

Sequencer - 3006

High-throughput sequencing system for
independent use in clinical laboratories



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

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►► Clinical Application

Chromosomal disease detection

Chromosome Aneuploid Noninvasive Prenatal Genetic Testing

Chromosome Microdeletion /Microduplications Non-invasive Prenatal Genetic Testing

Chromosomal Abnormalities Detection

Preimplantation Genetic Screening and Diagnosis (PGS / PGD)

Genetic Disease Genetic Testing

Hereditary Deafness Panel

Duchenne / Behrens Muscular Dystrophy (DMD / BMD) Panel

17 Common Inherited Disease Panel

3,500 Single Gene Disease Panel

Exome Panel

Tumor-related Gene Testing

Hereditary Breast / Ovarian Cancer Panel

18 Inherited Cancer Panel

Human Papillomavirus (HPV) Genotyping Test

Tumor Individualized Chemotherapeutic Drug Genetic Test

Lung Cancer Individualized Targeted Drug Detection

Tumor Specific Targeted Drug Detection (50 Genes)

Tumor Specific Targeted Drug Detection (409 Genes)

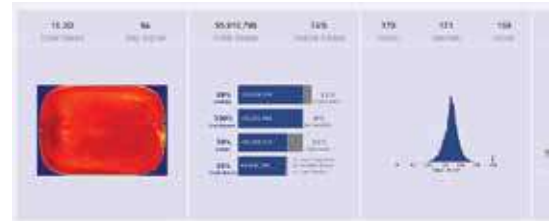
Microbial Genetic Testing

Intestinal Flora Detection

►► Sequencer 3006 Features

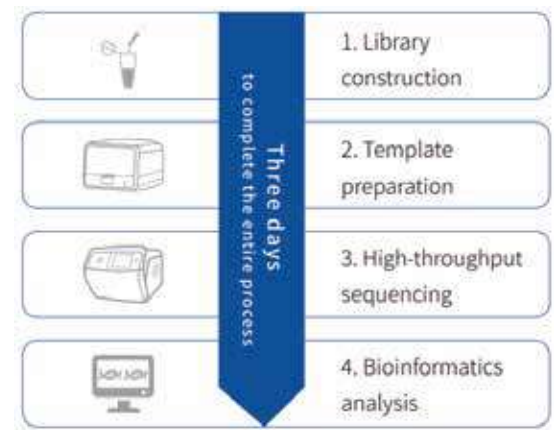
Sequencing throughput is moderate

Based on the innovative semiconductor chip sequencing technology, supported by around 500 publications, the base sequence is obtained by detecting the pH change caused by the H⁺ ion current generated during DNA replication in real time. Select different types of chips, a run can produce 10Gb ~ 60Gb data, which is ideal for independent clinical diagnostic laboratories.



Short Sequencing Time

The entire sequencing process takes only 2.5 hours, 2 runs per day can be completed, allowing clinical laboratory staff make full use of daily working hours and improve work efficiency.

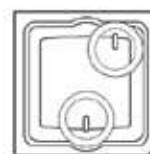


Long Read Sequencing

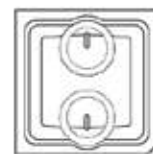
Sequencing average read-length up to 200bp, capable of sequencing the whole length of plasma cell-free DNA.

High Scalability

Read sequencing of different sequencing and data throughput applications can be attained by only using different throughput sequencing chips without any change in the host hardware.



PI Chip:
165 million reaction wells
15 to 18 non-invasive test samples



PII Chip:
660 million reaction wells
50 to 60 non-invasive test samples

Friendly Interface

Easy operating system, benchtop type friendly interface design, training, proficient use of the system after one-day training. Capable of performing user friendly template nucleic acid amplification, fast sequencing and data analysis in a seamless manner

Sequencer- 3006	
Dimensions	Width *Depth*Height (cm): 61.8*75.0*50.7
Working environment (for indoor use only)	Temperature: 68 –77° F (20 –25° C); Humidity: 40–60%, noncondensing; Altitude: <6,500 ft (2,000 m) Clearances: 12 in (30.5 cm) in rear; 4 in (10 cm) on left side; 4 in (10 cm) on right side; 4 in (10 cm) from front edge of bench to sequencer bezel; 36 in (90 cm) aisle in front of bench for operator access
Power	Voltage: 100 V (min) to 240 V (max) Current: 14 A (max) Frequency: 50/60 Hz Power draw: 1,350 W
Gas supply	Connection: 0.25 in push-to-connect fitting Pressure: 30 psi Composition: nitrogen (grade 4.8, 99.998% or better)
Other connections	Ethernet: 1 GigE USB: 2x USB 2.0
Instrument computer hardware	Processor: Dual 8-core Intel® Xeon® Sandy Bridge Memory: 128 GB RAM FPGA: Dual Altera® Stratix® V GPU processor: 1x NVIDIA® Tesla® C2075 Storage: 11 TB (SSD and HDD) Operating system: Ubuntu® 11.10

Performance specifications of Sequencer- 3006 System	
Output	PI chip: $\geq 10\text{Gb}$ PII chip: $\geq 60\text{Gb}$ Raw Accuracy upto 90-99%
Read length Reads	PI chip: Up to 200 bases PII chip: Up to 100 bases
Reads	PI chip: ≥ 80 million PII chip: ≥ 200 million
Run time	2.5 hours
Library solutions	Ion AmpliSeq TM Library Kit Ion Xpress TM Plus Fragment Library Kit Ion TargetSeq TM Exome Kit Ion Total RNA-Seq Kit
Data analysis solutions	Torrent Browser allows users to remotely access instrument status and monitor sequencing process using network connection; Variety of clinical data analysis plugins can complete clinical personalized data analysis automatically and rapidly
Data Format	FASTQ, SFF, BAM and VCF etc.

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HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



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3007



Optima Gas
Chromatograph
2979 Plus



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Chromatograph



Atomic Absorption
Spectrophotometer



Liquid Particle
Counter



Optical Emission
Spectrophotometer



DSC/TGA



Semi Auto Bio
Chemistry Analyzer



HEMA 2062
Hematology
Analyzer



Micro Plate
Reader/Washer



URINOVA 2800
Urine Analyzer



Total Organic
Carbon 3800



Fully Automated
CLIA



NOVA-2100
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Ion Chromatograph



Water purification
system

Regulatory compliances



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Analytical
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2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



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