PILLAR BIOSCIENCES

inheritReveal™

Thalassemia Panel

The **inheritReveal™ Thalassemia Panel** is specifically designed to cover mutations in the hemoglobin alpha chain (HBA1 and HBA2) and beta chain (HBB), which are responsible for α-Thalassemia and β-Thalassemia. The panel uses proprietary Stem-Loop Inhibition-Mediated amplification (SLIMamp®) technology, a tiled amplicon-based library prep chemistry for efficient single-tube target enrichment. Additionally, known long deletions (10-30kb) are detected by gap-PCR.

Panel specifications*

Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	1 pool
Number of genes/amplicons	3/130
Number of targets	Hotspots in HBA1 and HBA2; Full CDS coverage of HBB (including splice sites), 3' UTRs & 5' UTRs with promoter regions and pathogenic intronic regions; CNAs in HBA1, HBA2, and HBB; 4.8kb total size (excluding gap-PCR amplicons)
Variant types	SNVs, small and medium indels, large deletions (10kb - 30kb), CNAs
Average amplicon size	156bp (excludes gap-PCR amplicons)
Recommended DNA input range	10ng to 75ng
Sample types	Genomic DNA
Mapping rate	99.7% ± 0.1%
% on-target aligned reads	99.5% ± 0.1%
Coverage uniformity (% targets with >0.2X mean coverage)	96.5% ± 2.4%
Recommended reads per sample	~260,000 paired-end reads
Total assay time (from DNA to sequencer)	<7.5 hours

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

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 fully-loaded lab costs

Improve lab efficiency and reduce "no calls", repeat testing, and difficult interpretation decisions

† VAF, variant allele frequency

For Research Use Only. Not for use in diagnostic procedures.

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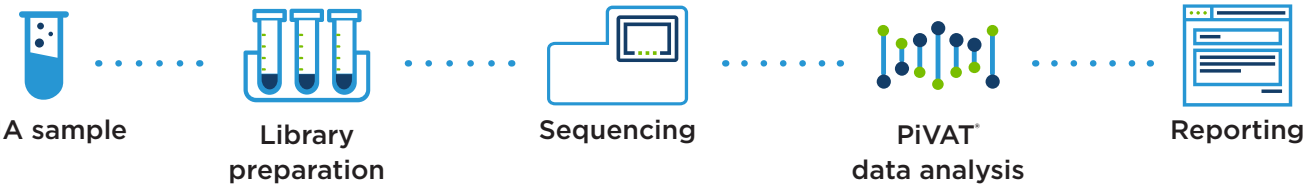
Simple, one-day workflow



Gene-specific PCR & cleanup · Indexing PCR & cleanup · Quantitation & normalization · Load sequencer

Ordering information

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

Panel	Part number
inheritReveal™ Thalassemia Panel (24 reactions)	HDA-TH-1001-24

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

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