Agilent Technologies Introduces First Commercial Exome Target Enrichment Kit for Next-Generation Sequencing of a Model Organism

SANTA CLARA, Calif., Jan. 19, 2011 – Agilent Technologies Inc. (NYSE: A) today introduced the Agilent SureSelect XT Mouse All Exon Kit, the first commercial system for target enrichment of a model organism exome, to streamline next-generation sequencing experiments.

Agilent collaborated with Dr. Yoichi Gondo of Japan’s RIKEN Institute to develop the mouse exome target enrichment product, based on the lab’s good results using Agilent’s SureSelect Human All Exon kit.

“We were pleased to have the opportunity to work with Agilent on this innovative new product,” said Dr. Gondo. “We tested it on our ENU-mutagenized mouse genome, in which one ENU-induced mutation was induced approximately every 1Mb. Using the SureSelect Mouse All Exon kit, we found 61 ENU-induced mutations at the very first trial, which was much more than we expected.”

“Targeted human exome sequencing has proven to be a very powerful discovery tool in genetics, and Agilent’s SureSelect portfolio of customer-defined and human exome kits have been at the forefront of this round of discoveries with an industry-leading publication record,” said Fred P. Ernani, Ph.D., Agilent SureSelect Platform Marketing Director. “Given the important role of the mouse as a model organism in human disease research, the development of a mouse exome
target enrichment kit was a logical next step in our aggressive SureSelect product development program.”

SureSelect XT combines sequencing library preparation and gDNA preparative reagents with the proven SureSelect target enrichment system. This, together with Agilent’s automation portfolio, adds an unprecedented level of convenience and productivity to high-performance target enrichment.

The launch of SureSelect XT Mouse All Exon Kit brings the total number of Agilent SureSelect kits to 34 (since inception in February 2009). The system has been cited in more than 25 papers, covering research into a wide range of heritable disorders.

Agilent’s SureSelectXT Target Enrichment System offers the broadest range of complete target enrichment solutions and the most highly optimized protocols for a diverse set of sequencing methods and platforms. SureSelect XT products are available for enrichment of target sizes ranging from smaller than 200 Kb to more than 50 Mb in a single tube.

Target enrichment streamlines workflows by letting researchers sequence just the genomic regions of interest rather than entire genomes. Combined with the increasing capacity of the leading next-generation sequencers, the multiplexing support capabilities of the SureSelect XT platform make it possible for geneticists to interrogate the genomes of more samples per study than previously possible. One of the rate-limiting steps in such studies has been library preparation and target enrichment. To enable high-throughput sample processing efficiency, Agilent offers an integrated workstation that automates SureSelect XT library preparation and target enrichment workflows.

Protocols now support Illumina end sequencing, paired-end sequencing and indexing protocols in addition to fragment library format, paired-end sequencing and barcoding on the SOLiD System. Most recently the SureSelect platform has been extended to the Roche 454 System as well bringing the full range of customer-defined and catalog SureSelect offerings to all three major next-generation sequencing instruments.
SureSelect XT also allows the highest degree of customization. Users of Agilent’s eArray xD desktop design tool can improve the efficiency of their research by easily designing custom products to target any genome of interest, all in a single tube. Agilent also offers the eArray online design tool, enabling users to customize predefined SureSelect kits such as the SureSelect Mouse All Exon series of products.

About Agilent Technologies

Agilent Technologies Inc. (NYSE: A) is the world’s premier measurement company and a technology leader in chemical analysis, life sciences, electronics and communications. The company’s 18,500 employees serve customers in more than 100 countries. Agilent had net revenues of $5.4 billion in fiscal 2010. Information about Agilent is available at www.agilent.com.

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