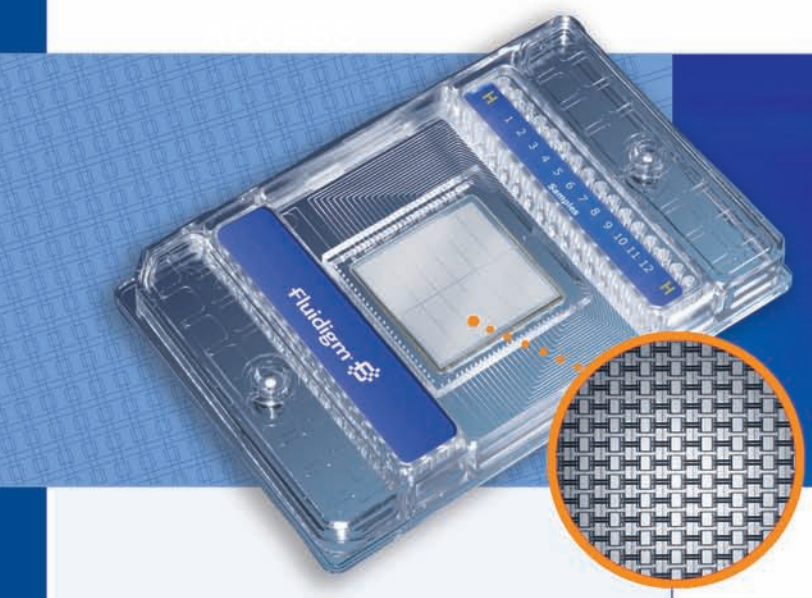
Fluidigm®



SlingShot™ Kit from Fluidigm

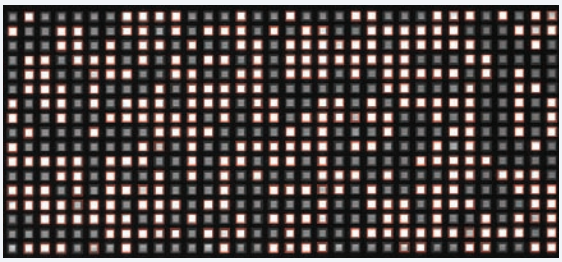
– *Sample Quantification for Next Gen Sequencing*

SAMPLE QUANTIFICATION MADE EASY

The SlingShot™ Kit is a unique integrated fluidic circuit (IFC) system for absolute quantification of amplifiable DNAs in your library. With SlingShot technology, you gain the power of digital PCR on digital array IFCs to determine the optimal DNA-to-bead ratio for emPCR. SlingShot includes library-specific assay kits for various DNA sequencing platforms.

Key Benefits –

- ***Requires less sample input*** *— up to a 1,000-fold reduction.*
- ***Lowers costs by eliminating time-consuming titration steps.***
- ***Speeds time to results*** *— Less than four hours to complete the SlingShot workflow.*



Each bright spot indicates a positive PCR reaction. The total number of positives is used to calculate the number of sequenceable amplicons in the sample.

SlingShot Sample Quantification Explained

Fluidigm's new SlingShot system uses digital PCR assays to detect only amplifiable molecules within the sample mixture. This absolute measure eliminates the need for mass-based calibrators or reference samples. In addition, because of digital PCR sensitivity, only minimal sample concentrations are required to achieve quantitative results. The accuracy and sensitivity offered by SlingShot kits allows you to sequence previously undetectable samples while saving time and money.

SlingShot Work Flow

DNA

1 **Dispense.** Pipette DNA samples, premixed with master mix and primer-probe sets, into inlets on the frame of the chip.

00:05

2 **Load.** Place the Digital Array IFC on the IFC controller to automatically load the sample mixture into reaction chambers.

00:50

3 **Run.** Place the digital array on the BioMark™ Real-Time PCR System (or Stand-Alone Thermal Cycler and EP1 Reader) for thermal cycling and fluourescence detection.

03:20

4 **Analyze.** Use Digital PCR Analysis software to count the number of positive PCR reactions per sample and calculate the sample concentration.

03:30

emPCR

SlingShot™ Kit by Fluidigm

Specifications

PARAMETER	
Detection sensitivity	Single copy (if copy is present in the reaction chamber)
Footprint dimensions	128 mm x 85 mm x 14 mm
Inlet spacing on input frame	4.5 mm pitch
Minimum input volume/sample	8 uL (12 samples per array)
Liquid transfer steps	12
Sample inlets	12
Reactions per sample	765
Total reaction chambers	9,180
Individual reaction volume	6 nL
Total reaction volume/sample	4.6 uL (per sample)
Instrument compatibility	BioMark Real-Time PCR System, EP1 Reader, IFC Controller MX

Fluidigm System for Genetic Analysis

- **Dynamic Array IFCs**
  Consumable IFCs for high-throughput gene expression analysis and SNP genotyping.
- **Digital Array IFCs**
  Consumable IFCs for digital PCR.
- **IFC Controller**
  Integrated hardware/software for loading IFCs.
- **Stand-Alone Thermal Cycler**
  Integrated hardware/software for thermal cycling of IFCs.
- **EP1 Reader | Real-Time PCR System**
  Integrated hardware/software for detection of fluorescent signal within IFCs.
- **Software Suite**
  Analysis software for gene expression analysis, SNP genotyping, and digital PCR.
- **Service Plans**
  Hardware service and software maintenance plans.

SlingShot Library-Specific Assays

Part No.	SlingShot Reagent Kit Description
89000025	For Use with Illumina® Sequencer
89000024	For Use with Roche® 454 MID Sequencer
89000023	For Use with Roche® 454 Shotgun Sequencer
100-0221	For Use with Roche® 454 Titanium Sequencer
89000026	For Use with SOLiD® Sequencer

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