PILLAR BIOSCIENCES

oncoReveal™

Multi-Cancer RNA Fusion v2 Panel

The **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	Fusion Partners
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 variant detection as low as 1% VAF† without UIDs‡ even with limited DNA 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); † VAF, variant allele

Multi-Cancer RNA Fusion v2 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 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 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 B	32 Combinations, 96 reactions	IDX-PI-1002-96
Pillar Custom Index Primers Kit C	32 Combinations, 96 reactions	IDX-PI-1003-96
Pillar Custom Index Primers Kit D	96 Combinations, 192 reactions	IDX-PI-1004-192
Pillar Custom Index Primers Kit E	96 Combinations, 384 reactions	IDX-PI-1004-384

TO ORDER OR LEARN MORE:
pillarbiosci.com

For research use only. Not for use in diagnostic procedures.

Current as of 12.30.2022 | MK-0022-4

PILLAR BIOSCIENCES

Pillar Biosciences, Inc.
9 Strathmore Rd
Natick, MA 01760
(800) 514-9307
info@pillarbiosci.com