PILLAR BIOSCIENCES

oncoReveal™

Core LBx Panel

The **oncoReveal™ Core LBx** panel is a robust NGS assay that interrogates 104 genes of interest* across multiple solid tumor cancer types. The panel is specifically designed for cell-free DNA (cfDNA) extracted from plasma and can detect four types of variants: single nucleotide variants (SNVs), small insertion/deletion (indel) variants, copy number amplification (CNA), and microsatellite instability (MSI). The assay uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled amplicon-based library prep chemistry for efficient single-tube target enrichment.

oncoReveal™ Core LBx Panel (104 genes)

AKT1	AXIN2	CDKN2A	EZH2	GNAQ	KRAS	MTOR	PAK7	PTPRD	ROS1	TP53
ALK	AXL	CIC	FBXW7	GNAS	▲MAP2K1	MYC	PDCD1	PTPRS	RUNX1	TSC1
APC	B2M	CREBBP	▲FGFR1	HNF1A	MAP2K2	MYOD1	▲PDGFRA	RAC1	SF3B1	U2AF1
AR	BCOR	CTCF	▲FGFR2	HRAS	MAPK1	NCOR1	▲PIK3CA	RB1	SMAD4	VHL
ARAF	BRAF	CTNNB1	▲FGFR3	IDH1	MED12	NF1	PIK3R1	RET	SOX9	
ARID1A	CARD11	▲EGFR	FLCN	IDH2	▲MET	NFE2L2	POLE	RAF1	SPOP	
ARID2	CCND1	EP300	FOXL2	IKZF1	MLH1	NOTCH1	PPP2R1A	RHEB	STAT5B	
ASXL1	CDH1	▲ERBB2	GATA3	JAK1	MLL2	NRAS	PTCH1	RHOA	SMO	
ATM	CDK4	ERBB3	GLI1	KDM5A	MRE11A	NTRK1	PTEN	RIT1	STK11	
ATRX	CDK6	ESR1	GNA11	▲KIT	MSH6	NTRK3	PTPN11	RNF43	TCF7L2	

Copy Number Amplifications (CNAs) can also be detected in genes indicated by ▲ Genes marked in green 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

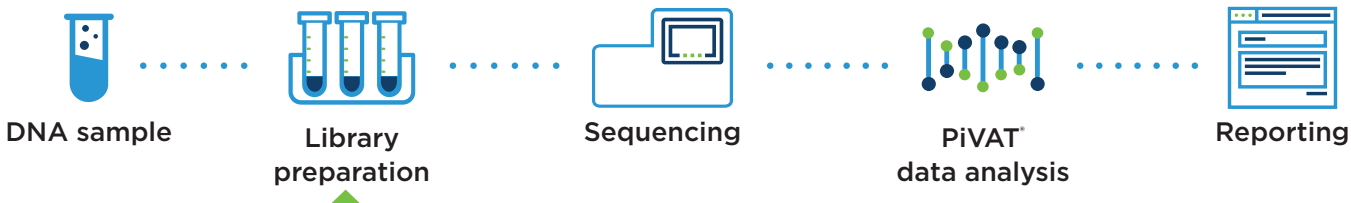
Sensitive and robust chemistry

Achieve variant detection as low as 0.1% VAF† 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.

† VAF, variant allele frequency

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

Panel specifications*

Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	1 pool
Number of genes/amplicons	104/446
Number of targets	Hotspots in 103 genes; full CDS coverage of TP53; CNAs in 10 genes; 12.9kb total panel size
Variant types	SNVs, indels, CNAs, and MSI
Average amplicon size	80bp
Recommended DNA input range	10ng to 30ng
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	~33 million paired-end reads
Total assay time (from DNA to sequencer)	<10 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™ Core LBx Panel (24 reactions)	HLA-HS-1004-24

Pillar Unique Dual 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

TO ORDER OR LEARN MORE:
pillarbiosci.com

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

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