

# BiOptic

It's time to say goodbye to the tedious steps of **DNA/ RNA** fragment analysis.

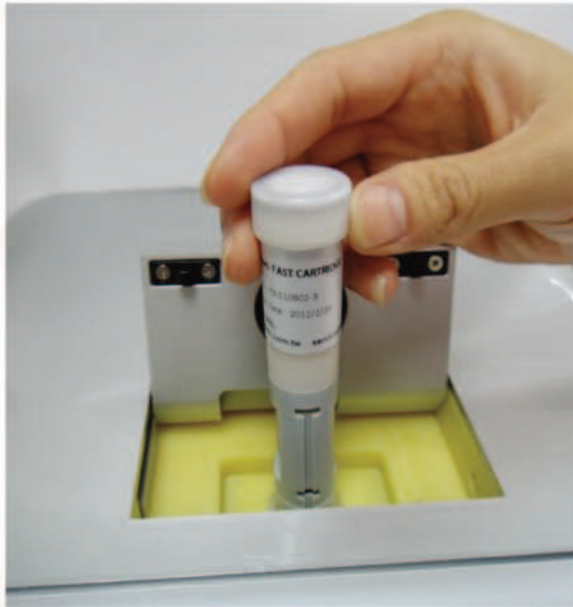
BiOptic offers you the **FASTEST, EASIEST,** and  
**the MOST COST-EFFECTIVE** automated platform!



*Qsep*<sub>100</sub>  
*DNA Analyzer*

# Qsep<sub>100</sub> DNA Fragment Analyzer

BiOptic develops, manufactures and commercializes fully integrated analysis systems based on capillary gel electrophoresis (CGE).



We focus on developing rapid, automated capillary electrophoresis analysis systems and applications in the research, pharmaceutical, clinical diagnostics as well as food, agricultural and environmental testing.

Qsep<sub>100</sub><sup>TM</sup> capillary gel electrophoresis (CGE) system has strong capabilities in post-PCR processing. The easy-to-use system integrates numbers of complicated and time-intensive steps, including sample preparation and detection, which enable the analysis of complex biological samples in just a few steps. No more gel preparation and gel-view photograph systems are needed in your experiments. Data is stored in digital format, which shorten the time for experiments.

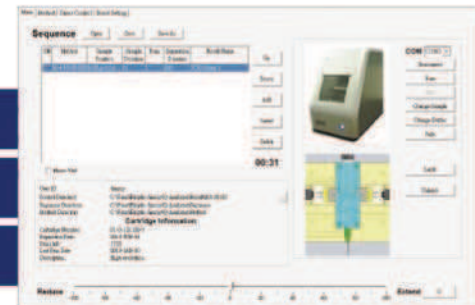
Qsep<sub>100</sub> system with easy-to-use Q-Analyzer software and pen-shaped gel-cartridges enables the analysis of complex biological samples in few simple steps.

## 3 Simple Steps to Operate

1. Insert Gel-Cartridge

2. Place Prepared Samples, Select Method, and Click Run

3. View Analyzed Results



Q-Analyzer software with simple user interface

## Highlights

### Automated Sample Handling

Automated process for 96-well capacity

### Replaceable Gel-Cartridge

No need for gel preparation

100-300 sample runs

### Rapid Analysis

2-7 minutes per run

### Sensitivity

Detects as low as 0.1 ng/ul

### Resolution

1-4bp (Between 100-500bp)

### Minimal Sample Input Volume

Lowest sample required volume 1 ul

(Standard 20ul)

Lowest sample consumption 1pl

### Software

Digital data for qualitative and quantitative analysis

Electropherogram

Gel-View

### General Application

Genetic Profiling

Restriction Digested DNA

PCR Production

Synthesized Oligonucleotides

Total RNA QC

Plasmid Purification &

Heterogeneity Analysis

### Specific Analysis

DNA Synthesis Primer

HLA Typing

STR DNA Analysis

DNA Hybridization

DNA/ Protein

### Specification

Fluorescence Detection

LED Excitation

Voltage: 1-15KV

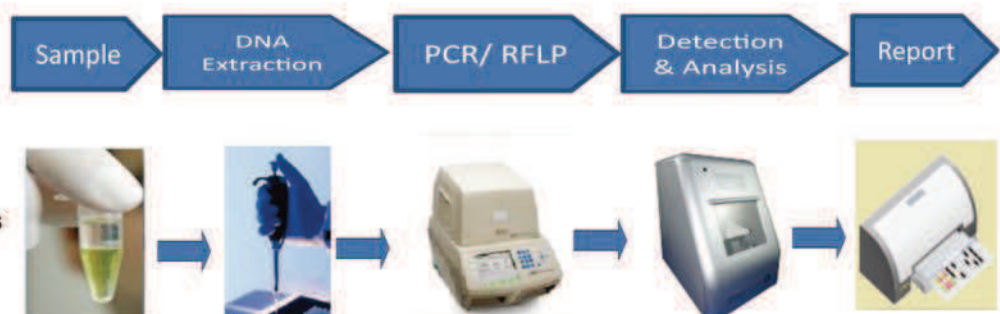
Connection: USB

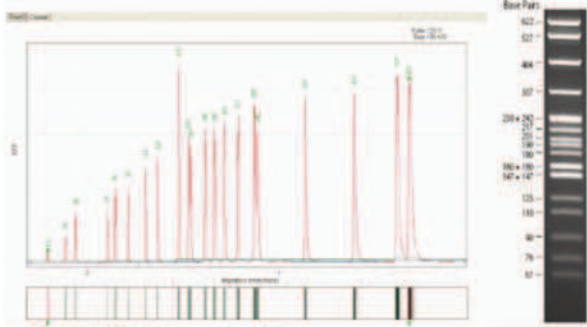
Power: 100-240V

Weight: 15KG

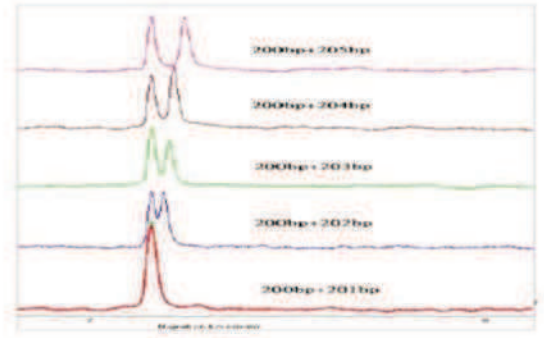
Dimension: 38(L)\*30(W)\*40(H) CM

## Rapid & Affordable Genotyping





**NEB N3032 pBR322**  
**MspI Digest**  
 1µL of dsDNA was visualized by ethidium bromide staining on a 1.8% agarose gel.



**High Resolution**  
 2bp can be resolved.

2pL of dsDNA was visualized by ethidium bromide staining on a 1.8% agarose gel.

**High Resolution**

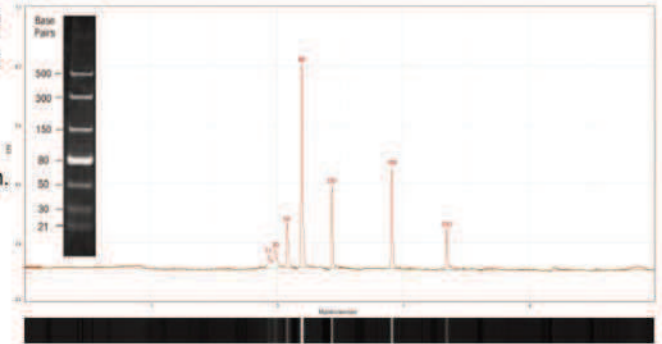
Fragments with the same size but different sequences (160bps) and 4bps difference (238 and 242 bps).

**High Sensitivity**

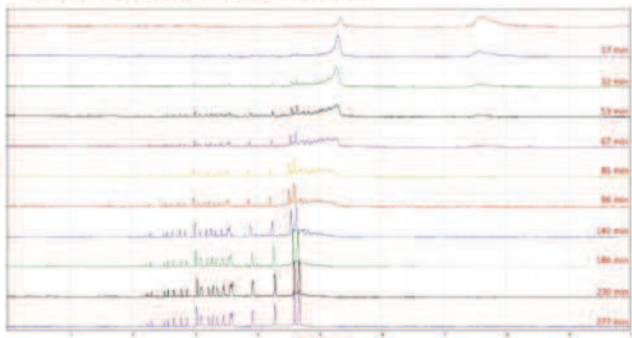
15 (0.056ng/µL), 26, 34bps detected.

**NEB N3036S dsRNA Ladder**

1µL of dsRNA ladder was visualized by ethidium bromide staining on a 6% polyacrylamide gel 10V/cm.



4pL of dsRNA ladder was visualized by Qsep100 with RNA cartridge in 5 minutes.



**pBR322 MspI Digest Time Course**

At room temperature

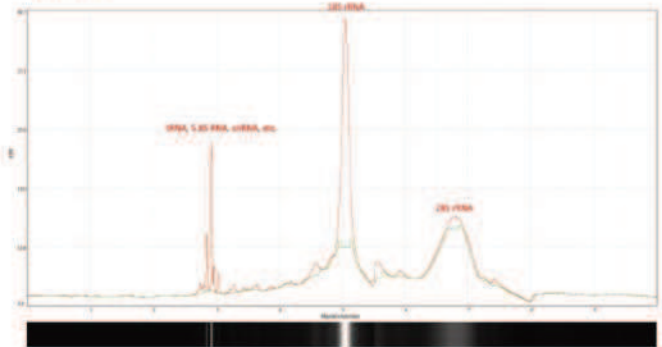
Separation of different forms of plasmid:

Linear Form

Open Circular Form

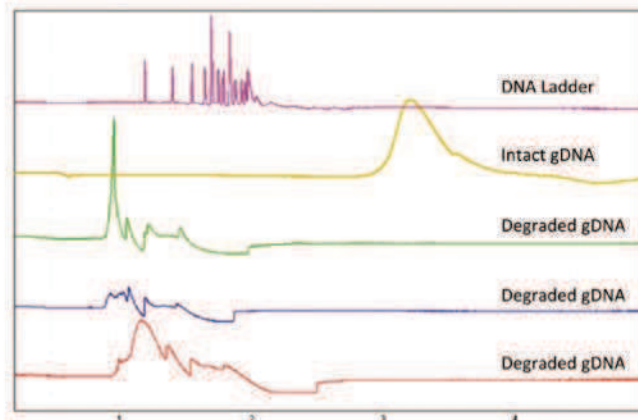
Automatic process with only one click!

Compare function built-in.

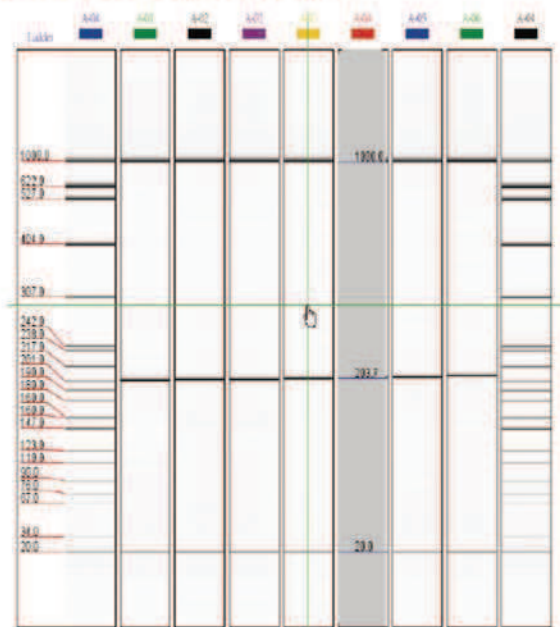


**Human Colon Adenocarcinoma Cell Line - sw480**

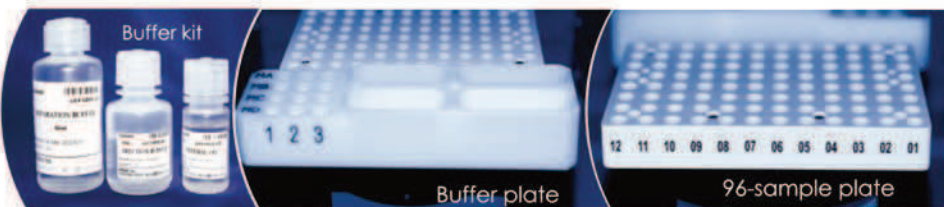
The integrity of RNA has great influence on downstream gene expressing analysis, such as qPCR and microarray analysis.



**Quality Control of Genomic DNA Samples**



Gel-View Format for Multiple Sample Comparison





Portable Air Pump



Basic Software Key

Advanced Software Key



Separation Tray



Cartridge Stand



Gel Reservoir

Detection Window

Real-Life Cartridge Image

Cat No.	Description
C100100	DNA Fragment Analyzer
C104001	Cartridge Stand
C104300	Portable Air Pump
C101010	Basic Software Key
C101011	Advanced Software Key
C105201	2 Standard Cartridge Kit
C105202	2 High Resolution Cartridge Kit
C105210	2 RNA Cartridge Kit
C105801	8 Standard Cartridge Kit
C105802	8 High Resolution Cartridge Kit
C105810	8 RNA Cartridge Kit
C109100	20&1Kbp Alignment Marker
C109102	20&5K Alignment Marker
C109200	15-622bp DNA Ladder
C109300	50-3Kbp DNA Ladder
C109300-HC	High Concentration 50bp DNA Ladder

**\*\*All Cartridge Kits include 20&1Kbp Alignment Marker & Buffer\*\***

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