PILLAR BIOSCIENCES

illumina®

oncoReveal™ Essential LBx Panel

The **Pillar® oncoReveal™ Essential LBx Panel** is a robust NGS assay that interrogates 197 targets across 34 genes of interest from multiple solid tumor cancer types. This is a focused panel that can detect four types of variants from cell-free DNA (cfDNA) that has been extracted from plasma: single nucleotide variants (SNVs), small insertion/deletion (indel) variants, copy number amplificaiton (CNA), and microsatellite instability (MSI). The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled amplicon-based library prep chemistry for efficient single-tube target enrichment.

Pillar® oncoReveal™ Essential LBx Panel (34 genes)

AKT1	*CTNNB1*	*FGFR2*	*KIT*	*PPP2R1A*	*SF3B1*
ALK	*EGFR*	*FGFR3*	*KRAS*	*PTCH1*	*SMAD4*
AR	*ERBB2*	*GNA11*	*MET*	*PTEN*	*TERT (promoter)*
ATM	*ERBB3*	*GNAQ*	*NRAS*	*RAC1*	*TP53*
BRAF	*ESR1*	*GNAS*	*PDGFRA*	*RET*	
CDK4	*FGFR1*	*HRAS*	*PIK3CA*	*RNF43*	

Copy Number Amplifications (CNAs) can also be detected in genes indicated by orange Genes marked in blue indicate full CDS coverage

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 0.1% 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

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 for SNVs and indels.

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

oncoReveal™ Essential LBx Panel

Panel specifications*

Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	1 pool
Number of genes/amplicons	34/197
Number of targets	Hotspots in 33 genes; full CDS coverage of *TP53*; 27 MSI sites; CNAs in 3 genes
Variant types	SNVs, indels, CNAs, and MSI
Average amplicon size	90 bp
Recommended DNA input range	10 ng to 30 ng
Sample types	cfDNA from plasma
Mapping rate	≥90%
% on-target aligned reads	≥90%
Coverage uniformity (% targets with >0.2X mean coverage)	≥90%
Recommended Reads Per Sample	~10 million paired-end reads
Total assay time (from DNA to sequencer)	<8 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™ Essential LBx Panel (24 reactions)	HLA-HS-1006-24

Pillar 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

For more information go to:
illumina.com

illumina®

5200 Illumina Way
San Diego, CA 92122 USA
1.858.202.4500
info@illumina.com

M-GL-03145