

Sequencing of Customer-Prepared Libraries (Walk-Up Sequencing)

Product Overview

Broad Clinical Labs' Walk-Up Sequencing service provides sequencing of customer-prepared libraries, enabling convenient, rapid-turnaround return of high quality data for a variety of sample types. Libraries are typically loaded onto a sequencer within two business days of receipt.

We offer sequencing on the Illumina® NovaSeq X Plus, Pacific Biosciences Revio™, Element AVITI™, and a variety of additional technologies. With decades of sequencing experience and expert staff, we are able to deliver high quality data even for unique or complex library constructs (e.g. adapters requiring custom sequencing primers, or libraries with low base diversity requiring PhiX spike-ins).

Input Requirements

Minimum order quantity is one flowcell or SMRT™ Cell. Orders must be in units of full flowcells or SMRT™ Cells.

Platform	Minimum Library Volume (per flowcell)	Minimum Library Concentration
Illumina® MiSeq / NextSeq 500/550, 2000	20µL	2nM
Illumina® NovaSeq 6000	S4: 140µL; Other flowcell types: 70µL	2nM
Illumina® NovaSeq X Plus	10B: 200µL 25B: 400µL	2nM
Element AVITI™	70µL	6nM
PacBio Revio™	30µL	20-60ng/µL (varies by library frag. size)

- Library volume and concentration (qPCR or Qubit quantification, performed by BCL) must meet specifications in the table above.
- Any library pooling must be completed by the customer prior to submission.
- Index sequence information is required for submission of libraries that require demultiplexing (FASTQ file deliveries).

What's Included

- Sample kit for library submission
- Library QC, sequencing prep, and sequencing
- Data delivery¹

Data Deliverable

- Data delivery to customer-owned cloud location in Google Cloud or Amazon Web Services; or Terra Workspace
- Sequencing Run Folder including BCL files or demultiplexed FASTQ files

Technologies, Read Lengths, and Reads Delivered

Technology	Cycles (bp)	Minimum Reads (per flowcell)
Illumina® MiSeq	50, 300, 500	≥5 million reads
Illumina® NextSeq 500	75, 150, 300	≥320 million reads
Illumina® NextSeq 2000 P2	100, 300	≥320 million reads
NextSeq 2000 P3	100, 300	≥800 million reads
Illumina® NovaSeq 6000 SP	100, 300, 500	≥500 million reads
NovaSeq 6000 S1	100, 200, 300	≥1 billion reads
NovaSeq 6000 S2	100, 200, 300	≥3 billion reads
NovaSeq 6000 S4	35, 300	≥6 billion reads
Illumina® NovaSeq X Plus 10B	300	≥6 billion reads
NovaSeq X Plus 25B	300	≥17 billion reads
Element Aviti™	150, 300	≥800 million reads
PacBio Revio™ ²	24 hour movies	≥4 million reads

¹ Long-term storage, data submission (e.g. to NCBI), and data aggregation are not included.

² Sequencing within 48 business hours of receipt does not apply for PacBio Revio™