

GP1000

Sequencing System

High-throughput genetic sequencing with flexible dual-flow-cell operation, streamlined loading, and broad library compatibility.

Powered by LumoSeq sequencing chemistry and AttoSeal microfluidic control, GP1000 is designed to deliver high-quality sequencing data across diverse application scenarios.



Q40 >= 85%

High-quality data output



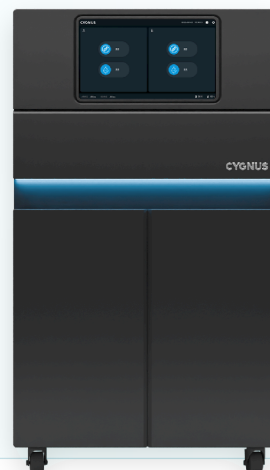
No Balance Library Required

Higher effective loading efficiency



Dual Flow Cell

Independent dual flow cell operation



Product Advantages



Efficient & Accurate

- Q40 >= 85%
- No balance library required
- High utilization of effective sequencing data



Easy Operation

- Flexible dual flow cell operation
- Run continuation after power interruption
- Automatic lane-by-lane loading



Broad Compatibility

- Multiple throughput options
- Multi-timepoint output from one flow cell
- Compatible with multiple application library types

Core Technologies

LumoSeq Sequencing Chemistry

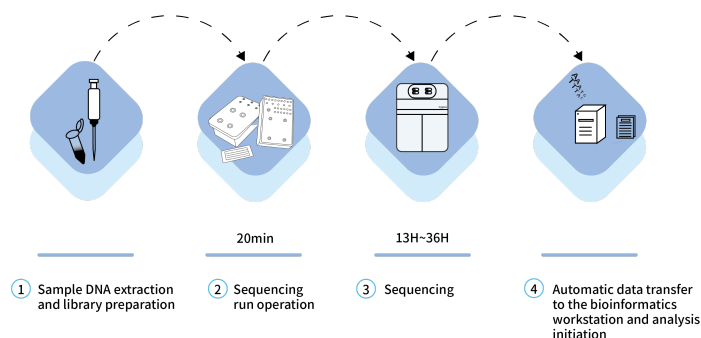
Integrates the three key SBS steps: DNA polymerization, label cleavage, and fluorescence conversion. The fluorescent modification is positioned at the phosphate terminus, keeping bases in a natural state during incorporation and avoiding molecular scars for high-accuracy sequencing.

AttoSeal Microfluidic Control

Uses an inert oil-phase reagent to drive reaction reagents into the reaction chamber, enabling attoliter-scale sequencing reactions. Reagent usage is greatly reduced, improving cost efficiency while high-performance polymerase supports accurate fluorescence signal reading.

Built for adaptable sequencing workflows

The sequencing system can be easily integrated into the overall application solution.



Performance Specifications

Flow Cell	Throughput	Reagent Kit	Max Read Length	Max Output	Run Time	Data Quality
T1	4000M	100 cycles	SE100	400 Gb x 2	13 h	Q30 >= 95% Q40 >= 90%
T1	4000M	200 cycles	PE100	800 Gb x 2	17 h	Q30 >= 95% Q40 >= 90%
T1	4000M	300 cycles	PE150	1.2 Tb x 2	22 h	Q30 >= 90% Q40 >= 85%
T2	6800M	100 cycles	SE100	650 Gb x 2	14 h	Q30 >= 95% Q40 >= 90%
T2	6800M	200 cycles	PE100	1.3 Tb x 2	23 h	Q30 >= 95% Q40 >= 90%
T2	6800M	300 cycles	PE150	2.0 Tb x 2	36 h	Q30 >= 90% Q40 >= 85%

Instrument Parameters

- **Operating temperature**
19°C-25°C; variation <= 2°C/hour
- **Relative humidity**
20%RH-75%RH, non-condensing
- **Dimensions (W x H x D)**
980 x 1850 x 860 mm
- **Instrument weight**
600 kg



Estimated Sample Throughput

Application	T1	T2
Human Genome Sequencing (WGS) 100 Gb/sample	12	20
Whole-Exome Sequencing (WES) 10 Gb/sample	120	200
Targeted Gene Sequencing 30 Gb/sample	40	60
Transcriptomes 10 Gb/sample	120	200
Single-cell RNA-Seq 500M reads/sample	8	12
Methylation Sequencing 100 Gb/sample	12	20

Highlight

- Flexible flow-cell options support different project scales.
- One flow cell can provide output at multiple timepoints.
- Library compatibility supports broad research applications.

Ordering Information

Part No.	Product Name
114-001-101	GP1000 Sequencing System
G-124-001-101	T1C Reagent Kit (100 cycles)
G-124-002-101	T1C Reagent Kit (200 cycles)
G-124-003-101	T1C Reagent Kit (300 cycles)
G-124-004-101	T2C Reagent Kit (100 cycles)
G-124-005-101	T2C Reagent Kit (200 cycles)
G-124-006-101	T2C Reagent Kit (300 cycles)

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Sequencing the Future



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