



# BIOMARK X

The new benchmark in genomics.



## Unleash the possibilities, all on one real-time PCR platform.

Standard BioTools is pleased to introduce the latest in innovative genomics technology.

Biomark™ X empowers levels of versatility and efficiency unmatched in current real-time PCR systems. With the capability to perform a broad menu of applications across a variety of sample types, you can readily generate actionable insights for more informed decision making.

- **INTUITIVE**—Guided user interface and streamlined operations minimize time spent by team members.
- **POWERFUL**—Multiple applications with a small footprint generate maximum data output.
- **INTEGRATED**—Automated workflow with sample-to-answer solutions consolidated on a single platform.

Biomark X™ is user-installed, and Standard BioTools™ PRO Services provide a comprehensive portfolio of solutions to help you maximize your investment for years to come.

Take the next step in your genomics research with the microfluidics-based system designed to simply enable a more productive and synchronous lab environment.

Learn more: [fluidigm.com/biomarkx](http://fluidigm.com/biomarkx)



**INTUITIVE**



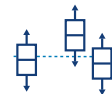
GENE  
EXPRESSION



GENOTYPING

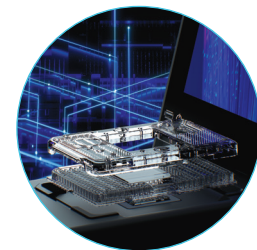


SAMPLE  
IDENTIFICATION



COPY NUMBER  
VARIATION

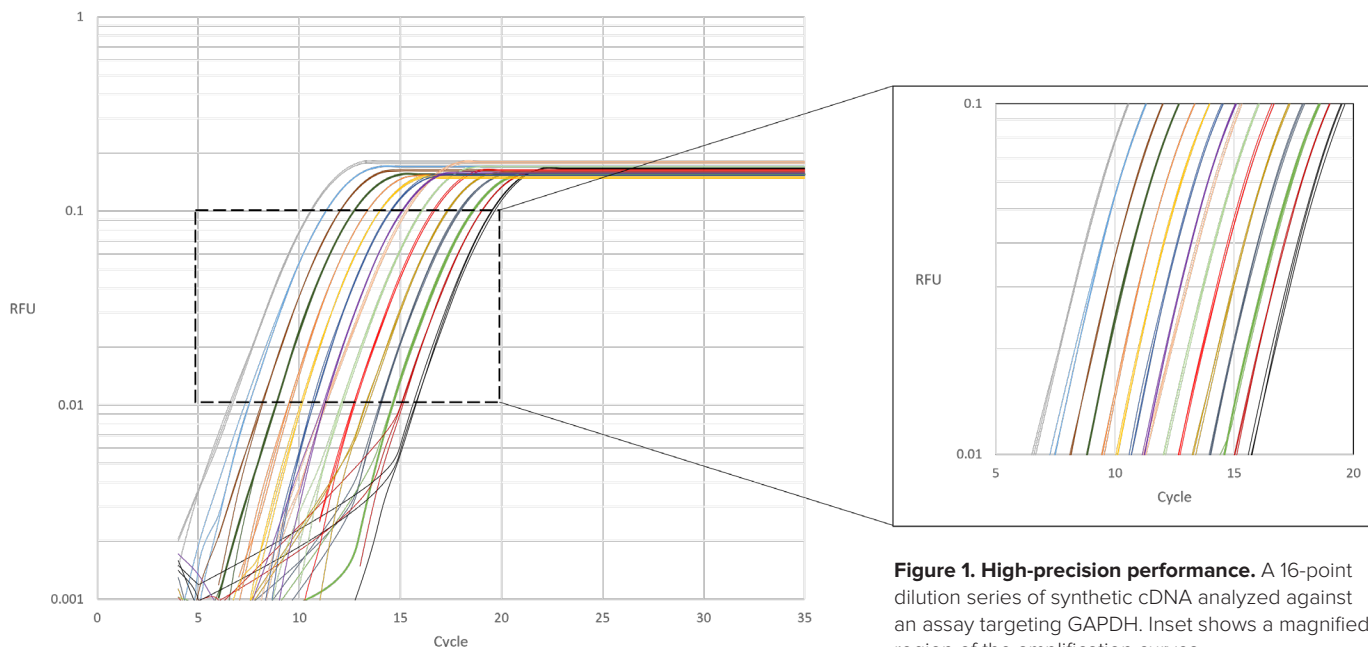
**POWERFUL**



**INTEGRATED**

## Precision

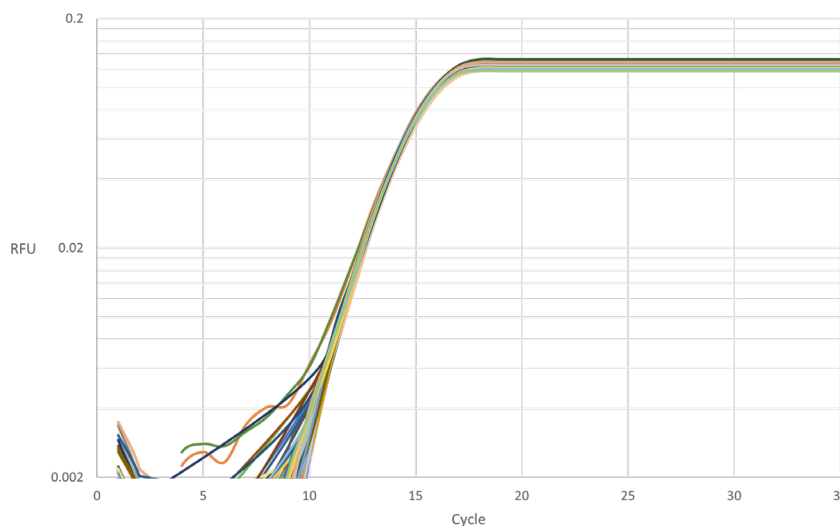
Accurate discrimination of fold changes is an important parameter for qPCR performance. To demonstrate this characteristic with Biomark X, a 1.5-fold dilution series of synthetic cDNA was prepared, and 3 replicates of each dilution point run against 24 assays on a 192.24 Dynamic Array™ integrated fluidic circuit (IFC). Amplification curves for the assay targeting GAPDH demonstrate accurate and precise quantitation of target abundance.



**Figure 1. High-precision performance.** A 16-point dilution series of synthetic cDNA analyzed against an assay targeting GAPDH. Inset shows a magnified region of the amplification curves.

## Reproducibility

Uniform amplification across replicates is a requirement for accurate quantitation by qPCR. To highlight the uniformity of amplification across an IFC, 96 replicates of a synthetic cDNA sample were run on Biomark X against 96 assays using the 96.96 Dynamic Array IFC. A Ct standard deviation of 0.06 across 96 sample replicates on the IFC demonstrates excellent uniformity of amplification that will permit accurate quantitation of all samples, regardless of location on the IFC (figure 2).



**Figure 2. Reproducible amplification.** Amplification curves of 96 replicates of a synthetic cDNA sample run against an assay targeting GAPDH. Mean Ct is 12.4 with a standard deviation of 0.06 Ct.

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