



Honor-1616 Genetic Analyzer

SuperBio International Co.,LIMITED



Honor-1616 Genetic Analyzer



➤ Technical Advantages of Honor 1616

- ✓ All-open detection platform
- ✓ Meet the requirements of STR analysis and gene sequencing
- ✓ 6 patents for invention, 10 patents for utility model, 4 software copyrights
- ✓ Fluorescence excitation efficiency 40% higher than foreign competing products
- ✓ Solid-state laser featuring stable power and long life
- ✓ Advanced thermal system enabling precise temperature control
- ✓ Smaller size
- ✓ User-friendly Windows 10 operating system and multi-language software interface

DNA Sequencer

ISO9001



Quality Management System Certificate

Certificate for China Public Security Product Certification

Member of China Medical Device Industry Association

Top 10 China Security Excellent Honest Project Contractors

Technology-based small and medium-sized enterprises



Honor 1616 CE Certificate

AAA-level Credit Enterprise

No.1 of Pukou District in "Start-up Nanjing"

Project



DNA Sequencer



Data Acquisition Software
GeneTest



Data Analysis Software
Genetyper



Product Introduction

Superyears Honor-1616 Genetic Analyzer is a Sanger sequencing platform jointly developed by Superyears Gene and research institutes including Southeast University and Nanjing University of Aeronautics & Astronautics.

Superyears Honor-1616 Genetic Analyzer is the world's second, China's first sequencing platform based on capillary electrophoresis technology, its comprehensive performance indicators have reached the international advanced level, breaking up the monopolies of foreign manufacturers on DNA sequencing equipment industry. Being an indispensable scientific instrument for genetic research, Honor-1616 has a very wide application prospect in the fields of public security, medical inspection, food safety and teaching & scientific research.



Components

Optical system: laser, fluorescence testing module, area array CCD detector, automatic 3D sampler, automatic gel injection module, high-voltage power, incubator, embedded central measurement and control circuit, drive and control circuits for each component.

Supporting consumables: capillary array, buffer, gel, formamide, fluorescence calibration substances.

Software applications: DNA data acquisition software, forensic DNA fragment analysis software.



Anode Buffer

Gel



Incubator

Automatic Sampler

Cleaning Area



Application Characteristics

Honor-1616 Genetic Analyzer is applicable to individual and relationship identification in forensic DNA laboratory. Being an all-open platform, Honor-1616 is compatible with the reagent kits and consumables produced by mainstream manufacturers both at home and abroad. The instrument can be utilized for STR analysis and other scientific researches. The system contains instrument, build-in reagent kit, data capture software and expert analysis software, therefore can be used to handle common cases in forensic DNA laboratory and construct DNA database.

Honor-1616 Genetic Analyzer is mainly used in fragment analysis, disease linkage analysis, SNP analysis, SNPlex analysis, methylation analysis, SNPshort analysis, AFLP analysis, MLPA analysis, LOH analysis, SSCP analysis, etc.

Technical Features

The key performance indicators of Superyears Honor-1616 Genetic Analyzer are able to compete with those of dominating foreign products.

Fragment analysis: Good repeatability, can acquire intact and clear typing maps of DNA samples which are identical with the results of mainstream products.

Sequencing accuracy: $SD \leq 0.12\text{bp}$; baseline noise $\leq 50\text{RFU}$, can recognize 1bp difference between DNA fragments;

Show the real-time peak height ratio and identify the position of heterozygote accurately without leaving out;

Interpretation of each base has been proven by the Phred Q20 Standard, and the length can be extended to 900+bp with a 98.5% accuracy.

Specifications

Honor-1616 Genetic Analyzer	
Size	812mm×610mm×532mm
Power supply voltage	220±10%V, 50 Hz ± 1 Hz
Ambient Temperature	15-30°C (temperature fluctuation should not exceed ±2°C while working)
Weight	120KG
Current & Power	Max current: 10A; Max power: 800W (approximation, computers and monitors are not included)

Performance Parameters

Honor-1616 Genetic Analyzer	
Laser wavelength	505nm
Temperature Control Accuracy	$\Delta T \leq 0.2^{\circ}\text{C}$
Resolving power	1bp
Number of channels	16 (extensible)
Capillary length	36、50、80
Laser type	Long-life, high efficiency semiconductor solid-state laser
Number of fluorescent dyes	6
Sequencing function	Available
Consumables	Self-sufficient
Accuracy (50-400bp)	$SD \leq 0.12\text{bp}$
Reagents	Self-produced
Application scenarios	Public security department, medical treatment & health care, school and enterprise