

# SureSelect

## SureSelect<sup>XT</sup> Mouse All Exon Kit

### Agilent SureSelect Target Enrichment System

Introducing the SureSelect<sup>XT</sup> Mouse All Exon Kit — the first NGS target enrichment system to cover the mouse exome. Mouse geneticists can now access the industry-leading SureSelect<sup>XT</sup> Target Enrichment System to generate mouse sequence data faster and more cost-effectively on the SOLiD, Illumina, and 454 NGS platforms.

Developed in collaboration with leading mouse geneticists, the SureSelect<sup>XT</sup> Mouse All Exon Kit delivers a complete view of the mouse exome. The capture is 49.6 Mb and covers 221,784 exons within 24,306 genes. The content is based on the current UCSC mm9 mouse genome build and a BED file with exon and gene annotation is available on the Agilent eArray website.

- *Complete Mouse exome coverage — 49.6 Mb capture spanning 221,784 exons and 24,306 genes*
- *Excellent coverage uniformity, on-target specificity, and SNP detection and accuracy*
- *Fully optimized for SOLiD, Illumina, and 454 sequencing*

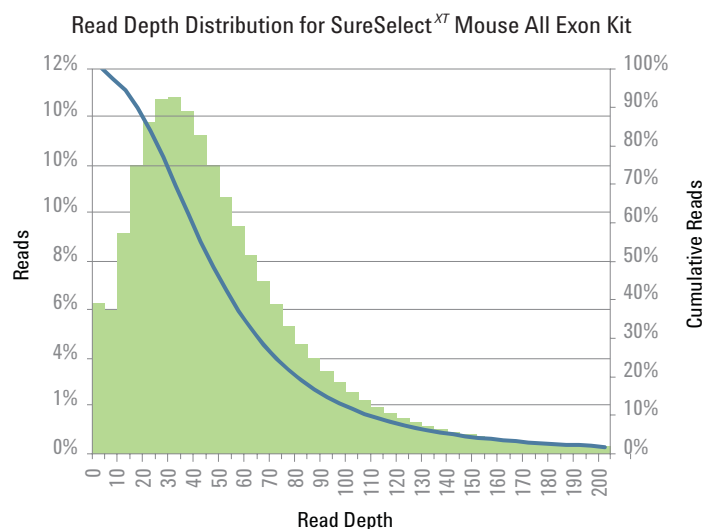
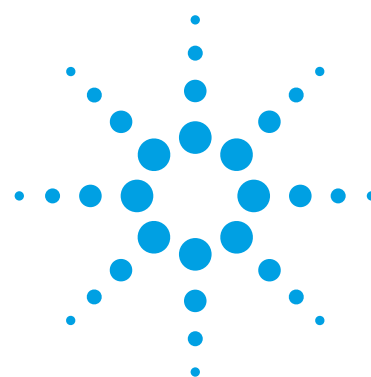


Figure 1. Read depth distribution plot for C3H mouse genomic DNA enriched with the SureSelect<sup>XT</sup> Mouse All Exon Kit (49.6 Mb capture) and sequenced on an Illumina GAIIx. 5.2 Gb of sequence was obtained from a single 2x76bp lane and the percentage of on-target reads was 69 percent. 98 percent of bases were covered at 1X or greater and average read depth was 54X. 84 percent of targeted bases were covered at 20X or greater, enabling high-confidence SNP calling at those loci.



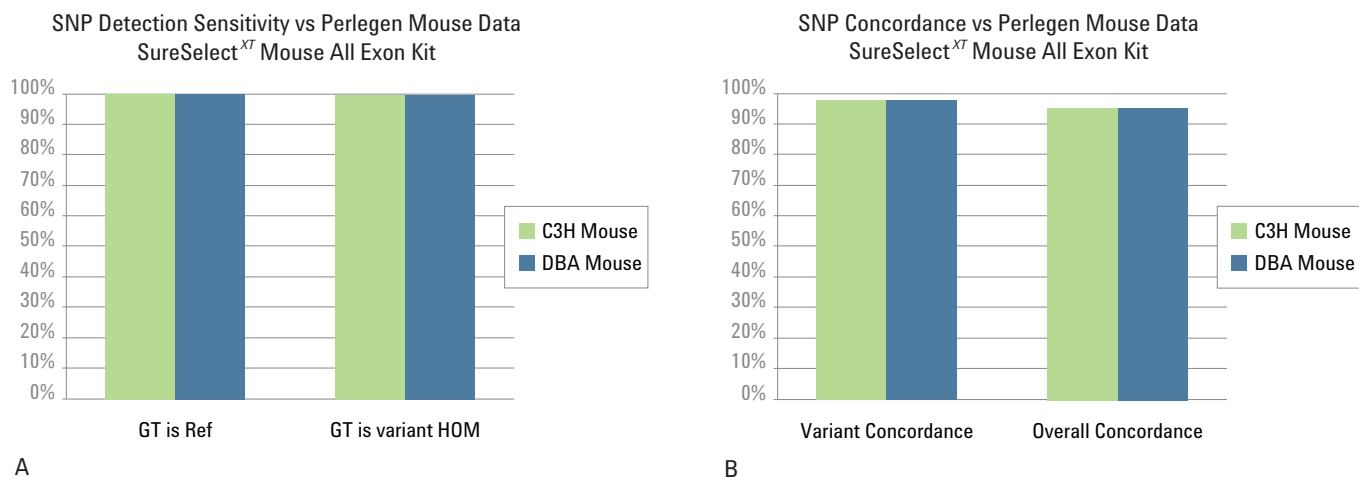


Figure 2. SNP data generated after enrichment with the SureSelect<sup>XT</sup> Mouse All Exon Kit and sequencing was highly sensitive and SNP calls were highly concordant with the Perlegen Mouse SNP data set. 165,249 SNPs from the Perlegen data set were assayed in gDNA samples from C3H and DBA mice, two widely-used strains. NGS libraries for these strains were prepared and enriched using the SureSelect<sup>XT</sup> Mouse All Exon Kit / Illumina GAIIX platform, with 99 percent of reference SNPs detected for the C3H and DBA samples. Variant SNPs were also detected at high rates (99 percent) for both the C3H and DBA samples. b) Of the SNPs detected, concordance with the Perlegen Mouse SNP data set for both the C3H and DBA samples was 98 percent for the variants and 95 percent overall.

## SureSelect<sup>XT</sup> Mouse All Exon Kit Specifications

Mouse genome/ exome source content	Total capture size	Number of genes covered	Number of exons	Average exon size	Median exons per gene	Average number of exons per gene	Maximum exons in a gene
UCSC mm9/ NCBI build 37 (July 2007)	49.6 Mb	24,306	221,784	182 bp	5	8	347

## SureSelect<sup>XT</sup> Mouse All Exon Kit – Ordering Information

Reactions/Kit	SureSelect XT Mouse All Exon Kit	Illumina Option Code	SOLiD Option Code	SureSelect Mouse All Exon Kit	Roche 454 Option Code
5	G7550A	001	002	G7500A	003
10	G7550B	001	002	G7500B	003
25	G7550C	001	002	G7500C	003
50	G7550D	001	002	G7500D	003
100	G7550E	001	002	G7500E	003
250	G7550F	001	002	G7500F	003
500	G7550G	001	002	G7500G	003
1000	G7550H	001	002	G7500H	003
2000	G7550J	001	002	G7500J	003
5000	G7550K	001	002	G7500K	003
10000	G7550L	001	002	G7500L	003

G7550 includes capture baits and all reagents for gDNA preparation, library preparation, and target enrichment.

G7500 includes capture baits and reagents for target enrichment. The Roche Rapid Library Prep Kit (available from Roche) is also required.

[www.agilent.com/genomics/sureselect](http://www.agilent.com/genomics/sureselect)

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