Salus
innovation in biomed

Salus Pro Genetic Sequencer

Salus Pro Medium Throughput NGS Platform

Salus BioMed is dedicated to delivering superior next-generation sequencing (NGS) platforms to empower users across research and clinical applications. The Salus Pro genetic sequencer is a flexible, fast, accurate, cost effective, and easy-to-use benchtop sequencer based on the principle of sequencing-by-synthesis (SBS) technology. As well as integrating a number of original technologies such as advanced optics, rapid chemistry systems, high-density chip design, the Salus Pro sequencer contains two sequencing units and supports multiple chip sizes, covering from low, medium and high throughput to meet the needs of different clinical and scientific research scenarios.

CE NMPA

V1.4

Key Features

80 M – 2000 M reads / run Throughput up to	Run time	Read length	High data quality
600 Gb per run	**4.8 hr per run**	**SE 50 – PE 150** Customizable to PE 300	**Raw Q30 ≥ 85%**

Specifications

The Salus Pro offers multiple chip sizes (80 M, 150 M, 250 M, 500 M, 1000 M, etc.) and supports various sequencing read lengths (SE 50, SE 75, SE 100, PE 75, PE 100, PE 150, PE 250, SE 400, etc.), catering to diverse application needs.

Throughput / Read Length	80 M	150 M	250 M	500 M	1000 M*
SE 50	4.0 Gb / 4.8 hr	7.5 Gb / 6 hr	12.5 Gb / 6.6 hr	25.0 Gb / 10.7 hr	/
SE 75	6.0 Gb / 6 hr	11.2 Gb / 7 hr	18.7 Gb / 7.7 hr	37.5 Gb / 13 hr	/
SE 100	8.0 Gb / 7.2 hr	15.0 Gb / 8 hr	25.0 Gb / 9.2 hr	50.0 Gb / 17 hr	/
PE 75	/	/	/	75.0 Gb / 24 hr	150 Gb / 26 hr
PE 100	/	/	/	100 Gb / 31 hr	100 Gb / 33 hr
PE 150	24.0 Gb / 20 hr	45.0 Gb / 24 hr	75.0 Gb / 25 hr	150 Gb / 43 hr	300 Gb / 45 hr
PE 250	40.0 Gb / 40 hr	75.0 Gb / 45 hr	/	/	/
SE 400	32.0 Gb / 30 hr	60.0 Gb / 33 hr	/	/	/

*The sequencing time is for dual index (8+8);

*The data throughput mentioned above is for a single chip; Salus Pro can run two chips simultaneously;

*The time mentioned above is the theoretical sequencing time for a single chip;

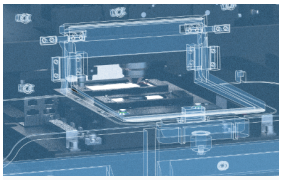
*The 1000 M chip is expected to be shipped in the Q1 of 2025.

Sequencing Methods	Key Applications	Data Volume Per Sample	Read Length	80 M Samples / Run	150 M Samples / Run	250 M Samples / Run	500 M Samples / Run	1000 M Samples / Run
Lowpass Whole Genome Sequencing	NIPT	5 M reads	SE 50	16 / 32	30 / 60	50 / 100	100 / 200	-
	CNV-seq / PGT-A	5 M reads	SE 75	16 / 32	30 / 60	50 / 100	100 / 200	-
Small Whole-Genome Sequencing	Shotgun Metagenomics	20 M reads	SE 75	4 / 8	8 / 16	12 / 25	25 / 50	-
	Microbe, Virus WGS	1 Gb	PE 150	24 / 48	45 / 90	75 / 150	150 / 300	300 / 600
Targeted Resequencing (Target Enrichment / Amplicon Sequencing)	Pathogen Targeted NGS (tNGS)	1 M reads	SE 50	80 / 160	150 / 300	250 / 500	500 / 1000	-
	Small Panel Sequencing	1 Gb	PE 150	24 / 48	45 / 90	75 / 150	150 / 300	300 / 600
	Large Panel Sequencing	10 Gb	PE 150	3 / 6	5 / 10	7 / 15	15 / 30	30 / 60
	WES	12 Gb	PE 150	2 / 4	3 / 7	6 / 12	12 / 25	25 / 50
Methylation Sequencing	Multi-cancer Early Detection	4 Gb	PE 150	6 / 12	9 / 21	18 / 36	36 / 75	72 / 150
RNA Sequencing	Bulk RNA-seq	6 Gb	PE 100	2 / 5	5 / 10	8 / 16	16 / 32	32 / 64
	Single-Cell RNA Sequencing	20 – 50k reads/cell (Capture 10000cells)	PE 50 + 100	-	-	-	1 / 5	2 / 10
Whole Genome Sequencing	Human Whole-Genome Sequencing (30X)	100 Gb	PE 150	-	-	-	1 / 3	2 / 6

*Up to 2 chips per run

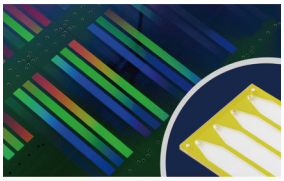
Tech Innovations

R&D capabilities



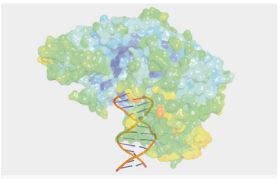
New Optical System

100% larger field of view and 50% less imaging time



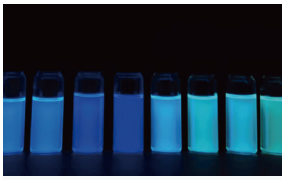
New Chips

Robustness and better reaction efficiency



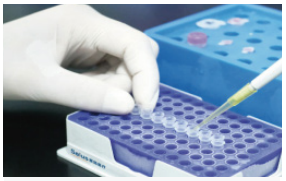
New Enzymes

Read length up to PE 400 with better quality



New Fluorescent Dye

Proprietary dyes systems to optimized for better imaging performance



New Chemistry

In fast sequencing mode, the SE 50 + 8 + 8 test can be completed in as fast as 4.8 hours

Data Demonstrations

NIPT

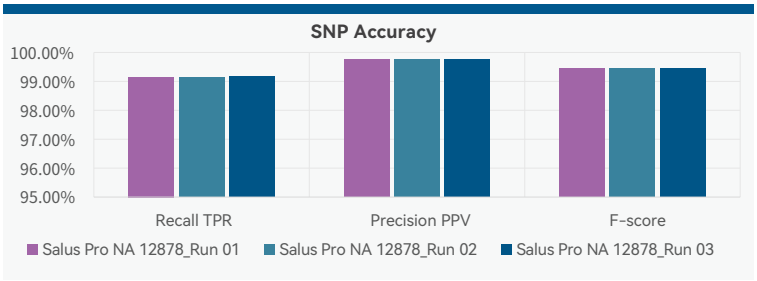
Sample: NIPT Standard Samples

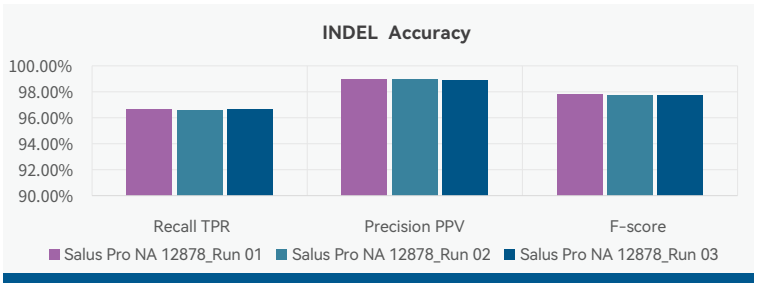
Sample Code	Reads	Average Coverage (%)	Sequencing Depth	GC-content	Results from Salus Pro	Reference Results	Consistency
1	12372305	14.82	0.190	41.35	T13	T13	Yes
2	11344000	13.84	0.174	41.59	T13	T13	Yes
3	12441958	14.90	0.191	41.46	T13	T13	Yes
4	11988109	14.45	0.184	41.45	T18	T18	Yes
5	12988518	15.39	0.199	41.46	T18	T18	Yes
6	12283718	14.75	0.189	41.53	T18	T18	Yes
7	13220328	15.59	0.203	41.45	T21	T21	Yes
8	12662706	15.09	0.194	41.39	T21	T21	Yes
9	13320981	15.71	0.205	41.39	T21	T21	Yes
10	7371229	9.51	0.111	41.84	Negative	Negative	Yes
11	6301335	8.32	0.096	42.27	Negative	Negative	Yes
12	7138208	9.25	0.108	41.86	Negative	Negative	Yes

WGS

Sample: NA12878 gDNA Samples, 3 Replicates

Platform	Salus Pro		
Sample	NA12878_Run01	NA12878_Run02	NA12878_Run03
Raw_Q30(%)	93.80	93.43	95.20
GC_content(%)	41.13	41.10	41.13
Duplication_rate(%)	5.24	5.34	5.17
Mapping_rate(%)	99.95	99.95	99.94
Mismatch_rate	3.94E-03	3.86E-03	3.77E-03
Depth	32.84	33.60	33.42
Coverage_1X(%)	99.01	99.01	99.03
Coverage_4X(%)	98.63	98.62	98.65
Coverage_30X(%)	61.62	60.48	63.96





Massive Scale of Academic and Industrial Applications

Healthcare

- Early detection
- Genetics
- NIPT
- PGT-A

Public Safety

- Disease control
- Customs
- FDA/NMPA/EMA
- Forensics

Research

- Animals
- Plants
- Biology
- Medicine

Breeding

- Agriculture
- Livestocks
- Aquaculture

Environment

- mNGS
- eDNA

Consumer

- Ancestry
- Sports
- Wellness

Salus Pro Instrument Specifications

Parameter		Specifications
Dimensions		1265 mm(W) × 700 mm(D) × 675 mm(H)
Weight		210 KG
Power Requirements	Input voltage	100V ~ 240V~
	Frequency	50 / 60Hz
	Power	1200VA
	Fuse	T15AH250V
Instrument Configuration	Type	Capacitive
	Display	21.5 inch
	Resolution	1920 × 1080
Operating Environment	Temperature	19°C ~ 25°C
	Humidity	20%RH ~ 80%RH (No condensation)
	Altitude	≤ 2000m
Instrument Control Computer	CPU	Intel Xeon® Silver 4216
	Storage	32 GB DDR4 * 4
	Memory	10 TB HDD * 4; 512 GB + 2048 GB SSD
	OS	Windows 10 x64
Maximum Sound Pressure		75 dB(A)

After-sale Service 400-80-SALUS(72587)

Salus BioMed or its authorized partners offer comprehensive after-sales services, including installation, commissioning, repairs, maintenance, technical support, and any other necessary assistance.

Free installation, commissioning, reagents and consumables for performance validation are available. The company reserved all the rights for final explanation.

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Sequencer Safety

The products comply with IEC6010-2010, IEC6010-2010 / AMD /:2016, IEC61010-2010: 2019, and IEC61010-2-081-2019.

Featuring a rounded shape design, Salus Pro is user-friendly for researchers and operators, significantly reducing the risk of scratching.

Crafted from flame-retardant and environmentally friendly materials, our instruments are designed for easy cleaning and sterilzation with alcohol.

Salus BioMed

Empower and Cooperate

Founded in Shenzhen, Salus BioMed specializes in developing high-throughput genetic sequencing platforms and is a world leader in high resolution spatial omics research platforms, serving both research and clinical applications. The company is dedicated to providing a wide range of cutting-edge instruments and solutions to the sequencing and life sciences industry.

Sequencing Lab

Manufacturing Facilities

Enzyme Development

Reagent Production Line

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