

# 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, 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 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

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

# Fusion LBx Panel

oncoReveal®

## Simple, one-day workflow



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             | 100,000 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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