

# ONCOReveal BRCA1 & BRCA2 Panel

An NGS enrichment panel targeting the entire coding region of the BRCA1 & BRCA2 genes



**Single well amplification from 5-100 ng of DNA from WBCs**



**Full BRCA1 and BRCA2 gene-coding regions**



**Detection of SNV and indels up to 126 bases**



**Same-day sample to sequencer with three hours hands-on time**

The ONCOReveal BRCA1 & BRCA2 Panel from Pillar Biosciences is a comprehensive NGS target enrichment solution for the entire coding region of these genes.

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.

## 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.

## Panel details

The ONCOReveal BRCA1 & BRCA2 Panel is built specifically for use on Illumina™ platforms, including the Illumina MiSeq Dx™. Multiplex up to 96 samples per run with Illumina TruSeq™ indexes for sequencing samples associated with hereditary cancer.

The ONCOReveal BRCA1 & BRCA2 Panel has an average amplicon size of 331 bp, and a total target size of 17 kb.

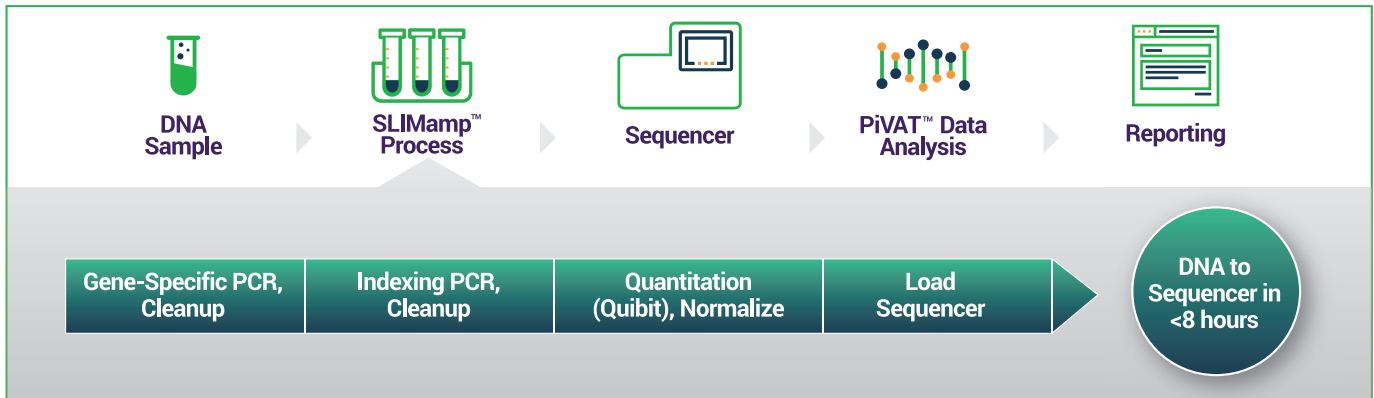
## Panel Specifications

<b>Genes covered</b>	BRCA1 BRCA2
<b>Target region</b>	Full coding gene sequence (CDS) with flanking intronic regions (20 bp) Total target size is 17 kb
<b>Variant type</b>	SNVs, Indels
<b>Ave. amplicon size</b>	331 bp ave
<b>Total amplicons</b>	91
<b>Input range</b>	5-100 ng 30 ng recommended
<b>Number of pools</b>	1

## Data Quality

<b>Percent On-Target</b>	>99.8% aligned
<b>Coverage uniformity within 0.2x of the mean</b>	98.3%
<b>Multiplex level with MiSeq 2x250 read format</b>	96 samples
<b>Number of pools</b>	1

Enhance Target Specificity and Sequencing Confidence



Superb sensitivity and specificity

Pillar Biosciences’ ONCOReveal BRCA1 & BRCA2 Panel performance was recently demonstrated on 34 reference standard and patient samples with known genotypes. (Schenk D. et al, PLoS One 2017 12(7):e0181062. doi: 10.1371/journal.pone.0181062 “Amplification of

overlapping DNA amplicons in a single-tube multiplex PCR for targeted next-generation sequencing of BRCA1 and BRCA2.”)

Performance data from the publication table shows specificity and sensitivity measurements across 34 unique samples with known variants.

Table 3

	Variant Detected		Variant not detected		
True Positive (TP)	409	SNV: HET	234	False Negative (FN)	0
		SNV: HOM	153		
		Indels: HET (1–40 bp)	22		
False Positives (FP)	0			True Negative (TN)*	603737

\*TN = Size of ROI (17769 bp) x Total Samples (34)—Total True positives in all samples

Table 3 sensitivity and specificity data from Schenk et al PLoS 2017 shows 100% TP and TN and 0% FP and FN rates.

ONCOReveal Product Portfolio		
Product	Description	Catalog No.
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
<b>Other Panels</b>		
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 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
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

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