

Rapid TissueMARK™

Detecting FDA-Approved Biomarkers For
Additional 1 in 6 Patients VS Conventional NGS^[1]

50% of eligible cancer patients miss out on targeted
therapies from traditional tissue profiling approaches^[2]

Rapid TissueMARK™ delivers accurate and affordable
detection of over 50 DNA/RNA genomic alterations with
microsatellite instability (MSI) in FFPE tissue

Covering FDA and all CDL-approved^[3] genetic biomarkers
for 7 major cancer types

From Asia's first company to obtain US government
Medicare coverage for NGS testing technology^[4]

7

Individual
Tumor Types

18%

More FDA-Approved
Biomarkers vs
Conventional NGS^[5]

5

Working
Days

Benefits of Rapid TissueMARK™

✓ **34%** more cost savings from combining mutation NGS
and MSI for immunotherapy^[6]

✓ **Save** precious samples, **Save** slide-cutting cost^[7]

✓ **0.9%** (9 in 1,000) detection limit for superior biomarker
detection versus conventional and less accurate 5%

Cancer Types Covered

Common Solid tumor types including Lung, Breast, Ovarian,
Colon, Pancreas, Bile Duct, Prostate

Suitable for

- Newly diagnosed patients
- Recurrent and metastatic disease
- Patients who are not responding well to current standard-of-care treatments

[1] Data on file - Comparing 0.9% versus conventional 5% threshold.

[2] Sadik et al. J Clin Oncol Precision Oncology. (2022)

[3] <https://www.moh.gov.sg/home/our-healthcare-system/medishield-life/what-is-medishield-life/what-medishield-life-benefits/cancer-drug-list>

[4] <https://www.businesstimes.com.sg/startups-tech/singapores-lucence-secures-us-medicare-approval-its-cancer-tests>.

[5] Data on file - Comparing 0.9% versus conventional 5% threshold.

[6] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9330154/>. Average test is \$1778 + MSI \$600 (add-on). Rapid TissueMARK includes MSI by default.

[7] No splitting of samples required.

List of FDA-Approved Matched Therapy

Cancer Type	Biomarker	FDA-approved Matched Therapy
Lung cancer	<i>ALK</i>	Alectinib, Brigatinib, Ceritinib, Crizotinib, Lorlatinib
	<i>BRAF</i>	Binimetinib, Dabrafenib, Encorafenib, Trametinib,
	<i>EGFR</i>	Afatinib, Amivantamab-vmjw, Dacomitinib, Erlotinib, Gefitinib, Osimertinib
	<i>ERBB2</i>	Trastuzumab Deruxtecan
	<i>ROS1</i>	Crizotinib, Entrectinib, Repotrectinib
	<i>RET</i>	Pralsetinib, Selpercatinib
	<i>MET</i>	Tepotinib, Capmatinib
	<i>KRAS</i>	Sotorasib
Breast cancer	<i>AKT1</i>	Capivasertib
	<i>BRCA1, BRCA2</i>	Olaparib, Talazoparib
	<i>PIK3CA</i>	Alpelisib, Capivasertib
	<i>ESR1</i>	Elacestrant
	<i>ERBB2 (HER2)</i>	Lapatinib, Margetuximab, Neratinib, Pertuzumab, Trastuzumab Emtansine, Trastuzumab, Tucatinib
	<i>PTEN</i>	Capivasertib
Ovarian cancer	<i>BRCA1, BRCA2</i>	Niraparib, Olaparib, Rucaparib
Colorectal cancer	<i>BRAF</i>	Cetuximab, Encorafenib
	<i>ERBB2</i>	Trastuzumab, Tucatinib
	<i>RAS (Wild-type)</i>	Cetuximab, Panitumumab
Pancreatic cancer	<i>BRCA1, BRCA2</i>	Olaparib
Cholangiocarcinoma	<i>FGFR2</i>	Infigratinib, Pemigatinib
	<i>IDH1</i>	Ivosidenib
Prostate cancer	<i>BRCA1, BRCA2</i>	Olaparib, Rucaparib, Talazoparib
Pan-cancer targets ^[8]	<i>NTRK1, NTRK2, NTRK3</i>	Entrectinib, Larotrectinib
	<i>BRAF</i>	Dabrafenib, Trametinib
	<i>RET</i>	Selpercatinib
	<i>MSI</i>	Pembrolizumab

*For additional biomarkers : TMB, HRR gene coverage beyond BRCA1/2, and 99.9% coverage of all OncoKB actionable mutations - please upgrade to UNITED™ 600.

Test Specifications

Methodology	Ultra-deep next-generation sequencing
Genomic alterations profiled	SNVs, CNVs, indels, fusions, splice variants, MSI
Sample requirement	FFPE tumor tissue
Turnaround time	5 working days

	Limit of Detection	Sensitivity	Specificity
Single Nucleotide Variants (SNVs)	0.9%	100%	100%
Insertions/Deletions (Indels)	1.5%	100%	100%
Fusions (RNA)	10 copies	100%	100%

• Results tested at the stated mutant allele frequencies using reference standards, and FFPE clinical samples.

[8] Include drugs with accelerated approval.

Focused genes sub-panels for targeted cancer types
 All sub-panels include microsatellite instability (MSI) and RNA fusion testing.

Lung

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

Breast & Ovarian

AKT1	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	FGFR1#	KRAS#	NRAS#	PIK3R1	SMAD4#1
ATM#	EGFR†#	FGFR2#	MLH1	NTRK1	PTEN#^	TP53#1
BRAF#	ERBB2#	FGFR3#	MTOR	NTRK3	RAF1	
CREBBP	FBXW7#	JAK1	MYC#	PIK3CA#1	RET	

Pancreas & Bile Duct

AKT1	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	
BRCA1	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
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*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 >97% coverage of coding exons.

This test is facilitated through Parkway Labs | Contact to order: 69330801/ 62485807 | sgapadmin@parkwaypantantai.com

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