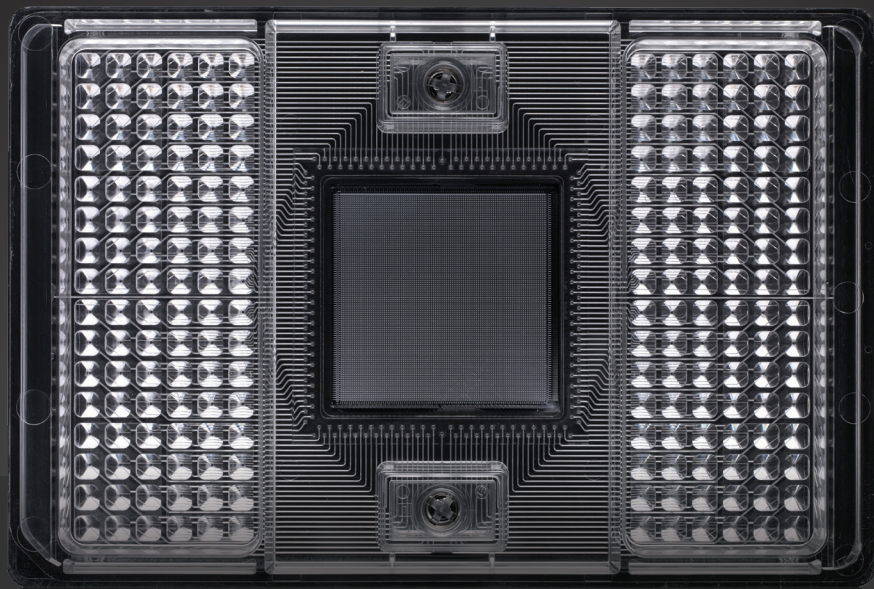




HIGH-DEFINITION BIOLOGY

Span research through validation on Biomark HD





96.96 IFC

BIOMARK HD:

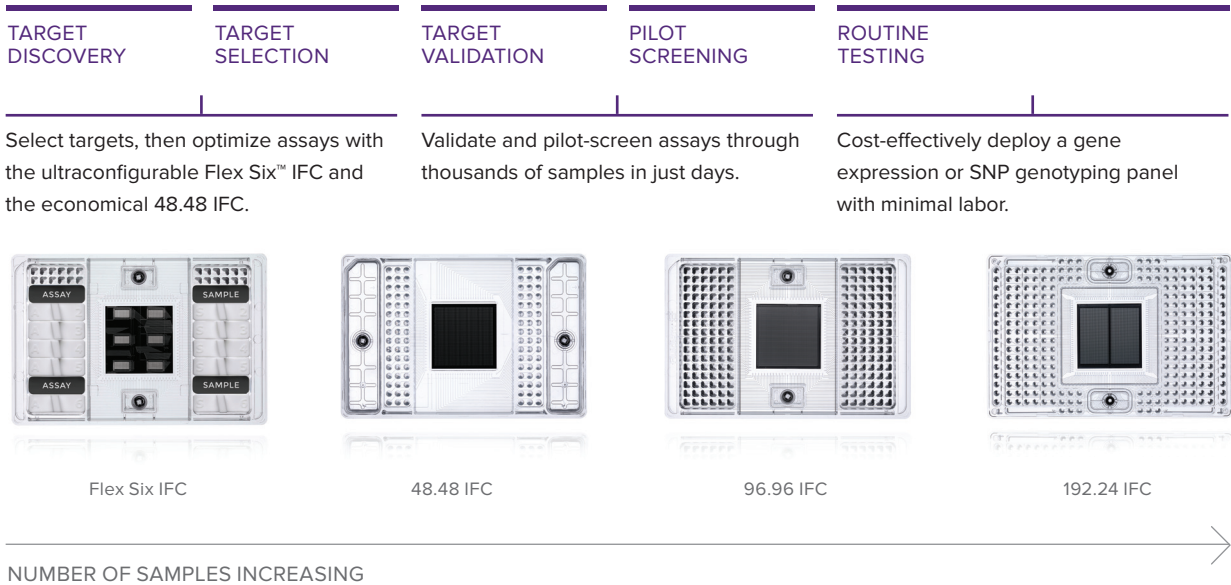
With the Biomark™ HD system, you get reliable production-scale throughput and exquisite single-cell sensitivity, with a wide variety of sample types and chemistry choices to accommodate the most genomic applications. Fluidigm integrated fluidic circuits (IFCs) empower life science research by automating PCR reactions in nanoliter volumes. This means using less sample and reagent, and a single microfluidic device, to achieve the high-quality, consistent results your work depends on.

NO MORE COMPROMISING FOR QUALITY

- Design experiments to match your needs across the widest range of genomic applications.
- Detect unique molecular signatures in individual cells and rare cell populations.
- Conserve precious samples—and funding—with lower reagent use and nanoliter reactions.

Production-Scale Throughput

The Biomark HD is a flexible and high-throughput platform that enables system-wide biology. Now you can run an entire project from research, through validation and on to routine screening in a single system without compromising speed or data quality.



Single-Cell Sensitivity

With 15 orders of magnitude, the dynamic range of the Biomark HD enables direct measurement of expression profile differences across single cells to accelerate your discovery. Detect unique molecular signatures in individual cells and rare cell populations without special operator skills or hardware changes.

Maximum Applicability: Biomark HD



GENE
EXPRESSION



GENOTYPING



PROTEIN
EXPRESSION



DIGITAL PCR



SAMPLE
IDENTIFICATION

The Biomark HD sets a new standard in high-throughput genomics. Its integrated fast-capable thermal cycler and four-color detection provides even faster time to results and enough throughput for routine genomic testing applications.



Biomark HD

Easy workflow

Gene expression and genotyping

1 PRIME

Prime the Dynamic Array™ IFC to prepare it for sample transfer.



2 TRANSFER

Pipet samples and primer-probe sets into the designated inlets on the IFC.



3 LOAD

Load the IFC on the controller, which prepares the reactions.



4 RUN

Place the IFC into Biomark for thermal cycling and end-point or real-time fluorescence detection.

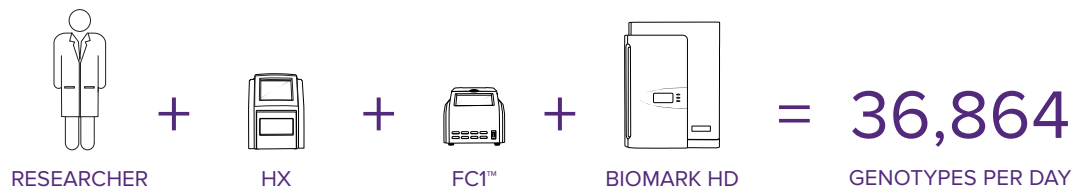


5 ANALYZE

View and analyze color-coded expression heat maps, allele maps and cluster plots for single or multiple runs with our analysis software.

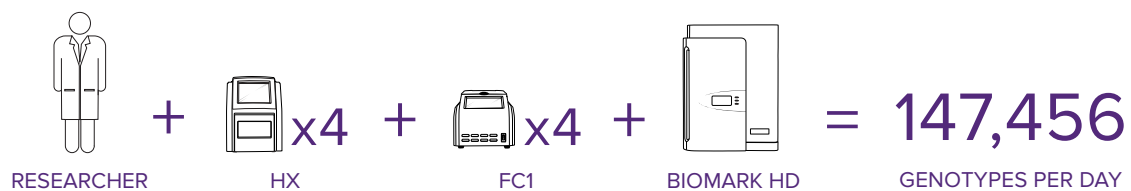
Adaptable To Your Future Needs

Project needs change over time. Save money and time by validating content and running routine screening campaigns on one platform. With its modular design, the Biomark HD is ready to scale, no matter what the future holds.



RESEARCHER + HX + FC1™ + BIOMARK HD = 36,864 GENOTYPES PER DAY





RESEARCHER + HX x4 + FC1 x4 + BIOMARK HD = 147,456 GENOTYPES PER DAY

The Complete Family: The Biomark HD System

The Biomark HD system is the only multipurpose real-time PCR system that performs genotyping, gene expression profiling, quantitative real-time digital PCR (qdPCR), and single-cell analysis.

It includes everything you need to produce high-quality data, including analysis software so you make sense of your results.

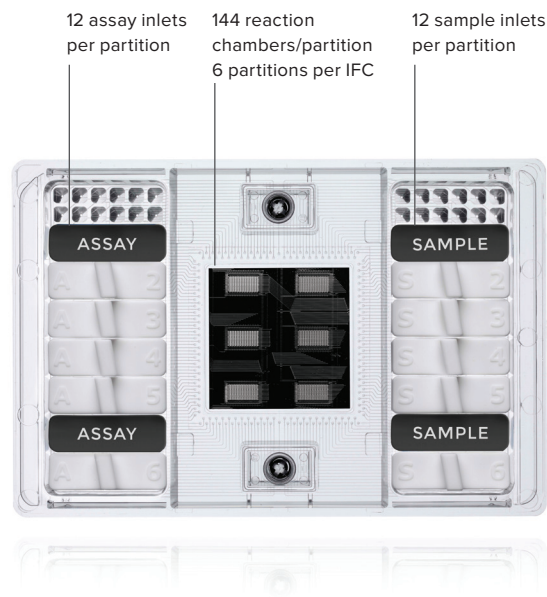
- Save time and money—run more than 9,000 experiments in four hours and generate as many as 36,000 datapoints with one person in a single day.
- Use multiple assay chemistries and different sample/assay configurations.
- Use real-time PCR to qualify and quantitate samples prior to next-generation sequencing.
- Easily manage, annotate, and archive results.
- Analyze RNA, miRNA, DNA, and proteins.



Ultimate Flexibility: Flex Six IFC

The Flex Six IFC has six 12-assay-by-12-sample partitions that can each be run separately or together.

- Run each partition independently as a separate experiment or run multiple partitions simultaneously.
- Run different combinations of 12 to 72 assays or 12 to 72 samples per experiment (see table 2 below).
- Use the first partition on day 1 and take up to 90 days to use the other five, with no loss in performance.
- Run fewer samples more often—no more waiting to collect enough samples.
- Move low-throughput work from plates to the Flex Six IFC and never have to re-optimize when scaling up.



Flex Six™ IFC

TABLE 1

IFC Type: Flex Six	
Assay Inlets	6 x 12
Sample Inlets	6 x 12
Reaction Chambers	864
Reaction Volume	8.9 nL
IFC Controller Compatibility	IFC Controller HX, Juno™ system

TABLE 2

Flex Six IFC Example Sample/Assay Combinations								
Samples	1–12	12	12	24	24	36	72	24
Assays	1–12	24	72	24	36	24	12	12
Partitions Used	1	2	6	4	6	6	6	2

The Workhorses: 48.48 and 96.96 IFCs

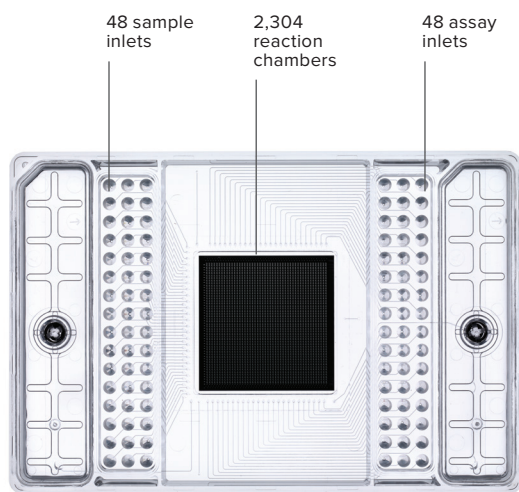
These IFCs allow you to radically reduce hands-on time and total time to results while increasing the data accuracy of your gene expression or SNP genotyping studies.

You get great data reliability and the microfluidic architecture does the heavy lifting, combining samples and assays into 2,304 or 9,216 parallel PCR reactions.

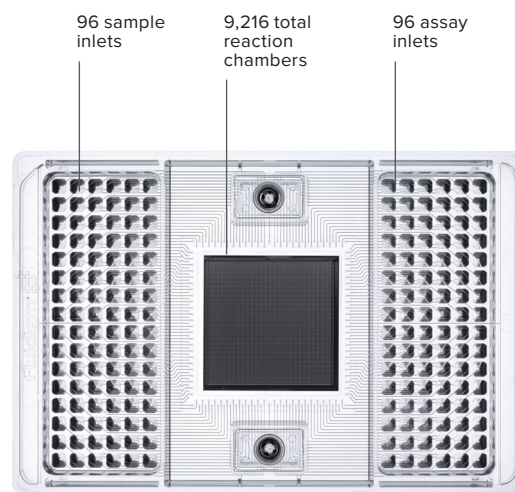
That's up to 24 times what you get with a 384-well plate, and it only takes 15 minutes of hands-on time.

TABLE 1

IFC Type	48.48 IFC	96.96 IFC
Assay Inlets	48	96
Sample Inlets	48	96
Reaction Chambers	2,304	9,216
Reaction Volume	10.1 nL	6.7 nL
IFC Controller Compatibility	IFC Controller MX, Juno system	IFC Controller HX, Juno system



48.48 IFC



96.96 IFC

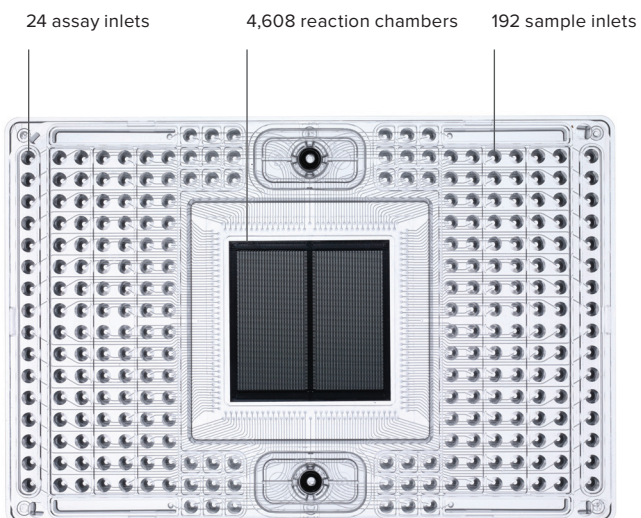
Unmatched Speed and Throughput: 192.24 IFC

The 192.24 IFC is the easiest and fastest tool for high-throughput routine screening. Stop wasting time (and plastics) and start collecting data.

- Quickly screen more than 2,000 samples per day for any assay panel of up to 24 targets.
- With a single run, produce 4,608 data points in as little as one hour with only 15 minutes of hands-on time.
- Generate 50,688 data points—the equivalent of 132 runs on a 384-well plate—in a single eight hour day without compromising data quality.

TABLE 1

IFC Type: 192.24	
Assay Inlets	24
Sample Inlets	192
Reaction Chambers	4,608
Reaction Volume	8 nL
IFC Controller Compatibility	IFC Controller RX, Juno system



Ordering Information

GENE EXPRESSION PRODUCTS

Product	Product Description	Part Number
IFC Packs	Single 192.24 GE IFC	100-6266
	10 192.24 GE IFCs and 10 Control Line Fluid Syringes	100-6474
	Flex Six™ Gene Expression IFC	100-6308
	48.48 Dynamic Array™ IFC for Gene Expression	BMK-M-48.48
	96.96 Dynamic Array IFC for Gene Expression	BMK-M-96.96
Reagent Kits	192.24 GE Delta Gene™ Sample and Assay Reagent Kit—1 IFC	100-6660
	192.24 GE Delta Gene Sample and Assay Reagent Kit—10 IFCs	100-6654
	192.24 GE Sample and Assay Reagent Kit—1 IFC	100-6473
	192.24 GE Sample and Assay Reagent Kit—10 IFCs	100-6267
	Flex Six Gene Expression Reagent Kit—5 IFCs	100-6310
	Flex Six Delta Gene Gene Expression Reagent Kit—5 IFCs	100-6657
	GE 48.48 Dynamic Array Sample & Assay Loading Reagent Kit—10 IFCs	85000800
	GE 48.48 Dynamic Array Sample & Assay Loading Reagent Kit—40 IFCs	85000801
	GE 48.48 Dynamic Array DNA Binding Dye Sample & Assay Loading Reagent Kit—10 IFCs	100-3400
	GE 96.96 Dynamic Array Sample & Assay Loading Reagent Kit—10 IFCs	85000802
	GE 96.96 Dynamic Array Sample & Assay Loading Reagent Kit—40 IFCs	85000803
	GE 96.96 Dynamic Array DNA Binding Dye Sample & Assay Loading Reagent Kit—10 IFCs	100-3415
	IFC and Reagent Kit Bundles	192.24 GE Delta Gene Kit—10 IFCs
192.24 GE Kit—10 IFCs		100-6265
Flex Six Gene Expression Kit—5 IFCs		100-6309
Flex Six Delta Gene Gene Expression Kit—5 IFCs		100-6656
48.48 + Sample/Loading Kit—10-IFC Package		BMK-M10-48.48
48.48 + DNA Binding Dye Sample/Loading Kit—10-IFC Package		BMK-M10-48.48-EG
96.96 + Sample/Loading Kit—10-IFC		BMK-M10-96.96
96.96 + DNA Binding Dye Sample/Loading Kit—10-IFC		BMK-M10-96.96-EG

GENE EXPRESSION PRODUCTS

Product	Product Description	Part Number
Reagents	Preamp Master Mix—1 Tube	100-5580
	Preamp Master Mix—5 Tubes	100-5581
	Reverse Transcription Master Mix—1 Tube	100-6298
	Reverse Transcription Master Mix—5 Tubes	100-6299
	Preamp and Reverse Transcription Master Mix—1 Tube each	100-6300
	Preamp and Reverse Transcription Master Mix—5 Tubes each	100-6301
Assays	Delta Gene Assays (wet tested)	ASY-GE-WET
	Delta Gene Assays	ASY-GE
Control Line Fluid	Control Line Fluid Control Line Fluid Kit—96.96	89000020
	Control Line Fluid Kit—48.48	89000021
	Control Line Fluid Kit 192.24	100-4058

Ordering Information

DIGITAL PCR PRODUCTS

Product	Product Description	Part Number
IFC and Reagent Kit Bundles	48.770 Digital Array™ IFC	BMK-M-48.770
	48.770 + Sample/Loading Kit—10-IFC Package	BMK-M10-48.770
	qPCR 37K™ IFC multipack + Sample/Loading Kit—20-IFC Package	100-6151
	qPCR 37K IFC multipack (20-IFC Package)	100-6152
	12.765 Digital Array IFC	BMK-M-12.765
	12.765 + Sample/Loading Kit—10-IFC Package	BMK-M10-12.765
Reagents	Digital Array 12.765 or 48.770 Loading Kit—10 IFCs	85000820
	Digital Array (12.765, 48.770, qPCR 37K) Loading Kit—for 20 IFCs	100-6153
Control Line Fluid	Control Line Fluid Kit—dynamic (48.48 only)/digital/access	89000020

Ordering Information

GENOTYPING PRODUCTS

Product	Product Description	Part Number
IFC Packs	192.24 Dynamic Array IFC for SNP Genotyping	BMK-M-192.24GT
	Flex Six Genotyping IFC	100-7485
	48.48 Dynamic Array IFC for Genotyping	BMK-M-48.48GT
	96.96 Dynamic Array IFC for Genotyping	BMK-M-96.96GT
	96.96 Dynamic Array IFC for Genotyping Multipack—50 IFCs	100-6172
	96.96 Dynamic Array IFC for Genotyping Multipack—100 IFCs	100-6173
Reagent Kits	GT 192.24 Dynamic Array Sample & Assay Loading Reagent Kit—10 IFCs	100-3459
	SNP Type™ Genotyping Reagent Kit (192.24)	100-4136
	Flex Six Fast Genotyping Reagent Kit—5 IFCs	100-7353
	Flex Six Genotyping Reagent Kit—5 IFCs	100-7351
	Flex Six SNP Type Genotyping Reagent Kit—5 IFCs	100-7355
	GT 48.48 Dynamic Array Sample & Assay Loading Reagent Kit—10 IFCs	85000810
	GT 48.48 Dynamic Array Sample & Assay Loading Reagent Kit—40 IFCs	85000811
	SNP Type Genotyping Reagent Kit (48.48)	100-4135
	GT 96.96 Dynamic Array Sample & Assay Loading Reagent Kit—10 IFCs	85000812
	GT 96.96 Dynamic Array Sample & Assay Loading Reagent Kit—40 IFCs	85000813
	SNP Type Genotyping Reagent Kit (96.96)	100-4134

Product	Product Description	Part Number
IFC and Reagent Kit Bundles	192.24 GT + Sample/Loading Kit—10-IFC Package	BMK-M10-192.24GT
	192.24 GT + Sample/Loading + SNP Type Reagents Kit—10-IFC Package	100-6338
	Flex Six Fast Genotyping Kit—5 IFCs	100-7354
	Flex Six SNP Type Genotyping Kit—5 IFCs	100-7356
	Flex Six Genotyping Kit—5 IFCs	100-7352
	48.48 GT + Sample/Loading Kit—10-IFC Package	BMK-M10-48.48GT
	48.48 GT + Sample/Loading + SNPtype Reagents Kit—10-IFCPackage	100-6339
	96.96 GT + Sample/Loading Kit—10-IFC Package	BMK-M10-96.96GT
	96.96 GT + Sample/Loading + SNP Type Reagents Kit—10-IFC Package	BMK-M10-96.96GT-SNP
Reagents	Bulk 20X GT Sample Loading Reagent, 25 mL	100-3554
	Bulk 2X Assay Loading Reagent, 25 mL	100-3553
	20X Fast GT Sample Loading Reagent—5 Tubes	100-7606
	20X GT Sample Loading Reagent—5 Tubes	100-7612
	20X SNP Type Sample Loading Reagent—5 Tubes	100-7608
	2X Assay Loading Reagent—5 Tubes	100-7611
	60X SNP Type Reagent—5 Tubes	100-7607
	Assays	SNP Trace™ Panel
SNP Type Assay (Large)		ASY-GT-L
SNP Type Assay (Medium)		ASY-GT-M
SNP Type Assay (Small)		ASY-GT-S
Control Line Fluid	Control Line Fluid Kit 192.24	100-4058
	Control Line Fluid Kit—Dynamic (48.48 only)/Digital/Access	89000020
	Control Line Fluid Kit—96.96	89000021



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PN 100-3285 Rev 03