

THALASSEMIA panel

For the screening of variants causing alpha and beta thalassemia

The THALASSEMIA panel is an **amplicon-based kit** designed for the efficient detection of the most common variants associated with α - and β -thalassemia in a single workflow.

It targets the HBA1, HBA2, and HBB genes and enables identification of SNPs, small indels, and large exon-spanning CNVs through Next Generation Sequencing (NGS).

The kit is validated for use with DNA extracted from blood samples.

4bases THALASSEMIA panel allows for **precise, reliable, and effective results, speeding up** the activity of clinical reporting.

From DNA to sequencing in less than 1.5 days with less than 2 hours hands-on time.



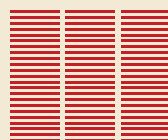
From gDNA



Enrichment PCR



Indexing PCR



Final library



Sequencing



Final Data

Straightforward protocol

Tailor-made protocol for operator's time schedule, presence of many stopping points, reduced hands-on time

Sequencing platform flexibility

Common overall protocol for different sequencing applications (Illumina, MGI, Oxford Nanopore Technologies, Ion Torrent, Element Biosciences, GeneMind)

Platform 4eVAR

Safe and secure data analysis via 4bases proprietary solution, with continuous experienced customer support

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Specifications

Sample type	DNA extracted from blood samples
Input	Minimum of 10 ng DNA per sample
Panel size	9 kb
Gene content	<p>Full gene: HBA1, HBA2, HBB</p> <p>Alpha-globin gene cluster: POLR3K, HS-40, HBZ, HBA2, HBA1, HBQ1, LUC7L, AXIN1</p> <p>Beta-globin gene cluster: LCRB, HBG2, HBG1, HBD, HBB, 3' HS1</p> <p>Alpha globin deletions: --SEA, --FIL, --THAI, -(a)20.5, --MED1, -(a)21.9, -(a)27.6, -(a)3.7, -(a)4.2</p> <p>Beta globin deletions: Chinese, Filipino, Yunnanese, Taiwanese, SEA-HPFH, Hb-Lepore Boston, Hb-Lepore Baltimore, 290bp-del, B619-del, dbSicilia</p>
Variant called	SNPs, indels, CNVs
Instrument Type	Illumina, Oxford Nanopore Technologies → CE-IVD kit options Ion Torrent, MGI, Element Biosciences, GeneMind → only RUO
Data Analysis	4eVAR

Cod. kit

Product	Cod.	Tests number
THALASSEMIA panel CE-IVD	H1090	16 & 96
THALASSEMIA panel RUO	RH1090	16 & 96

4eVAR: Comprehensive output files for analysis and reporting



- Quality metrics
- Genotype
- Alignment
- Coverage
- CNVs status
- Customizable repo
- Full variant table

Data Analysis

Product	Cod.	Tests number
4eVAR	A6060-H1090-16	16
4eVAR	A6060-H1090-96	96

If you wish to learn more:



Contact us at: info@4bases.ch
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