due diligence and credit checks; responding to your queries; addressing claims or disputes; compliance with internal policies; and enforcing obligations to Lucence);
   c. business operations (e.g., compliance with regulatory obligations, accounting, audit and record keeping, planning, product monitoring/assessment, quality control, training, product testing/development); and/or
   d. research into new treatments and protocols (subject always to the applicable laws and codes of conduct).

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 Test 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.

5. Your Sample Material may be examined at the time of the Test or thereafter, possibly using new methods or technologies, for the purposes of running the ordered Test or for quality testing.

6. Lucence may 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*, the Hong Kong *Personal Data (Privacy) Ordinance (Cap 486)* and local data protection laws, as applicable.

7. You understand and agree that Lucence will not re-identify you and notify you in the case of any incidental findings, i.e., non-intended findings that arise and are outside the original purpose for which the Test was conducted.

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 or visit www.lucence.com/privacy for more details on Lucence's data use practices.

9. On the understanding that you may withdraw consent at any time by checking the box below, or contacting support.asean@lucence.com:
   a. you agree that your genetic information and individually-identifiable data may be used for future research purposes. However, once your genetic information and results have been de-identified such that Lucence is not able to identify you or determine or re-identify which genetic information and results relate to you, you understand that you will no longer be able to withdraw consent to Lucence's future use or disclosure of such de-identified data.
   Risks and benefits of future research
   Once the de-identified data has been shared with other parties, you will not have full control over how such de-identified data may be used. Future research may not directly benefit you, but there could be a benefit to society as it advances new detection methods and treatments for cancer.
   b. you hereby assign leftover Sample Material, if any, that is not used for the Test to Lucence for Lucence's and its affiliates' use, including for research. Lucence will endeavor to utilize an appropriate amount of Sample Material for the Test. Lucence will store your leftover Sample Material, in accordance with applicable laws and regulations.
   c. you renounce any rights to your Sample Material and 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.

☐ **I want to opt out of this Section 9.**
Note: This checkbox is OPTIONAL and Lucence will still be able to run the Test(s) even if you leave this box unchecked.

PATIENT'S RESPONSE

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

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.

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 ineliance on the results of the test(s). Liability for personal injury or death are not excluded.

By signing this form, I consent to the above terms, except where I have specifically indicated that I do not consent to a term.

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 _____

Tissue Submission Memo

LUCENCE

PATIENT INFORMATION

NOTE: USE PATIENT STICKER IF AVAILABLE	
FULL NAME	
DATE OF BIRTH	PATIENT ID / NRIC / FIN
GENDER ☐ Male ☐ Female	PHONE NO.
ADDRESS	

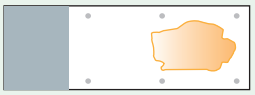
PHYSICIAN INFORMATION

REQUEST DATE
ORDERING PHYSICIAN NAME
CLINIC / HOSPITAL NAME, PHONE NO. AND ADDRESS

ATTENTION: PATHOLOGY LAB
PLEASE PREPARE FFPE SLIDES PER REQUIREMENTS:
[PLEASE CHECK ALL BOXES WHEN COMPLETED]

- ☐ 1 matched stained H&E slide with **tumor region marked out.**
- ☐ 15 unstained sections of **5-10 μm thickness** on **non-coated/uncharged slides**.
- ☐ Slides should be air-dried and must **NOT** be baked.
- ☐ Slides are labeled with a minimum of **2 identifiers**. Possible identifiers include patient's name/initials, ID number, date of birth, specimen ID, or histology ID.
- ☐ Histology report must be submitted **concurrently** with slides.

Tissue placement as follows:



DATE OF TISSUE BLOCK (**< 3 YEARS** REQUIRED) : _____

TISSUE SOURCE : _____

SPECIMEN ID : _____

TISSUE BLOCK ID : _____

TUMOR CELLULARITY (**> 20%** REQUIRED) : _____ % OF CIRCLED REGION

AREA OF TUMOR (**> 6mm²** REQUIRED) : _____

DATE OF SLIDE CUTTING : _____

THICKNESS OF FFPE SECTIONS : _____

PATHOLOGIST NAME	PATHOLOGY LABORATORY STAMP
PATHOLOGIST SIGNATURE	
CONTACT NUMBER	DATE

System Document D 50486 Version 8.0 15 April 2024

Genes with Full Coding Sequence (CDS) Coverage

Single Nucleotide Variants (SNVs), Insertions/Deletions (Indels) and Copy Number Variations (CNVs)

A

ABCB1
ABCC3
ABCG2
ABI1
ABL1
ABL2
ACVR1
ACVR1B
ACVR2A
ADGRB3
AFDN
AFF1
AFF3
AIM2
AKT1
AKT2
AKT3
ALK
AMER1
APC
AR
ARAF
ARHGAP26
ARID1A
ARID1B
ARID2
ARNT
ASXL1
ATF1
ATIC
ATM
ATR
ATRX
AURKA
AURKB
AXIN1
AXIN2
AXL

B

B2M
BAP1
BARD1
BAX
BCL10
BCL11A
BCL11B
BCL2
BCL2L11
BCL3
BCL6
BCL9
BCOR
BCORL1
BCR
BIRC3
BIRC5
BLM
BMPR1A
BRAF
BRCA1
BRCA2
BRD3
BRD4
BRIP1
BTG1
BTK
BUB1B

C

CALR
CARD11
CASP8
CBFB
CBL
CBLB
CCND1
CCND2
CCND3
CCNE1
CD274 (PD-L1)
CD44
CD74
CD79A
CD79B
CDC73
CDH1
CDH11
CDK12
CDK4
CDK6
CDK8
CDKN1A
CDKN1B
CDKN2A
CDKN2B
CDKN2C
CDX2
CEBPA
CHD4
CHEK1
CHEK2
CIC
CIP2A
CNBP
COL1A1
CRBN
CREB1
CREBBP
CRKL
CRLF2
CRTC1
CSF1R
CSF3R
CSMD3
CTCF
CTLA4
CTNNA1
CTNNB1
CUX1
CXCR4
CYLD
CYP2D6

D

DAXX
DCC
DDB2
DDIT3
DDR1
DDR2
DDX11
DDX3X
DDX5
DEK
DICER1
DIS3L2
DLC1
DNAJB1
DNMT1
DNMT3A
DNMT3B
DPYD
DROSHA
DYRK1B

E

EGF
EGFR
EIF1AX
EIF4A2
EML4
EP300
EPAS1
EPCAM
EPHA2
EPHA3
EPHB4
ERBB2 (HER2)
ERBB3
ERBB4
ERCC1
ERCC2
ERCC3
ERCC4
ERCC5
ERG
ERRFI1
ESR1
ETV1
ETV4
ETV5
ETV6
EWSR1
EXT1
EXT2
EZH1
EZH2
EZR

F

FANCA
FANCC
FANCD2
FANCE
FANCF
FANCG
FANCL
FANCM
FAS
FAT1
FAT4
FBXO11
FBXW7
FCGR2A
FCGR3A
FES
FGF19
FGF2
FGF3
FGF4
FGFR1
FGFR2
FGFR3
FGFR4
FH
FLCN
FLI1
FLNA
FLT1
FLT3
FLT4
FOXA1
FOXL2
FOXO1
FOXO3
FOXO4
FOXP1
FRK
FRS2
FUBP1

G

G6PD
GATA1
GATA2
GATA3
GLI1
GLI2
GNA11
GNAQ
GNAS
GOPC
GPC3
GREM1
GRIN2A
GRM3
GSTP1

H

H3-3A
H3-3B
H3C2
HDAC1
HDAC2
HEY1
HGF
HIF1A
HLA-A
HLA-C
HLF
HNF1A
HOOK3
HOXB13
HRAS
HSP90AA1
HSP90AB1
HSPH1

I

ID1
ID2
ID3
IDH1
IDH2
IGF1R
IGF2
IKBKB
IKBKE
IKZF1
IL2
IL21R
IL6ST
IL7R
INPP4B
IRF4
IRS2
ITK

J

JAK1
JAK2
JAK3
JUN

K

KAT6A
KAT6B
KDM4C
KDM5A
KDM5C
KDM6A
KDR
KEAP1
KIF5B
KIT
KLF4
KLF6
KMT2A
KMT2C
KMT2D
KNL1
KRAS

L

LATS1
LATS2
LCK
LEPR
LIFR
LMO1
LPP
LRP1B
LTK
LZTR1

M

MAF
MAFB
MALT1
MAML2
MAP2K1 (MEK1)
MAP2K2 (MEK2)
MAP2K4
MAP3K1
MAP3K13
MAP3K9
MAPK1
MAX
MCL1
MDM2
MDM4
*MED12^*
MEN1
MERTK
MET
MITF
MKI67
MLH1
MLLT10
MLLT3
MMP2
MMP9
MN1
MPL
MRE11
MSH2
MSH3
MSH6
MSI2
MST1R
MTAP
MTHFR
MTOR
MUC1
MUC16
MUTYH
MYB
MYC
MYCL
MYCN
MYD88
MYH11
MYH9
MYOD1

N

NBN
NCOA1
NCOA2
NCOA3
NCOA4
NCOR1
NCOR2
NF1
NF2
NFE2L2
NFKB2
NIN
NISCH
NKX2-1
NOTCH1
NOTCH2
NOTCH3
NOTCH4
NPM1
NRAS
NRG1
NSD1
NSD2

NSD3
NT5C2
NTHL1
NTRK1
NTRK2
NTRK3
NUAK2
NUMA1
NUP214
NUP98
NUTM1

P

P2RY8
PAK1
PALB2
PARP1
PAX3
PAX5
PAX7
PAX8
PBRM1
PBX1
PDCD1LG2
PDE4DIP
PDGFB
PDGFRA
PDGFRB
PDPK1
PER1
PGR
PHF6
PHOX2B
PICALM
PIK3CA
PIK3CB
PIK3CD
PIK3CG
PIK3R1
PIK3R2
PIM1
PLAG1
PLCG1
PLCG2
PLK1
PML
PMS2
POLB
POLD1
POLE
POLQ
POLR2A
POT1
POU5F1
PPARG
PPM1D
PPP2R1A
PPP2R1B
PPP6C
PRDM1
PREX2
PRF1
PRKAA1
PRKAA2
PRKAR1A
PRKCB
PRRX1
PSIP1
PTCH1
PTEN
PTGS2
PTK2
PTPN11
PTPRB
PTPRC
PTPRD
PTPRK
PTPRT

Q

QKI

R

RAC1
RAD21
RAD50
RAD51
RAD51B
RAD51C
RAD51D
RAD54L
RAF1
RANBP2
RARA[2]
RASA1
RB1
RBM10
RECQL4
REL
RET
RHEB
RHOA
RHOH
RICTOR
RIT1
RNF213
RNF43
ROS1
RPS6
RRM1
RSPO2
RSPO3
RUNX1
RUNX1T1

S

SBDS
SDC4
SDHA
SDHAF2
SDHB
SDHC
SDHD
SEM1
SETBP1
SETD2
SF3B1
SGK1
SH2B3
SLC34A2
SLC45A3
SLCO1B1
SMAD2
SMAD3
SMAD4
SMARCA1
SMARCA4
SMARCB1
SMARCD1
SMARCE1
SMO
SOCS1
SOX10
SOX2
SOX9
SPEN
SPOP
SRC
SRSF2
SSX1
STAG2
STAG3
STAT3
STAT5A
STAT5B
STK11
SUFU
SUZ12
SYK

T

TAL1
TBL1XR1
TBX3
TCF12
TCF3
TCF7L2
TCL1A
TENT5C
TERT[#]
TET1
TET2
TFE3
TFEB
TGFBR2
TLX1
TMEM127
TMPRSS2
TNFAIP3
TNFRSF14
TNK2
TOP1
TOP2A
TP53
TP63
TPMT
TPR
TRAF7
TRIM24
TRIM33
TRIP11
TRRAP
TSC1
TSC2
TSHR
TTK
TYMS

U

U2AF1
UBR5
UGT1A1

V

VEGFA
VHL

W

WAS
WEE1
WRN
WT1
WWTR1

X

XPA
XPC
XPO1
XRCC1
XRCC2

Z

ZEB1
ZFHX3
ZFP36L2
ZNF384
ZNF521
ZRSR2

[^] Exon 1 and 2 only. [#] Hotspots only. [2] Exon 5-9 only.

RNA Analysis for Fusions and Splice Variants

ABL1
AFF1
AKT3
ALK
ASPSCR1
BRAF
CBFA2T3
CCDC6
CD274 (PD-L1)
CRLF2
CRTC1
DNAJB1
EGFR
EML4
ERBB4
ERG
ESR1
ETV1
ETV6
EWSR1
FGFR1
FGFR2
FGFR3
FIP1L1
FLI1
FOXO1
FUS
GLIS2
JAK2
JAZF1
KIF5B
KMT2A
LPP
MET
NAB2
NOTCH1
NOTCH2
NPM1
NRG1
NTRK1
NTRK2
NTRK3
NUP214
NUTM1
PAX3
PAX7
PAX8
PBX1
PDGFB
PDGFRA
PDGFRB
PML
PPARG
PRKACA
PRKAR1A
RAF1
RARA
RET
ROS1
RUNX1
SET
SSX1
SSX2
STAT6
STIL
SUZ12
TAL1
TCF3
TMPRSS2
TPM3
YAP1

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M3006E-SG-10. 15 April 2024

UNITED™ CNS

The subset of genes relevant to CNS, targeted by UNITED™ CNS. Full gene list in UNITED™ brochure.

SNVs, Indels & CNVs

AKT1	***CDKN2A***	***FGFR1***	***H3C2***	*MYB*	***NTRK3***	*RB1*	***SSX1***
ALK	***CDKN2B***	***FGFR2***	***IDH1***	*MYC*	***PDGFRA***	***RET***	***SUFU***
ATRX	***CTNNB1***	***FGFR3***	***IDH2***	***MYCN***	*PIK3CA*	***ROS1***	***TERT***
BAP1	***DDX3X***	*GNA11*	*KLF4*	***NF1***	***PRKAR1A***	*SMARCA4*	***TP53***
BCOR	***DICER1***	*GNAQ*	***KRAS***	***NF2***	***PTCH1***	*SMARCB1*	*TRAF7*
BRAF	*DROSHA*	***H3-3A***	***MET***	***NTRK1***	*PTEN*	***SMARCE1***	*TSC1*
CDK4	***EGFR***	***H3-3B***	***MN1***	***NTRK2***	***RAF1***	***SMO***	*TSC2*

Genes in **bold** are essential for standard-of-care CNS classification.

RNA Fusions

ALK	*FGFR1*	***MET***	***NTRK2***	*PDGFRA*	*RAF1*	***ROS1***	***SSX2****
BRAF	***FGFR2***	***NTRK1***	***NTRK3***	***PRKACA****	*RET*	***SSX1***	***YAP1****
EGFR	***FGFR3***						

Genes in **bold** are essential for standard-of-care CNS classification.
***Genes tested in RNA panel only.**

Chromosomal Copy Number Alterations

1p	1q	6	**7**	**10**	14q	19p	**19q**

Chromosome/chromosome arms in **bold** are essential for standard-of-care CNS classification.

Standard40 Tissue NGS

For Lung, Colon & Solid Tumors

Genes

AKT1	*CDKN2A #*	*FGFR1*	*GNAQ*	*KIT*	*MTOR*	*PIK3CA #*	*SMO*
ALK #	*CTNNB1*	*FGFR2*	*GNAS*	*KRAS #*	*NRAS*	*PTEN #*	*TP53*
AR #	*EGFR #*	*FGFR3*	*HRAS*	*MAP2K1*	*NTRK1*	*RAF1*	
ARAF	*ERBB2 #*	*FLT3*	*IDH1*	*MAP2K2*	*NTRK3*	*RET*	
BRAF	*ESR1*	*GNA11*	*IDH2*	*MET #*	*PDGFRA*	*ROS1*	

#: Includes detection of gene copy number changes.

Fusions & Splice variants

ALK	*EGFR*	*FGFR1*	*FGFR3*	*NRG1*	*NTRK2*	*NUTM1*	*ROS1*
BRAF	*ESR1*	*FGFR2*	*MET*	*NTRK1*	*NTRK3*	*RET*	

This test is facilitated through Parkway Labs | Contact to order: 6933 0801/6248 5807 | sgapadmin@parkwaypantai.com

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M3020E-SG-01. January 2024

Gene List for Rapid TissueMARK™

LUCENCE

Lung

ALK#	CDKN2A#	FGFR2#	MTOR	NTRK3	RB1#	STK11
ARAF	CTNNB1	FGFR3#	NF1	PDGFRA#	RET	TP53#1
BRAF#	EGFR†#	KEAP1[1]	NFE2L2	PIK3CA#1	RIT1	U2AF1
BRCA1#1	ERBB2#	KRAS#	NRAS#	PIK3R1	ROS1	
BRCA2#1	FGFR1#	MET#	NTRK1	PTEN#^	SF3B1	

Breast & Ovarian

AKT1[1]	BRCA2#1	ESR1#	GATA3	NTRK1	RB1#
APC	CDH1	FBXW7#	GNAS	NTRK3	RET
ATM#	CDK6#1	FGFR1#	KRAS#	PIK3CA#1	SF3B1
BRAF#	CTNNB1	FGFR2#	MYC#	PIK3R1	TP53#1
BRCA1#1	ERBB2	FGFR3#	NF1	PTEN#^	

Colon

APC	CTNNB1	FGRF1#	KRAS#	NRAS#	PIK3R1	SMAD4#1
ATM#	EGFR†#	FGRF2#	MLH1	NTRK1	PTEN#^	TP53#1
BRAF#	ERBB2#	FGRF3#	MTOR	NTRK3	RAF1	
CREBBP	FBXW7#	JAK1	MYC#	PIK3CA#1	RET	

Pancreas & Bile Duct

AKT1[1]	BRCA2#1	ERBB2#	HRAS	MYC#	PIK3R1	TP53#1
APC	CCND1#	FGFR1#	IDH1	NRAS#	PTEN#^	VHL
ATM#	CCND2#1	FGFR2#	IDH2	NTRK1	RET	
BRAF#	CDKN2A#	FGFR3#	KRAS#	NTRK3	STK11	
BRCA[1]	CTNNB1	GNAS	MET	PIK3CA	SMAD4	

Prostate

AR#	BRCA1#1	FGFR1#	KRAS#	NTRK3	PTEN#^	SPOP
ATM#	BRCA2#1	FGFR2#	MYC#	PIK3CA#1	RB1#	TP53#1
BRAF#	ERBB2#	FGFR3#	NTRK1	PIK3R1	RET	

RNA Fusions

ALK	DNAJB1-PRKACA	ETV4	MET (including exon 14 skipping)	NUTM1	RSPO3	TMPRSS2
AR (AR-3/4/7/9 splice variant)	EGFR†	ETV5	MYB-NFIB	PAX3-FOXO1	SLC45A3	
AXL-MBIP	ERBB4	FGFR1	NRG1	PAX8-PPARG	SSX1	
BRAF	ERG	FGFR2	NTRK1	RET	SSX2	
CLIP1-LTK	ESR1	FGFR3	NTRK2	ROS1	TFE3	
CTNNB1-PLAG1	ETV1	FLI1	NTRK3	RSPO2	THADA	

MSI

BAT25	BAT26	NR21	NR24	NR27	MONO27

*Targeted regions selected to maximize detection of known hotspot mutations, in all clinically relevant exons of tested genes. †Includes sequencing of EGFR kinase and extracellular domain mutations. # Includes detection of gene copy number alterations. ^Full coverage [1]>97% coverage of coding exons.

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