

Oncolife

focus assay

52 GENES

A Comprehensive Study Of Solid Tumors
Biomarkers by Next Generation Sequencing



Oncolife Focus Gene Panel – 52 Genes

Targeted multi-biomarker that enables screening of over 1,000 somatic variants across 52 genes in solid tumor samples

KEY HIGHLIGHTS

- Broad coverage of Genomic aberrations:** Relevant hotspots – single-nucleotide variants (SNVs) across 35 genes, indels across 35 genes, copy number variants (CNVs) across 19 genes and gene fusions across 23 genes using a single workflow for DNA & RNA
- Detection of particular gene variant** in specific tumor type assist the clinicians to understand and evaluate the risk stratification, prognosis and clinical outcome
- AMC/ACMG/ASCO/CAP/NCCN/EMA/ESMO** guidelines followed
- Tumor content > 20%**, to enable take a proper quality and concentration of DNA and RNAs

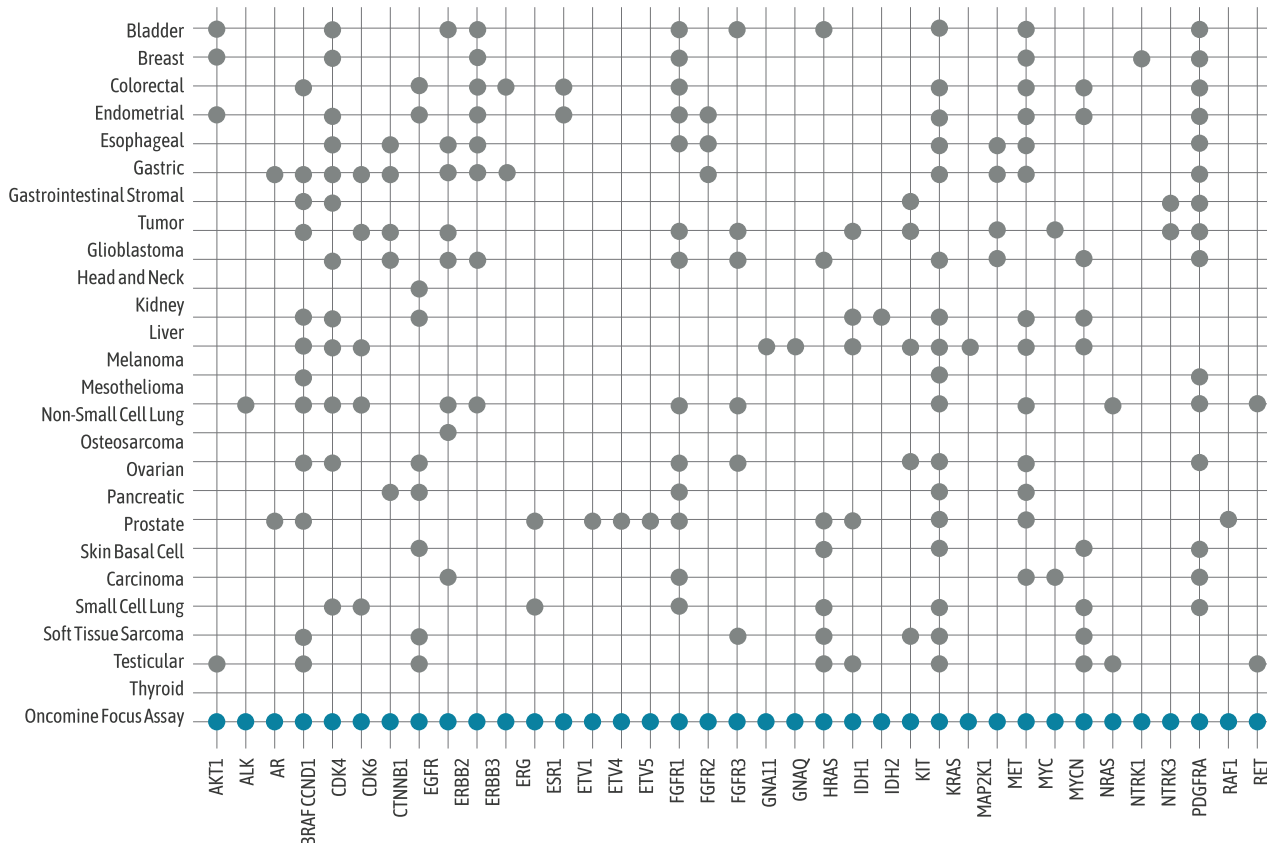
DATA ANALYSIS

- Simultaneous study with two tertiary reporting platforms** like GENEYX and Ion Torrent Reporter Software
- Team of Molecular Pathologists and Molecular Scientists** collaboratively evaluating, annotating, interpreting the variant of interest

Gene Coverage – 52 genes

52 GENE PANEL		
HOTSPOT GENES (35)	COPY NUMBER GENES (19)	GENE FUSIONS (23)
AKT1, ALK, AR, BRAF, CDK4, CTNNB1, DDR2, EGFR, ERBB2, ERBB3, ERBB4, ESR1, FGFR2, FGFR3, GNA11, GNAQ, HRAS, IDH1, IDH2, JAK1, JAK2, JAK3, KIT, KRAS, MAP2K1, MAP2K2, MET, MTOR, NRAS, PDGFRA, PIK3CA, RAF1, RET, ROS1, SMO	AKT1, ALK, AR, BRAF, CCND1, CDK4, CDK6, EGFR, ERBB2, FGFR1, FGFR2, FGFR3, FGFR4, KIT, KRAS, MET, MYC, MYCN, PIK3CA, PDGFRA	ABL1, AKT3, ALK, AXL, BRAF, EGFR, ERBB2, ERG, ETV1, ETV4, ETV5, FGFR1, FGFR2, FGFR3, MET, NTRK1, NTRK2, NTRK3, PDGFRA, PPARG, RAF1, RET, ROS1

PAN CANCER COVERAGE



Lung cancer is the leading cause of cancer-related death in the United States, and patients typically respond poorly to traditional chemotherapy.

More than **80%** of lung cancer cases are classified as non-small cell lung cancer (NSCLC)







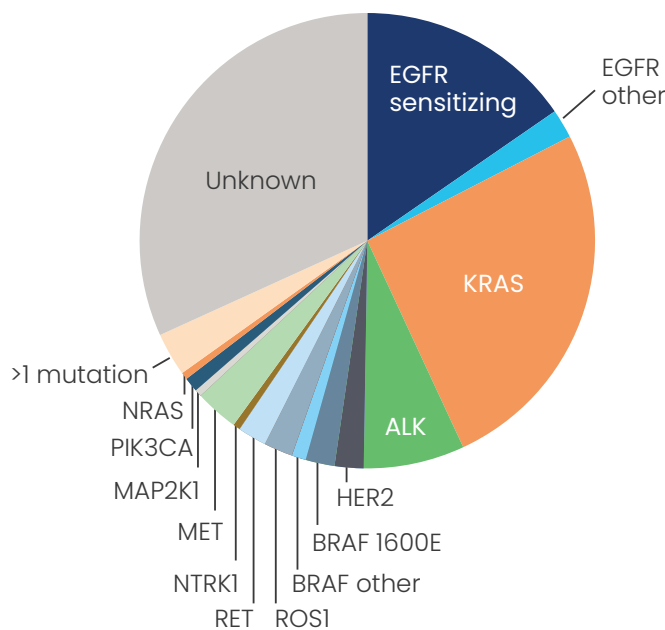
Individuals with advanced disease should undergo molecular testing to identify genetic abnormalities that may predict response to targeted therapies.

Oncolife Targeted Lung Panel – Extended 17 genes with PD-L1

A well-versed gene panel for efficiently screening of the most commonly affecting targetable mutations across main genes in lung cancers

KEY HIGHLIGHTS

-  **Broad coverage of Genomic aberrations:** Relevant hotspots – single-nucleotide variants (SNVs) across 17 genes, indels across 17 genes, copy number variants (CNVs) across 04 genes and gene fusions across 11 genes (DNA and RNA)
-  **Screen mechanism of resistance genes**
-  **Simultaneous study with two tertiary reporting platforms** like GENEYX and Ion Torrent Reporter Software
-  **AMC/ACMG/ASCO/CAP/NCCN/EMA/ESMO** guidelines followed



Driver mutations in Lung adenocarcinoma

EGFR-sensitizing	15%
EGFR other	2%
KRAS	25%
ALK	7%
HER2	2%
BRAF 1600E	2%
BRAF other	1%
ROS1	2%
RET	2%
NTRK1	0-5%
MET	3%
MAP2K1	0-5%
PIK3CA	1%
NRAS	0-5%
>1 mutation	3%
Unknown	31%

Gene Coverage

ONCOLIFE TARGETED LUNG PANEL – EXTENDED		
HOTSPOT GENES (17)	COPY NUMBER GENES (4)	GENE FUSIONS (11)
ALK, BRAF, CTNNB1, GFR, ERBB2, ERBB3, ERBB4, FGFR2, FGFR3, KIT, KRAS, MAP2K1, MET, NRAS, PIK3CA, RET, ROS1	EGFR, ERBB2, MET, MYC	ALK, BRAF, FGFR1, FGFR2, FGFR3, MET, NTRK1, NTRK2, NTRK3, RET, ROS1

Test Ordering Information

Test Code	Test Name	Components	Specimen Type	Method	TAT
E0003a	EGFR hotspot mutation analysis (Exons 18, 19, 20, 21)	EGFR	FFPE Tissue/block Histopathology report must accompany the specimen	RT PCR	4 Days
E0003b	EGFR mutation analysis (Exons 18, 19, 20, 21)	EGFR		Sanger Sequencing	8 days
R0033	RET mutation analysis (Exons 5, 8, 10, 11, 13, 14, 15, 16)	RET	Peripheral blood in EDTA voil	NGS	14 days
ONCO0120	OncoLife Lung basic mini (FISH)	ALK & ROS-1 (FISH)	FFPE Tissue/block Histopathology report must accompany the specimen	FISH	5 days
ONCO0048	OncoLife - Targeted Lung panel (Sanger, FISH)	EGFR, ALK, ROS1		Sanger sequencing, FISH	10 days
ONCO0066	OncoLife Targeted Lung Panel Extended with PDL1 DAKO	Hotspot genes: ALK, BRAF, CTTNBI, GFR, EGFR, ERBB2, ERBB3, ERBB4, KIT, KRAS, MAP2K1, MET, NRAS, PIK3CA, RET, ROS1, Copy Number Genes: EGFR, ERBB2, MET,MYC Fusion genes: ALK, BRAF, FGFR1, FGFR2, FGFR3, RET ROS1, MET exon 14 skipping, NTRK 1,2,3, IHC: PDL1 22c3 Dako	FFPE Tissue/block Histopathology report must accompany the specimen	NGS,IHC	21 days
ONCO0049	OncoLife Targeted Lung Panel Extended with PDL1 SP263	Hotspot genes: ALK, BRAF, CTTNBI, GFR, EGFR, ERBB2, ERBB3, ERBB4, KIT, KRAS, MAP2K1, MET, NRAS, PIK3CA, RET, ROS1, Copy Number Genes: EGFR, ERBB2, MET,MYC Fusion genes: ALK, BRAF, FGFR1, FGFR2, FGFR3, RET ROS1, MET exon 14 skipping, NTRK 1,2,3, IHC: PDL1 SP263 Ventana	FFPE Tissue/block Histopathology report must accompany the specimen	NGS,IHC	21 days
ONCO0082	OncoLife - Targeted Lung Panel - Extended without PD-L1	Hotspot genes: ALK, BRAF, CTTNBI, GFR, EGFR, ERBB2, ERBB3, ERBB4, KIT, KRAS, MAP2K1, MET, NRAS, PIK3CA, RET, ROS1, Copy Number Genes: EGFR, ERBB2, MET,MYC Fusion genes: ALK, BRAF, FGFR1, FGFR2, FGFR3, RET ROS1, MET exon 14 skipping, NTRK 1,2,3,		NGS	21 days
ONCO0061	OncoLife - Focus 52 gene panel	hotspots - single-nucleotide variants (SNVs) across 35 genes, indels across 35 genes, copy number variants (CNVs) across 19 genes and gene fusions across 23 genes (DNA and RNA)	FFPE Tissue Histopathology report must accompany the specimen	NGS	4 weeks
P0060	PDL1 -SP- 142	PD-L1 SP142	Formalin fixed paraffin embedded tissue block/Biopsy	IHC	4 Days
P0060a	PDL1 -SP- 263	PD-L1 SP263	FFPE Tissue/block Histopathology report must accompany the specimen	IHC	4 days
P0060b	PDL1 DAKO	PD-L1 22C3 Dako		IHC	4 days
ONCO0094	OncoLife - Hotspot 50 gene panel	SNV/Indels: ABL1,AKT1,ALK, APC, ATM, BRAF, CDH1, CDKN2A, CSF1R, CTNNA1, EGFR, ERBB2, ERBB4, EZH2, FBXW7, FGFR1, FGFR2, FGFR3, FLT3, GNAI1, GNAQ,GNAS,HNF1A,HRAS, IDH1, IDH2, JAK2, JAK3, KDR, KIT, KRAS, MET, MLH1, MPL, NOTCH1, NPM1, NRAS, PDGFRA, PIK3CA, PTEN, PTPN11, RBI, RET, SMAD4, SMARCB1, SMO, SRC, STK11, TP53, VHL	FFPE Tissue Histopathology report must accompany the specimen	NGS	15 days
ONCO0073	OncoLife - TSO 500 gene panel	523 genes for DNA variants, 55 genes for RNA fusions and splice variants, TMB, MSI	FFPE Tissue Histopathology report must accompany the specimen	NGS	21 days
ONCO0076	OncoLife - TSO 500 gene panel + PDL1	523 genes for DNA variants, 55 genes for RNA fusions and splice variants, TMB, MSI, PDL1 by IHC		NGS,IHC	21 days
ONCO0042	OncoLife- Targeted mutation analysis- Any four genes	SNV/Indels: ABL1,AKT1,ALK, APC, ATM, BRAF, CDH1, CDKN2A, CSF1R, CTNNA1, EGFR, ERBB2, ERBB4, EZH2, FBXW7, FGFR1, FGFR2, FGFR3, FLT3, GNAI1, GNAQ, GNAS, HNF1A, HRAS, IDH1, IDH2, JAK2, JAK3, KDR, KIT, KRAS, MET, MLH1, MPL, NOTCH1, NPM1, NRAS, PDGFRA, PIK3CA, PTEN, PTPN11, RBI, RET, SMAD4, SMARCB1, SMO, SRC, STK11, TP53,VH	FFPE Tissue Histopathology report must accompany the specimen	NGS	21 days
ONCO0043	OncoLife- Targeted mutation analysis- Any five genes			NGS	21 days
ONCO0044	OncoLife- Targeted mutation analysis- Any seven genes			NGS	21 days
ONCO0059	OncoLife - Comprehensive gene panel	150+ genes	FFPE Tissue Histopathology report must accompany the specimen	NGS	35 Days
ONCO0077	OncoLife - Targeted 1212 gene panel	1064 genes for SNVs/Indels, 570 genes for Copy Number Alterations, 299 genes associated with Gene-Fusions, TMB, MSI, PDL1 by IHC	FFPE Tissue/Paraffin block Histopathology report must accompany the specimen	NGS, IHC	21 days
ONCO0144	OncoLife Comprehensive Genomic Panel	(517 genes+ HRD/GIM)		NGS	4 Weeks
ONCO0031	OncoLife - Comprehensive Myeloid panel	40 target genes and 29 driver genes in a broad fusion panel	EDTA vial - Peripheral blood/ Bone Marrow Bone Marrow morphology report, CBC report and/or FISH report if available should accompany the sample.	NGS	21 days
ONCO0056	OncoLife - Tumor mutation burden [TMB] + Microsatellite Instability (MSI)	TMB+MSI		NGS	4 weeks
ONCO0063	OncoLife Solid Tumor RNA Fusion panel	299 gene associated with gene fusions		NGS	14 Days



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