

ALLSHENG

GeneCE Series

Biofragment Analysis System



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GeneCE series biofragment analysis systems include four products: GeneCE-100, GeneCE-200, GeneCE-300 and GeneCE-300B. Designed for quantitative and qualitative analysis of DNA and RNA samples, the automated electrophoresis system can run 1-104 samples simultaneously. The operation of instrument are simple, no manual gel preparation required, and can achieve fully automatic sample detection.

Widely used in experiments such as gDNA quality control, NGS library quality control, cfDNA quality control, conventional PCR product detection, total RNA and fragmented RNA sample quality control.



| GeneCE-100 | GeneCE-200 | GeneCE-300 | GeneCE-300B |
|--|-----------------------|--|--|
| Basic research edition, suitable for fast cartridges | For automation system | Basic research edition, unsuitable for fast cartridges | Medical device edition, unsuitable for fast cartridges |

Features

Convenient Operation

Equipped with a 10-inch rotatable touch screen as standard, which can switch between horizontal and vertical screens according to analysis needs.

High Sensitivity

Nucleic acids can be detected at concentrations as low as 0.2pg/μL.

High Resolution

For DNA fragments within 500bp, the resolution can reach 1-4bp, and for fragments within 200bp, the resolution can reach 1bp.

Cartridge Life Counting

The RFID chip embedded in the cartridge can auto-record the number of tests and the expiration date, and give a prompt.

Cartridge Precast Gel

No need for manual glue preparation and filling, just plug and play, Each cartridge can analyze 240 samples.

Parallel Analysis

A single test throughput of 1-104 samples can be achieved.

Reliable Results

Provides sample concentration, fragment length, 28S/18S, genomic DNA integrity DII value, RNA integrity RII value and DV200, etc.

Various Specifications

Including DNA-related high-sensitivity, high-resolution, large-fragment and standard kits, RNA-related high-sensitivity and standard kits.

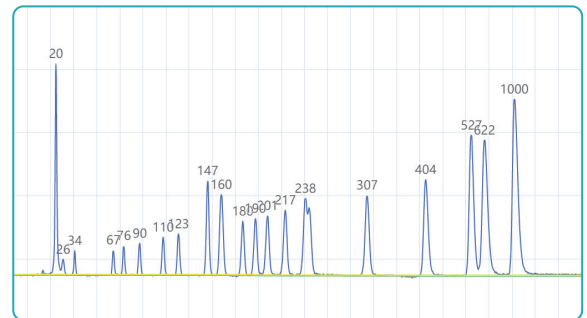
Protocol



Place samples
in the instrument



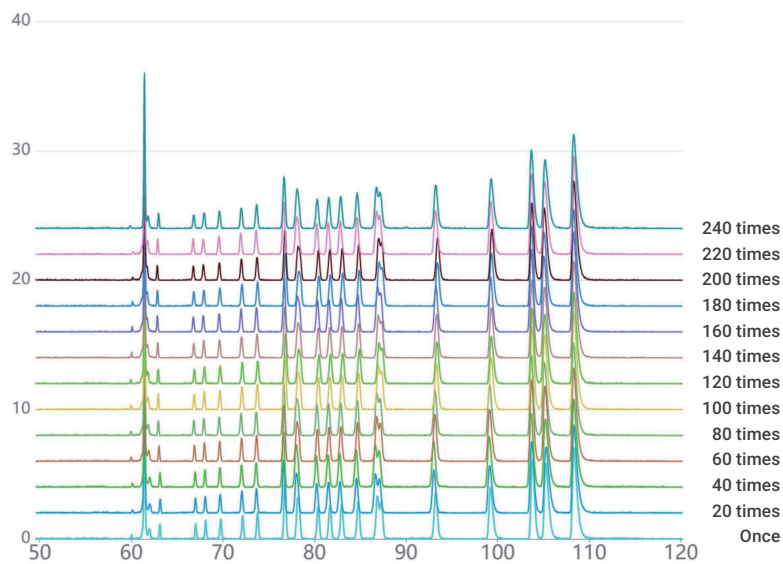
Graphical
result output



Excellent Performance

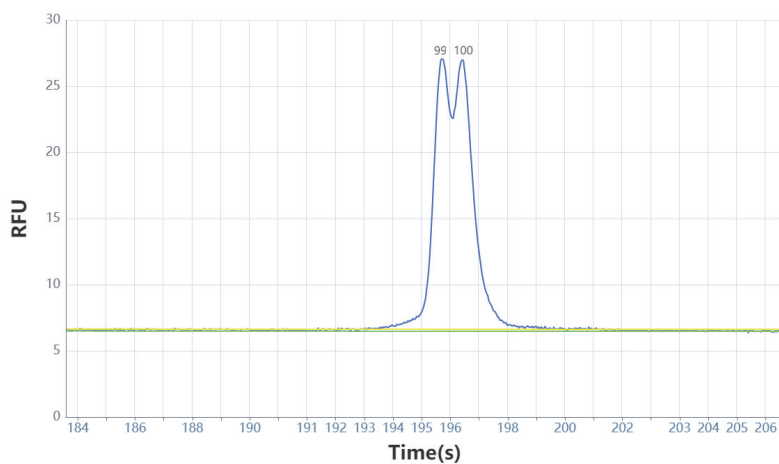
01 High Repeatability

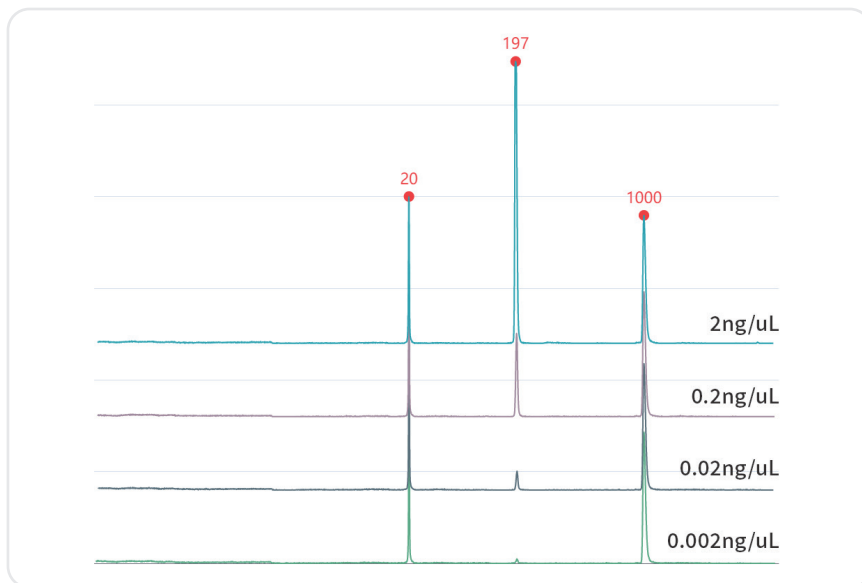
Repeat the test of the marker sample 240 times, and the marker band can still maintain excellent fragment accuracy.



02 High Resolution

DNA samples with differences as low as 1bp can be distinguished.



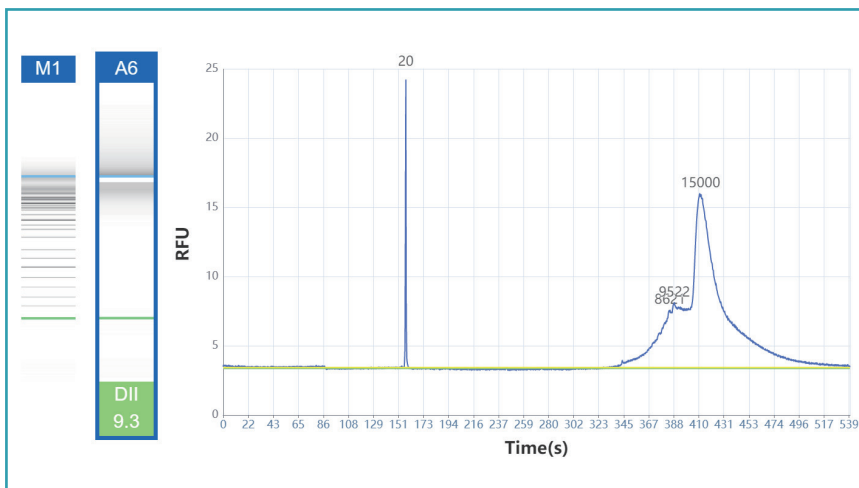


03 High Sensitivity

The detection range from nanogram to picogram is available.

Features of Software

GeneCE provides excellent software, which can be used to perform operations such as well layout, parameter setting and data analysis through a 10-inch high-resolution touch screen. The interface is intuitive and easy to understand, the operation is simple and convenient, and the sample analysis progress can be completed efficiently.



The figure displays the software interface for process file settings. It includes sections for 'Process File *', 'Cartridge', and 'Buffer'. The 'Process File *' section shows 'Name: 10312024_11235', 'Created: 10/31/2024 11:24:08', and 'Expiration Date:'. The 'Cartridge' section shows 'Cartridge Type:', 'Remaining Runs:', and 'Expiration Date:'. The 'Buffer' section shows 'Separation Number: 40/100', 'Change Time: 10/10/2024 18:19:38', and 'Set'. Below these sections is a 'test 1' tab and a 'Sample ID' input field. A grid of 12 columns (1-12) and 8 rows (A-H) is shown, with blue circles indicating sample positions. At the bottom, there are buttons for 'Run', 'Result', 'Settings', and 'Help', along with a 'Rat of progress: 0%' indicator and a 'Run' button.

- The software supports user authority classification, clear authority, and independent account passwords.
- Supports comparison of gel images and peak images of different samples in a single project or multiple projects.
- The unique algorithm can directly reflect the characteristics of the peak, including the number, height, width and area of each peak.

Fragment Analysis Kit

A variety of fragment analysis kits are suitable for the GeneCE series biofragment analysis system, mainly used for the detection of fragment size and concentration of samples such as gDNA, cfDNA, FFPE samples, PCR products, fragmentation libraries, mRNA and fragmented RNA. Compared with traditional electrophoresis, it has the advantages of high resolution, fast separation speed, low sample consumption, high detection sensitivity and fully automated.



| Kit | Separation Range | Maximum Resolution | Number of Cartridge | LOD | Shelf Life | Application |
|--|------------------|--------------------|---------------------|----------------|--------------------------|---|
| High resolution cartridge kit (DNA) | 20-5000bp | 1-4bp | 240 runs | 1pg/ μ L | 6 months | Multiplex PCR detection, SSR analysis |
| Standard cartridge kit (DNA) | 20-5000bp | 4-10bp | 240 runs | 1pg/ μ L | 6 months | NGS library quality control, cfDNA detection, conventional PCR detection |
| High sensitivity cartridge kit (DNA) | 20-5000bp | 4-10bp | 100 runs | 0.2pg/ μ L | 4 months (Open 3 months) | Analysis of low-concentration DNA samples, such as cfDNA |
| RNA cartridge kit (RNA) | 20-6000nt | / | 100 runs | 5ng/ μ L | 4 months | Total RNA quality control mRNA quality control CRISPR quality control |
| High sensitivity RNA cartridge kit (RNA) | 20-6000nt | / | 100 runs | 1ng/ μ L | 4 months | Low-concentration RNA analysis |
| Large fragment cartridge kit (DNA) | 20-23000bp | 4-10bp | 240 runs | 20pg/ μ L | 6 months | Genome, third-generation sequencing library |
| Fast fragment cartridge kit (DNA) | 20-5000bp | >50bp | 300 runs | 0.1ng/ μ L | 4 months | Rapid analysis of PCR products |

Parameter

| | | | |
|----------------|--------------------------------------|----------------------------|--|
| Detection mode | Fluorescent | Number of samples/test | 1-104 |
| Light source | LED | LOD | 0.2pg/ μ L (optimization conditions) |
| Display | 10 inch high resolution touch screen | Resolution | 1-4bp |
| Power | 110-240V/AC, 50/60Hz | Analysis time | 3-5 min/sample |
| Weight | 26kg | Sample consumption | <0.2 μ L |
| Dimension | 460×445×448mm | Fragment size CV% | ≤2% |
| Chanel | Single channel | Fragment concentration CV% | ≤4% |
| System | Windows 11 and above | | |

Ordering Information

| Code | Product Description | Function |
|-------------|---------------------|--|
| AS-31010-00 | GeneCE-100 | Basic research edition, suitable for fast cartridges |
| AS-31020-00 | GeneCE-200 | For automation system |
| AS-31030-00 | GeneCE-300 | Basic research edition, unsuitable for fast cartridges |
| AS-31040-00 | GeneCE-300B | Medical device edition, unsuitable for fast cartridges |

| Code | Product Description | Function | Specification |
|-------------|--|----------|---------------|
| AS-31011-01 | High resolution cartridge kit (DNA) | SH1 | 240 runs |
| AS-31011-02 | Standard cartridge kit (DNA) | SC2 | 240 runs |
| AS-31011-03 | High sensitivity cartridge kit (DNA) | NH1 | 100 runs |
| AS-31011-04 | RNA cartridge kit (RNA) | RC1 | 100 runs |
| AS-31011-05 | High sensitivity RNA cartridge kit (RNA) | NRH1 | 100 runs |
| AS-31011-06 | Large fragment cartridge kit (DNA) | LS1 | 240 runs |
| AS-31011-07 | Fast fragment cartridge kit (DNA) | FF3 | 300 runs |
| AS-31011-08 | Protein cartridge kit (protein) | PP2 | 100 runs |

| Code | Product Description | Specification |
|-------------|-------------------------|---------------|
| AS-31011-97 | 8-strips + caps | 2 strips |
| AS-31011-98 | 0.5 mL straw | 2 |
| AS-31011-99 | Liquid reservoir | 2 |
| RS-SB01 | Separation buffer (DNA) | 60mL/bottle |
| RS-SB02 | Separation buffer (RNA) | 60mL/bottle |
| RS-DB01 | Dilution buffer (DNA) | 15mL/bottle |
| RS-DB02 | Dilution buffer (RNA) | 15mL/bottle |
| RS-MO01 | Mineral oil | 15mL/bottle |

| Code | Product Description | Specification |
|-----------|-----------------------------------|---------------|
| RS-AM0101 | 20-1000bp Alignment Marker (DNA) | 100μL/kit |
| RS-AM0102 | 20-5000bp Alignment Marker (DNA) | 100μL/kit |
| RS-AM0103 | 20-15000bp Alignment Marker (DNA) | 100μL/kit |
| RS-AM0201 | Low Marker (RNA) | 100μL/kit |
| RS-SM0101 | 20-1000bp Size Marker (DNA) | 100μL/kit |
| RS-SM0102 | 20-5000bp Size Marker (DNA) | 100μL/kit |
| RS-SM0103 | 20-15000bp Size Marker (DNA) | 100μL/kit |
| RS-SM0104 | 23Kb Size Marker (DNA) | 100μL/kit |
| RS-SM0201 | RNA 6000nt Size Marker | 100μL/kit |

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