



Agrigenomic Solutions

Animal Breeding and Genetics



GeneSeek, a Neogen Company, was founded in 1998 and has developed into a comprehensive agricultural biotechnology service provider. GeneSeek's corporate headquarters are in a large custom built laboratory facility within the Technology Park in Lincoln, Nebraska, USA.

GeneSeek provides comprehensive genomics solutions for research and development, and commercial applications.

For 12 years we have been the trusted leader in providing high-throughput SNP and microsatellite genotyping services to the agricultural research and business communities. Let our experience, expertise and infrastructure help you in creating successful outcomes in a competitive environment.

With our Sequenom MassARRAY and Illumina iScan platforms we can handle any project, from a few SNPs on thousands of samples to a million SNPs on just a single sample. We can process any sample type including hair, blood, tissue and more.

We also provide clinical diagnostics for trait and disease markers, and for pathogen detection using DNA, quantitative real-time PCR and ELISA.



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SNP Profiling and Illumina® Services

SNP Profiling

- Genome wide SNP panels
- GoldenGate custom panels, 96–1536 SNP panels

Available Illumina Genotyping Assays

- Bovine 3K GoldenGate BeadChip – 3072 SNP panel
- Bovine SNP50 BeadChip – 54,609 informative SNP markers
- BovineHD – High density genotyping with greater than 800,000 SNP markers
- CanineHD – High density genotyping with greater than 170,000 SNP markers
- PorcineSNP60 BeadChip – 62,163 informative SNP markers
- OvineSNP50 BeadChip – 54,241 informative SNP markers
- EquineSNP50 BeadChip – 54,602 informative SNP markers
- Maize SNP50 BeadChip – 56,110 informative SNP markers
- Inquire about custom BeadChip service

Marker Assisted Selection

Key Features and Benefits

- Sequenom® MassARRAY® spectrometry-based detection system for sensitive, accurate, and rapid analyses
- 384 and 96-well options for high- and low-throughput applications
- Easy-to-use multiplexed assay design and optimization software saves research time and helps maximize efficiency
- Custom SNP panel flexibility

Identity and Trait Management

SeekSire™

- Parentage and sire identification program for cattle, swine, sheep and goats

SeekTrace™

- Traceability program for beef and pork

SeekGain™

- Targeted selection for economically important single gene porcine traits

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Agrigenomic Solutions

Product Listing



Illumina® Services

- | | | | | | |
|------|----------------------------|------|-----------------------------|------|--|
| 1000 | Bovine 3K - Tissue sample | 1060 | Canine chip - Tissue sample | 1120 | Equine chip - Tissue sample |
| 1010 | Bovine 3K - DNA only | 1070 | Canine chip - DNA only | 1130 | Equine chip - DNA only |
| 1020 | Bovine 50K - Tissue sample | 1080 | Porcine 60K - Tissue sample | 1140 | Human OmniExpress - DNA only |
| 1030 | Bovine 50K - DNA only | 1090 | Porcine 60K - DNA only | 1150 | Illumina chip - Hyb/scan
(regular chip) |
| 1040 | Bovine HD - Tissue sample | 1100 | Sheep chip - Tissue sample | 1160 | Illumina chip - Hyb/scan
(HD Chip) |
| 1050 | Bovine HD - DNA only | | | | |

Custom Sequenom® SNP genotyping panels

Custom SNP panel development and validation
Sequenom SNP panel genotyping services

Trait Analysis, Parentage, and Veterinary Diagnostics

Sample Collection

- 2000 Hair cards
- 2010 Blood cards
- 2020 Plant cards
- 2040 Transfer sample to card

Porcine Specific

- 2290 SeekSire™ - Porcine parentage
- 2410 Porcine traceback
- 2430 Porcine - SeekGain™ panel
- 2510 Porcine Stress Syndrome (HAL)
- 2520 Porcine Napole - RN
- 2530 Porcine - F4 *E. coli* - PEC
- 2540 Porcine - Insulin growth factor 2 (IGF2)
- 2550 Porcine - Swine litter size (SLS)
- 2560 Porcine swine growth and feed efficiency

- 2570 Porcine - Meat quality
- 2580 Porcine gain, growth and meat quality
- 2620 Hamp and HAL and RN
- 2630 Hamp and RN
- 2640 Hamp and HAL

Sheep/Goat Specific

- 3030 Sheep/Goat parentage

Bovine Specific

- 3040 SeekSire™ - Cattle parentage
- 3110 Bovine curly calf (AM)
- 3130 Bovine - PHA
- 3160 Bovine - OS
- 3180 Bovine - Slick coat
- 3200 Bovine coat color
- 3210 Bovine coat color with SIMPT

- 3210 Bovine - DL
- 3220 Bovine - TH
- 2460 Bovine - NH
- 2470 Bovine - IE
- 2480 Bovine - CHO
- 2490 Bovine - Dunn
- 2500 Bovine traceback
- 3230 Bovine - SIMPT

Veterinary Diagnostic Testing

- 4000 PRRSV - PCR screening
- 4070 Circo virus (PCV2) - PCR
- 4020 PRRSV ELISA
- 4040 Bovine BVDV - PCR
- 4050 Alpaca BVDV - PCR
- 4060 BVDV ELISA
- 4080 Mycobacterium Hyo- ELISA

