

SNPtype™ Assays

Custom primer design for high-throughput SNP genotyping

- Compatible with Specific Target Amplification (STA) for improved results from low quality or dilute samples
- Human and non-human designs are available
- Sufficient for 100 Fluidigm 192.24, 96.96, or 48.48 Dynamic Array IFCs

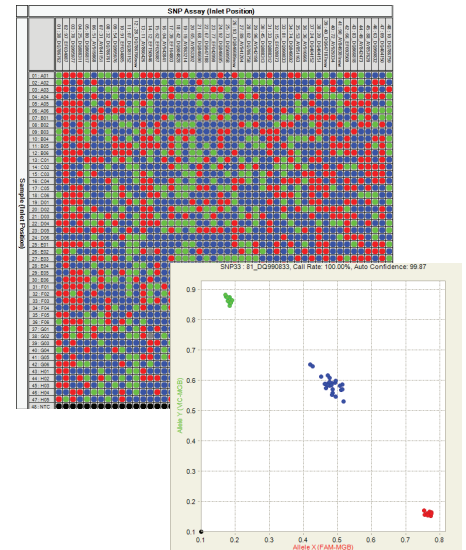
PRODUCTION SCALE GENOTYPING

Fluidigm® SNPtype Assays provide a high-throughput, low-cost single nucleotide polymorphism (SNP) genotyping solution enabling rapid screening. The assays are based on allele-specific PCR SNP detection chemistry and combine the advantages of minimum experimental setup time and flexible assay choice with the reliability of Dynamic Array™ integrated fluidic circuits (IFCs).

Low costs and high reproducibility are critical for high sample throughput applications including production-scale SNP genotyping and screening studies. SNPtype Assays employ tagged, allele-specific PCR primers and a common reverse primer. A universal probe set is used in every reaction, producing uniform fluorescence while significantly reducing both startup and running costs. The assays provide excellent results on Dynamic Array IFCs and are formatted to work directly with existing workflows. Unlike other vendors, we provide the locus-specific primer sequences with all

orders, confirming target locations and assuring reproducibility.

SNPtype Assays work seamlessly with the EP1™ or the BioMark™ HD Systems. When used in conjunction with the FC1™ Cyclor or BioMark HD System, rapid thermal cycling is achievable, allowing faster time to-results which greatly increases sample throughput.



Call map view for 48 cattle samples and 48 SNPtype™ Assays (above); cluster plot for a typical SNPtype Assay (right).

WORKFLOW

- 1 Assay Design**
Design Fluidigm® SNPtype™ Assays for human or non-human applications.
- 2 Prime**
Prime the IFC to prepare for samples and assays.
- 3 Transfer**
Transfer samples and assays into separate inlets on the IFC.
- 4 Load**
Place the IFC on the IFC Controller to automatically set up the reaction.
- 5 Run**
Place the IFC on the EP1 Reader or BioMark HD System for fluorescence detection.
- 6 Analyze**
Use Fluidigm Genotyping Analysis Software to view and interpret results.

PRODUCT SPECIFICATIONS*

- Sample concentrations of ≥ 60 nanograms per microliter of human genome size equivalent required
- Assay conversion rate $>85\%$; success rate $>80\%$ for sequences with $<65\%$ GC content
- Average call rate $>98\%$; average call accuracy $>99\%$ (high-quality DNA)
- Performance does not apply to SNPs in copy number variant regions $<65\%$ GC content

ORDERING INFORMATION

Product	P/N
SNPtype Assays (Large)	ASY-GT-L
SNPtype Assays (Medium)	ASY-GT-M
SNPtype Assays (Small)	ASY-GT-S
SNPtype Genotyping Reagent Kit	100-3673

* Technical Definitions

Conversion rate: Ability to design an assay

Call rate: Ability to make an automatic software call and up to 10% manual calls

Call accuracy: Matches True SNP, TaqMan[®]/HapMap

Success rate: Number of assays that meet defined performance/total assays designed

FLUIDIGM SOLUTION FOR SNP GENOTYPING

SNPtype™ Assays

Custom assays designed for the BioMark™ HD and EP1™ Systems

Dynamic Array™ IFCs

Consumable IFCs for high-throughput SNP genotyping

BioMark HD System

Integrated hardware/software for gene expression, genotyping and digital PCR using IFCs

EP1 Reader

Integrated hardware/software for genotyping using IFCs

IFC Controller

IFC Controller for priming and loading Dynamic Array IFCs

FC1™ Cyclor

Integrated hardware/software for thermal cycling of IFCs

Fluidigm Genotyping Analysis Software

Analysis software for SNP genotyping analysis

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For Research Use Only. Not for use in diagnostic procedures.

100-3464 Rev C1 10/2013

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