

4 Gene Methylation Panel

The **oncoReveal® 4 Gene Methylation Panel** is a robust NGS assay that interrogates CpG sites within BRCA1, BRCA2, RAD51C, and XRCC3 that have undergone bisulfite conversion for methylome analysis. The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled ampliconbased library prep chemistry, designed by Pillar's Al-empowered VersaTile™ Primer Design tool, for efficient single-tube target enrichment.

oncoReveal® 4 Gene Methylation Panel

Gene	
BRCA1	
BRCA2	
RAD51C	
XRCC3	

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⁺ even with limited DNA input or poor sample quality

Reduced fullyloaded 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



Panel specifications*

Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	1 pool
Number of genes/amplicons	4/12
Variant types	Methylation status of >80 CpG sites
Average amplicon size	120bp
Recommended DNA input range	5-20ng
Sample types	Bisulfite or enzymatically converted DNA
Mapping rate	90%
% on-target aligned reads	80%
Coverage uniformity (% targets with >0.2X mean coverage)	90%
Recommended Reads Per Sample	~50,000 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® 4 Gene Methylation Panel (24 reactions)	HDA-HR-1009-24

Pillar Index Kit options	Reactions	Part number
Pillar Custom Index Primers Kit A	32 Combinations, 96 reactions	IDX-PI-1001-96
Pillar Custom Index Primers Kit D	96 Combinations, 192 reactions	IDX-PI-1004-192

TO ORDER OR LEARN MORE: pillarbiosci.com

