

# Illumina® FastTrack Genotyping Services

Experience personalized service, industry-leading data quality, and guaranteed turnaround time with Illumina's FastTrack Genotyping Services for a wide range of SNP genotyping projects.

“Overall, our experience working with Illumina has been simply outstanding. The scientific and service staff of this organization are highly talented and committed individuals... The staff of Illumina went well beyond the normal service requirement in order to maximize information yield on these samples.”

—PETER K. GREGERSON, M.D., Center Head, The Robert S. Boas Center for Genomics and Human Genetics

At Illumina, we work collaboratively with you to achieve your research objectives. Using Illumina's cutting-edge SNP genotyping technology, our in-house geneticists have consistently provided on-time, reliable genotyping services to academic and pharmaceutical customers since 2002. In collaboration with our customers, we have provided data for the study of many diseases through services projects, from various cancers to diabetes and schizophrenia. Using Illumina's FastTrack Services gives you the same competitive advantages as our installed base of customers: the ability to conduct whole-genome association studies, DNA copy number studies, linkage analysis, and fine mapping studies in a timely fashion at a reasonable cost.

In addition to the benefits you can realize by outsourcing your discovery efforts, you will also appreciate the professional design assistance and collaborative approach Illumina has proudly delivered since program inception. We highly value the quality outcome of your projects as much as your experience working with us.

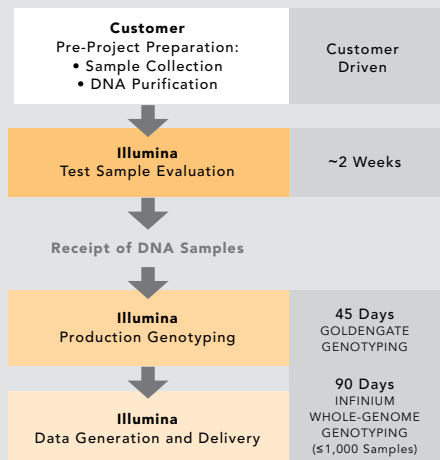


#### KEY HIGHLIGHTS OF PAST PERFORMANCE

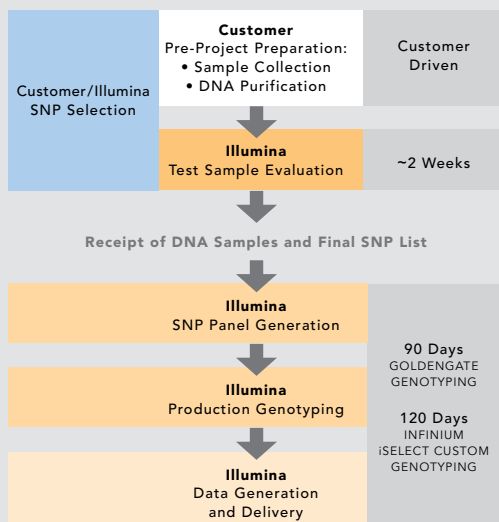
- **Infinium® Service Projects:**  
Sample Success Rate: 99.5%  
Call Rate: 99.89%
- **GoldenGate® Service Projects:**  
DNA Success Rate: 97.6%  
Call Rate: 99.75%



## STANDARD PANEL GENOTYPING PROJECT TIMELINE



## CUSTOM PANEL GENOTYPING PROJECT TIMELINE



## PERSONALIZED SERVICE WITH DEDICATED EXPERTS

- An expert molecular geneticist project manager assigned to each project
- Project completion and success ensured with guaranteed fast delivery
- Intensive customer engagement with proven process flow driven by best practices
- Each project dataset reviewed and QC'd by the services group
- Every sample and every SNP locus assigned a quality score
- Streamlined custom SNP selection from an up-to-date database of >1 million validated SNP markers
- Final annotated SNP lists specified with expected assay conversion rates

## RELIABLE, PROVEN, FAST, AND ROBUST PROCESS

- Over 200 projects between 2002 and 2006, all delivered on time
- Guaranteed delivery date, with average study turnaround time <90 days
- Over 200,000 DNA samples genotyped, with nearly 100% success
- World-class Illumina BeadLab environment capable of generating over 75 million genotypes per day
- Expertise with large datasets—over 1 billion genotypes delivered for a single customer project
- Fully integrated custom Laboratory Information Management System (LIMS) tracking from sample input to data output and analysis
- Barcoded plates sent to customers to ensure accurate sample tracking
- Streamlined process for safe and secure dry ice sample shipment

## INDUSTRY-LEADING DATA QUALITY

- Consistently impressive results from best-performing genotyping products, quality-driven processes, and professional expertise
- Maximal information value at every locus
- Illumina control samples included on every sample plate for extensive real-time QC and data review in LIMS environment
- Low sample input requirements

**COMPREHENSIVE STUDY TYPES**

- Industry's most flexible and comprehensive portfolio with Infinium and GoldenGate assays
- Standard and custom content
- Whole-genome and fine mapping studies
- Scalable multiplex levels—from 384 custom SNPs to 1 million standard SNPs per assay
- Wide sample size range—from 300 to several thousand
- Tag SNP selection available for any combination of the four HapMap populations
- All organisms supported; extensive experience with organisms such as human, cow, pig, chicken, mouse, dog, and corn
- Seamless transition to follow-on projects—from Infinium Whole-Genome Genotyping to iSelect Custom Genotyping, and then to targeted panels with Custom GoldenGate Genotyping—all with the same trusted team, quality data, and LIMS-driven process

**SUMMARY**

Take advantage of Illumina's full menu of FastTrack Genotyping Services. Our highly experienced FastTrack Project Managers are committed to working collaboratively with you from beginning to end, to ensure the highest quality data and fast turnaround. Enjoy the benefits of innovative technologies and personalized service from the genotyping market leader.

**INFINIUM WHOLE-GENOME GENOTYPING PAST PERFORMANCE\***

(Based on all contracts between January and September 2006 >11,500 BeadChips and 3.5 billion genotypes)

Infinium Service Projects	Average
Sample Success Rate	99.47%
Locus Success Rate	99.11%
Call Rate	99.89%
Reproducibility	99.99%
Heritability (Trios)	99.98%

\* Performance for individual studies varies and depends on the DNA quality of the samples submitted and the quality of the SNPs selected

**GOLDENGATE PAST PERFORMANCE\***

Based on all contracts between January 2005 and June 2006 (>150,000 individual DNA samples from 100 projects)

GoldenGate Service Projects	Average
Custom Assay Development Success	
- Human only	92.8%
- All species	91.2%
DNA Success Rate	97.6%
Call Rate	99.75%
Reproducibility	>99.99%
Heritability	>99.99%

\* Performance for individual studies varies and depends on the DNA quality of the samples submitted and the quality of the SNPs selected

**NUMBER OF LOCI ASSAYED AND TURNAROUND TIME REQUIRED FOR FASTTRACK GENOTYPING SERVICES TO PROCESS STANDARD AND CUSTOM PANELS**

Standard Panels	Number of Loci	Guaranteed Turnaround Time
GoldenGate Genotyping	~30–6000	45 days <sup>1</sup>
Infinium Whole-Genome Genotyping	300,000–1,000,000	90 days <sup>1,2</sup>
Custom Panels		
Custom GoldenGate Genotyping	384–8,000+	90 days <sup>3</sup>
Infinium iSelect™ Custom Genotyping	7,600–60,800	120 days <sup>3</sup>
Infinium Semi-Custom HumanHap300-Duo+ Genotyping	7,600–60,800 <sup>4</sup>	120 days <sup>2,3</sup>
Infinium Semi-Custom HumanHap550+ Genotyping	7,600–121,600 <sup>5</sup>	120 days <sup>2,3</sup>

<sup>1</sup> From DNA sample submission

<sup>2</sup> For up to 1,000 samples

<sup>3</sup> From date of final SNP list and DNA sample submission

<sup>4</sup> Add 7,600–60,800 custom loci to standard 300,000 loci per sample

<sup>5</sup> Add 7,600–121,600 custom loci to standard 550,000 loci

## ORDERING INFORMATION

## FASTTRACK GENOTYPING SERVICES STANDARD PANEL PROJECTS

CATALOG #	PRODUCT	Number of Loci	DNA Required per Sample (µg)	Volume Required per Sample (µl)
	<b>Infinium Whole-Genome Genotyping Standard Panel Service Project</b>			
FT-20-101	HumanHap300-Duo Genotyping BeadChip	>300,000	3	60
FT-20-102	HumanHap240S-Duo Genotyping BeadChip	>240,000	3	60
FT-20-104	HumanHap550 Genotyping BeadChip	>550,000	3	60
FT-20-105	HumanHap650Y Genotyping BeadChip	>650,000	3	60
FT-20-106	HumanHap450S DNA Analysis BeadChip	>450,000	3	60
FT-20-107	Human1M DNA Analysis BeadChip	>1,000,000	3	60
FT-20-108	HumanCNV370-Duo DNA Analysis BeadChip	>370,000	3	60
FT-20-111	HumanLinkage-12 DNA Analysis BeadChip	>6,000	1.5	30
FT-20-109 <sup>6</sup>	BovineSNP50 Genotyping BeadChip	>50,000	1.5	30
FT-20-110 <sup>6</sup>	CanineSNP20 Genotyping BeadChip	>20,000	1.5	30
FT-20-113 <sup>6</sup>	CVDSNP60 Genotyping BeadChip	>60,000	1.5	30
FT-10-101	<b>GoldenGate Genotyping Standard Panel Service Project</b>			
	Linkage V Panel	6,056	4	80
	Mouse LD Linkage	377	2	40
	Mouse MD Linkage	1,449	2	40
	MHC Panel Set	2,360	4	80
	MHC Mapping Panel	1,293	2	40
	MHC Exon-Centric Panel	1,228	2	40
	Cancer SNP Panel	1,421	2	40

<sup>6</sup>These products are currently available for ordering, but will not be in use until late 2007

## FASTTRACK GENOTYPING SERVICES CUSTOM PANEL PROJECTS

CATALOG #	PRODUCT	Number of Loci	DNA Required per Sample (µg)	Volume Required per Sample (µl)
FT-15-101	<b>Custom GoldenGate Genotyping Project</b>	up to 1,536 1,632–4,608 4,704–9,216	2 4 6	40 80 120
FT-25-101	<b>Infinium iSelect Custom Genotyping Project</b>	7,600–60,800	1.5	30
FT-25-102	<b>Infinium Semi-Custom HumanHap300-Duo+ Genotyping Project</b>	7,600–60,800 <sup>7</sup>	3	60
FT-25-103	<b>Infinium Semi-Custom HumanHap550+ Genotyping Project</b>	7,600–121,600 <sup>8</sup>	3	60

<sup>7</sup>Add 7,600–60,800 custom loci to the standard 300,000 loci per sample on the HumanHap300-Duo Genotyping BeadChip

<sup>8</sup>Add 7,600–121,600 custom loci to the standard 550,000 loci on the HumanHap550 Genotyping BeadChip

## ADDITIONAL INFORMATION

Please visit [www.illumina.com](http://www.illumina.com)

## Illumina, Inc.

## Customer Solutions

9885 Towne Centre Drive

San Diego, CA 92121-1975

1.800.809.4566 (toll free)

1.858.202.4566 (outside the U.S.)

[techsupport@illumina.com](mailto:techsupport@illumina.com)

[www.illumina.com](http://www.illumina.com)

## FOR RESEARCH USE ONLY

© 2007 Illumina, Inc. All rights reserved.

Illumina, Solexa, Sentrix, Array of Arrays, BeadArray, BeadXpress, DASL, Oligator, GoldenGate, Infinium, CSP, IntelliHyb, iSelect, VeraCode, and Making Sense Out Of Life are trademarks or registered trademarks of Illumina. Third-party trademarks are attributed to their respective owners.

Pub. No. 370-2006-025 21Jul07

