amsbio

CancerSeq™ FFPE Tissue

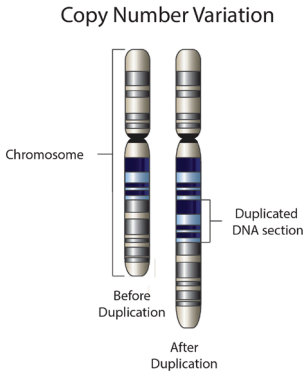
Targeted NGS Characterised tissue samples

UP TO 67 CANCER GENES VALIDATED FOR YOU

Prescreened for SNPs, indels and CNV's
Advantage over cancer cell lines
Save valuable research time

EXTENSIVELY VALIDATED TUMOR TISSUES

CancerSeq™ formalin fixed paraffin embedded (FFPE) tissues are tumor tissues that have been prescreened extensively for single nucleotide polymorphisms (SNPs), insertions & deletions (indels), and copy number variations (CNVs). Targeted Next Generation Sequencing (NGS), using cancer gene panels, was performed to identify mutations and mutational hotspots. These tissues are ideal for verification, genotyping, or identification of new mutations.



HOW ARE CANCERSEQ™ TISSUE GENERATED?

To generate our CancerSeq™ line of tissues, genomic DNA was extracted from the FFPE tissues and validated by targeted NGS using Illumini TruSeq Cancer Panel for **CancerSeq™**, or ArcherDx VariantPlex for **CancerSeq™ Plus** tissue, or Thermo Fisher Ion AmpliSeq panel for **CancerSeq™ AMS**.

Targeted NGS

- Offers greater sequencing depth by focusing on a panel of genes of clinical relevance
- Allows identification of low frequency variants with high confidence
- Useful for patient stratification and the development of targeted therapeutics
- Powerful for profiling FFPE samples
- Can pick out mutations present in a fraction of malignant cells generating valuable information for therapeutic targets and immunotherapy biomarkers

Features

- Deep sequencing by NGS with high coverage
- Advantageous of cancer cell lines
- FFPE curls or slides available (inquire for blocks
- Documentation of the tissue donor's clinical histories is available
- Information regarding tumor type is available
- Complete NGS sequencing data available including: chromosomal position, variant type (SNP or indel), alternate allele variations, quality score, depth of coverage, allele type, transcript ID and more)

Applications

- Validation of cancer marker mutation related drug candidates
- Controls or verification for genotyping
- Companion diagnostic assay development
- Suitable for both IHC and in-situ hybridization assays
- Cellular localization of tissue specific mRNA and protein expression
- Isolation of DNA and RNA with specific mutation profiles

CANCERSEQ™ PRODUCT LINE

CancerSeq™
FFPE tissues are pre-screened with 48 cancer gene panel

- Illumina TruSeq Cancer Panel
- 48 genes are targeted with 212 amplicons
- Detect somatic mutations in mutational hotspots
- Sensitive mutation detection within genes such as BRAF and KRAS
- Bead based sample normalization
- Blocks and slides available for lung, skin melanoma, breast, colon tumors (inquire for curls)

CancerSeq™ Plus
FFPE tissues are pre-screened with 67 cancer gene panel

- ArcherDx VariantPlex platform
- Expanded 67 cancer gene panel
- Anchored Multiplex PCR (AMP) chemistry
- Greater target recovery from short fragments
- Detects gene fusions, SNPs, indels and CNVs
- Breast, Lung, Stomach, Thyroid tumours
- Each lot is supplied as 5 curls/scrolls per vial

CancerSeq™ AMS pre-screened for 35 cancer gene panel

- Thermo Fisher Ion AmpliSeq panel
- non-small-cell lung carcinoma (NSCLC) tumor tissues
- 35 cancer genes

CANCER GENE PANELS

ABL1	CCND1	DDR2	FBXW7	GNAQ	JAK2	MET	NRAS	RET	STK11
AKT1	CCNE1	EGFR	FGFR1	GNAS	JAK3	MLH1	PDGFRA	RHOA	TERT
ALK	CDH1	ERBB2	FGFR2	H3F3A	KDR	MPL	PIK3CA	ROS1	TP53
APC	CDK4	ERBB3	FGFR3	HNF1A	KIT	MYC	PIK3R1	SMAD4	VHL
ATM	CDKN2A	ERBB4	FLT3	HRAS	KRAS	MYCN	PTEN	SMARCB1	
AURKA	CSF1R	ESR1	FOXL2	IDH1	MAP2K1	NOTCH1	PTPN11	SMO	
BRAF	CTNNB1	EZH2	GNA11	IDH2	MDM2	NPM1	RB1	SRC	

* Highlighted in red are the additional genes screened in CancerSeq™ Plus tissue samples

DATA ON CNVA, SNPS AND IN/DELS

Tissue type	Sample #	Strong Evidence For CNV	Copy Number	SD	P-value
Lung	1	CCNE1	4.13	0.62	4.16E-04
		TEGFR	4.83	0.99	4.16E-04
Lung	2	CCND1	3.08	0.11	8.31E-03
Lung	3	EGFR	7.5	1.26	2.55E-04
		ERBB2	6.45	0.61	2.55E-04
		GNAS	4.59	1.17	2.03E-03

PRODUCT TABLE

Description		Pack Size	Cat. Number
CancerSeq™ Paraffin Tissue Tumour	Breast - Genetically characterized for 48 cancer genes by NGS	1 block 5 slides	T2235086-SB T2235086-ST
	Colon - Genetically characterized for 48 cancer genes by NGS	1 block 5 slides	T2235090-SB T2235090-ST
	Lung - Genetically characterized for 48 cancer genes by NGS	1 block 5 slides	T2235152-SB T2235152-ST
	Melanoma - Genetically characterized for 48 cancer genes by NGS	1 block 5 slides	T2235218A-SB T2235218A-ST

Description		Pack Size	Cat. Number
CancerSeq™ Plus Paraffin Tissue Tumour	Breast - Genetically characterized for 67cancer genes by NGS	5 curls	T2235086-SC
	Lung- Genetically characterized for 67 cancer genes by NGS	5 curls	T2235152-SC
	Stomach - Genetically characterized for 67 cancer genes by NGS	5 curls	T2235248-SC
	Thyroid - Genetically characterized for 67 cancer genes by NGS	5 curls	T2235265-SC

Description		Pack Size	Cat. Number
CancerSeq™ AMS Paraffin Tissue Tumour	NSCLC - Genetically characterized for 35 cancer genes by NGS	5 curls	T2235152-AC

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  Liu et., Targeting the untargetable KRAS in cancer therapy.
- **Computational and structural biotechnology journal 2019, 17, 1348-1359**
  Bewicke-Copley et al., Applications and analysis of targeted genomic sequencing in cancer studies.
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  Guan et al., Application of next-generation sequencing in clinical oncology to advance personalized treatment of cancer.

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