Aleatoriedade, amostragem e reprodutibilidade

Gabriel da Rocha Fernandes, PhD Pesquisador Instituto René Rachou - Fiocruz Minas





Throughput NGS



		62 62		HE.
	iSeq 100 System	MiniSeq System	MiSeq Series O	NextSeq Series O
Popular Applications & Methods	Key Application	Key Application	Key Application	Key Application
Large Whole-Genome Sequencing (human, plant, animal)				•
Small Whole-Genome Sequencing (microbe, virus)	•	•		•
Exome Sequencing				•
Targeted Gene Sequencing (amplicon, gene panel)	•	•		•
Whole-Transcriptome Sequencing				•
Gene Expression Profiling with mRNA-Seq				•
Targeted Gene Expression Profiling	•	•	•	
Long-Range Amplicon Sequencing*	•	•	•	
miRNA & Small RNA Analysis	•	•	•	•
DNA-Protein Interaction Analysis			•	•
Methylation Sequencing				•
16S Metagenomic Sequencing		•		•

How to Choose a Benchtop Sequencer

This Benchtop Sequencing Buyer's Guide has tips to help you make a smooth transition to next-generation sequencing and select the best benchtop sequencing system to achieve your research objectives.

Read Benchtop Buyer's Guide >

Run Time	9–17.5 hours	4-24 hours	4–55 hours	12-30 hours
Maximum Output	1.2 Gb	7.5 Gb	15 Gb	120 Gb
Maximum Reads Per Run	4 million	25 million	25 million [†]	400 million
Maximum Read Length	2 × 150 bp	2 × 150 bp	2 × 300 bp	2 × 150 bp

		NextSeq Series O	HiSeq Series O	HiSeq X Series‡	NovaSeq 6000 System
Popul	ar Applications & Methods	Key Application	Key Application	Key Application	Key Application
		. wy rypnoaton	rwy raphicason	ray raphication	тыў гарупыныя і
anim	e Whole-Genome Sequencing (human, plant, nal)	•	•		•
Sma	all Whole-Genome Sequencing (microbe, virus)	•	•		•
Exor	me Sequencing	•	•		•
Targ	eted Gene Sequencing (amplicon, gene panel)	•	•		•
Who	ele-Transcriptome Sequencing	•	•		•
Gen	e Expression Profiling with mRNA-Seq	•	•		•
miR	NA & Small RNA Analysis	•	•		•
DNA	A-Protein Interaction Analysis	•	•		•
Meth	hylation Sequencing	•	•		•
Shor	tgun Metagenomics	•	•		•

Optimized NGS Sample Tracking and Workflows

See how BaseSpace Clarity LIMS (Laboratory Information Management System) enabled this large genomics lab to standardize lab procedures and cope with increasing sample volumes from diverse clients.

Read Case Study >

Run Time	12–30 hours	< 1–3.5 days (HiSeq 3000/HiSeq 4000) 7 hours–6 days (HiSeq 2500)	< 3 days	16–36 hours (Dual S2 flow cells) 44 hours (Dual S2 flow cells)
Maximum Output	120 Gb	1500 Gb	1800 Gb	6000 Gb
Maximum Reads Per Run	400 million	5 billion	6 billion	20 billion
Maximum Read Length	2 × 150 bp	2 × 150 bp	2 × 150 bp	2 × 150 bp