Experion™ Software

- **Automatic calculations of size, concentration, and percent of total sample for each peak or fragment**

- **Ability to calculate relevant statistics such as mean, standard deviation, and %CV for measuring reproducibility**

- **Accessible self-training tools: Software help function includes Getting Started video and relevant technical bulletins**
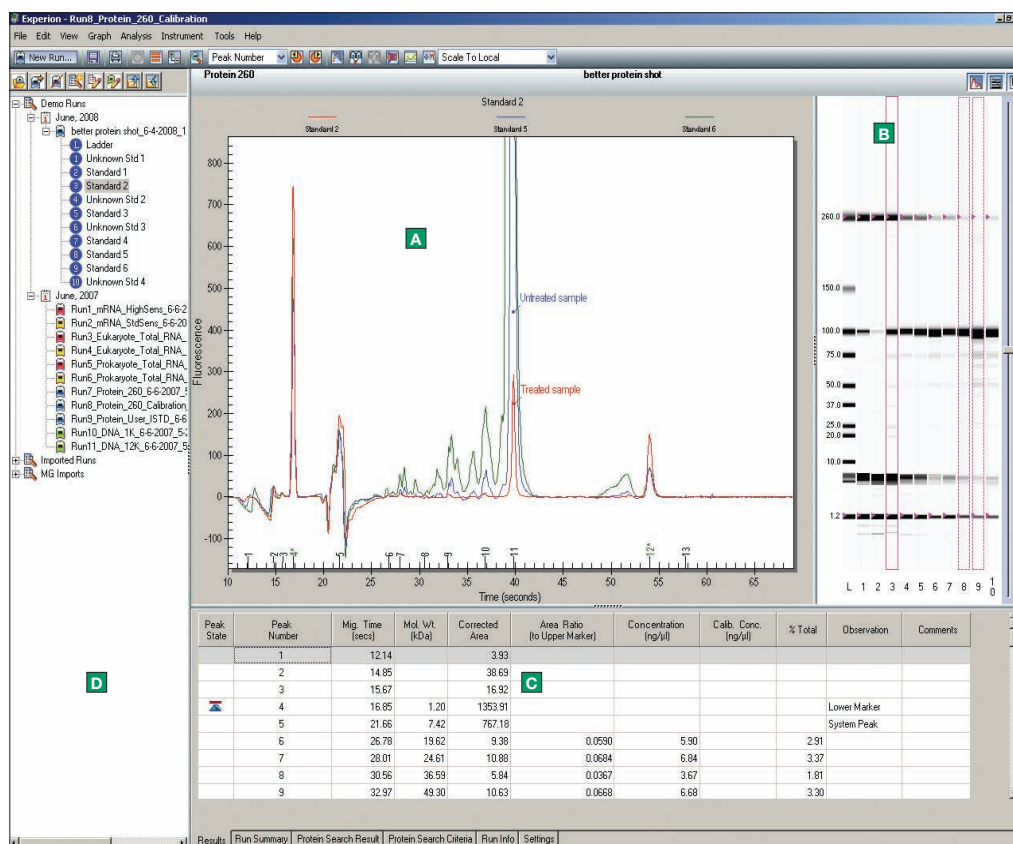

Fig. 1. Experion software provides easy access to the system and results with elements such as: **A**, electropherogram view, capable of overlaying multiple sample electropherograms; **B**, gel view; **C**, results table; **D**, tree-view browser.
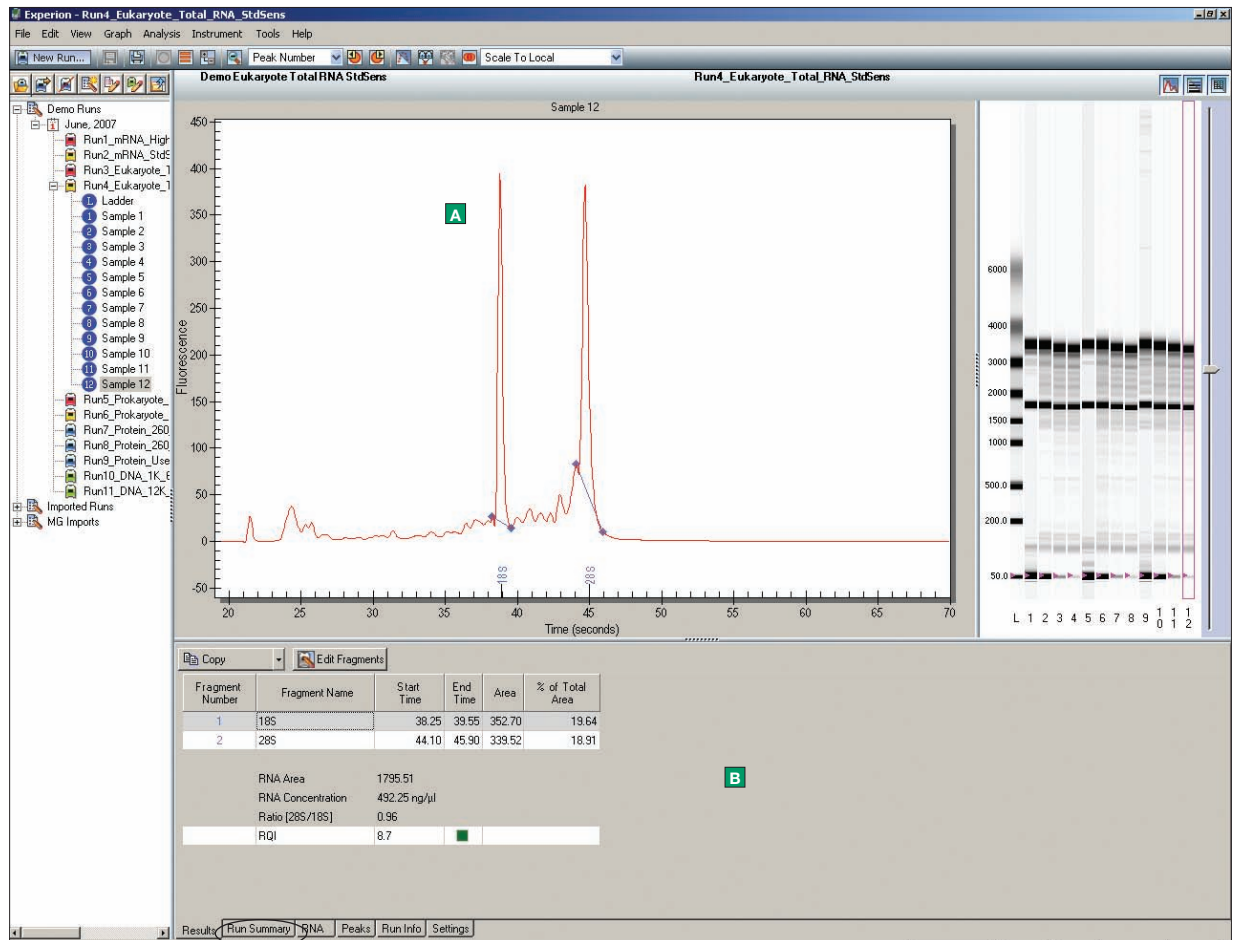
Intuitive Access to Information

The Experion automated electrophoresis system delivers fast, high-resolution results for protein, RNA, and DNA separations. Experion software optimizes these processes by providing easy access to the setup, running, and data analysis functions of the system.

- Graphical interface is user friendly (Figure 1)
- Run files are easy to find; chronological storage, sorting, and retrieval of run data with the logical, flexible, tree-view browser

- Electropherograms can be tagged and labeled using mouse (right click)
- Reports can be customized
- Results can be exported in many formats: spreadsheets, text, and XML
- Compatible with Windows Vista operating system to grow with your organizational needs

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Fig. 2. **Experion software provides easy access to RNA results with elements such as**: **A**, RNA sample profile for visualizing rRNA fragments; **B**, results table showing RQI value along with convenient color-coded ranking, 28S/18S ratio and RNA concentration; **C**, a run summary table that shows results from all wells simultaneously for easy sample-to-sample comparisons.

Internal Std. and Std. Protein Calibration Curve

Data File Name Run9_Protein_User_ISTD.bdf
Assay Name Protein 260
Instrument Name 1366

Run Version: N/A
$Y = 0.0336 * X - 0.42$
$r2 = 0.999$

Standard Information

Name	Value
Standard Protein Molecular Weight	95

Well Id	Sample Name	Std Protein Conc.(ng/µl)
1	Standard 1	25
2	Standard 2	100
3	Standard 3	250
4	Standard 4	500
5	Standard 5	1000

User Internal Standard Settings

Name	Value
Use User Internal Standard	☐

Calibration Curve Settings

Name	Value
Quantitate All Proteins	☑

Linear Regression	Value
y = kx	☐
y = kx + b	☑

B

Setup Instructions **A**

1. Confirm that the correct wells containing protein standards are selected under Sample Information in Run Info. If they are not selected, check the corresponding boxes under the "Use as Standard" column.

2. Enter molecular weight of the standard protein under "Standard Information".

3. Check the theoretical concentration of each protein standard under "Standard Information". If they are not entered or not correct, enter the theoretical concentration for each protein standard.

4. If you do not have a user internal standard, proceed to click the "Apply" button to obtain the calibration curve without user internal standard.

5. If you have a user internal standard, continue to click "User Internal Standard Settings" and enter the concentration and molecular weight for the

Std. Protein Calibration Curve
$Y = 0.0336 * X - 0.42$ $r2 = 0.999$

(Area Ratio vs Std Protein Conc. (ng/µl))   **C**

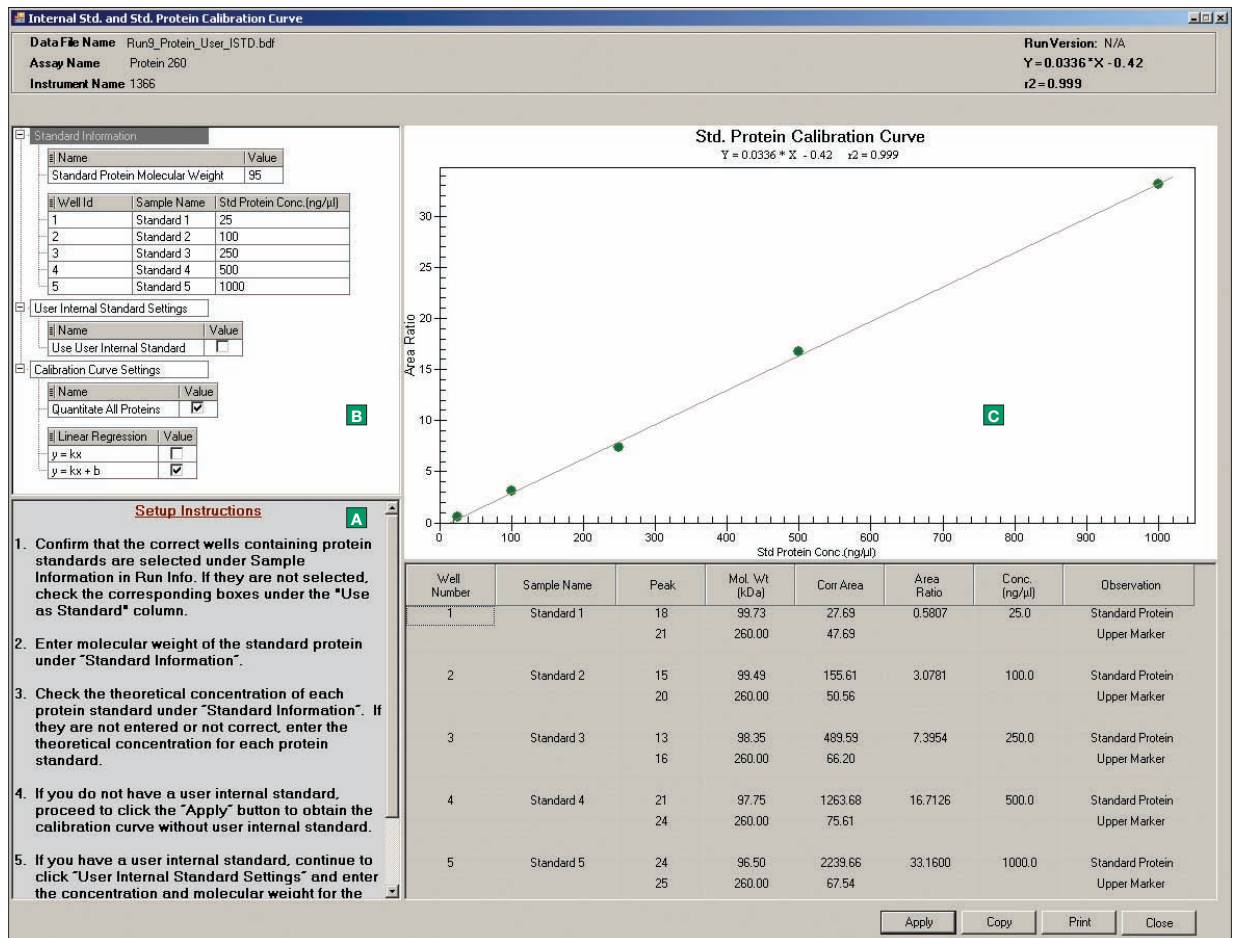| Well Number	Sample Name	Peak	Mol. Wt (kDa)	Corr Area	Area Ratio	Conc. (ng/µl)	Observation
1	Standard 1	18	99.73	27.69	0.5807	25.0	Standard Protein
		21	260.00	47.69			Upper Marker
2	Standard 2	15	99.49	155.61	3.0781	100.0	Standard Protein
		20	260.00	50.56			Upper Marker
3	Standard 3	13	98.35	489.59	7.3954	250.0	Standard Protein
		16	260.00	66.20			Upper Marker
4	Standard 4	21	97.75	1263.68	16.7126	500.0	Standard Protein
		24	260.00	75.61			Upper Marker
5	Standard 5	24	96.50	2239.66	33.1600	1000.0	Standard Protein
		25	260.00	67.54			Upper Marker

Apply Copy Print Close

Fig. 3. Experion software provides easy access to protein analysis with comprehensive and flexible tools for quantitation. **A**, easy protein quantitation setup instructions to ensure accurate results; **B**, options for the stringency of protein quantitation desired. Options include the choice of introducing a user-defined internal standard instead of using the built-in internal default standard or selecting an appropriate linear regression for use with calibration curve setup; **C**, calibration curve and measure of linearity (r^2 value) generated for selected points as well as molecular weight and determined concentration in the adjacent table.

Automated RNA Analysis

RNA sample quality and concentration typically are assessed before real-time quantitative PCR and microarray experiments are performed. Experion software displays RNA profiles of samples and automatically calculates the following information in a clear and easy-to-use format:

- RNA samples are standardized with a ranking from 1 to 10 using the RNA Quality Indicator (RQI) (Figure 2)

- Color-coding easily classifies quality of RNA

- Ribosomal RNA peak area and 28S/18S ratio determination

- Concentration of total RNA and mRNA

- Statistical analysis of RNA fragments of interest across the chip

Automated Protein Analysis

A quick, reproducible, and convenient method is required to check protein quantitation and purity during and after chromatographic separation. Experion software provides a comprehensive and flexible solution for protein quantitation.

- Protein profiles allow easy visualization of purity (Figure 1)

- Protein profiles can be overlaid for easy visualization of differences between samples

- Calculate relative concentration against a built-in internal standard, or introduce your own internal standard for higher levels of accuracy

- Calculate absolute concentration against a built-in internal standard, or introduce your own internal standard for higher levels of accuracy (Figure 3)

- Use linear regression options to generate standard curves (y = kx + b or y = kx)

- Refine automatically called peaks with manual peak integration

- Compare a single protein across samples, and provide statistical analysis (mean, standard deviation, and %CV) to confirm reproducibility

Automated DNA Analysis

For analysis of restriction digests, amplified DNA, microsatellites, or amplified fragment length polymorphisms (AFLPs), Experion software enables concentration and size determination with high sensitivity and excellent resolution (down to 5 bp) over a size range between 15 and 17,000 bp (DNA 1K and 12K assays).

Ability to Grow With Your Organization

Experion software is guaranteed to be compatible with the Microsoft Windows Vista operating system for smooth transitions during growth and expansion. This flexibility, in combination with Experion Security Edition software, enables 21 CFR Part 11 compliance if such is needed in your workflow.

Recommended System Requirements

Windows XP (Service Pack 3) or Vista (Service Pack 1) operating system
Pentium 4, 3 GHz processor
1 GB RAM
1,280 x 1,024 screen resolution with true-color mode (24 or 32 bits)
80 GB hard drive
CD-ROM drive
USB port, version 2.0

Ordering Information

Catalog #	Description
700-7050	Experion Software, system operation and data analysis tools, PC
700-7051	Experion Validation Kit, 3 test chips, qualification procedures, dongle, PC
700-7052	Experion Security Edition Software, standard and 21 CFR 11 data analysis tools, 3 test chips, qualification procedures, dongle, PC

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