PRODUCT SHEET

ONCOReveal Multi–Cancer Panel

An NGS enrichment panel targeting 251 regions of interest across 56 genes

- **Single well amplification from 5–80 ng of input DNA**
- **251 target amplicons**
- **>7,200 hotspots**
- **25 kb of genomic coverage**
- **Variant detection down to 1% frequency**
- **Same-day sample to sequencer with three hours hands-on time**

The ONCOReveal Multi-Cancer Panel from Pillar Biosciences is a comprehensive solution for NGS target enrichment for solid tumor samples.

The Pillar Biosciences' ONCOReveal panels offer carefully selected target genes, same-day sample-to-sequencer with minimal hands-on time, high mapping and on-target rates, and high sensitivity and specificity.

Actionable target design

The target selection of the ONCOReveal Lung and Colon Cancer Panel is based on recent guidelines from many professional societies (such as the College of American Pathologists (CAP) and verified from databases such as The Cancer Genome Atlas (TCGA).

The ONCOReveal Multi-Cancer Panel targets 251 regions of interest and both Single Nucleotide Variants (SNVs) and insertion-deletion mutations (Indels). With an average amplicon size of 138 bp, the entire panel has a total target size of 25 kb.

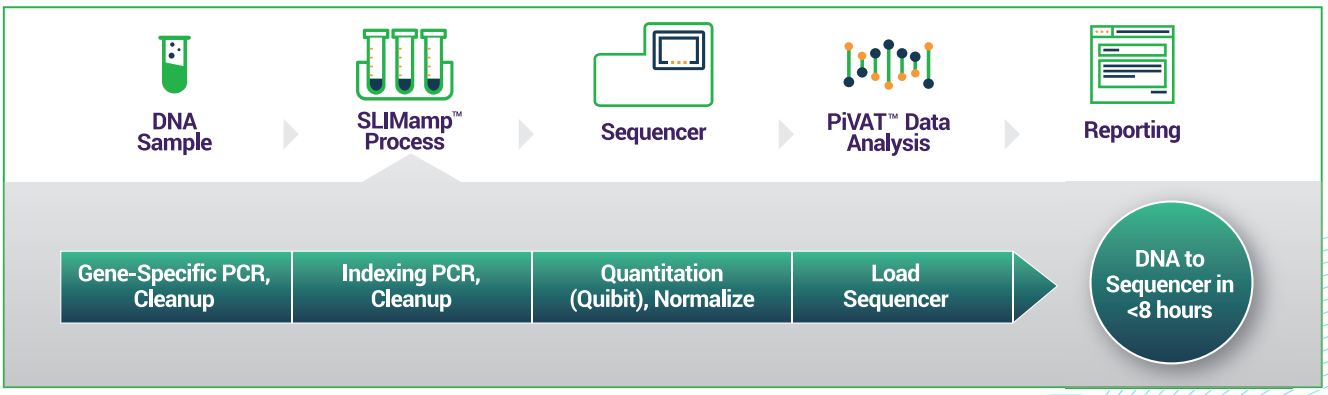
Multi–Cancer Panel 56 Gene List

ABL1	AKT1	ALK	APC	ATM	BRAF
CDH1	CDKN2A	CSF1R	CTNNB1	DDR2	EFGR
ERBB2	ERBB4	EZH2	FBXW7	FGFR1	FGFR2
FGFR3	FLT3	FOXL2	GNA11	GNAQ	GNAS
HNF1A	HRAS	IDH1	IDH2	JAK2	JAK3
KDR	KIT	KRAS	MAP2K1	MET	MLH1
MPL	NOTCH 1	NPM1	NRAS	NTRK1	PDGFRA
PIK3CA	PTEN	PTPN11	RAC1	RB1	RET
ROS1	SMAD4	SARCB1	SMO	SRC	STK11
TP53	VHL				

Panel Specifications

Number of genes	56
Target region	6,000 SNVs, 1,200 indels, 25 kb total size
Variant type	SNVs, indels
Ave. amplicon size	138
Total amplicons	251
Input range	5-80 ng - 30 ng recommended
Number of pools	1
Sample types	DNA from FFPE, blood, tissue and plasma

Streamlined Workflow



PILLAR BIOSCIENCES

Enhance Target Specificity and Sequencing Confidence

Minimal hands-on, maximum results

Pillar Biosciences' SLIMamp technology (Stem-Loop Inhibition Mediated amplification) enables DNA to sequencer-ready library in less than 8 hours, with minimal sample handling.

The assay protocol has multiple stopping points for added flexibility.

Highly sensitive 1% allele detection

The table to the right shows variant results with accurate detection down to 1% from cell-free DNA samples.

Gene / Mutation	Variant Type	Variant Freq. %	Consequence
IDH2 R140Q	SNV	1.01	Missense variant
KRAS A146P	SNV	1.13	Missense variant - pathogenic
TP53 c920-2A>G	SNV	2.69	Splice acceptor variant
TP53 I255del	Deletion	4.74	Inframe deletion
APC E1306del	SNV	7.76	Stop gain
RB1 D363H	SNV	10.29	Missense variant
SMAD4 L536Q	SNV	10.81	Missense variant
BRAF V600E	SNV	11.83	Missense variant - pathogenic

ONCOReveal Multi-Cancer Panel sensitivity with cell-free DNA samples. The ONCOReveal Multi-Cancer Panel was used to sequence cfDNA from 47 samples and demonstrates sensitivity below 5% MAF.

ONCOReveal Product Portfolio		
Product	**Description**	**Catalog No.**
ONCOReveal Multi-Cancer Panel	Targets 251 regions associated with multiple solid tumor tissue types. Compatible with multiple sample types (DNA from fresh tissue, FFPE or biofluids) with sensitivity down to 1%.	HDA-HS-1001-24
Other Panels		
ONCOReveal Lung and Colon Cancer Panel	Targets 103 regions associated with lung and colon solid tumors. Compatible with multiple sample types (DNA from fresh tissue, FFPE or biofluids) with sensitivity down to 1%.	HDA-LC-1001-24
ONCOReveal BRCA1 & BRCA2 Panel	Covers the entirety of the BRCA1 and BRCA2 genes. Detect SNVs and Indels up to 126 nt long.	HDA-BR-1001-24
ONCOReveal cfDNA Lung Panel	Targets 81 regions associated with lung cancer, designed for use with cfDNA for detection to 0.1-0.2% allele frequency sensitivity.	HLA-LL-1001-24
ONCOReveal Custom Panel	Design a custom panel using SLIMamp technology with all the benefits of a streamlined workflow and robust performance for your chosen genomic regions of interest.	HDA-HS-3001-24

PILLAR BIOSCIENCES

pillar-biosciences.com

Pillar Biosciences, Inc. | info@pillar-biosciences.com | phone: (508) 655-3027 | 12 Michigan Drive, Natick, MA 01760

04/2018V2