

# Fusion LBx Panel

The **oncoReveal® Fusion LBx** panel is a robust NGS assay that interrogates multiple gene rearrangement regions of interest across multiple solid tumor cancer types. The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled amplicon-based library prep chemistry, designed by Pillar's AI-empowered VersaTile™ Primer Design tool, for efficient single-tube target enrichment.

Target Driver Genes	Fusion Partners
ALK	EML4, CLTC, HIP1, KIF5B, KLC1, STRN, TFG, TPM3, TPR, MSN
BRAF	KIAA1549, MKRN1, FAM131B, AKAP9
EGFR	SEPT14, PSPH, RAD51
ERG	TMPRSS2
FGFR2	BICC1, CASP7
FGFR3	TACC3, BAIAP2L1
MET	KIF5B
NRG1	CD74, SLC3A2, VAMP2
NTRK1	TPM3, TFG, LMNA, SQSTM1, CHTOP, ARHGEF2, NFASC, IRF2BP2, PPL, BCAN, SCYL3, TP53, CD74, MPRIP, TPR
NTRK2	STRN, AFAP1, NACC2, BCR, TRIM24, QKI, PAN3, SQSTM1
NTRK3	ETV6, BTBD1, EML4, SQSTM1, TFG, RBPMS
PBX1	TCF3
PPARG	PAX8, CREB3L2
PRKACA	DNAJB1
RAF1	ESRP1, SRGAP3
RET	CCDC6, CUX1, KIF5B, NCOA4, TRIM33, PRKARIA
ROS1	CCDC6, CD74, CLTC, EZR, GOPC, LRIG3, MSN, SDC4, SLC34A2, TFG, TPM3
TFE3	SFPQ, ASPSCR1, CLTC, PRCC, NONO
MET exon 14 skipping, EGFR variant III; expression control genes: PSMB2 & PUM1	

## Simple NGS library prep workflow

Maintain control of samples and results with single-tube, tiled amplification that can be performed in-house by any NGS lab

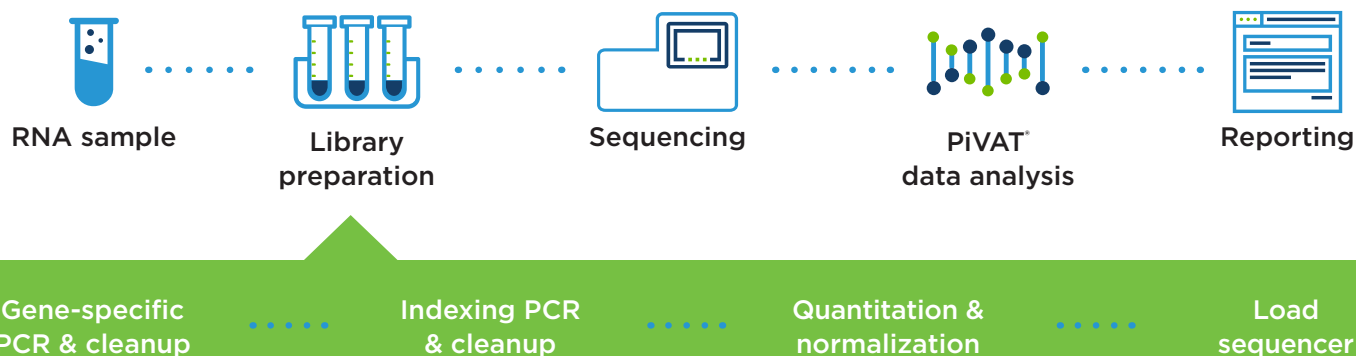
## Sensitive and robust chemistry

Achieve sensitive and robust fusion detection with limited RNA input or poor sample quality

## Reduced fully- loaded lab costs

Improve lab efficiency and reduce “no calls”, repeat testing, and difficult interpretation decisions

## Simple, one-day workflow



## Panel specifications

Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	1 pool
Number of genes/partners	18 genes and >80 partners, plus MET exon 14 skipping and EGFR variant III
Variant types	RNA fusion transcripts
Average amplicon size	80bp
Input RNA	10ng to 30ng
Sample types	cfRNA from plasma
Recommended Reads Per Sample	200,000 paired-end reads
Total assay time (from RNA to sequencer)	<10 hours

## Ordering information

Select the panel AND one of the index kit options listed below.

Panel	Part number
oncoReveal® Fusion LBx Panel (24 reactions)	HLA-HS-1005-24

Pillar Unique Dual Index Kit Options	Reactions	Part number
Pillar Biosciences LBx Indexing Kit A	24 Combinations, 96 reactions	IDX-PI-1013-96
Pillar Biosciences LBx Indexing Kit B	24 Combinations, 96 reactions	IDX-PI-1014-96

TO ORDER OR LEARN MORE:  
[pillarbiosci.com](http://pillarbiosci.com)

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