



**PILLAR
BIOSCIENCES**

Pillar® ONCO/Reveal™ PillarHS Lung Panel

The ONCO/Reveal PillarHS Lung Panel is a robust NGS assay that interrogates 17 lung cancer genes of interest. The panel includes Unique molecular IDs (UIDs) to increase sensitivity and is specifically designed for circulating cell-free tumor DNA (ccfDNA/cfDNA/ctDNA, liquid biopsies). The assay uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled amplicon-based library prep chemistry for efficient single-tube target enrichment.

ONCO/Reveal PillarHS Lung Panel (17 genes)

AKT1	DDR2	ERBB4	KRAS	NRAS	STK11
ALK	EGFR	FGFR1	MAP2K1	PIK3CA	TP53
BRAF	ERBB2	FGFR3	MET	PTEN	

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[‡] with 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

Simple, one-day workflow



Gene-specific PCR & cleanup

Indexing PCR & cleanup

Quantitation & normalization

Load sequencer

*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.
†UID, unique ID; also known as unique molecular ID (UMI); ‡VAF, variant allele frequency

Panel specifications

Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	1 pool
Number of genes/amplicons	17/81
Total panel size	8kb
Variant types	SNVs, indels
Average amplicon size	147bp
Recommended DNA input range	15ng to 50ng
Sample type	ccfDNA/cfDNA/ctDNA
Sensitivity	<1% VAF
% on-target aligned reads	93.2% ± 2.9%
Coverage uniformity (% targets with >0.2X mean coverage)	99.8% ± 0.7%
Total assay time (from DNA to sequencer)	<9-10 hours
Sequencing platforms	Illumina® and MGISEQ™

Ordering information

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

Panel	Part number
ONCO/Reveal PillarHS Lung Panel	HLA-LL-1001-24

TSCA Index Kit options	Part number
TSCA Kit A, indices AI501-8, AI701-4 (32 combinations)	IDX-AI-1001-96
TSCA Kit B, indices AI501-8, AI705-8 (32 combinations)	IDX-AI-1002-96
TSCA Kit C, indices AI501-8, AI709-12 (32 combinations)	IDX-AI-1003-96
TSCA Kit D, indices AI501-8, AI701-12 (96 combinations)	IDX-AI-1004-192
TSCA Kit E, indices AI501-8, AI701-12 (96 combinations)	IDX-AI-1004-384

Order or learn more at
pillar-biosciences.com

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