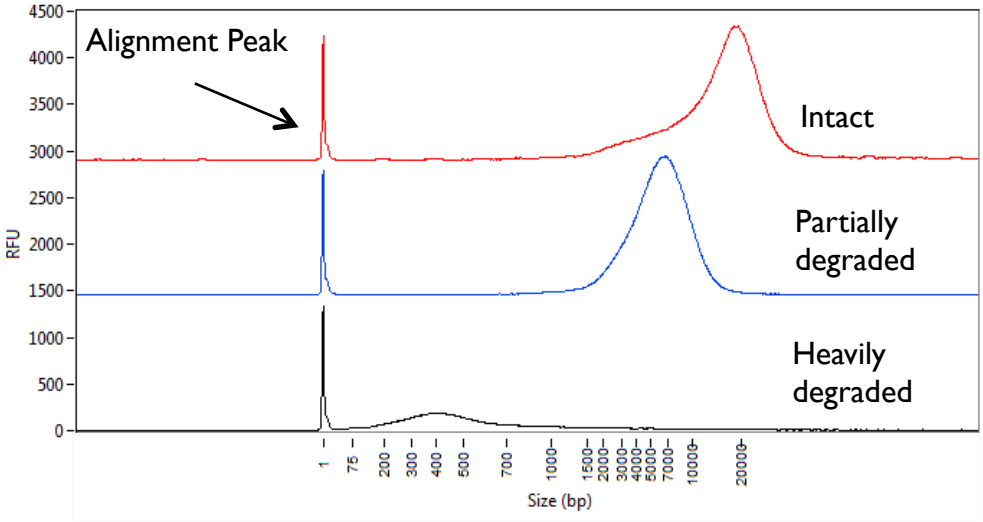
# gDNA ANALYSIS

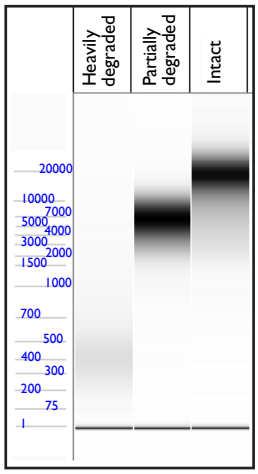
## Fragment Analyzer™ Automated CE System

# 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.

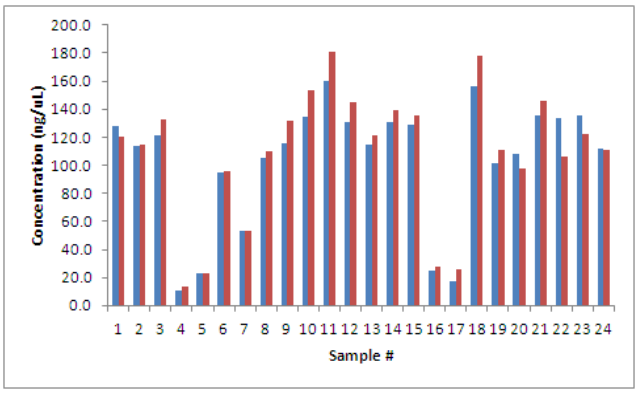
The **Fragment Analyzer**™ streamlines genomic DNA analysis, providing both integrity and quantification in a single assay. Flexible design and high sensitivity provide results from as little as 0.5 µL of input gDNA, preserving precious sample.

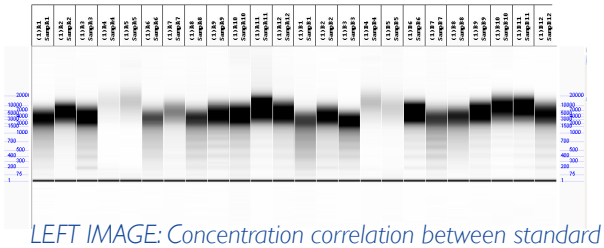



*Human genomic DNA run on the Fragment Analyzer™, showing heavily degraded, partially degraded and intact samples. Despite the presence of heavily degraded material, the ultra fast Lower Marker (set to 1 bp) migrates quickly enough to provide successful analysis.*

## Correlation of gDNA Quantification

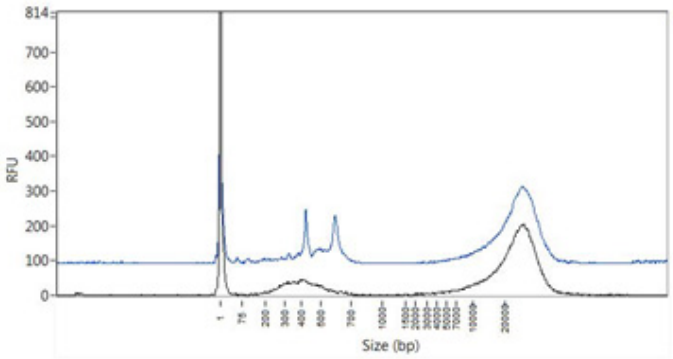


*LEFT IMAGE: Concentration correlation between standard fluorometry (blue) and Fragment Analyzer™ (red) for various extracted gDNA samples. ABOVE IMAGE: Digital gel view provides quick assessment of gDNA integrity. The alignment marker at the bottom is set to 1 bp. Average absolute difference in concentration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