



Accel-Amplicon® BRCA1 and BRCA2 Panel

The Accel-Amplicon BRCA1 and BRCA2 panel contains 246 amplicons with an average size of 148 bp that covers the entire coding sequence of *BRCA1* and *BRCA2* genes. This panel includes all components necessary for generating ready-to-sequence libraries, including primer pairs and indexed sequencing adapters.



The data below demonstrates the performance of the Accel-Amplicon BRCA1 and BRCA2 Panel on a variety of sample types.

Input DNA	Sample Type	Reads Aligned	% Bases On Target Aligned	Mean Coverage	% Coverage Uniformity
HD701	Horizon Diagnostics	165925	98.9	990.0	99.2
NA12878	Coriell	170687	98.9	1005.9	99.2
NA24143 (Ashkenazi)	Coriell	169613	97.5	948.0	96.7
NA24695 (Han Chinese)	Coriell	170799	98.6	997.4	99.2
NA19240 (Yoruban)	Coriell	171228	98.4	997.3	99.1
FFPE_6hr	FFPE	171323	98.3	996.3	95.2
FFPE_24hr	FFPE	171459	98.4	1009.8	95.9
FFPE_48hr	FFPE	171074	98.1	999.5	95.2

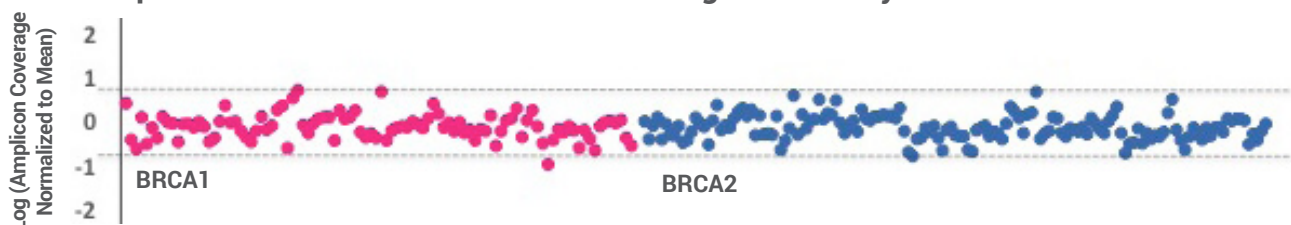
Libraries using the Accel-Amplicon BRCA1 and BRCA2 Panel were prepared from 10 ng input of high quality Coriell (NA12878, NA24143, NA24695, and NA19240) gDNA, Horizon Diagnostics Quantitative Multiplex DNA Reference Standards HD701, and FFPE DNA. Sequencing was performed using MiniSeq® reagents.

Variant Calling by Accel-Amplicon BRCA1 and BRCA2 Panel

Input DNA	Variant	Expected AF (%)	Observed AF (%)
Horizon Diagnostics HD701	BRCA2 A1689fs	33.0	32.9
Coriell NA14684-21	BRCA1 916delTT	validated germline variant	48.8
Coriell NA14805-26	BRCA1 810G>A	validated germline variant	99.4
Coriell NA14788-27	BRCA2 983del4	validated germline variant	99.4

The Accel-Amplicon BRCA1 and BRCA2 Panel consistently detected validated variants at the expected frequency in replicates from 10 ng of the Horizon Diagnostics Quantitative Multiplex DNA Reference Standards HD701 and Coriell (NA14684-21, NA14805-26 and NA14788-27). The variants were called by GATK HaplotypeCaller (Broad Institute).

Accel-Amplicon BRCA1 and BRCA2 Panel Coverage Uniformity

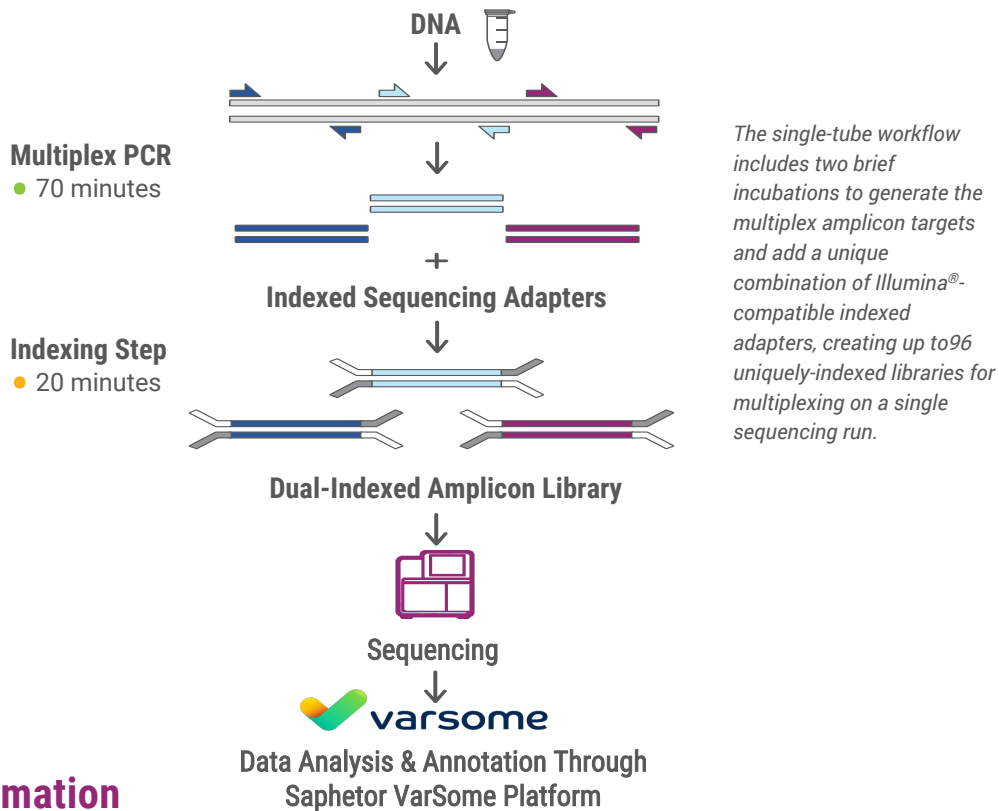


The Accel-Amplicon BRCA1 and BRCA2 Panel provides high coverage uniformity across amplicons. This panel was used to prepare libraries using 10 ng input of high quality Coriell NA12878 gDNA. The representative plot demonstrates amplicon coverage normalized to mean. Gates were drawn to represent 15-500% of the mean.

Product Specifications

Specification	Feature	
Input	Input DNA Required	10-25 ng
	Sample Types	FFPE, cfDNA, fresh frozen, genomic DNA
Workflow	Time Required	2 hours
	Multiplexing on MiSeq v2 Nano at 500X Average Depth (germline)	13
	Multiplexing on MiSeq v2 at 5000X Average Depth (somatic)	19
Design	Number of Amplicons	302
	Amplicon Size	Average 149 bp
	Number of Genes Covered	3
	Total Target Size	28.96 kb
Performance	On Target Percentage	> 95%
	Coverage Uniformity at >20% of Mean	> 95%

Single-Tube, 2-Hour Workflow



Ordering Information

Product Name	Indexing Included	Catalog No.
Accel-Amplicon BRCA1 and BRCA2 Panel (48 rxns)	8 i5* X12 D701-712	AL-52048
VarSome Data Analysis Token (48 Samples)	N/A	AL-VS48

i5* Illumina Truseq CD indexes D501-D508

Visit www.swiftbiosci.com for easy ordering.



Swift Biosciences, Inc.

674 S. Wagner Road, Suite 100 • Ann Arbor, MI 48103 • 734.330.2568 • www.swiftbiosci.com

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