

BRaCA panel

Hereditary variants profiling in Breast and Ovary Cancer



BRaCA panel

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

BRaCA solution

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 cancer tissues (fresh, frozen or FFPE) or body tissues (blood or other).

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

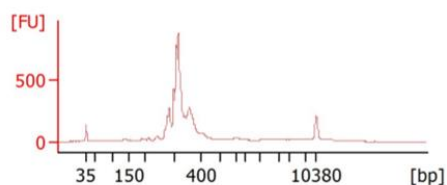


Figure 1. BRaCA panel profiles examples

Table 1: List of target genes in BRaCA panel

BRCA1
BRCA2

SAMPLE PER RUN

Instrument	Sample per run
MiSeq Nano Kit v2 (300-cycles)	18
MiSeq Nano Kit v2 (500-cycles)	18
MiSeq Micro Kit v2 (300-cycles)	80
MiSeq Kit v2 (300-cycles)	300
MiSeq Kit v2 (500-cycles)	300
MiSeq Kit v3 (600-cycles)	500
MiniSeq Mid Output Kit (300-cycles)	160
MiniSeq High Output Kit (300-cycles)	500
iSeq 100 i1 kit (300-cycles)	80
NextSeq 550 Mid-Output Kit	>384
NextSeq 550High-Output Kit	>384
Ion 314™ Chip	3
Ion 316™ Chip	14
Ion 318™ Chip/Ion 520™ Chip	28
Ion 530™ Chip	>96
Ion P1™ Chip/Ion 540™ Chip	>384

**the maximum number of samples per cartridge/chip estimated assuming an average depth of 300x for germline samples. The optimal number of samples must be empirically determined on local setups.*

Ordering Information

Product	REF
BRaCA panel	H1070-16 (16 test)
BRaCA panel	H1070-48 (48 test)
BRaCA panel	H1070-96 (96 test)
<i>For Illumina instrument**</i>	
Index Set series RUO - CE	3000
<i>For Ion Torrent instrument**</i>	
Barcode series RUO - CE	6000

***for the complete list of available indexes and barcodes, refer to Flyer_Index-Barcode*