

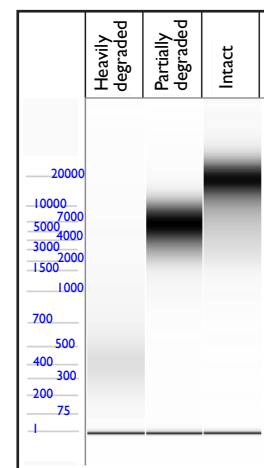
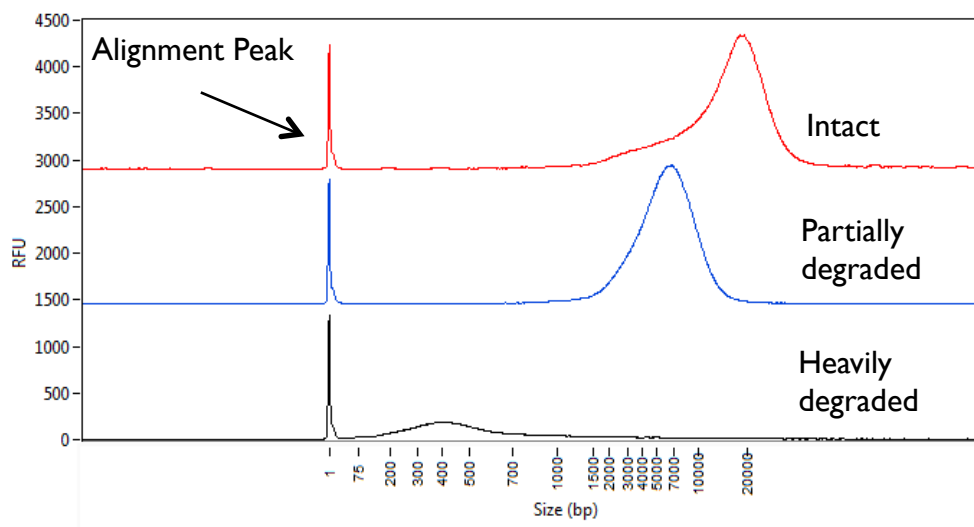
gDNA ANALYSIS

Fragment Analyzer™ Automated CE System

Check quantity and quality of genomic DNA with one instrument.

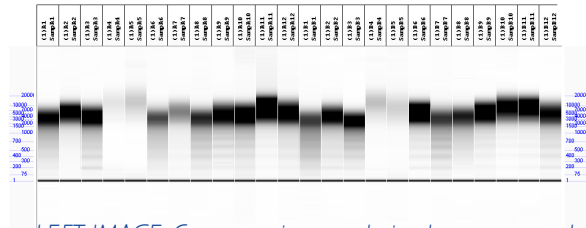
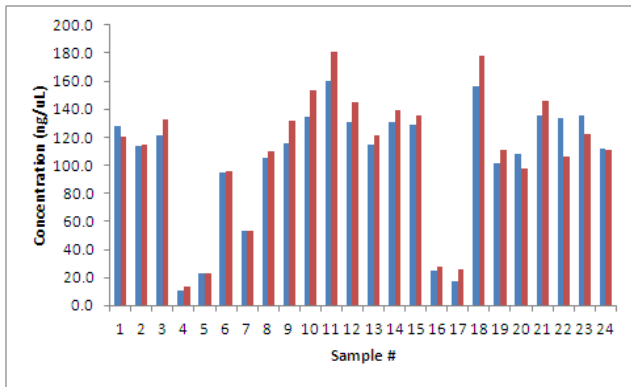
Characterizing genomic DNA (gDNA) prior to downstream analysis is a key bottleneck in many labs. Traditionally, two separate methods are used – agarose gel electrophoresis for sizing and integrity, and fluorometry or spectrophotometry for quantification. Agarose gels yield unreliable quantification and are labor-intensive, while spectroscopic methods provide no information on integrity of the sample.

The **Fragment Analyzer™** streamlines genomic DNA analysis, providing both integrity and quantification in a single assay. Flexible design and high sensitivity provide results from as little as 0.5 μ L of input gDNA, preserving precious sample.



Human genomic DNA run on the Fragment Analyzer™, showing heavily degraded, partially degraded and intact samples. Despite the presence of heavily degraded material, the ultra fast Lower Marker (set to 1 bp) migrates quickly enough to provide successful analysis.

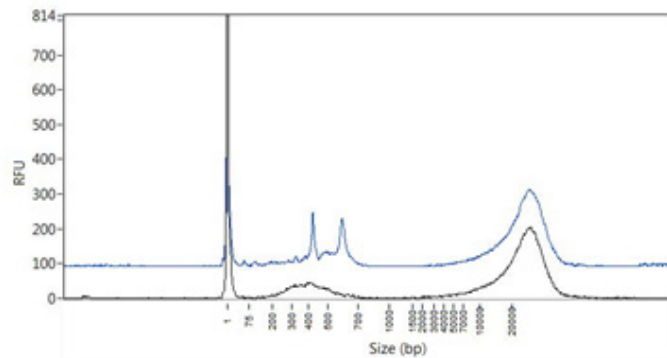
Correlation of gDNA Quantification



LEFT IMAGE: Concentration correlation between standard fluorometry (blue) and Fragment Analyzer™ (red) for various extracted gDNA samples. ABOVE IMAGE: Digital gel view provides quick assessment of gDNA integrity. The alignment marker at the bottom is set to 1 bp. Average absolute difference in concentration was <15%.

Identify RNA Contamination in Your DNA Extractions

Human genomic DNA sample spiked with total RNA (Top) or messenger RNA (Bottom). RNA contamination is observed as peaks or smears in the size region from 50 – 1000 bp.



The **Fragment Analyzer™** automates both separation and subsequent analysis of gDNA. Its parallel capillary electrophoresis platform allows analysis of 11 or 95 samples with 1 ladder per run. One instrument analyzes both quality and quantity, thus greatly reducing manual lab work.

Features and Benefits

Automated Sample Handling:

No repetitive pipetting steps, simply load diluted samples in 96-well plate.

No Manual Priming:

Separation gel is automatically loaded into capillaries prior to each run.

High Sensitivity:

Detection limits as low as 50 pg/μL. Use as little as 0.5 μL input sample.

No Chip Loading:

Universal capillary array handles multiple applications.

Many Applications:

Use the system for more than just gDNA. The largest selection of DNA/RNA gel kits on the market, offering resolution as low as 3 bp and a wide sizing range.

High Throughput Capability:

Analyze a 96-well plate of samples in a little over 1 h (96-capillary system).

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