

Thermo Fisher Scientific Advances Genotyping to Better Understand the Genetic Makeup of Pets

Innovative panels accelerate canine and feline genotyping research

Thermo
Fisher
Scientific
today

“*“Our new AgriSeq GBS panels for dogs and cats will enable the industry to adopt and switch to highly informative SNP-based genotyping from current STR-based parentage testing,”* Martin Guillet, global head and general manager for AgriBusiness at Thermo Fisher Scientific. *“Customers will be able to provide more detailed, critical information at comparable costs and effort which will pave the way for our advancement in targeted GBS testing and screening of companion animals.”*”



AmpliSeq Canine Traits & Disorders Panel

announced the launch of three new Applied Biosystems AgriSeq targeted genotyping by sequencing (GBS) solutions that will allow customers to genotype canines and felines more efficiently and cost-effectively while gaining significantly more disease and parentage information about their pets.

“Our new AgriSeq GBS panels for dogs and cats will enable the industry to adopt and switch to highly informative SNP-based genotyping from current STR-based parentage testing,” Martin Guillet, global head and general manager for AgriBusiness at Thermo Fisher Scientific. “Customers will be able to provide more detailed, critical information at comparable costs and effort which will pave the way for our advancement in targeted GBS testing and screening of companion animals.”

The three new targeted GBS screening panels offer more comprehensive genetic data:

- **AgriSeq Canine Traits & Disorders Panel**

- 154 markers targeting 136 genetic disorders and 18 traits
- **AgriSeq Canine SNP Parentage & ID Panel**
 - 381 SNP markers for parentage and identity determination
- **AgriSeq Feline Parentage & ID + Traits & Disorders Panel**
 - 111 SNP markers for parentage and identity determination
 - 64 markers targeting 42 genetic disorders and 22 traits

The new AgriSeq GBS panels offer a cost-effective, highly multiplexed and scalable targeted genetic screening tool for companion animals. The ready-to-use panels achieve high call rates with reproducible genotyping results. Simple, high-throughput workflow on the Ion Torrent next-generation sequencing (NGS) platform provides results in just two to three days.

Over the last five years, the International Society of Animal Genetics (ISAG) has been recommending the need to review the performance of the targeted GBS markers in predicting parentage and traits for companion animals.

“In our portfolio, AgriSeq targeted GBS really closed the gap between single plex genotyping and arrays, allowing for flexible panels in the range of 100 to 5,000 genetic markers, combining parentage verification and genetic variants,” said Maarten de Groot, chief financial officer, of VHLGenetics. “The efficient AgriSeq workflow aids in our scientific and operational effectiveness.”

Consistent Performance

The need for consistent detection of informative genetic markers is critical for genetic trait detection in the canine and feline industry. A targeted GBS method like AgriSeq has an advantage over non-targeted GBS approaches which are highly susceptible to allele drop-outs and missing data. Using the AgriSeq workflow to target hundreds to thousands of markers simultaneously in a highly reproducible manner across diverse sample sets is now possible. With inputs from multiple industry leaders and ISAG member laboratories, the Thermo Fisher Scientific team has developed and validated the performance of panels with SNPs and complex markers such as MNPs and InDels for companion animals and livestock.

For more information about the [AgriSeq GBS panels](#), please visit www.thermofisher.com/agrigenomics.

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

###

About Thermo Fisher Scientific

Thermo Fisher Scientific Inc. is the world leader in serving science, with revenues of more than \$24 billion and approximately 70,000 employees globally. Our mission is to enable our customers to make the world healthier, cleaner and safer. We help our customers accelerate life sciences research, solve complex analytical challenges, improve patient diagnostics, deliver medicines to market and increase laboratory productivity. Through our premier brands – Thermo Scientific, Applied Biosystems, Invitrogen, Fisher Scientific and Unity Lab Services – we offer an unmatched combination of innovative technologies, purchasing convenience and comprehensive services. For more information, please visit www.thermofisher.com.