

HRD_{pro}

Variants profiling and HRD score in breast, ovary and prostate cancer

4bases HRD pro is a **capture-based** kit for the identification of mutations in genes related to homologous recombination and repair (HRR) pathway.

HRD pro enables the detection of variants associated with **homologous recombination deficiency (HRD)**, a key mechanism driving genomic instability in cancer. HRD leads to error-prone DNA repair pathways, increasing susceptibility to PARP inhibitors and platinum-based chemotherapy.

The kit is validated for germline and somatic analysis (SNVs, indels, CNVs, CNAs, HRD Score) of DNA extracted from blood samples and cancer tissues (fresh, frozen or FFPE).

HRD pro allows to detect variants linked to 23 genes:

List of genes of HRD pro kit

ATM	MSH2	RAD51C	BRIP1	RAD54L
BARD1	CHEK1	RAD51D	TP53	MSH6
BRCA1	BRCA2	FANCL	BRIP1	NBN
RAD51B	PALB2	MRE11	CHEK2	CDK12
PTEN	MLH1	RAD50		

From DNA to Final data in less than 2.5 days with less than 3 hours hands-on time.



From gDNA



PCR UDI



Hybridization



Enrichment PCR



Final library



NGS



to FINAL DATA

HRD pro analysis on 4eVAR platform, goes beyond detecting somatic variants in HRR pathway genes — it also analyzes **copy number alterations (CNA)** and **loss of heterozygosity (LOH)**, key features for accurate **HRD score** calculation and comprehensive genomic instability profiling.

With a dedicated, optimized analysis pipeline, HRD pro delivers a robust and reliable HRD score, supporting **treatment stratification** and identifying patients most likely to benefit from **targeted therapies**.

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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	80 Kb
Variant called	SNPS, indels, CNVs, CNAs
Compatible Instruments	Illumina, Oxford Nanopore Technologies, Ion Torrent, Element Biosciences, MGI, GeneMind
Data Analysis	4eVAR

Cod. kit

Product	Cod.	Tests number
HRD pro	RC3080, RDC3080, RC3080Y	16
HRD pro	RC3080, RDC3080, RC3080Y	96

4eVAR: Comprehensive output files for analysis and reporting



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

Data Analysis

Product	Cod.	Tests number
4eVAR	Series A6060-C3080	16 & 96
4eVAR	Series A6060-C3080S (including HRD Score)	16 & 96

If you wish to learn more:



Contact us at: info@4bases.ch
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