

■ Illumina Whole-Genome SNP Genotyping Service for Production Animals

General Information

For a variety of production animals, draft assemblies of the genome are nowadays available, as well as growing information about genetic heterogeneity such as single nucleotide polymorphisms (SNPs).

This enabled the design of whole-genome SNP chips which are increasingly used to map quantitative trait loci (QTLs) as well as loci associated with increased resistance to common diseases of production animals. In comparison to traditional animal breeding, suited individuals can be selected much earlier.

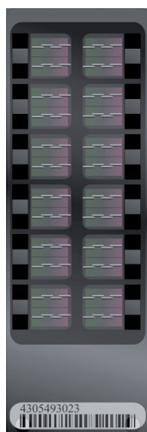
Illumina's unique BeadArray technology is based on 3 micron silica beads that self assemble in microwells on planar silica slides. Each bead is covered with hundreds of thousands of copies of a specific oligonucleotide which acts as the capture sequence in the Infinium HD Assay protocol.

Outstanding characteristics of the BeadArray technology include 100% quality control of every single array, and the 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 planning experiments as well as further data analysis and interpretation
- We offer further technical support for follow-up studies with SNP marker subsets





ILLUMINA'S Whole-Genome SNP Genotyping Portfolio for Production Animals

Infinium HD Bead Chips	Samples/chip	Markers per sample
Bovine SNP50	12	50K
Bovine HD	12	500K
Porcine SNP60	12	60K
Ovine SNP50	12	50K
Equine SNP50	12	50K
Canine SNP20	12	20K
Canine HD	12	170K

Service Range

Our Full Service covers the complete process from quality control of genomic DNA to determination 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 Human SNP Genotyping Service