Simplest, fastest. For every lab.

Meet the next generation of benchtop sequencing systems

MiSeq™ i100 and MiSeq i100 Plus Sequencing Systems

illumina®

MiSeq i100 SERIES

Setting the standard for sequencing simplicity and speed

Simplest, fastest.
For every lab.

With the MiSeq i100 Series, Illumina continues to set the highest standards. Advancements in system design, sequencing chemistry, and data analysis deliver the simplest, fastest benchtop sequencing and proven accuracy. The MiSeq i100 Series is accessible to users of all levels and simplifies the NGS workflow—from library preparation to data analysis. With same-day results for various applications, including small whole-genome sequencing (WGS), targeted gene sequencing, and gene expression analysis, the MiSeq i100 Series enables labs to address complex genomics questions in infectious disease, microbiology, oncology, and beyond.

RAPID, ROBUST SEQUENCING

Unthinkable speed for same-day results

The MiSeq i100 and MiSeq i100 Plus Systems are designed to decrease turnaround time four-fold compared to the MiSeq System. With sequencing run times as fast as four hours, you can achieve same-day results to discover more, faster.

The MiSeq i100 Series are powered by XLEAP-SBS™ chemistry, the fastest, most accurate, Illumina sequencing by synthesis (SBS) chemistry to date. Improved robustness and stability of XLEAP-SBS reagents allow for shipping and storage at room temperature, expediting run setup without waiting for reagents to thaw.

The MiSeq i100 Series generates highly accurate data with a minimum specification of > 90% of bases above Q30.

Achieve same-day results
Run times as fast as 4 hours

Eliminate reagent thawing
Consumables stored at room temperature


25M
A
Use With
MiSeq™ i100 Dry Cartridge
300 Cycles
REF 1234567890
Library
CP1
CP2
CP3
illumina

STREAMLINED OPERATIONS

Remarkably simple sequencing from setup to data analysis

Sequencing is easier than ever with streamlined operations that reduce the required time and resources and improve efficiency throughout the entire run. Simplified run setup takes three steps and less than 20 minutes. Enhanced usability features, including load-and-go consumables, onboard denaturation, onboard cluster generation, and no post-run washing, streamline the sequencing workflow.

Onboard DRAGEN™ secondary analysis provides highly accurate and efficient data analysis, reducing reliance on bioinformatics experts to overcome bottlenecks in data analysis and convert sequencing reads into meaningful results. In addition to onboard pipelines, data can be streamed into BaseSpace™ Sequence Hub, a user-friendly genomics cloud-computing platform that offers simplified run setup, monitoring, and analysis. Users can access the full suite of DRAGEN pipelines in BaseSpace Sequence Hub for accurate secondary analysis and visualization of NGS data.

Simplified run setup

Completed in under 20 minutes reducing time and resources

Highly accurate analysis

With efficient onboard DRAGEN secondary analysis

INCREASE CAPABILITIES

Diverse applications with flexible output

With the MiSeq i100 Series, you can access 11 configurations across multiple flow cell options with read lengths up to 2 × 500 bp to support an output range of 5–100 million reads and 1.5–30 Gb. Readily increase sample throughput and perform deeper sequencing to support your applications from targeted gene sequencing to small WGS and more.

Flexible output

Eleven reagent configurations with read lengths up to 2 × 500 bp for a wider output range

Increased output

Data output of 1.5—30 Gb and 5—100 million reads

Larger projects

Up to 10 RNA-Seq samples or up to 100 small WGS samples in a single run


25M
Use With
A
MiSeq™ i100 Dry Cartridge
1000 Cycles
RUO
REF 123456789
Library
CP1
CP2
CP3


50M
Use With
A
MiSeq® i100 Dry Cartridge
600 Cycles
RUO
REF 123456789
Label PN: 12345678.A
SW1000000-SW1
Library
CP1
CP2
CP3


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REF 123456789
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CP3

REDUCE ENVIRONMENTAL IMPACT

Groundbreaking science meets groundbreaking sustainability

The MiSeq i100 Series is purposefully designed to reduce environmental impact. Combined with innovative XLEAP-SBS reagents, these instruments deliver remarkable sustainability and user experience benefits:

Room-temperature storage

No thawing required, expediting setup time and eliminating need for freezers to reduce carbon footprint

85% packaging reduction*

Minimizes time spent unboxing, simplifying disposal and reducing the environmental impact

Room-temperature shipping

Requires no dry ice and no ice packs for less waste

35% carbon emission reduction†

Minimizes total carbon footprint

* Based on shipping weight compared to MiSeq System.

† Based on comparison of MiSeq reagent kits to MiSeq i100 reagent kits per one Gb of genetic code, measured in Global Warming Potential through an internal streamline life cycle assessment (LCA) study, aligned with the methodological requirements and guidelines of the International Organization for Standardization (ISO) standards ISO 14040 (2006a) and ISO 14044 (2006b) on LCA and the Greenhouse Gas (GHG) Protocol Product Life Cycle Accounting and Report Standard (WRI/WBCSD, 2011). As a streamlined LCA study, it does not fulfill all of the reporting requirements of these standards, including third-party review.

EFFICIENT SAMPLE-TO-ANALYSIS WORKFLOW

Get trusted results, faster

The MiSeq i100 Series offers sample-to-analysis workflow solutions. These workflows include library preparation, sequencing on the MiSeq i100 Series, and onboard analysis. Preconfigured DRAGEN secondary analysis provides comprehensive data summaries for select infectious disease, microbiology, and oncology applications in under two hours.

Streamline experimental planning and setup by choosing from preselected library prep kits and targeted gene panels.

Simplify data analysis with access to preconfigured DRAGEN pipelines either onboard or in the cloud, minimizing the need for bioinformatics expertise.

Increase confidence in your studies by comparing results to publicly available data sets in BaseSpace Sequence Hub.

ONE

Prepare libraries

Illumina library prep kit

TWO

Sequence

MiSeq i100 and MiSeq i100 Plus Sequencing Systems

THREE

Analyze

Onboard DRAGEN software and full suite of cloud-based analysis apps

NGS workflows

The MiSeq i100 Series offers flexible sequencing to support your various projects. Whether you use the predesigned sample-to-analysis workflows or build your own, the systems can perform a wide range of applications.

Microbial genomics

Pathogen detection
16S metagenomics
Shotgun metagenomics
Small WGS

Gain insights into how microbes impact humans and the environment

Targeted gene sequencing

Amplicon-based NGS
Enrichment-based NGS
Gene editing
Immune repertoire

Focus on a select set of genes of interest for deep sequencing and rare variant detection

Transcriptomics

3′ gene expression
Targeted RNA panel
mRNA-Seq
Total RNA-Seq

Concentrate on specific transcripts of interest to perform gene expression and fusion detection studies

Quality control

Library QC

Assess library quality before committing to a full-scale run

INSTRUMENT SERIES

Two instrument configurations

The MiSeq i100 and MiSeq i100 Plus Sequencing Systems set new standards for simplicity and speed, with exceptional accuracy. They're designed with a flexible, easy-to-use sequencing workflow.

MiSeq i100 Plus Sequencing System

Outputs ranging from 1.5 to 30 Gb	Read lengths from 1 × 100 bp to 2 × 500 bp	5M, 25M, 50M, and 100M flow cells

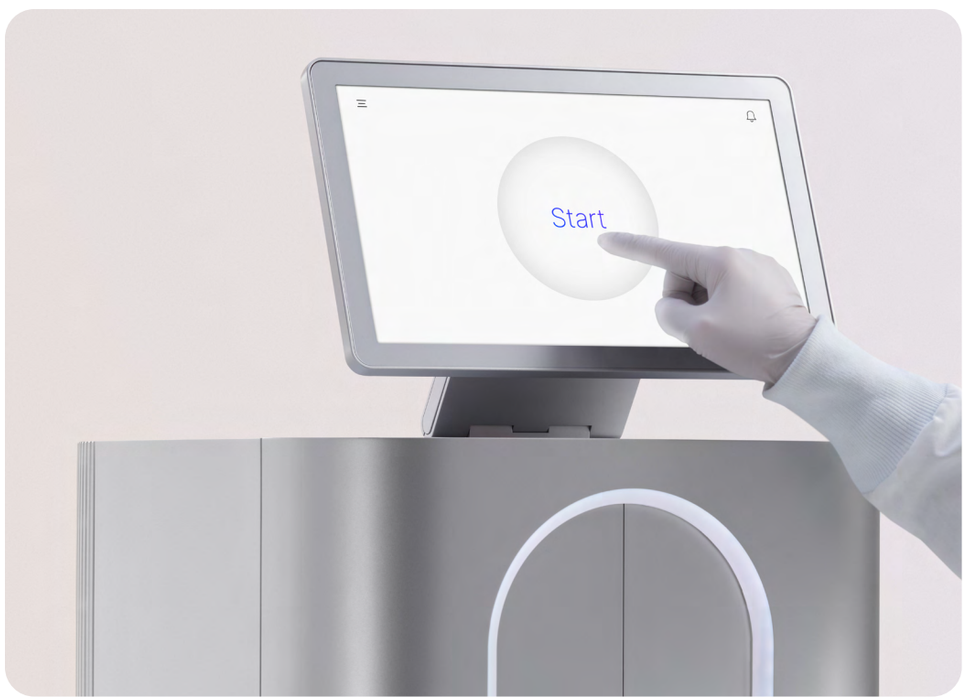
MiSeq i100 Sequencing System

Outputs ranging from 1.5 to 25 Gb	Read lengths from 1 × 100 bp to 2 × 500 bp	5M and 25M flow cells

MiSeq i100 Plus System

MiSeq i100 System

Flow cell type	5M	25M	50M	100M
Output				
1 × 100 bp	—	2.5 Gb	5 Gb	10 Gb
2 × 150 bp	1.5 Gb	7.5 Gb	15 Gb	30 Gb
2 × 300 bp	3 Gb	15 Gb	30 Gb	—
2 × 500 bp	—	25 Gb	—	—
Reads passing filter per flow cell				
Single reads	5 million	25 million	50 million	100 million
Paired-end reads	10 million	50 million	100 million	200 million
Instrument run time				
1 × 100 bp	—	~4 hr	~4.5 hr	~5 hr
2 × 150 bp	~7 hr	~7 hr	~7.5 hr	~8 hr
2 × 300 bp	~15 hr	~15 hr	~15.5 hr	—
2 × 500 bp	—	~24 hr	—	—



MAXIMIZE YOUR INVESTMENT

Support that never stops

Illumina strives to be the best partner possible. With a global presence, you can rely on our experts to facilitate your success. Technical support is available via phone 5 days a week or access online support 24 hours, 7 days a week, worldwide and in multiple languages, with rapid response times near most major metropolitan areas. Illumina provides excellent product consistency, supply, and quality enabled by a mature global manufacturing infrastructure.

The MiSeq i100 Series can be connected to the free Illumina Proactive, a secure and remote instrument performance and support service for enhanced and reliable instrument operation. Customers receive access to performance data, real-time updates on run progress, and assisted troubleshooting.

Worldwide customer support

Available in multiple languages via phone 5 days a week or online 24 hours, 7 days a week

Global infrastructure

Excellent product consistency, supply, and quality

Proactive support

Secure, remote support for enhanced reliable instrument operation through Illumina Proactive performance service

TRUSTED FOR DECADES

Committed to your discoveries.

Trusted for over 25 years, Illumina has shipped over 20,000 NGS systems globally. These systems have been cited in over 420,000 peer-reviewed publications.§ Building on our extensive expertise, Illumina has a relentless commitment to innovation and developing future NGS capabilities and applications. With the MiSeq i100 Series, we continue to increase access to genomics technology by delivering faster, simpler sequencing.

Learn more

illumina.com/MiSeqi100

§ Data calculations on file. Illumina, Inc. 2024.


Start
Eject consumables

illumina®

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