



# oncoReveal<sup>®</sup>

## Essential LBx Panel

The **oncoReveal<sup>®</sup> Essential LBx Panel** is a robust NGS assay that interrogates hundreds of somatic variants across 34 genes of interest from multiple solid tumor cancer types. The panel is specifically designed for cell-free DNA (cfDNA) extracted from plasma and can detect four types of variants: single nucleotide variants (SNVs), small insertion/deletion (indel) variants, copy number amplification (CNA), and microsatellite instability (MSI). The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp<sup>®</sup>) 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<sup>®</sup> Essential LBx Panel (34 genes)

|      |         |       |        |         |                 |
|------|---------|-------|--------|---------|-----------------|
| AKT1 | CTNNB1  | FGFR2 | KIT    | PPP2R1A | SF3B1           |
| ALK  | EGFR    | FGFR3 | KRAS   | PTCH1   | SMAD4           |
| AR   | ▲ ERBB2 | GNA11 | ▲ MET  | PTEN    | TERT (promoter) |
| ATM  | ERBB3   | GNAQ  | NRAS   | RAC1    | TP53            |
| BRAF | ESR1    | GNAS  | PDGFRA | RET     |                 |
| CDK4 | ▲ FGFR1 | HRAS  | PIK3CA | RNF43   |                 |

Copy Number Amplifications (CNAs) can also be detected by genes indicated by ▲  
Genes marked in blue indicate full CDS coverage

#### Simple, Rapid NGS Library Prep Workflow

- Single-tube library prep simplifies assay setup and reduces hands-on time
- Flexible stopping points support efficient sample batching
- Faster turnaround times with sample-to-result in <48 hours

#### Accurate, Reproducible Results

- Detect variants down to 0.1% VAF\*
- Consistent performance across low-input and degraded DNA samples
- Robust assay design supports reproducible results across runs

#### Scalable NGS Testing with Intuitive Informatics

- Facilitates an efficient and economic adoption of in-house NGS workflows
- Low read requirements support scalable, high-throughput testing
- Integrated informatics with a user-friendly GUI
- Streamlined analysis supports a clear path from sample to results

\*VAF, variant allele frequency; VAF detection may be supported at lower frequency for key variants  
For research use only. Not for use in diagnostic procedures.

## oncoReveal® Essential LBx Panel Specifications\*

|   |                                     |
|---|-------------------------------------|
| Enrichment chemistry  | Multiplex PCR using tiled amplicons |
| Number of pools   | 1 pool                              |
| Number of genes   amplicons                                 | 34   201                            |
| Total panel size  | 6.9kb                               |
| Variant types   | SNVs, indels, CNAs, and MSI         |
| Average amplicon size                                       | 90bp                                |
| Recommended DNA input range                                 | 10ng to 30ng                        |
| Sample types  | cfDNA from plasma                   |
| Mapping rate  | ~96.9%                              |
| % on-target aligned reads                                   | ~92.3%                              |
| Coverage uniformity<br>(% targets with >0.2x mean coverage) | ~96.6%                              |
| Recommended reads per sample                                | ~10 million paired-end reads        |
| Total assay time<br>(from DNA to sequencer)                 | <8 hours                            |

\*Mapping rate, percentage of on-target aligned reads, and coverage uniformity metrics are averages based on internal testing performed using reference standard materials and analysis using PIVAT®

## Ordering information

Select the panel and one of the index kit options listed below.

| Panel  | Part Number    |
|--|----------------|
| oncoReveal® Essential LBx Panel (24 reactions) | HLA-HS-1006-24 |

| Pillar Unique Dual Index Kit Options  | Reactions                     | Part Number    |
|---------------------------------------|-------------------------------|----------------|
| Pillar Biosciences LBx Indexing Kit A | 24 Combinations, 96 reactions | IDX-PI-1013-96 |
| Pillar Biosciences LBx Indexing Kit B | 24 Combinations, 96 reactions | IDX-PI-1014-96 |

To order or learn  
more, please visit  
[pillarbiosci.com](http://pillarbiosci.com)

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