WES pro

Kit for NGS library preparation for whole exome sequencing



WES pro is an in-vitro diagnostic medical device for the enzymatic fragmentation, library preparation, target enrichment and targeted capture of the coding regions of more than 22,000 genes of the human genome (>99% of protein coding genes) with optional coverage of mitochondrial genes (ref. MitoMap).

The kit enables to prepare exome libraries compatible with Next Generation Sequencing (NGS) from germline DNA samples (blood or tissues).

WES Pro is an IVDR-certified class A product — ensuring the highest standards and quality for the exome-enriched library preparation in a laboratory workflow.



Curious about the full gene list? Contact our support team for the complete panel details. support@4bases.ch

From DNA to Final data in less than 2,5 days with less than 3 hours hands-on time.

DNA EXTRACTION

- Using appropriate
- extraction method
- · Quality check

WES pro Kit



LIBRARY PREPARATION

- Enzymatic fragmentation
- End-repair, dA-tailing, Adapter ligation
- Library amplification
- · Pool creation

Overnight hybridization (5-10 min HOT, 16h)



HYBRIDIZATION

- Pool concentration
- Hybridization
- Capture with Streptavidin beads
- Post-capture PCR



SEQUENCING

- · Pool dilution
- Cartridge preparation

Day 1

- Enzymatic fragmentation (5-10 min HOT, 55 min)
- Adapters ligation (5-10 min HOT, 15 min)
- Purification (20 min HOT)
- Indexing PCR with UDI primers (5-10 min HOT, 15 min)
- Purification (20 min HOT)
- Sample pooling (5 min HOT)
- Library concentration (20 min HOT)

• Streptavidin beads capture (1.5 h HOT)

Day 2

- Amplification PCR (10 min HOT, 15 min)
- Library purification (20 min HOT)





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Specifications

Sample type	DNA extracted from tissues, blood or body fluids	
Input	Minimum of 50 ng DNA per sample	
Panel size	About 40 Mb	
Instrument Type	Illlumina, MGI, Oxford Nanopore Techologies, Element Biosciences	

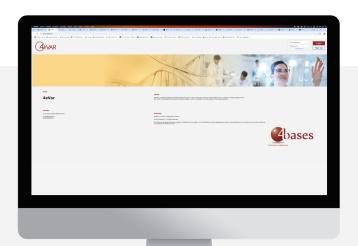
Cod. kit

Product	Cod.	Tests number
WES pro	C4130-16	16
WES pro	C4130-96	96

For a comprehensive workflow

Laboratories must perform additional validation when integrating the WES Pro Kit for diagnostic applications. 4bases partners with Platomics to support customers in validating and certifying the entire process under IVDR. To support secondary analysis, 4bases also offers its proprietary software, 4eVAR, which can be validated by laboratories as part of the overall diagnostic workflow.

The software enables the customer to obtain:



- Quality metrics
- Genotype
- Alignment
- Coverage
- SNPs, indels analysis
- Mitochondrial analysis
- CNVs status
- Customizable report
- Full variant table

Data Analysis

Product	Cod.	Tests number	
4eVAR*	A6060-C4130-16	16	*The bundle of WES pro and 4eVAR i IVDR-certified
4eVAR*	A6060-C4130-96	96	

If you wish to learn more:





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