Neuberg DIAGNOSTICS

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New INSIGHTS

Neuberg DIAGNOSTICS CENTER FOR GENOMIC MEDICINE

Comprehensive Oncology

Serial number : 024 Edition : 1. 2022

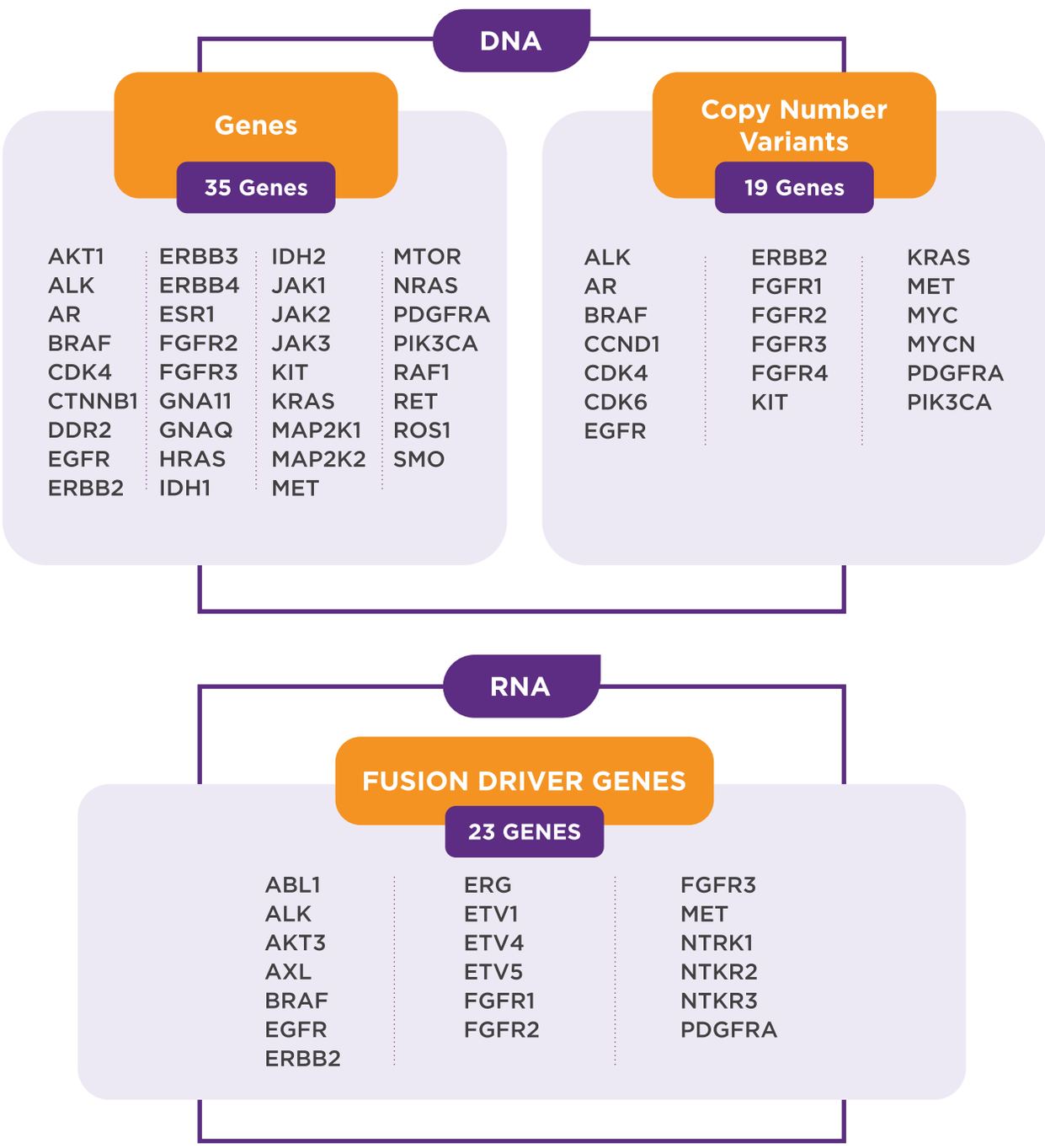
OncoCEPT - Solid

(CEPT : Comprehensive Evaluation for Personalized Treatment)

Prominent technical features of OncoCEPT Solid:

- Enables the detection of variants in 52 key solid tumor genes. These genes are well characterized in the published literature and associated with oncology drugs that are FDA approved, part of National Comprehensive Cancer Network (NCCN) guidelines, or in clinical trials.
- The assay allows concurrent analysis of DNA and RNA.
  Simultaneously detects multiple types of variants, including hotspots, single nucleotide variants (SNVs), indels, CNVs, and gene fusions, in a single workflow.
  Uses formalin-fixed, paraffin embedded (FFPE) tissues, fine-needle aspirates, fresh tissues as starting sample.

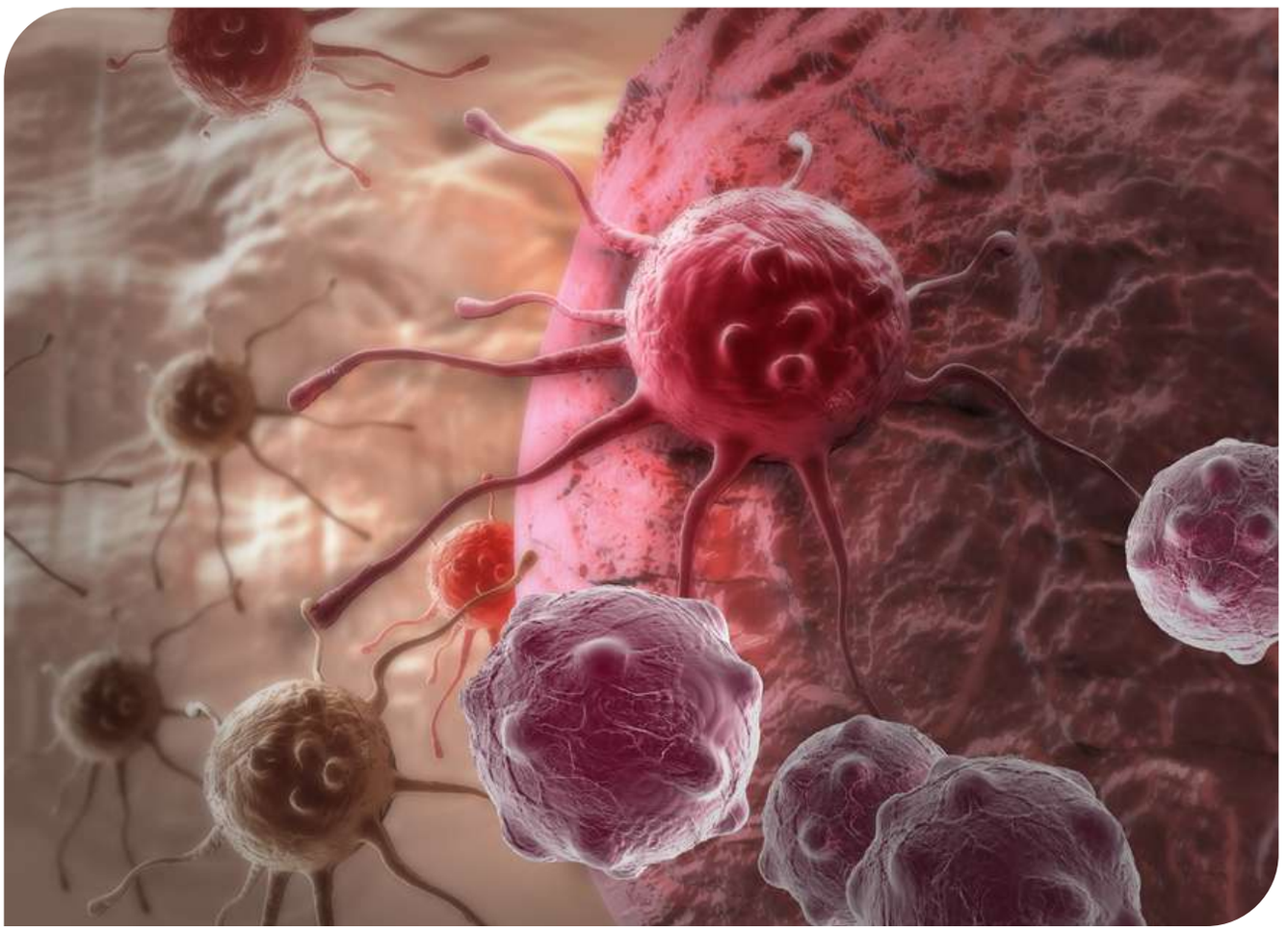
Turn around time (TAT): 12 business days.



OncoCEPT - Solid Comprehensive

(CEPT : Comprehensive Evaluation for Personalized Treatment)

OncoCEPT Solid identifies these driver mutations, opens up different targeted therapy options, helps to know about relevant clinical trials, and helps to understanding the prognosis of the patient.



Prominent technical features of OncoCEPT Solid:

- Enables the detection of variants in 161 key solid tumor genes. These genes are well characterized in the published literature and associated with oncology drugs that are FDA approved, part of National Comprehensive Cancer Network (NCCN) guidelines, or in clinical trials.
- The assay allows concurrent analysis of DNA and RNA.
  Simultaneously detect multiple types of variants, including hotspots, single nucleotide variants (SNVs), indels, CNVs, and gene fusions, in a single workflow.
  Uses formalin-fixed, paraffin embedded (FFPE) tissues, fine-needle aspirates, fresh tissues as starting sample.

Turn around time (TAT): 15 business days.

OncoCEPT - Solid Comprehensive (161)

DNA

Genes

AKT1
AKT2
AKT3
ALK
AR
ARAF
AXL
BRAF
BTK
CBL
CCND1
CDK4
CDK6
CHEK2
CSF1R
CTNNB1
DDR2
EGFR
ERBB2
ERBB3
ERBB4
ERCC2
ESR1
EZH2
FGFR1
FGFR2
FGFR3
FGFR4
FLT3
FOXL2
GATA2
GNA11
GNAQ
GNAS
H3F3A
HIST1H3B
HNF1A
HRAS
IDH1
IDH2
JAK1
JAK2
JAK3
KDR
KIT
KNSTRN
KRAS
MAGOH
MAP2K1
MAP2K2
MAP2K4
MAPK1
MAX
MDM4
MED12
MET
MTOR
MYC
MYCN
MYD88
NFE2L2
NRAS
NTRK1
NTRK2
NTRK3
PDGFRA
PDGFRB
PIK3CB
PIK3CA
PPP2R1A
PTPN11
RAC1
RAF1
RET
RHEB
RHOA
ROS1
SF3B1
SMAD4
SMO
SPOP
SRC
STAT3
TERT
TOP1
U2AF1
XPO1

Full - Length Genes

ARID1A
ATM
ATR
ATRX
BAP1
BRCA1
BRCA2
CDK12
CDKN1B
CDKN2A
CDKN2B
CHEK1
CREBBP
FANCA
FANCD2
FANCI
FBXW7
MLH1
MRE11
MSH6
MSH2
NBN
Nf1
Nf2
NOTCH1
NOTCH2
NOTCH3
PALB2
PIK3R1
PMS2
POLE
PTCH1
PTEN
RAD50
RAD51
RAD51B
RAD51C
RAD51D
RNF43
RB1
SETD2
SLX4
SMARCA4
SMARCB1
STK11
TP53
TSC1
TSC2

Copy Number Variants

AKT1
AKT2
AKT3
ALK
AXL
AR
BRAF
CCND1
CCND2
CCND3
CCNE1
CDK2
CDK4
CDK6
EGFR
ERBB2
ESR1
FGF19
FGF3
FGFR1
FGFR2
FGFR3
FGFR4
FLT3
IGF1R
KIT
KRAS
MDM2
MDM4
MET
MYC
MYCL
MYCN
NTRK1
NTRK2
NTRK3
PDGFRA
PDGFRB
PIK3CB
PIK3CA
PPARG
RICTOR
TERT

RNA

FUSION DRIVER GENES

AKT2
ALK
AR
AXL
BRCA1
BRCA2
BRAF
CDKN2A
EGFR
ERBB2
ERBB4
ERG
ESR1
ETV1
ETV4
ETV5
FGFR1
FGFR2
FGFR3
FGR
FLT3
JAK2
KRAS
MDM4
MET
MYB
MYBL1
NF1
NOTCH1
NOTCH4
NRG1
NTRK1
NTRK2
NTRK3
NUTM1
PDGFRA
PDGFRB
PIK3CA
PRKACA
PRKACB
PTEN
PPARG
RAD51B
RAF1
Rb1
RELA
RET
ROS1
RSPO2
RSPO3
TERT

OncoCEPT - Liquid

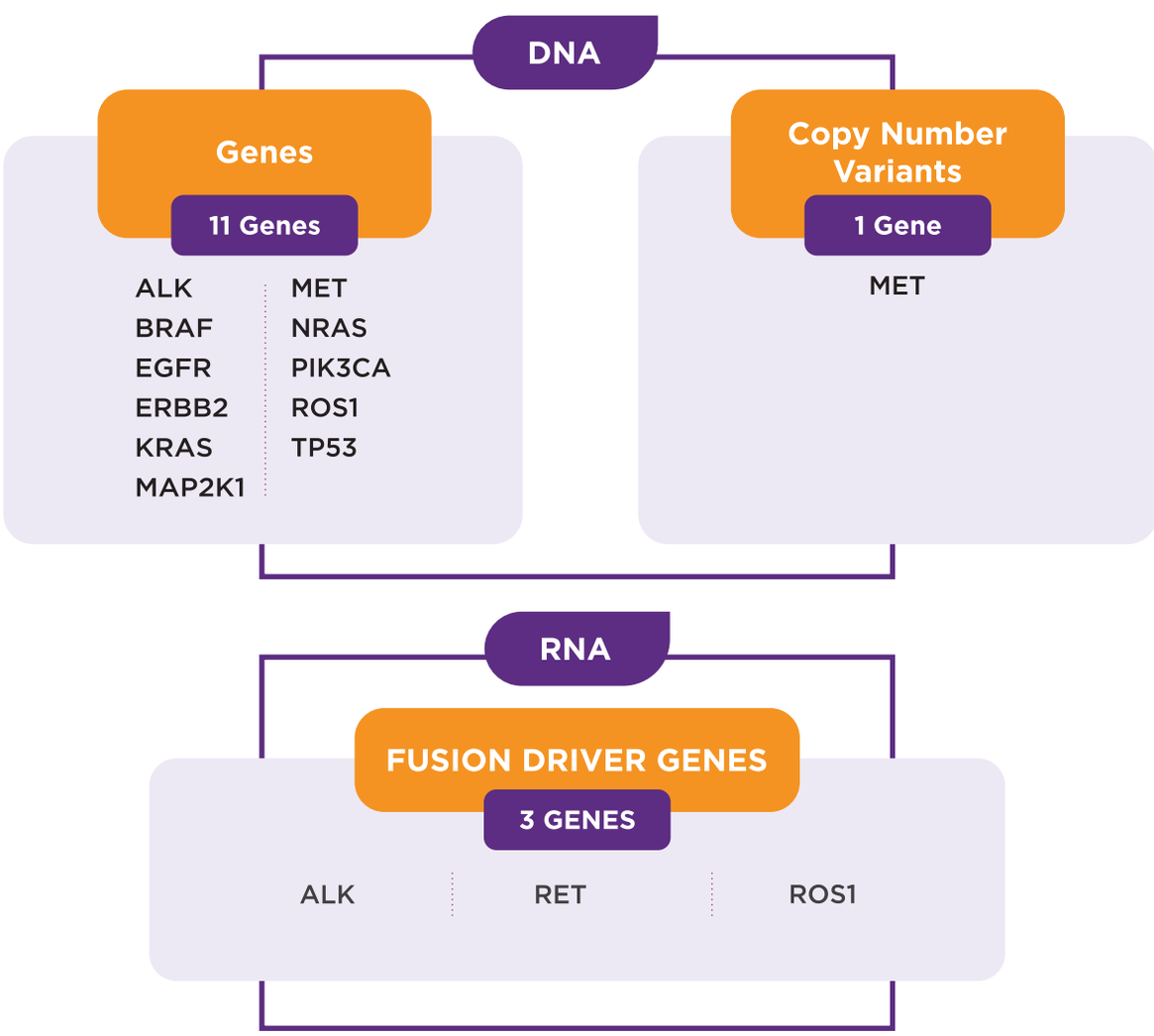
(CEPT : Comprehensive Evaluation for Personalized Treatment)

Liquid biopsies are performed on peripheral blood which is easy to access, allowing for more widespread use. Liquid biopsies have drastically revolutionized the field of clinical oncology, offering ease in tumor sampling, continuous monitoring by repeated sampling, devising personalized therapeutic regimens, and screening for therapeutic resistance. Liquid biopsies detect tumor DNA shed from numerous sites within the tumor and thus provide a more comprehensive genomic picture. Liquid biopsies are most commonly used as a complementary technique to standard tissue biopsies.

Prominent technical features of OncoCEPT Solid:

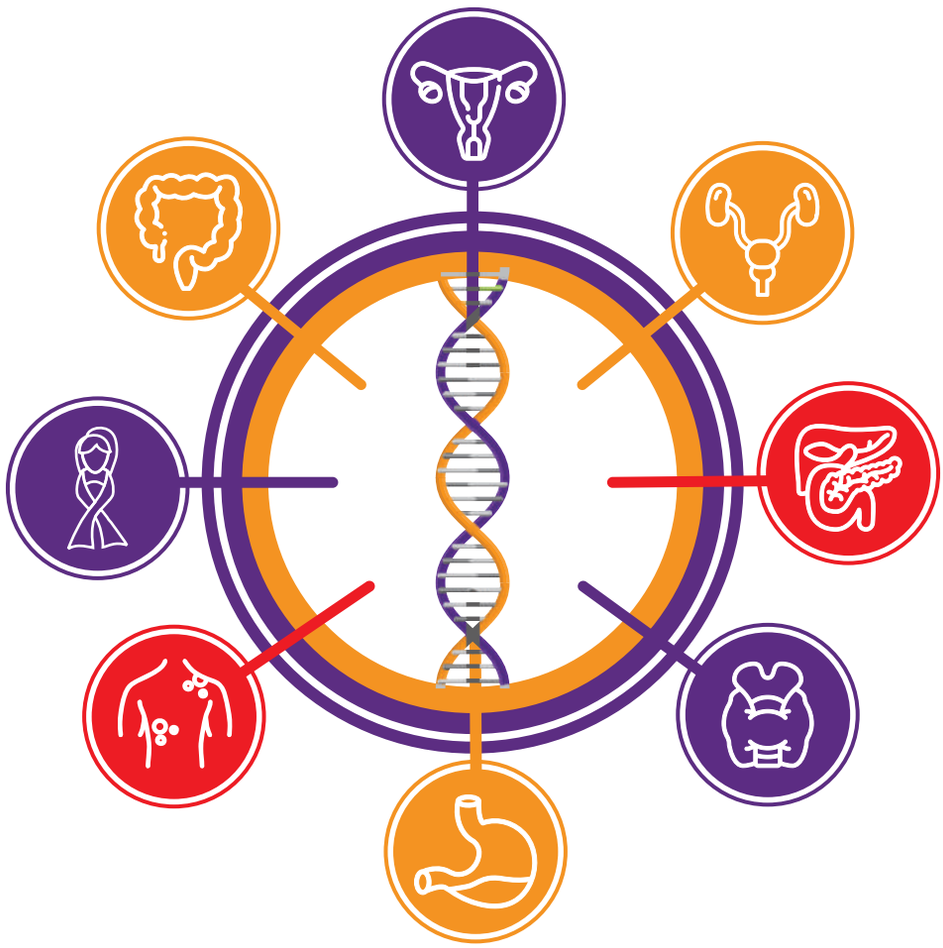
- Detection of somatic mutations in plasma, down to a level of 0.1% in genes relevant to solid tumors.
- Analysis of single nucleotide variants, short indels, copy number variations, and fusions that are frequently mutated in research cancer samples.
- 150 hotspots in 11 genes focused on solid tumors, are analyzed.

Sample type: whole blood.
Turnaround time (TAT): 10 business days.



Inherited Cancer Testing

Multiple | Early onset | Rare



Comprehensive Inherited Cancer Panel (193 genes) ORION Focus

Includes:

- Common and rare hereditary cancer syndromes
- All NCCN and ACMG recommended genes

Cancer gene panels:

Breast	Ovarian	Colon	Pancreatic	Thyroid
Endometrial	Prostate	Gastric	Melanoma	Renal

* Single gene testing via NGS available (TP53, PTEN, APC, RB1 etc)
* BRCA 1 and BRCA 2 MLPA available

Patient Support

We offer pre test and post test genetic counseling services by board certified genetic counselors!

Evaluating hereditary cancer risk based on NCCN criteria

Discuss test options, results & their implication and risk to family members

Handling psychosocial issues

Our Specialized Test Panel

Inherited

Cancer Type	Test Name	Test Component	Technique used	Sample requirement	TAT
Hereditary malignancies	ORION focus	193 gene	Next generation Sequencing (NGS)	Whole blood in EDTA (3ml)	28 days

Somatic

Cancer Type	Test Name	Test Component	Technique used	Sample requirement	TAT
Colorectal	Colo Comprehensive	MSI+BRAF+KRAS+ NRAS	Next generation Sequencing (NGS)+ PCR	1. Tumor FFPE block containing cancer cells. 2. Whole blood in EDTA (3ml)	15 days
Breast	ER/PR/Her2 by IHC	Immunohisto-chemistry of ER, PR and Her2	Immunohisto-chemistry (IHC)	Tumor FFPE block	5 days
	Her2 by FISH	Her2	FISH	Tumor FFPE block	7 days
	Somatic	BRCA1/2	Next generation Sequencing (NGS)	Tumor FFPE block	15 days
	Germline			Whole blood in EDTA (3ml)	28 days
Lung	EGFR by NGS	EGFR (18,19,20,21) exons	Next generation Sequencing (NGS)	Tumor FFPE block	12 days
	OncoCEPT-Solid	52 GENES EGFR, BRAF, KRAS, ERBB2 Rearrangement: ALK, ROS1, NTRK RET, MET etc.	Next generation Sequencing (NGS)	Tumor FFPE block	12 days
	EGFR T790M	EGFR T790 liquid biopsy	Digital PCR	Whole blood in Streck tube (10 ml)	5 days
	OncoCEPT-Liquid	ALK, BRAF, EGFR, ERBB2, KRAS, MAP2K1, MET, NRAS, PIK3CA, ROS1, and TP53	Next generation Sequencing (NGS)	Whole blood in Streck tube (10 ml)	12 days

Cancer Type	Test Name	Test Component	Technique used	Sample requirement	TAT
Thyroid	OncoCEPT Solid	Sequencing: EGFR, BRAF, KRAS, NRAS, HRAS. Fusion: RET-PTC, PAX8-PPAR gamma etc.	Next generation Sequencing (NGS)	Tumor FFPE block	12 days
GIST	OncoCEPT Solid	Sequencing: cKIT, PDGFRA	Next generation Sequencing (NGS)	Tumor FFPE block	12 days
All solid Tumors	OncoCEPT Solid Comprehensive (161 gene panel for all solid tumors)	161 genes	Next generation Sequencing (NGS)	Tumor FFPE block	15 days
HRR Panel	BRCA1, BRCA2, ATM, BARD1, BR1P1, CDK12, CHEK1, CHEK2, FANCL, PALB2, RAD51B, RAD51C, RAD51D, or RAD54L	12 genes etc	Next generation Sequencing (NGS)	Tumor FFPE block	15 days

Our Services

Inherited Genetic Disorder

Reproductive Genetics

Cancer Genomics

Haemato Oncology

Transplant Immunology

Infectious Disorders

Pharmacogenomics

Research Services

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