

CleanPlex™ TP53 Panel

The CleanPlex™ TP53 Panel contains 29 pairs of PCR primers targeting the full TP53 gene exon. The panel kit contains primers, multiplex PCR reagent, digestion reagent and other components necessary to construct amplicon libraries for Next-Generation Sequencing on Illumina Sequencers.

100% coverage of TP53 gene with superior uniformity

The panel covers 100% of the coding regions of the TP53 gene. The observed uniformity of this panel (at 0.2x mean coverage) is over 98%.

Simplify your workflow

The entire library preparation workflow can be completed in 2.5 hours with only 30-minute hands-on time from sample DNA to sequencing-ready libraries. No need for ligation, end repair, DNA fragmentation, overnight hybridization, or microfluidic devices.

Take on difficult samples with limited DNA input

With an average amplicon size of 133 bp, this panel is compatible with degraded samples such as formalin-fixed, paraffin-embedded (FFPE) tissue DNA. Obtain high quality sequencing data for germline genotype calling with only 200 pg of input DNA.

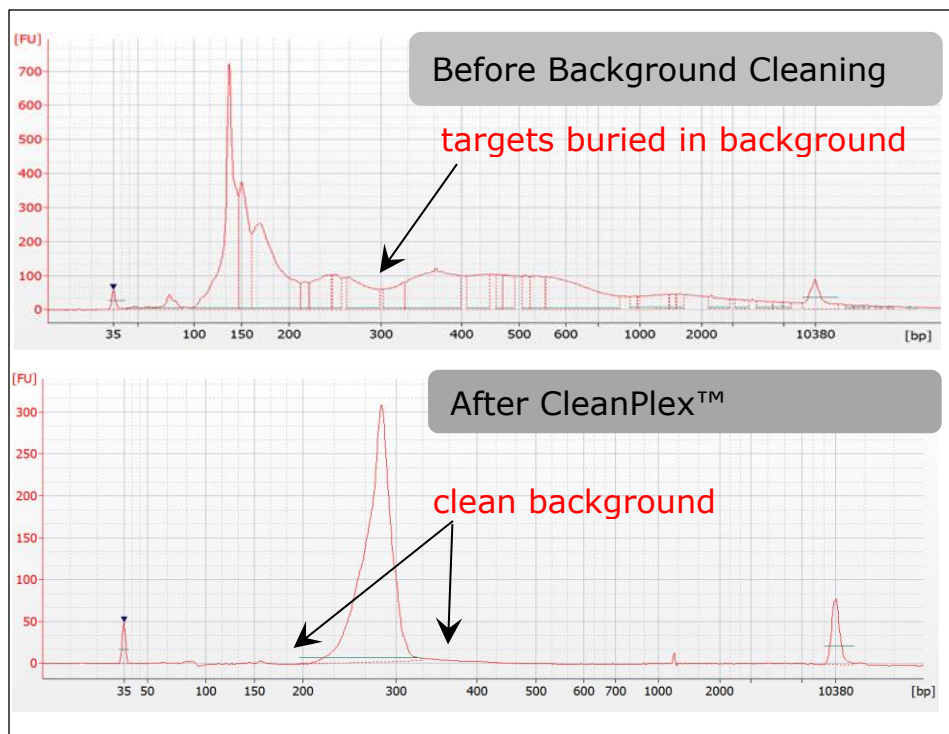
Specifications

Sequencing Platform	Illumina Sequencers (MiniSeq, MiSeq, NextSeq, HiSeq)
Enrichment Method	Multiplex PCR
# of Primer Pools	2 pools
# of Primer Pairs	29 pairs
# of Target Genes	1 gene
Target Region Size	2080 bp
Amplicon Size	Average 133 bp (from 107-160 bp)
Species	Human
Recommended Input DNA Amount	For germline genotype calling: minimum 200 pg; For somatic mutation calling with an LOD of 1%: minimum 20 ng (10 ng / pool)
Sample Type	Genomic DNA, FFPE DNA, and DNA from Tissue, Cell Culture, and Fine Needle Aspirate (FNA)
Sample Multiplexing (at ~2000x mean coverage)	MiSeq 2×150 read length: ~384 samples NextSeq mid output 2×150 read length: ~2800 samples

Ordering information

Product Name	SKU
CleanPlex™ TP53 Panel (8 rxns)	916008
CleanPlex™ TP53 Panel (96 rxns)	916009
CleanPlex™ TP53 Panel (384 rxns)	916010

Looking to simplify NGS target enrichment



Most target enrichment kits do not provide effective background cleaning, resulting in sequencing of non-specific PCR products post amplification, which translates into the generation of excess reads.

By using CleanPlex™ technology, background noise is greatly reduced and only the targets of interest are sequenced. This proprietary multiplex PCR technology eliminates DNA fragmentation, hybridization and ligation steps, resulting in higher target coverage, on-target rates and lower assay failure.

Important advantages to NGS lab operations and data quality

	Competitor X	Paragon Genomics CleanPlex™ Solution
Uniformity	85 - 95%	>98%
Specificity	85 - 97% on-target bases	>97% on-target bases
Time	6 hours	2.5 hours
Minimum Sample input	20 - 40 ng	0.1 ng
Workflow	5 steps	3 steps