

# *Qsep<sub>1</sub>* - Lite

## BIO-FRAGMENT ANALYZER

ALL IN ONE STEP

05

GEL  
IMAGING



04

ELECTROPHORESIS



01

DNA / RNA  
SAMPLES



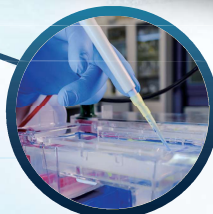
02

GEL  
PREPARATION



03

MANUAL  
LOADING



# DO YOU STILL RUN SLAB GEL?

*Qsep<sub>1</sub>-Lite provides you an All-in-One step Solution.*

Qsep<sub>1</sub>-Lite™ is an All-in-One fully-automated CE system which provides a convenient, rapid and highly reproducible system the size and concentration analysis of DNA or RNA. One cartridge, one method with simple mode of software operation, the user will only need few steps to start and get the Result/Report in minutes. With this special design, user will no longer need to do gel preparation, sample loading, staining/distaining and photograph under the UV light. Qsep<sub>1</sub>-Lite platform not only saves time but also provides better resolution, higher detection sensitivity with reliable qualitative and quantitative results in matter of minutes.

**Get result in 3 mins only!**  
 Analytic procedures of Qsep<sub>1</sub>-Lite  
 3-steps to start analysis

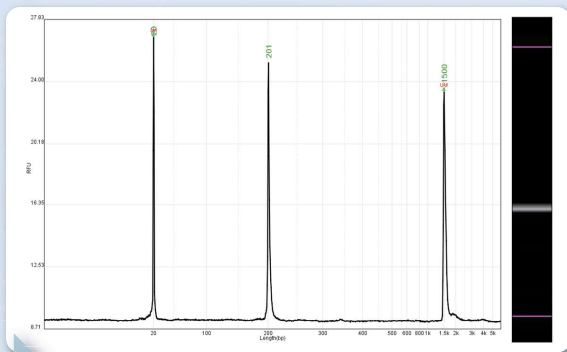
- 1 Place samples and buffer
- 2 Insert cartridge
- 3 Run Q-Analyzer for Qsep<sub>1</sub>-Lite

**> 1 hour required**

- 1 Gel Preparation
- 2 Sample Loading
- 3 Running Gel
- 4 Gel Stain and Image
- 5 Image Analysis

	Qsep <sub>1</sub> -Lite	Slab Gel
Gel Preparation	No need	Gel solution/Gel polymerized required
Operation	Automatic sampling	Manual loading
Analytic Time	3 to 5 mins	> 30 mins
Resolution	1 to 4 bp	> 50 bp
Sensitivity	20 (pg/ μl)	ng level
Reproducibility	High	Operation dependent
Result Interpret	Accurate size and concentration	Visual identity
Data Storage	Digital files	Photo image
Total Analytic Time	3-15 mins	> 1 hour
On-site Monitoring	No need	Necessary

## Gets size and concentration in 3 mins



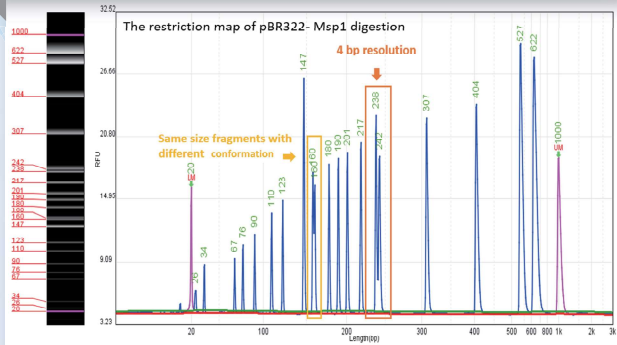
Peak No.	Size (bp)	Concentration (ng/μl)
1	20 (LM)	-
2	201	0.31
3	1500 (UM)	-

- ✗ Gel preparation
- ✗ Toxic contact risk
- ✗ Quantitative tool
- ✗ Sample migrate off the gel
- ✓ Automatic system
- ✓ Simple mode software
- ✓ Qualitative and quantitative in one analysis
- ✓ High resolution/ High sensitivity/ High reproducibility
- ✓ Multiple applications
- ✓ Export PDF/ Word/ Excel format of report

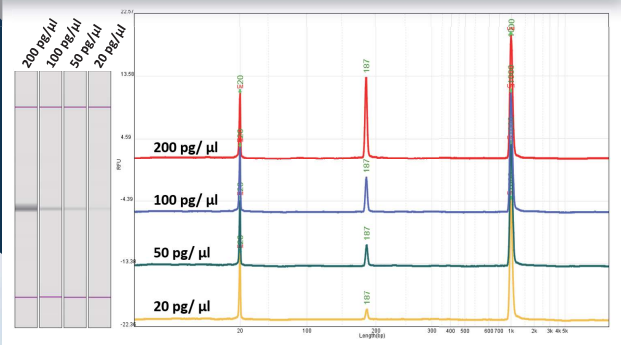
# Multiple Applications of *Qsep<sub>1</sub>-Lite*

- PCR product screening
- Restriction fragment length polymorphism (RFLP)
- CRISPR QC
- Genomic DNA analysis
- Plasmid DNA QC
- High molecular weight DNA analysis
- Cell-free DNA QC
- Total RNA QC
- RNA analysis

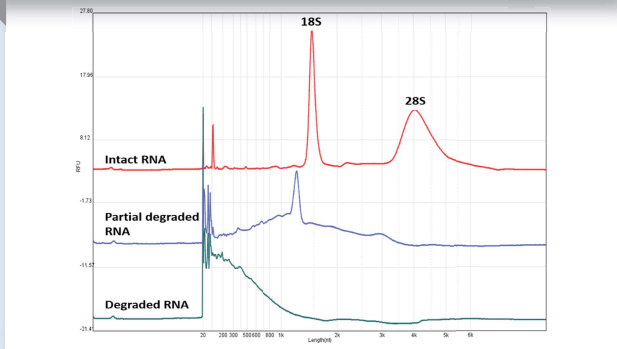
## High Resolution- 1 to 4 bp resolution 238 & 242bp can be resolved



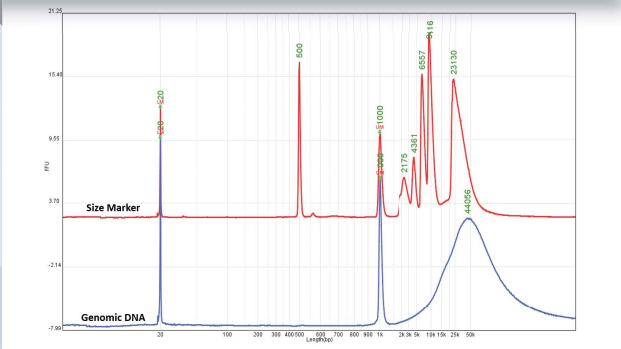
## High Sensitivity- LOD down to 20 pg / $\mu$ l



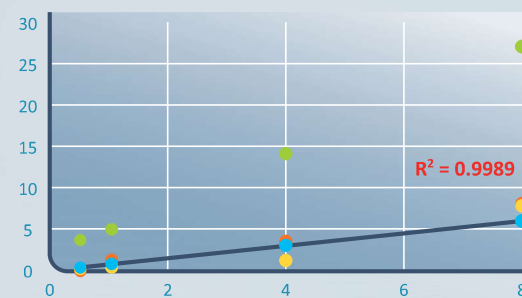
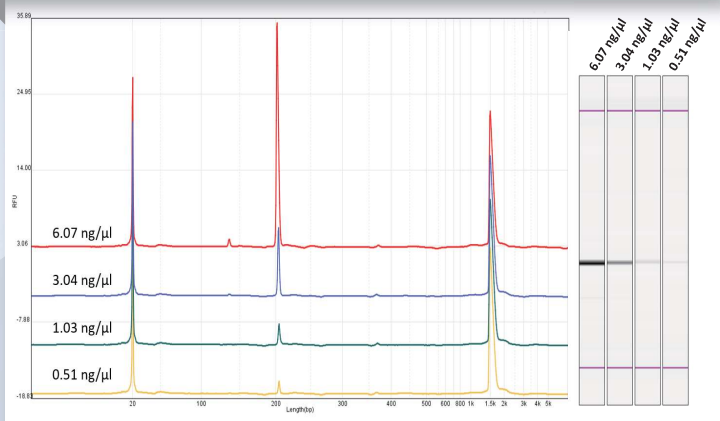
## Total RNA QC- RNA Integrity Check Provide RNA Quality Number (RQN) index



## Large Size DNA Analysis- Sizing range up to 50 kb Genomic DNA quality check



## Quantitative Analysis- Get size and concentration information in one analysis



Dilution Factor	● Photometer	● Fluorometer	● CE Analyzer	● <i>Qsep<sub>1</sub>-Lite</i>
1x	7.67	7.48	27.87	6.07
2x	3.52	1.23	14.58	3.04
5x	1.03	0.62	5.50	1.03
10x	-	0.37	2.91	0.51

## Specifications of *Qsep<sub>1</sub>-Lite*

- Separation Voltage: 1~8 kV
- Connection: Cable
- Power Source: AC 100- 240V
- Maximum Power: 30W
- System Weight: 5.5 kg
- Dimension: 24\* 21\* 30 cm
- System Type: 1 Channel Portable System
- Automated Sampling: 1~8 samples



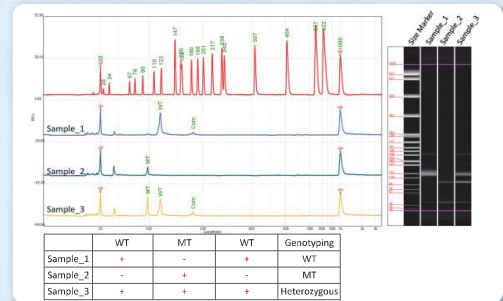
# Qsep<sub>1</sub>-Lite Mobile Gene Detection Suitcase

Qsep<sub>1</sub>-Lite Mobile Gene Detection Suitcase is a portable laboratory design which can be used in everywhere, e.g., small clinics and farm. With this case, user can do genetic detection on-site and get reports in about 1 hour. This carry-on case provides a total solution including the Direct PCR Master Mix, palm size PCR machine and Qsep<sub>1</sub>-Lite Bio-Fragment Analyzer. Samples such as blood, swab, leaf, cell, or animal tissue, can be added into PCR reagent without additional extraction steps and input into Qamp<sub>mini</sub> PCR thermal cycler to do amplification. After PCR, the samples can be analyzed by Qsep<sub>1</sub>-Lite and get the results within few minutes.



## Contents

- CE optimized PCR Master Mix
- Qamp<sub>mini</sub> PCR Thermal Cycler
- Qsep<sub>1</sub>-Lite Bio-Fragment Analyzer
- Cartridge Kit
- Laptop
- Pippet and tips



Sample preparation

PCR Amplification

Qsep<sub>1</sub>-Lite

Automatic report generation

- **DirectGO PCR Master Mix :**
  - ✓ Add sample into the PCR reagent directly.
  - ✓ No need to do DNA extraction/purification
  - ✓ Store in room temperature (1 month)
- **Qamp<sub>mini</sub> Thermal Cycler :**
  - ✓ Palm size PCR machine with programable chip design
  - ✓ One Button to Run
- **Qsep<sub>1</sub>-Lite Bio-Fragment Analyzer :**
  - ✓ 3-5 mins to get results
  - ✓ Peak calling function
  - ✓ Generate the report automatically

## Order information

Catalog No.	Product	
C100001-L	Qsep <sub>1</sub> -Lite Bio-Fragment Analyzer	
C105201-L	L2-Standard Cartridge Kit for Qsep <sub>1</sub> -Lite	2 Cartridges/ Box
C105202-L	L1-High Resolution Cartridge Kit for Qsep <sub>1</sub> -Lite	2 Cartridges/ Box
C105206-L	L3-Kilobase Cartridge Kit for Qsep <sub>1</sub> -Lite	2 Cartridges/ Box
C105210-L	LR1-RNA Cartridge Kit for Qsep <sub>1</sub> -Lite	2 Cartridges/ Box
C105201-LQ	LQ2-Standard Quantitative Cartridge Kit for Qsep <sub>1</sub> -Lite	2 Cartridges/ Box
C105202-LQ	LQ1-High Resolution Quantitative Cartridge Kit for Qsep <sub>1</sub> -Lite	2 Cartridges/ Box
C105205-LQ	LQN1-High Sensitivity Quantitative Cartridge Kit for Qsep <sub>1</sub> -Lite	2 Cartridges/ Box
Catalog No.	Product	
C100001-L-ML	Mobile Gene Detection Suitcase-Qsep <sub>1</sub> -Lite package	