

# Biomark HD

Amplify your productivity



Biomark™ HD is an automated, high-performance PCR system that processes tens to hundreds of samples in parallel at nanoliter volumes for gene expression, genotyping, copy number variation analysis and digital PCR. Ideal for labs performing PCR on multiple markers across hundreds to thousands of samples, the Biomark HD provides significant cost and time advantages over plate-based technologies. And with a wide range of integrated fluidic circuit (IFC) formats available, scaling from mid- to high throughput on a single system is easily achievable.

## Multiple applications on a single system

Gene and miRNA expression  
Copy number variation

Genotyping  
Digital PCR

## Assay workflow



1

Prepare samples and reagents



2

Transfer samples and assays to the IFC



3

Combine samples and assays in the IFC using the automated Juno™ system



4

Perform real-time PCR using the Biomark HD

## Highlights

**Flexible** — Access multiple high-performance genomic applications, all on a single system with flexible panel design.

**Efficient** — Significantly reduce your cost per sample with automated workflows at nanoliter reaction volumes.

**Scalable** — Easily scale from 144 to 9,216 reactions per run without changing technologies.

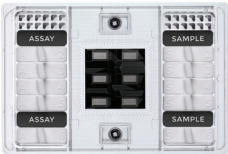

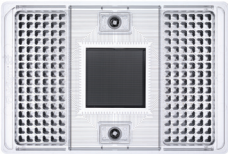
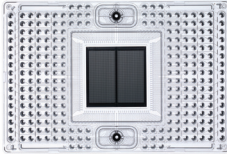
**Trusted** — Have confidence in your results with performance similar to established qPCR platforms.

**Figure 1. Gene expression assay workflow.** With only 30 minutes of hands-on time and four hours of total workflow time, you can run up to 96 assay markers across up to 96 samples using the GE 96.96 IFC, generating results for up to 9,216 PCR reactions.

## Assay compatibility

Biomark HD workflows are compatible with TaqMan® Assays and reagents as well as a number of other commercial assays, including Delta Gene™ from Fluidigm. You can easily move your existing panels to the Biomark HD to achieve immediate cost efficiencies while taking advantage of our growing list of commercially available panels.

## Multiple IFC formats available

Integrated fluidic circuits	Flex Six™ IFC	48.48 IFC	96.96 IFC	192.24 IFC
				
Sample inlets	6 x 12	48	96	192
PCR assay inlets	6 x 12	48	96	24
PCR reaction chambers	864	2,304	9,216	4,608
Reaction volume	8.9 nL	10.1 nL	6.7 nL	8 nL
IFC controller	Juno or HX	Juno or MX	Juno or HX	Juno or RX
PCR throughput capacity in 1 day	Up to 1,728 reactions	Up to 9,216 reactions	Up to 36,864 reactions	Up to 18,432 reactions

**Table 1. Multiple IFC formats for a range of projects.** Scale your PCR project from 12 to 192 samples per processing run. With Biomark HD, you eliminate the need for extensive bridging studies during project scaling.

Delivering performance you can trust together with the flexibility, scalability and efficiencies you need to meet the growing demands of molecular testing, Biomark HD is an ideal solution to achieve higher productivity.

Learn more at

[fluidigm.com/biomark](http://fluidigm.com/biomark)

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