PILLAR BIOSCIENCES

oncoReveal™

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 assay uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled amplicon-based library prep chemistry for efficient single-tube enrichment of targets from cell-free RNA extracted from plasma.

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, PRKAR1A
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 without UIDs‡, even 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

* Content is based on data from ongoing clinical trials along with sources that include the College of American Pathologists (CAP), the Association for Molecular Pathology (AMP), the National Comprehensive Cancer Network (NNCN), and the Catalog of Somatic Mutations in Cancer (COSMIC) database. Panel content was designed in accordance with the Association for Molecular Pathology (AMP) guidelines and incorporates guidance from multiple hematologists. ‡ UID, unique ID; also known as unique molecular ID (UMI).

For Research Use Only. Not for use in diagnostic procedures.

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Simple, one-day workflow

RNA sample → Library preparation → Sequencing → PiVAT® data analysis → Reporting

Gene-specific PCR & cleanup → Indexing PCR & cleanup → Quantitation & normalization → Load sequencer

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

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