

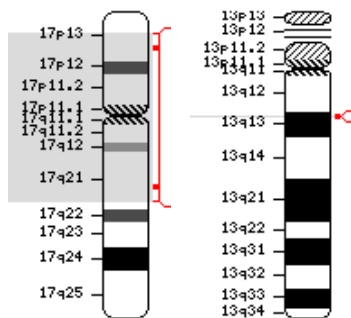


Access Array BRCA1, BRCA2 and TP53 Kit for Illumina Sequencers

BENEFITS

- Designed to work with Fluidigm Barcode Libraries for amplicon tagging library preparation
- Amplicon tagging removes the need for additional library preparation steps
- Enables the combination of multiple samples per sequencing run through the use of indexes

BRCA1 and BRCA2 Gene Panels



The **Access Array™ BRCA1, BRCA2 and TP53 Kit** introduces the ability to quickly and easily resequence regions of interest in the breast cancer susceptibility genes (BRCA1 and BRCA2) and tumor protein gene (TP53). BRCA1 and BRCA2 are tumor suppressors involved in cell growth, cell division, and DNA repair. Mutations in these genes are most commonly linked to the development of hereditary breast and ovarian cancers. In addition to BRCA1 and BRCA2, this panel includes primers for the TP53 gene. The TP53 gene negatively regulates tumor suppressors, and if inactivated loses its checkpoint control facilitating tumor progression. Studying these genes and associated complexes provides essential information about cancer processes, making BRCA a relevant target for cancer research.

The Access Array Kit is optimized to work with the Access Array System and Illumina sequencers (Genome Analyzer II, HiSeq, MiSeq), providing increased sequence data capture-per-array over other systems. This combination offers superior sample preparation for next generation sequencing by supplying fast, high-throughput, and inexpensive preparation of sequencing libraries along with the highest quality sequencing data. The Access Array System increases throughput capability by allowing parallel amplification from 48 unique samples, in effect preparing 48 libraries in just a few hours. The Illumina sequencers use Illumina's proven reversible terminator-based method to provide true base-by-base sequencing for the most accurate data possible.

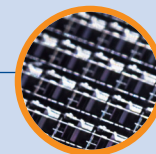
The Access Array Kit is the next step in streamlining target enrichment for sequencing. Use of this kit with the Access Array System and Illumina sequencers is a powerful combination for optimal results.

Key Features

- The Access Array BRCA1, BRCA2 and TP53 Kit allows for fast and easy target enrichment of multiple samples on the Access Array System when used with the complementary Illumina sequencers
- 198 unique primer pairs in the 210 bp primer set amplify regions between 117-210 bp, providing 96.7% coverage in BRCA1, 97% coverage in BRCA2, and 92% coverage of coding regions in TP53
- Primers are tested to ensure accuracy and reproducibility

Workflow

- 1 Dispense**
Transfer samples and reagents to inlets on the Access Array IFC from a standard 384-well plate, using an eight-channel micropipettor.
- 2 Load**
Automatically load and assemble the reaction mixtures on chip, using the IFC Controller AX.
- 3 Thermal Cycle**
Perform PCR using the FC1 Thermal Cycler. (Thermal cycling parameters are the same as those for traditional PCR.)
- 4 Harvest**
Automatically pool and harvest the individual PCR products using the IFC Controller AX.
- 5 Collect**
Collect the amplified product for each of the 48 samples, using a traditional micropipettor.



PRODUCT DESCRIPTION

210 bp Primer Set

Gene	# of Primers	Amplicon Length	Coverage
BRCA1	64	130-210 bp	96.7%
BRCA2	118	117-210 bp	97%
TP53	16	191-209 bp	92%

ORDERING INFORMATION

Product	P/N
Access Array BRCA1, BRCA2 and TP53 Kit for the Illumina GAI, HiSeq and MiSeq Sequencers	100-3514

Fluidigm Access Array™ System for Next-Gen Sequencing

System Components

Each system has two Access Array IFC Controllers and a single FC1 Thermal Cycler. The complete system allows you to load the 48.48 Access Array, amplify and tag the regions of interest, and then recover the product.

48.48 Access Array IFC

Unique Integrated Fluidic Circuit (IFC) designed to multiplex 48 samples against 48 reactions in 30 nL reaction volumes. The 48.48 Access Array IFC prepares 2,304 individual reactions at a time while requiring only 96 pipette inputs and less than 50 ng of template DNA.

Access Array Barcode Library

Use the 48.48 Access Array IFC with a set of 96 barcodes integrated with sequencing adaptors to pool the PCR products from different samples, post-amplification, and then sequence them as a single sample without additional library preparation.

Content Service

For those without predesigned primer sets, Fluidigm scientists will work closely with the user in designing, optimizing, and validating primers to ensure a fast, simple, and hassle-free experiment.

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