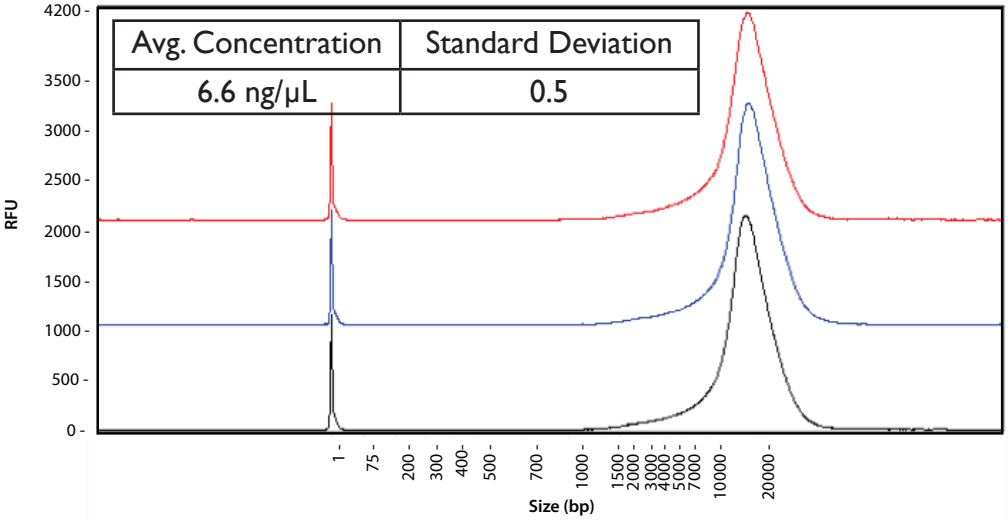
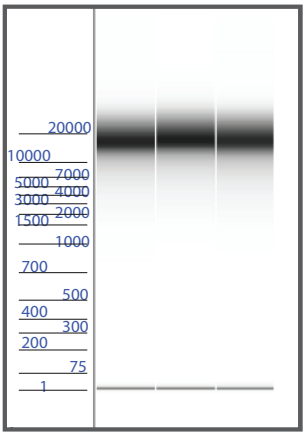
CONSISTENT ANALYSIS of gDNA

Fragment Analyzer™ Automated CE System

Achieve reproducible and accurate gDNA results.

Reproducing results from run-to-run with the same sample.





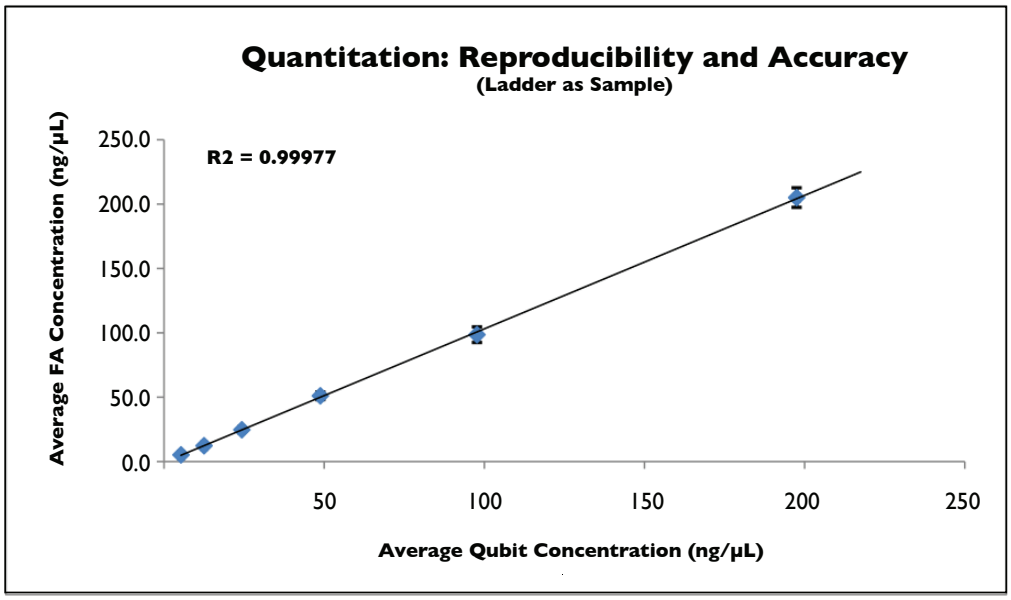
Electropherograms of the same intact human gDNA sample run 11 different times. Shown here are the data for the 1st, 6th and 11th runs. Here the electropherograms are offset for clarity. Inset shows data demonstrating consistency of the instrument's performance. Corresponding digital gel image shown at right.

Comparison of instrument accuracy to other techniques.

Expected Concentrations	Spectrophotometry (UV-Vis)		Fluorometry		Fragment Analyzer™	
Conc. (ng/µL)	Conc. (ng/µL)		Conc. (ng/µL)		Conc. (ng/µL)	
	Avg.	%CV	Avg.	%CV	Avg.	%CV
200.0	197.6	2.6	192.0	2.3	181.9	8.1
100.0	100.3	2.1	95.9	3.4	93.1	7.6
50.0	49.2	1.7	46.5	4.6	43.9	6.4
25.0	25.8	9.7	24.3	1.5	23.1	8.9
12.5	13.0	10.3	13.3	8.1	11.4	6.9
5.0	7.5	12.9	5.2	7.7	4.3	8.5

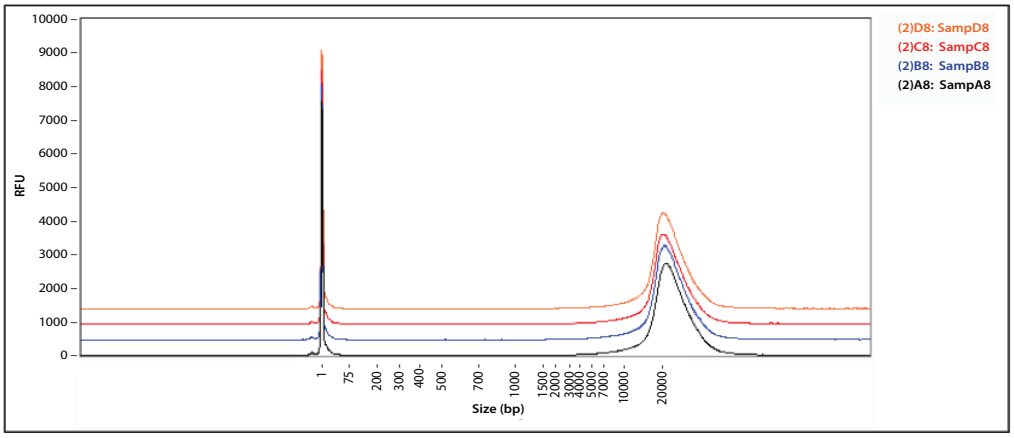
Human gDNA samples measured with three different methods. Fragment Analyzer™ data shows good correlation with spectrophotometry and fluorometry, which typically are used for measuring concentration. However, the Fragment Analyzer™ also measures gDNA sample quality. Each concentration value is an average of 18 data points encompassing three replicate runs in six different capillaries. % CV represents the standard deviation of the data as a percentage of the average value.

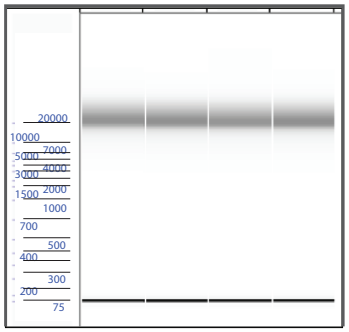
Linearity in quantitation with standard ladder.



Linear plot showing the quantitative comparison of Fragment Analyzer™ data vs. data from Qubit. Data shows excellent linearity.

Reproducing results from capillary-to-capillary with the same sample.





Researchers can proceed with confidence using an automated CE instrument to analyze gDNA because the data from capillary-to-capillary are consistent. The same intact human gDNA sample was run in four different capillaries simultaneously. Electropherogram traces have been offset by the software to clarify that they are identical. Corresponding digital gel image shown at right.

Advanced Analytical Technologies, Inc.

2711 South Loop Drive, Suite 4150
Ames, IA 50010 USA
Phone: +1-515-296-6600
Fax: +1-515-294-7141
E-mail: sales-fs@aati-us.com
www.aati-us.com

Advanced Analytical Technologies, GmbH.

Im Neuenheimer Feld 583
D-69120 Heidelberg
Phone: ++49 6221 868058-20
Fax: ++49 6221 868058-99
E-mail: sales-fs@aati-de.com
www.aati-de.com

ADVANCED ANALYTICAL

Copyright © 2013 Advanced Analytical Technologies, Inc. All Rights Reserved. Reproduction, adaptation or translation without prior written permission is prohibited, except as allowed under copyright laws.
Fragment Analyzer™ Automated CE System is a trademark of Advanced Analytical Technologies, Inc.