



# Pillar<sup>®</sup> ONCO/Reveal<sup>™</sup> Multi-Cancer RNA Fusion v2 Panel

The ONCO/Reveal Multi-Cancer RNA Fusion v2 Panel is a robust NGS assay that interrogates multiple gene rearrangement regions of interest\* across solid tumor samples for cancers including but not limited to NSCLC, thyroid, and prostate cancer. The assay uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp<sup>®</sup>) technology, a tiled amplicon-based library prep chemistry for efficient single-tube target enrichment.

Target driver genes	Fusion partners
ALK	EML4, CLTC, HIP1, KIF5B, KLC1, STRN, TFG, TPM3, TPR, MSN
RET	CCDC6, CUX1, KIF5B, NCOA4, TRIM33, PRKARA1, NCOA4
ROS1	CCDC6, CD74, CLTC, EZR, GOPC, LRI3, MSN, SDC4, SLC34A2, TFG, TPM3
NRG1	CD74, SLC3A2, VAMP2
PBX1	TCF3
FGFR3	TACC3, BAIAP2L1
FGFR2	BICC1, CASP7
EGFR	SPET14, PSPH, RAD51, EGFRVIII
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
BRAF	KIAA1549, MKRN1, FAM131B, AKAP9
RAF1	ESRP1, SRGAP3
MET	KIF5B, Ex14 skipping
PPARG	PAX8, CREB3L2
ERG	TMPRSS2
PRKACA	DNAJB1
TFE3	SFPQ, ASPSCR1, CLTC, PRCC, NONO

3'/5' Expression Imbalance Ratio 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

Accurately detect RNA fusions without UIDs even with limited 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.

## Simple, one-day workflow



## Panel specifications

Enrichment chemistry	Multiplex PCR using tiled amplicons
<b>Number of pools</b>	<b>1 pool</b>
Number of genes/partners	18 genes and >80 partners, plus MET 14 exon skipping
Variant types	Fusion RNA transcripts
Average amplicon size	120bp
Input RNA	10ng – 50ng
Sample types	RNA from FFPE or tissue
Total assay time (from DNA to sequencer)	<9-10 hours
Sequencing platforms	Illumina®, MGISEQ™ and Ion Torrent™

## Ordering information

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

Panel	Part number
ONCO/Reveal Multi-Cancer RNA Fusion v2 Panel	HRA-HS-1002-24

  

Pillar Index Kit options	Part number
Pillar Kit A, indices PI501-8, PI701-4 (32 combinations)	IDX-PI-1001-96
Pillar Kit B, indices PI501-8, PI705-8 (32 combinations)	IDX-PI-1002-96
Pillar Kit C, indices PI501-8, PI709-12 (32 combinations)	IDX-PI-1003-96
Pillar Kit D, indices PI501-8, PI701-12 (96 combinations)	IDX-PI-1004-192
Pillar Kit E, indices PI501-8, PI701-12 (96 combinations)	IDX-PI-1004-384

  

Ion Torrent Index Kit options	Part number
Pillar Biosciences IonXpress Indexing Kit A (24 combinations) <i>Includes ION Common Index</i>	IDX-TI-1001-96

  

MGI Index Kit options	Part number
Pillar Biosciences MGI Indexing Kit A (24 combinations) <i>Includes BGI Common Index</i>	IDX-BI-1001-96

Order or learn more at  
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