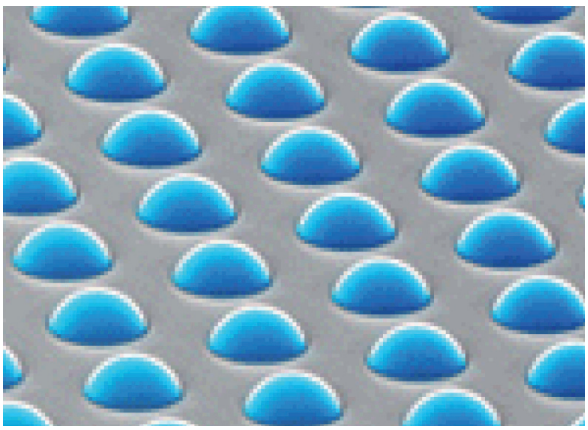
atlasbiolabs

molecular genetic analyses

Illumina Whole-Genome Human SNP Genotyping Service

General Information



Genome-wide association studies (GWAS) map genetic variants associated with diseases across the genome. Infinium HD BeadChips offer GWAS researchers the flexibility to profile samples in various multiplex formats, and deliver dense genome-wide coverage with carefully selected tag SNPs.

Illumina's unique BeadArray technology is based on 3 micron silica beads that self assemble in microwells on planar silica slides. Each bead is covered with hundreds of thousands of copies of a specific oligonucleotide, which acts as the capture sequence in the Infinium HD Assay protocol. Outstanding characteristics of the BeadArray technology include 100% quality control of every single array, and high feature-redundancy (>20x average) providing high-confidence results.

Why Choose ATLAS Biolabs' Services?

- ATLAS Biolabs is certified according to the international standard DIN EN ISO 9001:2008
- ATLAS Biolabs' personnel have successfully analysed tens of thousands of microarrays since 2001
- Our service is fast (processing of up to 100 samples per day), cost-effective and extremely reliable
- We offer professional assistance for both study design as well as further data analysis and interpretation

Illumina's Whole-Genome Human SNP Genotyping Portfolio

Infinium HD Bead Chips	samples/chip	markers per sample
Human1M-Duo	2	> 1 million
HumanOmni1-Quad	4	> 1 million, incl. content from the "1000 Genomes Project"
HumanOmniExpress	12	> 7700,000
Human660W-Quad	4	> 658,000

In 2010, Illumina plans to add new SNPs from the "1000 Genomes Project" to its HD bead chips, which shall result in a 5M chip covering many SNPs with minor allele frequencies as low as 1%.

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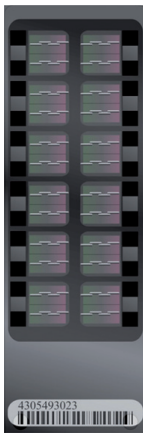

Service Range

Our Full Service covers the complete process from quality control of genomic DNA to determi-nation of genotypes.

Quality control

ATLAS Biolabs is certified according to the international standard DIN EN ISO 9001:2008. Our processes are subject to rigorous quality control at all steps:

- Quality and quantity control of genomic DNA by agarose gel analysis
- Negative control in each sample processing batch to exclude DNA contamination
- Positive control in each sample processing batch to ensure a technically correct laboratory process
- All quality assurance procedures are electronically documented and available for our customers on demand

Data Delivery

- Timeline: 3-4 weeks after receipt of samples (for >100 samples, please inquire)
- CD-ROM/DVD/external HDD sent to customer including all original data (raw data) as well as the genotype data in XLS or TXT format

Related ATLAS Biolabs Service

- Illumina Whole-Genome SNP Genotyping Service for Production Animals

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