



Introduction of Honor 1816 Genetic Analyzer & 8-Color Fluorescent STR Detection Kit

NANJING SUPERYEARS GENE TECHNOLOGY CO., LTD.

Honor 1816

CHAPTER

01

Overview of Honor 1816 Genetic Analyzer

Honor 1816 Genetic Analyzer



Tested samples/24h: >540

Honor 1816 Genetic Analyzer is a 16 - channel capillary electrophoresis genetic analyzer developed by NANJING SUPERYEARS GENE TECHNOLOGY Co. , Ltd. Based on Sanger sequencing method, it is suitable for fragment analysis and DNA sequencing, and meets the needs of basic research of molecular genetics and clinical research of precision medicine.

Honor 1816 Genetic Analyzer is equipped with 16 - channel capillary arrays, a 505 nm single- channel solid- state laser excitation source , a computer workstation , and data acquisition & analysis software . The entire system provides high- throughput DNA fragment analysis , sequencing , preliminary base detection, and automatic fragment screening analysis.

Honor 1816 Genetic Analyzer

➤ Technical advantages of Honor 1816

- ✓ World's first 8- color genetic analyzer
- ✓ **Patented 8 - color fluorescence technology, integrated solution to autosomal + Y- chromosomal library building**
- ✓ 6 patents for inventions, 10 patents for utility models, and 4 software copyrights
- ✓ Certified by CE and ISO



Honor 1816 Genetic Analyzer



Test data of Honor 1816

Approved by the Ministry of public security! Honor 1816 has passed the tests of the First Research Institute of the Ministry of Public Security of P. R. C. and provincial public security departments in Inner Mongolia, Yunnan, Chengdu, Sichuan, etc!

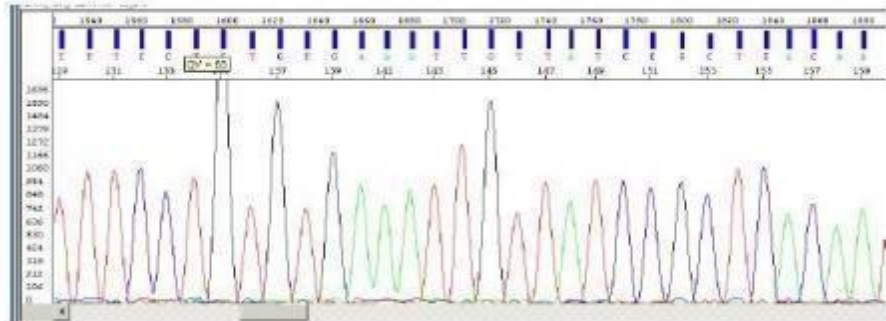


Technical Parameters

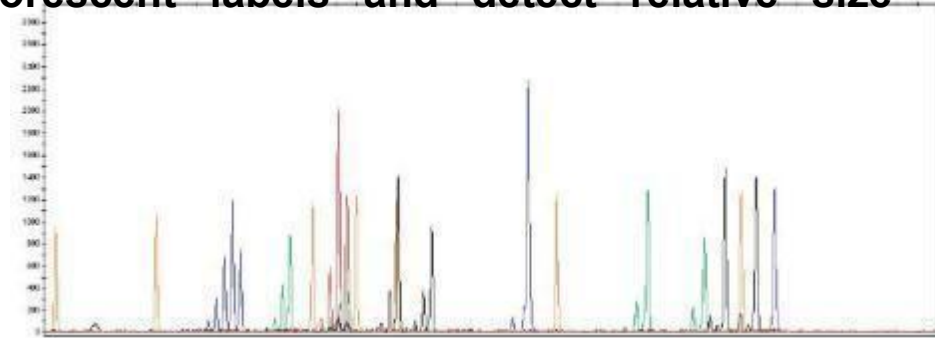
Honor 1816 Genetic Analyzer	
Application	Sequencing and fragment analysis
Laser type	30 mW long-life semiconductor solid-state laser
Number of channels	16 (scalable)
Read length	800 bp
Detection method	Laser-induced fluorescent CCD automated acquisition
Range of detection wavelength	530~700nm
Maximum detection throughput	En> 16 (sample/h) when fragment length < 500 bp
Number of fluorescent dyes	8-color
Temperature control accuracy ΔT	< 0.2°C
Size	812 mm×610 mm×532 mm
Resolution	1 bp
Weight	120 kg
Precision	< 0.12 bp;
Forensic DNA Data Acquisition and Preprocessing Software	Real-time acquisition, analysis and display of DNA mapping data; spatial correction, spectral correction and automatic evaluation of correction effect; automatic generation of DNA data files; automatic planning of sample operation; automatic system monitoring, and keys components can be manually controlled.
DNA sequencing software	DNA data correction, sequence generation and quality evaluation
Genotyping software	Genotyping and quality evaluation

Basic Functions

Sequencing - Detection of base sequences in DNA fragments



Fragment analysis - Isolate fragments with fluorescent labels and detect relative size



- **De novo sequencing**
- **Re-sequencing**
 - Mutation detection, SNPs, insertions, deletions
 - Cloning product validation
 - Genome comparison
- **Typing**
 - Microbial and fungal identification
 - HLA typing
 - Virus typing
- **Other**
 - Methylation analysis (bisulfite sequencing)

- **Micro-satellite/ STR**
 - Human identification
 - Chimera research
 - Customized micro-satellite
 - Micro-satellite instability/ RER
- **Relative fluorescence quantification**
 - LOH
 - MLPA
- **SNP typing**
 - SNaPshot
- **Fingerprint analysis**
 - AFLP
- **TILLING**

Honor 1 816 is a genetic analysis system, more than a Sanger sequencer or a 1 st generation sequencer.

Features

Scaleable 16 - channel capillary system

Patented 8 - color fluorescence technology makes fluorescence excitation efficiency 40 % higher than that of competitive products

Optimized heat conduction system, enabling high temperature control accuracy

Fully open detection platform, compatible with mainstream kits on global market

Sino- made reagents and consumables, reducing operating cost to 1/3

Wide application scope covering STR analysis and gene sequencing

Full Chinese operating system bring users convenience



Honor 1816 Genetic Analyzer

Honor 1816 Genetic Analyzer is an open platform that is compatible with mainstream kits and consumables on global market, and can be applied to STR fragment analysis and other scientific research and testing projects. This system contains instrument, reagent kit, data acquisition software and expert analysis software, which is especially suitable for routine case detection and DNA database construction in forensic DNA laboratory.

8-Color Fluorescent STR Detection Kit

CHAPTER

02

AY60 Fluorescent STR Detection Kit

Integrated testing product

This kit adopts our patented 8 - color fluorescence technology, which can carry out multiple amplification on 60 loci simultaneously, including 36 Y-STR , 20 autosomal STR, 3 Y- indel and 1 amelogenin locus. It can be used for forensic analysis, kinship identification and other scientific research projects;

High data compatibility

19 required loci conforming to Implementation *Specification of Biological Full- Sib Identification*;

20 core loci and 15 optimal loci conforming to the Y- chromosome database construction standard of the Ministry of Public Security;

Autosomal STR is used for establishing identity and Y- chromosome STR is used for improving screening efficiency;

Strong sample adaptability

This kit features high sensitivity and strong anti inhibitor ability. It can directly amplify samples like FTA blood card/ saliva card, ordinary blood card/ saliva card, oral swab, etc;