# Molecular Oncology Test Requisition Form

M Diagnostics
POWERED BY MIRXES

## PATIENT INFORMATION

Full Name:
Gender: ☐ Male ☐ Female
DOB:
Identity No.:
Address:
Ethnicity: ☐ Chinese ☐ Malay ☐ Indian ☐ Thai ☐ Other

## CLINIC INFORMATION

Clinic Name:
Address:
SG HCI Code:
Email:
Contact No.:

## PATIENT CLINICAL INFORMATION

**Primary cancer:**
☐ Non-Small Cell Lung Cancer (NSCLC)
☐ Colorectal Cancer (CRC)
☐ Breast Cancer
☐ Brain Cancer
☐ Gastrointestinal Stromal Tumor (GIST)
☐ Cholangiocarcinoma
☐ Metastatic Cancer of Unknown Primary (mCUP)
☐ Other: *please specify:*

_____

Cancer stage: ☐ I ☐ II ☐ III ☐ IV ☐ Unknown

Supporting documents:
☐ Patient Informed Consent obtained. Please attach.
☐ (Optional) IHC/FISH/molecular reports.

Relevant History/ Findings/ Treatment:
☐ No treatment received.
☐ Treatment received:

| 1st line: | 2nd line: |
|---|---|
| ☐ Chemotherapy | ☐ Chemotherapy |
| ☐ Targeted therapy | ☐ Targeted therapy |
| ☐ Immunotherapy | ☐ Immunotherapy |
| ☐ Hormone therapy | ☐ Hormone therapy |

***Insufficient/inaccurate clinical information may affect clinical interpretation/recommendation.***

## TEST INFORMATION

☐ **APEX Tissue v.2, for CoDeX programme, Lung TKI naive only** 10001318
*(Mutations/amplifications/fusions in 58 genes)*

☐ **APEX Tissue v.2** 10001317
*(Mutations/amplifications/fusions in 58 genes*
*Refer to page 2 for Cancer-type Specific genes*

☐ **COMPASS Tissue 1021 genes** 10000501
*(Mutations/amplifications/fusions/MSI/TMB*)*
**Ongoing validation*

☐ **MSI PCR** Microsatellite Instability PCR

☐ **PDL1** Immunohistochemistry (IHC)

## ORDERING PHYSICIAN

Name:
MCR:
Report to be sent to:
☐ Email:

_____

☐ Histopathology laboratory email:

_____

_____
**Physician signature** **Date**

## SAMPLES FROM PATHOLOGY LAB

☐ Tissue Memo from Pathology Lab accompanies the FFPE samples.
Check:

- 2 Patient identifiers are present
- 1 matching H&E slide with tumour region marked out (APEX: ≥ 25% tumor cellularity, and COMPASS: ≥ 20% tumor cellularity)
- Histopathology report attached
- 10 unstained sections (Tumor area ≥ 25 $mm^2$) or 15 unstained sections (Tumor area 5 - 25 $mm^2$) of 5 µm thickness on uncoated/uncharged slides
- Idylla MSI test: Additional 2 unstained sections (≥ 25% tumor cellularity (Tumor area ≥ 25 $mm^2$) of 5 µm thickness

☐ I declare that the FFPE sections and/or thickness do not meet the specimen requirements. Please proceed with nucleic acid extraction and sequencing.

## For MDX Lab Use Only

Accession ID:
Order ID:

Section: _____ slides _____ H&E slide

Date and Time Received: _____
Received By: _____
Verified By: _____
Slide Review: _____

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| APEX TISSUE CANCER SPECIFIC PANEL DETAILS | |
|---|---|
| **APEX Tissue Lung** | *Somatic alterations in **16** genes:*<br>▪ *ALK, BRAF inclusive of V600E, EGFR inclusive of L858R, ex19del, ex20ins, T790M, C797S with cis/trans info, ERBB2/HER2, KEAP1, KRAS inclusive of G12C, MET ex14skipping + amplification, NRG1, NTRK1, NTRK2, NTRK3, ROS1, RET, SMARCA4, STK11* |
| **APEX Tissue Breast** | *Somatic alterations in **18** genes:*<br>▪ *AKT1, BRAF inclusive of V600E, CDK4, CDKN2A, EGFR, ERBB2/HER2, ESR1, FGFR1, MAP2K1, MTOR, NTRK1, NTRK2, NTRK3, PIK3CA, PTEN, RB1, RET* |
| **APEX Tissue Colorectal** | *Somatic alterations in **15** genes:*<br>▪ *ALK, BRAF inclusive of V600E, ERBB2/HER2, FGFR1, KRAS exons 2-4 inclusive of G12C, NRAS exons 2-4, NTRK1, NTRK2, NTRK3, PIK3CA, POLE, PTEN, RET, ROS1* |
| **APEX Tissue GIST** | *Somatic alterations in **10** genes:*<br>▪ *BRAF inclusive of V600E, ERBB2/HER2, FGFR1, KIT, NTRK1, NTRK2, NTRK3, PDGFRA inclusive of D842V, RET* |
| **APEX Tissue Cholangiocarcinoma/Biliary tract/ Gallbladder** | *Somatic alterations in **12** genes:*<br>▪ *BRAF inclusive of V600E, ERBB2/HER2, FGFR2, IDH1, KRAS inclusive of G12C, MET, NTRK1, NTRK2, NTRK3, PIK3CA, RET* |
| **APEX Tissue Melanoma** | *Somatic alterations in **12** genes:*<br>▪ *BRAF inclusive of V600E/K, ERBB2/HER2, HRAS, KIT, KRAS, NRAS, MAP2K1, NTRK1, NTRK2, NTRK3, RET* |
| **APEX Tissue Pancreas** | *Somatic alterations in **17** genes:*<br>▪ *ALK, BRAF inclusive of V600E, CDKN2A, EGFR, ERBB2/HER2, FGFR1, FGFR2, FGFR3, KRAS inclusive of G12C, MET, NRG1, NTRK1, NTRK2, NTRK3, RET, ROS1* |
| **APEX Tissue Thyroid** | *Somatic alterations in **18** genes:*<br>▪ *ALK, BRAF inclusive of V600E, CDKN2A, EGFR, ERBB2/HER2, FGFR2, HRAS, KIT, KRAS, NRAS, NTRK1, NTRK2, NTRK3, PIK3CA, RET, ROS1, STK11* |
| **APEX Tissue Endometrial** | *Somatic alterations in **16** genes:*<br>▪ *ALK, BRAF inclusive of V600E, CDK4, ERBB2/HER2, ESR1, FGFR2, KRAS, NTRK1, NTRK2, NTRK3, PIK3CA, POLE, PTEN, RET, SMARCA4* |
| **APEX Tissue Small bowel** | *Somatic alterations in **9** genes:*<br>▪ *BRAF inclusive of V600E, ERBB2/HER2, KRAS inclusive of G12C, NTRK1, NTRK2, NTRK3, POLE, RET* |
| **APEX Tissue Stomach/Gastric** | *Somatic alterations in **9** genes:*<br>▪ *BRAF inclusive of V600E, EGFR, ERBB2/HER2, MET, NTRK1, NTRK2, NTRK3, RET* |
| **APEX Tissue Bladder/Urothelial** | *Somatic alterations in **8** genes:*<br>▪ *BRAF inclusive of V600E, ERBB2/HER2, FGFR3 mut + fusion, NTRK1, NTRK2, NTRK3, RET* |
| **APEX Tissue CNS/Brain** | *Somatic alterations in **11** genes:*<br>▪ *BRAF inclusive of V600E + fusion, ERBB2/HER2, H3-3A, IDH1, IDH2, NTRK1, NTRK2, NTRK3, RET, TERT promoter* |

## APEX TISSUE v.2 GENE LIST

**Base substitutions, insertions and deletions:**
*AKT1, AKT2, AKT3, ALK, AR, ARAF, BRAF, CDK4, CDKN2A, CHEK2, CTNNB1, EGFR, ERBB2, ERBB3, ERBB4, ESR1, FGFR1, FGFR2, FGFR3, FGFR4, FLT3, GNA11, GNAQ, GNAS, HRAS, IDH1, IDH2, KIT, KRAS, MAP2K1, MAP2K2, MET, MTOR, NRAS, NTRK1, NTRK2, NTRK3, PDGFRA, PIK3CA, PTEN, RAF1, RET, ROS1, SMO, TP53, STK11, KEAP1, POLE, H3-3A, FOXL2, TERT, RB1, SMARCA4*
**Amplifications and losses:**
*ALK, AR, CD274 (PD-L1), CDKN2A, EGFR, ERBB2, ERBB3, FGFR1, FGFR2, KRAS, MET, PIK3CA, PTEN*
**Fusions:** ***Inter-genic:*** *ALK, BRAF, ESR1, FGFR1, FGFR2, FGFR3, MET, NRG1, NTRK1, NTRK2, NTRK3, NUTM1, RET, ROS1, RSPO2, RSPO3.*
***Intra-genic:*** *AR, BRAF, EGFR, MET*