BRaCA panel

Hereditary variants profiling in Breast and Ovary Cancer

CE
IVD

BRaCA panel

4bases BRaCA panel is a kit for the identification of both of germline mutations in BRCA 1 and BRCA 2 genes.

BRaCA panel is a kit for the analysis of the BRCA1 and BRCA2 genes through a molecular protocol based on Next Generation Sequencing (NGS) technologies. The kit is validated for germline analysis (SNPs, indels, CNVs) of DNA extracted from blood or body tissues samples.

TECHNOLOGY

BRaCA panel kit contains all reagents required for the preparation of a specific bidirectional library of amplicons designed for the NGS analysis using Illumina sequencers.

WORKFLOW

The BRaCA panel kit is part of a DNA-to-variant solution that offers streamlined content, easy-to-perform library preparation, push-button sequencing systems, and simplified data analysis.

Library preparation follows a straightforward, PCR-based protocol that can be completed in as little as 5 hours, with < 1.5 hours hands-on time. Resulting libraries can be normalized, pooled, and then loaded on to a flow cell for sequencing.

Prepared libraries are sequenced on any compatible Illumina sequencers.

VALIDATION

To demonstrate assay capabilities, clinical samples were run in a clinical setting. DNA quality and quantity of the libraries prepared were verified using Qubit and Agilent Bioanalyzer.

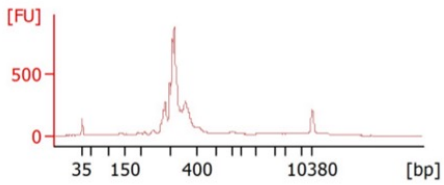

Figure 1. BRaCA panel profiles examples

SOFTWARE ANALYSIS

4eVAR is our proprietary analysis software. The analysis is designed based on the characteristics and technologies of the kit, in order to increase accuracy of results, and to have the complete control on the entire process.

Table 1: List of target genes in **BRaCA panel**

BRCA1
BRCA2

SAMPLE PER RUN

Instrument	Samples per run*
	Germline
iSeq 100 i1 kit (300-cycles)	80
MiniSeq Mid Output Kit (300-cycles)	160
MiniSeq High Output Kit (300-cycles)	500
MiSeq Nano Kit v2 (300-cycles)/(500-cycles)	18
MiSeq Micro Kit v2 (300-cycles)	80
MiSeq Kit v2 (300-cycles)/(500-cycles)	300
MiSeq Kit v3 (600-cycles)	500

**the estimated maximum number of samples per cartridge assumes a reading depth of 300x for the germline. The optimal number of samples can be empirically estimated on the local setup.*

ORDERING INFORMATION

Product**	REF
BRaCA panel	H1070-16 (16 test)
BRaCA panel	H1070-96 (96 test)
Index	
Index Set 16	3006
Index Set 96	3007
Index Set 384	3009X

***the kit is also available in its version only for research use (RUO).*