

# Nexus 21 Gene Panel

The **oncoReveal® Nexus 21 Gene Panel** is a robust NGS assay designed to interrogate 21 genes relevant to both blood cancers and solid organ cancers. The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled amplicon-based library prep chemistry, designed by Pillar's AI-empowered VersaTile™ Primer Design tool, for efficient single-tube target enrichment.

## oncoReveal® Nexus 21 Gene Panel

|      |       |               |      |       |      |        |
|------|-------|---------------|------|-------|------|--------|
| ALK  | EGFR  | H3-3A (H3F3A) | JAK2 | MET   | NPM1 | TP53   |
| BRAF | ERBB2 | IDH1          | KIT  | MPL   | NRAS | PDGFRA |
| CALR | FLT3  | IDH2          | KRAS | MYD88 | POLE | TERT   |

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

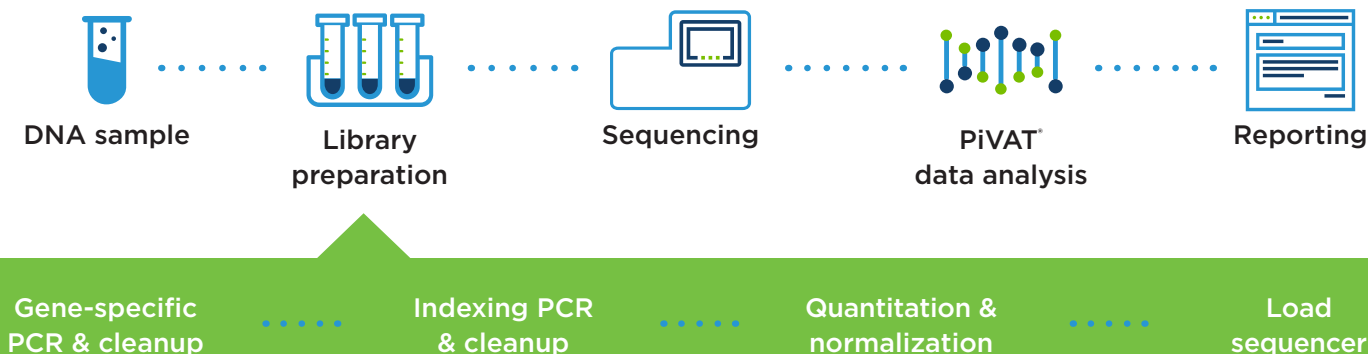
### Sensitive and robust chemistry

Achieve variant detection as low as 1% VAF<sup>†</sup> 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



## Panel specifications\*

|                                                             |                                                                  |
|-------------------------------------------------------------|------------------------------------------------------------------|
| Enrichment chemistry                                        | Multiplex PCR using tiled amplicons                              |
| Number of pools                                             | 1 pool                                                           |
| Number of genes/amplicons                                   | 21/112                                                           |
| Number of targets                                           | Hotspots in 20 genes, full CDS coverage of TP53, FLT3-ITDs       |
| Variant types                                               | SNVs, small and medium indels, ITDs (internal tandem duplicates) |
| Average amplicon size                                       | 162bp                                                            |
| Recommended DNA input range                                 | 20ng to 60ng                                                     |
| Sample types                                                | DNA from blood, FFPE                                             |
| Mapping rate                                                | >99%                                                             |
| % on-target aligned reads                                   | >99%                                                             |
| Coverage uniformity<br>(% targets with >0.2X mean coverage) | >95%                                                             |
| Recommended Reads Per Sample                                | >615,000 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® Nexus 21 Gene Panel (24 reactions) | HDA-HS-1012-24 |

| 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](https://pillarbiosci.com)

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**PILLAR**  
BIOSCIENCES

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