

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 alpha and beta 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 gapPCR.

Panel specifications*

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Enrichment chemistry	Multiplex PCR using tiled amplicons
Number of pools	1 pool
Number of genes/amplicons	3/131
Number of targets	HBA1 and HBA2 hotspots; HBB full CDS and splice sites, 3' UTRs, 5' UTRs with promoter regions and pathogenic intronic regions; 67.2 kb total size
Variant types	SNVs, small and medium indels, large deletions, CNVs
Average amplicon size	156bp (131bp-175bp range; excludes gap-PCR amplicons)
DNA input range	5ng to 80ng (20ng recommended)
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%
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

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[†] without UIDs[‡] 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

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 B	32 Combinations, 96 reactions	IDX-PI-1002-96
Pillar Custom Index Primers Kit C	32 Combinations, 96 reactions	IDX-PI-1003-96
Pillar Custom Index Primers Kit D	96 Combinations, 192 reactions	IDX-PI-1004-192
Pillar Custom Index Primers Kit E	96 Combinations, 384 reactions	IDX-PI-1004-384

TO ORDER OR LEARN MORE: pillarbiosci.com

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