



# BIOMARK X

Powerful. Intuitive. Transformative.





Unleash the possibilities, all on one platform, with a transformative real-time PCR system built on proven microfluidics technology.

EXPRESSION

HEALTH VIRAL DETECTION

OGY ENVIRONMEN

DETECTION FOOD SAFETY

DTYPING PATH

ENOMICS MEN'S HEALTH S

RICULTURE AQUA

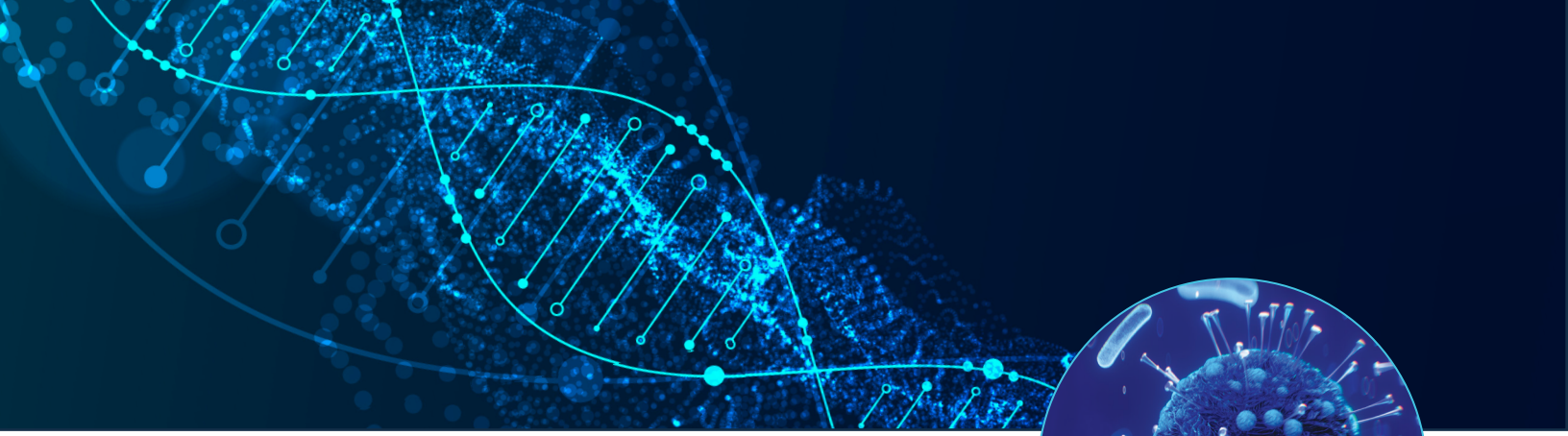
ETECTION GE

ITAL MONITORING

ENTAL HEALTH SAMPLE ID

TED DISEASE

ANAGEMENT SUS



# Empower your lab to make a difference in genomics.

## More power to you.

Accurate and reproducible data is essential for discovery and applied research applications that utilize real-time PCR. The more quality data you create, the faster you can generate experimental outcomes and the more reliable those outcomes will be.

The ability to produce answers quickly, efficiently and reliably can position a laboratory as a center of excellence by raising the quality of both basic and clinical research. By enabling comprehensive and versatile genomic analysis, Biomark™ X with microfluidics technology empowers the generation of timely and actionable answers that can transform all PCR-based genomics studies.



**Biomark™ X**, an intuitive and transformative technology platform, maximizes productivity with minimal effort.

### **SIMPLIFY WORKLOADS**

TO FACILITATE DELIVERY OF IMPACTFUL GENOMIC INFORMATION

### **STREAMLINE OPERATIONS**

TO REDUCE TIME SPENT BY USERS AND THE OVERALL COST OF LAB FUNCTIONS

### **ACCELERATE RESULTS**

TO INSIGHTS WITH MORE DATA PER RUN TO EMPOWER INFORMED DECISION MAKING



**F** FLUIDIGM

BIOMARK X

# Power your potential.

Meet Biomark X, a genomics powerhouse designed to simplify your research, enabling a more productive and synchronous lab environment. The integration of multiple capabilities into a single platform streamlines workflows and offers unprecedented ease of use across a diverse array of applications. With the enhanced ability to move readily from challenging questions to meaningful answers, Biomark X empowers better-informed decisions with efficiency and agility.

## POWERFUL

Assay versatility and the capacity to run numerous applications on a single system eliminate the need for multiple platforms, and the nanoliter-volume requirements inherent in microfluidics conserves precious samples.



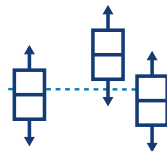
GENE  
EXPRESSION



GENOTYPING



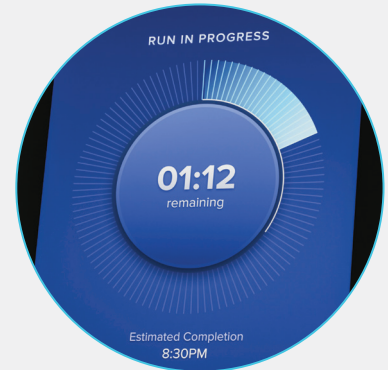
SAMPLE  
IDENTIFICATION



COPY NUMBER  
VARIATION

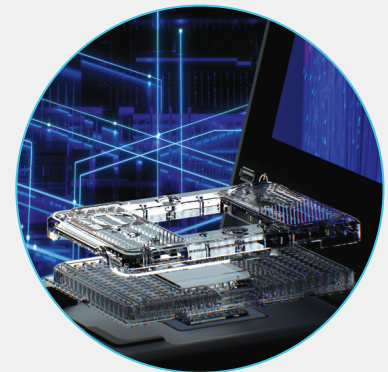


Generate up to **9,216 datapoints** from individual reactions in a single 3.5-hour instrument run to achieve a depth of information gain similar to that of multiplexing.



## INTUITIVE

The meticulously designed user interface facilitates easy setup and assay runs with little or no training.



## INTEGRATED

An automated workflow with sample-to-answer solutions is consolidated on a single platform for minimal operator hands-on time.

# Proven microfluidics technology

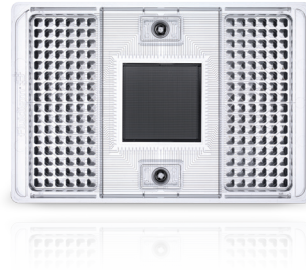
Integrated fluidic circuits (IFCs) form the backbone of the Biomark X system, supporting different configurations of samples and assays for multiple applications. Each Dynamic Array™ IFC is precision-manufactured to exacting standards of performance and reliability. Fluidigm IFCs empower genomics research by automating molecular biology in nanoliter volumes. These reduced reaction volumes mean using less of your precious samples and assay reagents to lower cost and achieve the high-quality, consistent results your work depends on.

## DYNAMIC ARRAY IFCs SUPPORTED ON BIOMARK X:



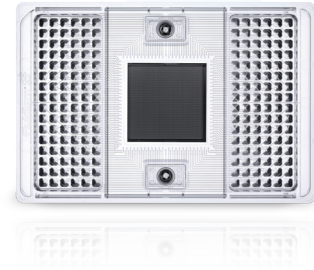
**48.48 Dynamic Array IFC-X  
Real-Time PCR**

Enables 2,304 reactions using  
48 samples and 48 assays



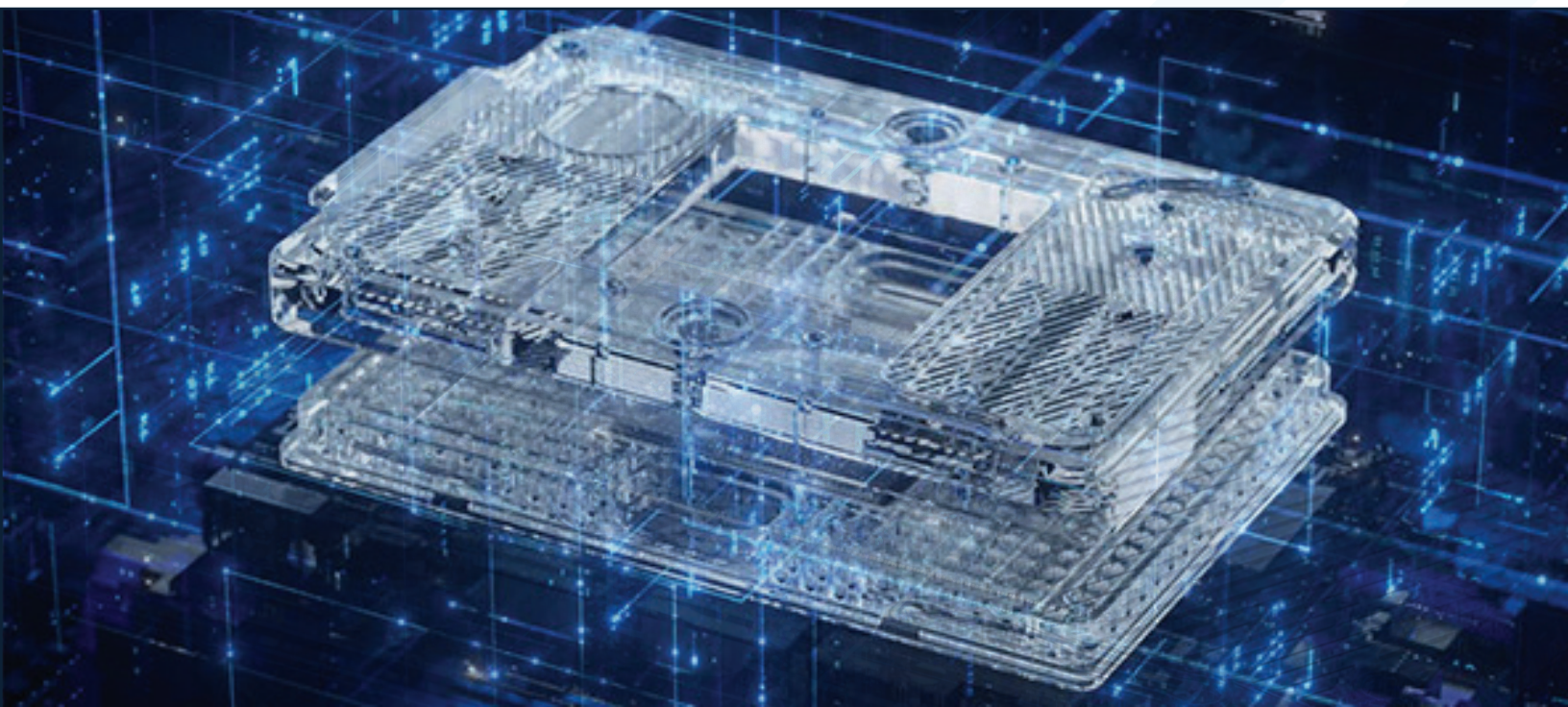
**96.96 Dynamic Array IFC  
for Gene Expression**

Enables 9,216 reactions using  
96 samples and 96 assays



**96.96 Dynamic Array IFC  
for Genotyping**

Enables 9,216 reactions using  
96 samples and 96 assays



# Unleash endless possibilities.

With **remarkable efficiency**, Biomark X performs all steps with software-guided operations for easy walk-up usability, offering you more free time to translate your data to compelling insights and expand your research.

As a new **hallmark of performance**, the pioneering technology of Biomark X streamlines protocols from sample entry to results with minimum hands-on time, using nanoliter reaction volumes.

**Markedly unique** and capable of continuous processing for high-complexity analysis with unprecedented proficiency, Biomark X offers scalable throughput with a compact footprint, packing ultimate power into a very small area.

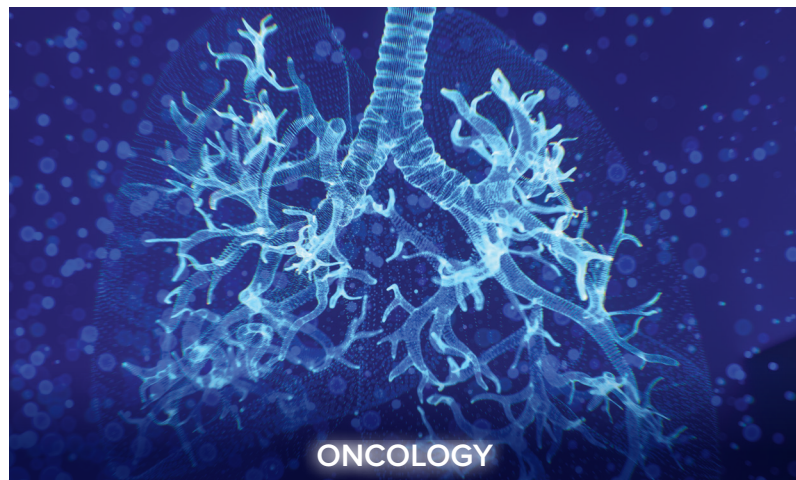
**Make your mark** with technology that supports development and creation of custom assays, leveraging the power of Biomark X to provide a wide range of testing and investigation options and the ability to scale the number of targets based on need.



**Run multiple experiments** using automated reaction setup for each sample **in one step** to easily generate more data and sharper insights.



PHARMACOGENOMICS

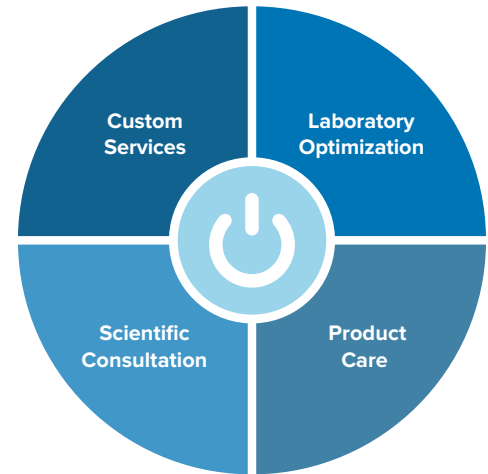


ONCOLOGY

# We're here for you.

## Fluidigm PRO Services

Fluidigm PRO Services are a comprehensive portfolio of solutions to help you maximize your investment, scale up productivity and empower your laboratory with greater access to professional resources.



### CUSTOM SERVICES

**Achieve unique goals with tailored services.**

Fluidigm offers unique and highly specialized services tailored to meet specific research and translational needs.

### SCIENTIFIC CONSULTATION

**Accelerate research and testing with expert applications support.**

Our consultative services and training programs equip laboratories with the tools and knowledge needed to elevate scientific data into actionable insights.

### LABORATORY OPTIMIZATION

**Enhance operational efficiency and productivity.**

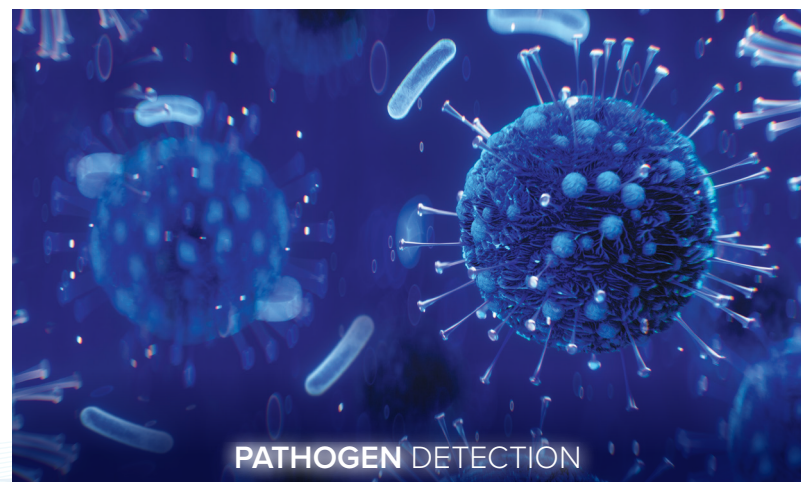
Our experts help you prepare for technology adoption, streamline workflow and support improvement initiatives.

### PRODUCT CARE

**Maximize system investment and performance.**

Our global network of trained experts provides timely support, training programs, compliance services, proactive maintenance and repair services to optimize productivity and performance of your systems.

Providing **expertise** to power your research



# Specifications

Biomark X sets a new standard for automated real-time PCR to maximize the productivity in your lab with minimal staff effort or training. The intuitive user interface together with integrated fluidic circuit technology saves time and money by performing thousands of reactions in nanoliter volumes on a device the size of a conventional 96-well plate. Biomark X streamlines workflows for applications demanding sensitivity and dynamic range at mid-to-high throughput, including genotyping, gene expression, sample identification and copy number variation.

## INSTRUMENT

Part number	BMKX-BMKX
Dimensions	Depth: 64.2 cm (25.2 in) Width: 26 cm (10.2 in) Height: 53.5 cm (21.1 in)
Weight	37 kg (83 lb)
Thermal control	Peltier-based, 4–99 °C
Heating ramp rate	Up to 5.5 °C/sec
Cooling ramp rate	Up to 5.5 °C/sec
Detection	CMOS camera; 20M pixel
Fluorescence excitation	485 nm, 530 nm, 580 nm
Fluorescence emission	525 nm, 570 nm, 630 nm
Power requirements	100–240 VAC, 50/60 Hz, 8.0 A Fluidigm provides a region-specific power cord for the Biomark™ X system.

## SUPPORTED IFCs

48.48 Dynamic Array™ IFC-X Real-Time PCR  
96.96 Dynamic Array IFC for Gene Expression  
96.96 Dynamic Array IFC for Genotyping

## SOFTWARE

Analysis	Biomark X Real-Time PCR Analysis software, v1.0 or later
	Biomark X SNP Genotyping Analysis software, v1.0 or later

## COMPUTER REQUIREMENTS FOR ANALYSIS SOFTWARE (Computer not provided)

Memory	4 GB
Operating system	Microsoft® Windows® 10
Storage	200 MB of free space
Connections	USB port or Ethernet

# Notes

## **CORPORATE HEADQUARTERS**

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