# oncoReveal™ Multi-Cancer RNA Fusion v2 Panel

The **Pillar® oncoReveal™ Multi-Cancer RNA Fusion v2 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 target enrichment.

| Target driver genes | Target driver genes |
|---|---|
| ALK | EML4, CLTC, HIP1, KIF5B, KLC1, STRN, TFG, TPM3, TPR, MSN |
| BRAF | KIAA1549, MKRN1, FAM131B, AKAP9 |
| EGFR | SEPT14, PSPH, RAD51, EGRFvIII |
| ERG | TMPRSS2 |
| FGFR2 | BICC1, CASP7 |
| FGFR3 | TACC3, BAIAP2L1 |
| MET | KIF5B, Ex14 skipping |
| NRG1 | CD64, SLC3A2, VAMP2 |
| NTRK1 | TPM3, TFG, LMNA, SQSTM1, CHTOP, ARHGEF2, NFASC, IRF2BP2, PPL, BCAN, SCYL3, TP53, CD74, MPRIP, TPR |
| NTRK2 | 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 |

| 3'/5' Expression Imbalance Ration Assessed | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ALK | ROS1 | RET | NTRK1 | NTRK2 | NTRK3 | FGFR3 | NRG1 | PBX1 |

| Expression Control Genes | |
|---|---|
| HMBS | TBP |

## 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.
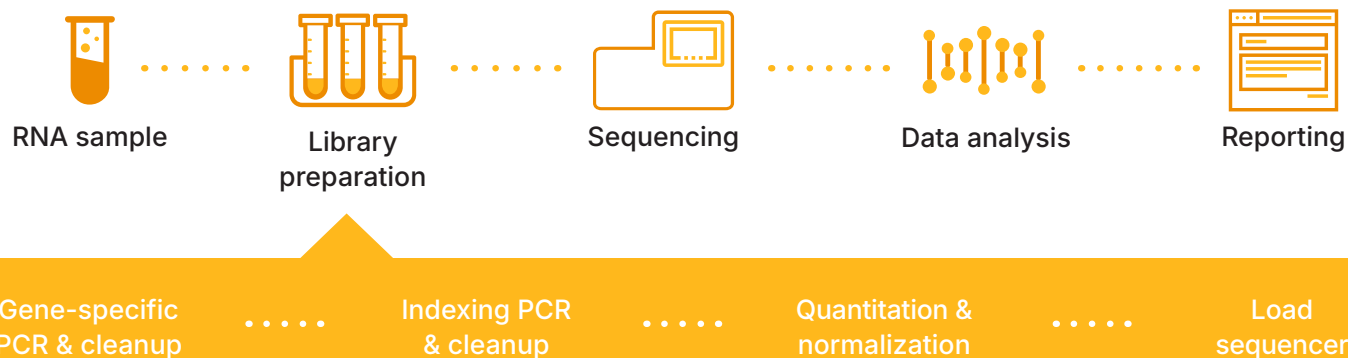
## Reduced fully-loaded lab costs

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 (NCCN), and the Catalog of Somatic Mutations in Cancer (COSMIC) database. Panel content was designed in accordance with the Association for Molecualar Pathology (AMP) guidelines and incorporates guidance from multiple hematologists. ‡ UID, unique ID; also known as unique molecular ID (UMI)

# oncoReveal™ Multi-Cancer RNA Fusion v2 Panel

## Simple, one-day workflow

RNA sample · · · · · · Library preparation · · · · · · Sequencing · · · · · · 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* 14 exon skipping |
| Variant types | Fusion RNA transcripts |
| Average amplicon size | 120 bp |
| Input RNA | 10 ng - 50 ng |
| Sample types | RNA from FFPE or tissue |
| Total assay time (from DNA to sequencer) | <9 hours |

\* Mapping rate, percentage of on-target aligned reads, and coverage uniformity metrics are based on internal testing performed using reference standard materials

## Ordering information

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

| Panel | Part number |
|---|---|
| oncoReveal™ Multi-Cancer RNA Fusion v2 Panel (24 reactions) | HRA-HS-1002-24 |

| Pillar Index Kit options | Reactions | Part number |
|---|---|---|
| Pillar Custom Index Primers Kit A | 32 Combinations, 96 reactions | IDX-PI-1001-96 |
| Pillar Custom Index Primers Kit D | 96 Combinations, 192 reactions | IDX-PI-1004-192 |

## For more information go to:
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