

HiSeq™ Sequencing Systems

Redefining the trajectory
of sequencing.



The most accurate next-generation sequencing technology. It's Tru.

Like every Illumina sequencer, HiSeq systems are powered by TruSeq—the technology that delivers the most accurate human genome at any coverage. TruSeq provides the highest coverage uniformity and lowest number of gaps, with the most sensitive and specific SNP and indel detection, helping to drive your discoveries with confidence.

Sequence more at www.illumina.com/portfolio

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Redefining the trajectory of sequencing.

Illumina's sequencing platforms comprise the largest installed base of next-generation sequencing systems worldwide, referenced in more than 1,600 peer-reviewed publications to date¹.

HiSeq 2000 and HiSeq 1000 systems combine Illumina's proven TruSeq™ sequencing by synthesis (SBS) chemistry with innovative engineering to set new standards in output, cost-effectiveness, and data quality. With the fastest data rate and throughput, HiSeq systems are designed to take your research further.

System features.

- Built on the same core architecture, both systems offer the same low cost per output
- Cutting-edge scanning technology provides the fastest data rate
- Innovative dual-surface imaging doubles data output per run and minimizes sequencing costs
- Human interaction design elements enable the simplest user experience
- TruSeq SBS chemistry provides the highest data quality



600 Gb, and counting.

Over the last few years, Illumina has scaled our systems from less than 1 gigabase (Gb) of data per run to generating in excess of 1 terabase² on the HiSeq 2000.

- Highest sequencing output: up to 600 Gb per run on HiSeq 2000 and up to 300 Gb on the HiSeq 1000
- Designed to provide today's highest throughput and to accommodate tomorrow's scalability needs

Exceptional user experience.

- Single-operator workflow: simple flow cell loading, pre-configured plug-and-play reagents, and a touch screen-enabled user interface with intuitive run set-up
- Experimental flexibility: single or dual flow cell mode operation, letting you run applications requiring different read lengths simultaneously³
- Simple and efficient data analysis solution: rapid alignment and variant discovery using intuitive, graphical analysis software
- TruSeq sequencing reagents and Illumina's proprietary Nextera™ library preparation provide a streamlined workflow that is economical and scalable, making sequencing even easier

Unmatched cost-effectiveness.

- Lowest cost per whole human genome or exome sequencing studies; highest level of output and rapid turnaround time
- Low cost per data output: 100⁴- 200³ gene expression profiles at a lower price than a microarray

HiSeq systems

Accelerate your research. Leveraging chemistry that provides the broadest breadth of applications, you can perform large-scale studies on complex genomes, epigenomes, and transcriptomes rapidly and economically. Set a new trajectory for your lab.

	HiSeq 2000	HiSeq 1000
Flow cells per run	One or two flow cells	One flow cell
Flexibility	<ul style="list-style-type: none"> • Start and stop flow cells independently • Run different read lengths in each flow cell 	Easily upgrades to a HiSeq 2000 to meet changing sequencing needs
Whole-genome analysis	Sequence > 5 genomes at > 30x coverage—in one run	Sequence > 2 genomes at > 30x coverage—in one run
Exome analysis	Sequence 100 exomes—in one run	Sequence 50 exomes—in one run
Gene expression	In less than two days, profile 192 samples in a single run at a lower price than a microarray	In less than two days, profile 96 samples in a single run at a lower price than a microarray

¹Number of publications as of April 2011

²HiSeq 2000 R&D configuration not commercially supported

³Applies only to HiSeq 2000

⁴Applies only to HiSeq 1000