DNBSEQ™ rWES service

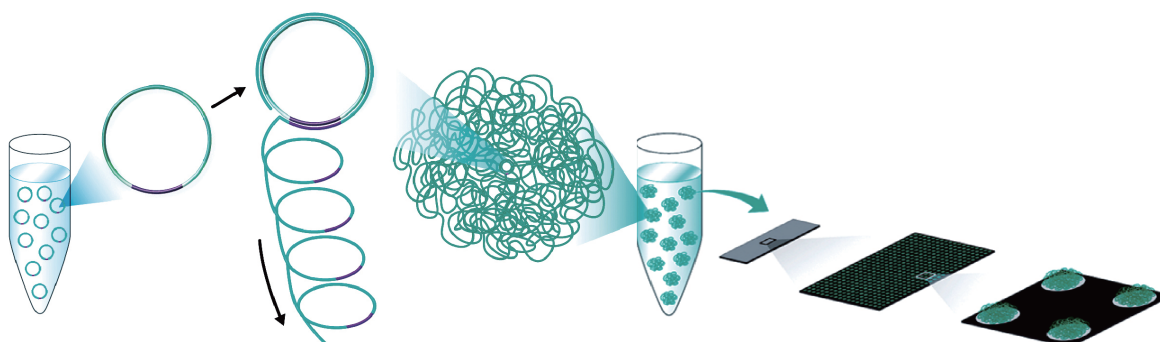DNA sample QC → Library cosntruction and exon capture → DNBseq™ PE100 sequencing → Data processing

Service Description

For many applications, Whole Exome Sequencing (WES) offers advantages as a viable and cost-effective alternative for Whole Genome Sequencing. With the development of precision medicine, WES is utilized more and more frequently in patient cases where the diagnoses or treatment options are unclear. Timely diagnosis can aid in treatment efficacy and better patient health outcomes.

BGI is now offering a **10-day rapid delivery whole exome sequencing** service from our CAP/CLIA certified laboratory to meet the needs of both academic and clinical research users where rapid delivery of results is paramount. Besides raw sequencing data output, BGI also offers standard and custom bioinformatics services to suit specific research needs.

DNBSEQ™ Technology

Whole Exome Sequencing services are performed with BGI's proprietary DNBSEQ™ sequencing technology platforms. DNBSEQ™ is a high-throughput sequencing platform developed by a subsidiary of BGI, Complete Genomics, in Silicon Valley. This system is powered by combinatorial Probe-Anchor Synthesis (cPAS), linear isothermal Rolling-Circle Replication and DNA Nanoballs (DNB™) technology, followed by high-resolution digital imaging.
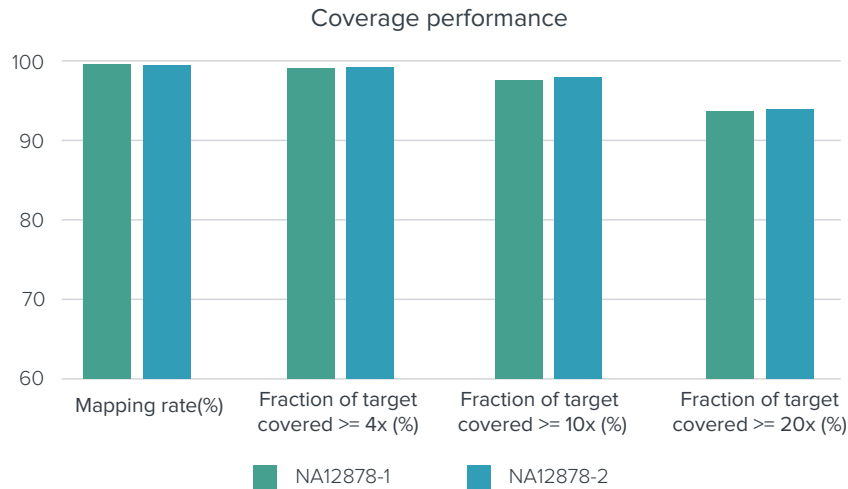

BGI Advantages

◆ Project experience of tens of thousands of exome samples
◆ Lower sequencing cost and lower index hopping rate by using DNBSEQ™ technology

Sequencing Service Specification

◆ Agilent Sureselect or BGI exome kit for library construction and enrichment
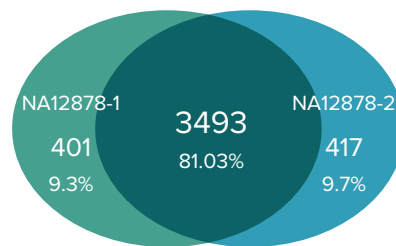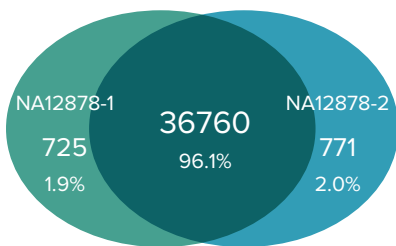◆ 100bp paired-end sequencing options available

Data Performance

The following is an example of rapid DNBSEQ™ output for a 100X WES project with standard sample NA12878. The capture kit used was Agilent Human All Exon V7, and each sample generated roughly 10G of data.

Coverage performance

High repeatability, precision and sensitivity of **SNP calling**.

Sample	Precision	Sensitivity
NA12878-1	99.2%	97.5%
NA12878-2	99.2%	97.7%

High repeatability, precision and sensitivity of **InDel calling**.

Sample	Precision	Sensitivity
NA12878-1	88.1%	90.0%
NA12878-2	86.7%	89.4%

Request for Information or Quotation

Contact your BGI account representative for the most affordable rates in the industry and to discuss how we can meet your specific project requirements or for expert advice on experiment design, from sample to bioinformatics.

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We Sequence, You Discover