MYRIAPOD®
NGS SYSTEM

Complexity made easy

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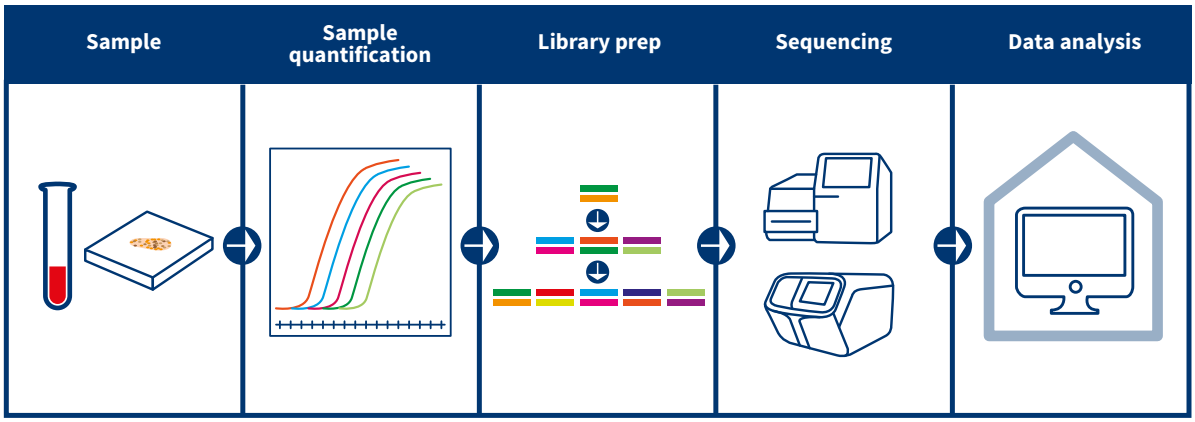
Myriapod® NGS product line- Key features:

- **Easy to use:** single tube multiplex PCR.
- **Ready for diagnostics:** CE IVD marked. Validated for the qualitative and quantitative evaluation of SNVs, indels and CNVs for both somatic and germline analysis.
- **Minimum quantity of DNA needed**: 10-25 ng of DNA per sample.
- **Quality inside**: Positive control with orthogonally validated genotype (Horizon Discovery) included in the kit.
- **Complete kit**: The kit includes all the necessary reagents for:
  - qualitative and quantitative evaluation of the input DNA by qPCR (for somatic analysis);
  - multiplex PCR for library preparation;
  - enrichment of the library through PCR.
- **Data analysis**: dedicated software and workstation for automated data analysis.

Myriapod NGS System workflow



Cat. n.	Description	Platform	Intended use
NG030	Myriapod NGS-IL BRCA1-2 panel (48 test)	Illumina	CE IVD
NG031	Myriapod NGS-IL CFTR panel (48 test) coming soon	Illumina	CE IVD
NG032	Myriapod NGS-IL 56G Onco panel (48 test)	Illumina	CE IVD
NG050	Myriapod NGS-LT BRCA1-2 panel (48 test)	Thermo Fisher	CE IVD
NG052	Myriapod NGS-LT 56G Onco panel (48 test)	Thermo Fisher	CE IVD
NG900-HD	Myriapod NGS Workstation	-	CE IVD
NG900-SW	Myriapod NGS Data Analysis Software	-	CE IVD

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Myriapod® NGS Data Analysis workstation and software: from NGS raw data to clinical results

The Diatech data analysis solution is made of an easy-to-use CE IVD software running on a bespoke workstation. The software allows local analysis of raw sequencing data and the calling of SNVs, indels and CNVs.

Myriapod NGS data Analysis Key features:

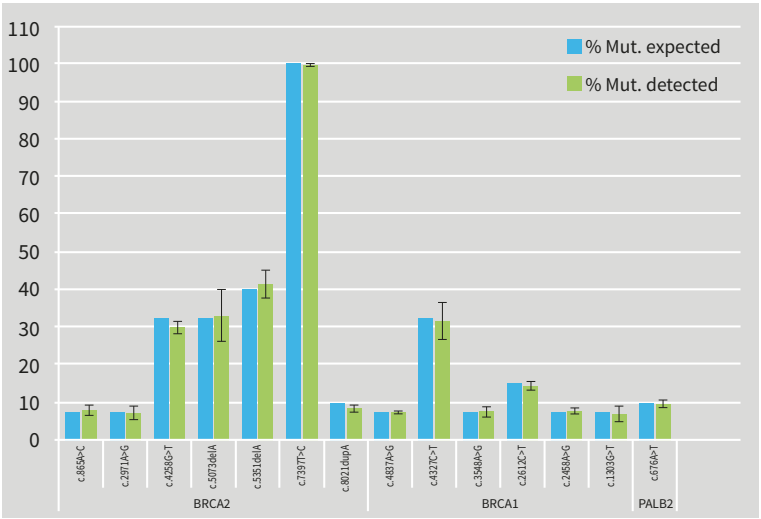
- **Dedicated and complete solution for local data analysis**: Myriapod NGS Analysis software and the dedicated Myriapod NGS workstation are an end-to-end solution for local analysis.
- **Flexibility**: same data analysis solution for both Illumina® and Thermo Fisher Scientific® platforms.
- **"Variants database" dedicated to each application** The software stores all the variants detected by each application; the user can re-classify any variant for internal use.
- **Monitor progress** Once the analysis has started, the user can monitor its progress in an easy way.
- **Categorized results** Variants are automatically binned into categories based on quality and realiability of the call.
- **Integrated IGV data visualizer** All data can be viewed with the integrated IGV viewer, allowing to visually inspect the coverage of the interested regions.
- **Report** The software allows to select sequencing metrics and results and print them in a PDF file report or export them in .csv format.

Myriapod® NGS BRCA1-2 panel

Principle of the method: *Myriapod® NGS BRCA1-2 panel* CE IVD kit allows the detection of the variants of BRCA1-2 and PALB2 implicated in breast and ovary cancer.

Starting material: genomic DNA extracted from blood, fresh, frozen or formalin-fixed paraffin embedded (FFPE) tissue.

Intended use: CE IVD workflow from DNA to data analysis of BRCA1-2 and PALB2 whose alterations have been implicated in breast and ovary cancer.



Horizon® Diagnostics reference standard tested using Myriapod NGS BRCA 1-2 Panel.
Data obtained from 14 independent libraries preparations for BRCA1-2 genes and 9 differents libraries preparations for PALB2 genes on Illumina® MiSeq System.
In blue the allelic frequency measured by ddPCR by Horizon.
Green the average of the allelic frequencies detected with Myriapod NGS BRCA1-2 panel kit.

	Features
Variants Database	Includes info from ClinVar, dbSNP, ExAC, ESP
Pathogenic classification	In accordance with ClinVar and ENIGMA users can classify variants as: Pathogenic, Likely Pathogenic, Uncertain, Likely Benign, Benign
CNV Analysis	CNV analysis is performed using a proprietary algorithm

- Every described variant is displayed and compared with:
  - clinical databases (e.g. Clin-Var);
  - variant frequency in the population databases (e.g. 1000 Genomes);
  - predictive algorithms of the mutation effect on the encoded transcription or protein.

- The CNV (Copy Variation Number) analysis is displayed for each gene (BRCA1, BRCA2 e PALB2); each analyzed exon is viewed as the variation from the gene normal copy number. “O” value means a normal number of copies, “1” means a duplication and “-1” means a deletion. “High” and “Low confident” identify the confidence in the result.

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Myriapod® NGS 56G Onco panel

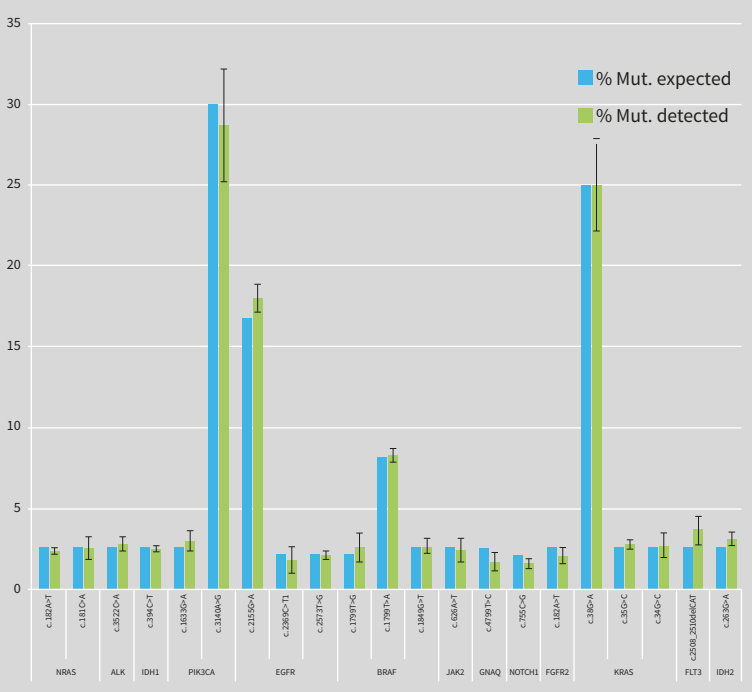
Principle of the method: *Myriapod® NGS 56G Onco panel* CE IVD kit allows the detection of the main variants of 56 genes whose alteration has been shown to be clinically relevant in different tumors.

Starting material: genomic DNA extracted from fresh or formalin-fixed paraffin embedded (FFPE) tissue.

Intended use: CE IVD workflow from DNA to data analysis of 56 genes whose alterations have been shown to be of clinical relevance in oncology.

Genes included in the panel:

ABL1	CSF1R	FBXW7	GNAS	KIT	NPM1	SKT11
AKT1	CTNNB1	FGFR1	HNF1A	KRAS	NRAS	SMAD4
ALK	DDR2	FGFR2	HRAS	MAP2K1	PDGFRA	SMARCB1
APC	DNMT3A	FGFR3	IDH1	MET	PIK3CA	SMO
ATM	EGFR	FLT3	IDH2	MLH1	PTEN	SRC
BRAF	ERBB2	FOXL2	JAK2	MLP	PTPN11	TP53
CDH1	ERBB4	GNA11	JAK3	MSH6	RB1	TSC1
CDKN2A	EZH2	GNAQ	KDR	NOTCH	RET	VHL



Horizon® Diagnostics reference standard tested using Myriapod NGS 56G Onco panel.
Data obtained from 3 independent libraries preparations on Illumina® MiSeq System.
In blue the allelic frequency measured by ddPCR by Horizon.
Green the average of the allelic frequencies detected with Myriapod 56G Onco panel kit.

For information please contact:

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