NGS TARGET ENRICHMENT

SURESELECT^{QXT}

TAKE A QUANTUM LEAP

Accelerated answers with 90-min hybridization

Benefits

Fastest Workflow

- Same day sample to sequencing from only 50 ng of gDNA
- Quick 90 minute hybridization and only 3.5 hr total hands-on time

Superior Performance

- High sensitivity, specificity and coverage of regions of interest
- Complete and accurate variant profiling with less sequencing

Complete and Flexible Solution

- Solutions for library prep, capture, QC, automation and analysis
- Enables analysis of genomes, exomes or custom targets

Overview

Assays of high sensitivity and minimal turn-around time that generate unambiguous results from minimal sample input are becoming essential. From the leader in target enrichment, SureSelect^{QXT} reagent kits enable single molecule resolution of variants with a streamlined same day sample to sequencing workflow from only 50 ng sample input. This is at least 3.5x faster with 30% less hands-on time compared to other transposase-based enrichment products (Figure 1).

Exceptional coverage and uniformity from SureSelect^{QXT}

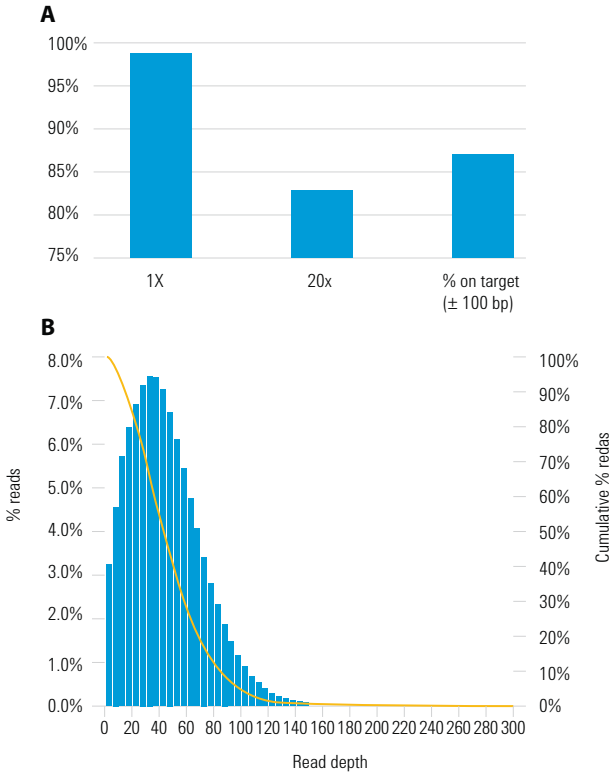


Figure 1. Excellent coverage of targeted bases at 20x coupled with superior on-target metric (A) and exceptional uniformity (B) enables decreased sequencing requirement while enabling confident variant calling (SureSelect Human All Exon V5, 4 Gb sequencing)

Streamlined workflow

SureSelect^{QXT} kits for Illumina sequencing couple a convenient, shearing-free, transposase-based library prep protocol with a quick 90 minute hybridization technology for the only same day sample to sequencing capture-based enrichment solution in the market (Figure 2). This revolutionary workflow greatly accelerates turn-around time from sample to data while providing deep coverage of genomic regions of interest, greatly advancing clinical research sequencing. SureSelect^{QXT} requires only 50 ng of sample input, allowing analysis of a wide range of sample types including those with limited availability. These features allow generation of data with high sensitivity and accuracy for confident variant calling of every sample, every single time.

Uncompromised performance

Exome enrichment using SureSelect^{QXT} kits provides coverage of 80% of targeted bases at 20x, providing support for variant calling, from only 4 Gb of sequencing. SureSelect^{QXT}'s superior performance in variant detection is enabled by SureSelect's proven hybridization technology, optimized to reduce hybridization time down to only 90 minutes, and the comprehensive exome design. Together, these ensure complete and accurate profiling of genomic regions of interest with the least amount of sequencing (Figure 3).

Accelerated discovery for your regions of interest

Easily create custom panels using SureDesign, a web-based tool that supports creation of custom target enrichment panels allowing focused interrogation of regions of interest.

Faster time to results for profiling exomes or custom genomic targets is enabled by SureCall, a simplified raw data to variant analysis software.

SureSelect^{QXT} workflow efficiency

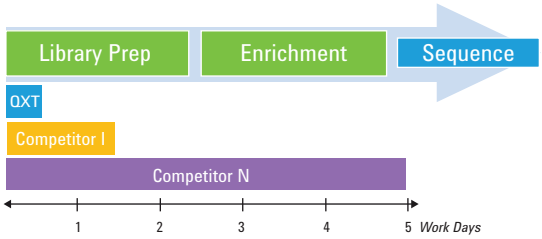
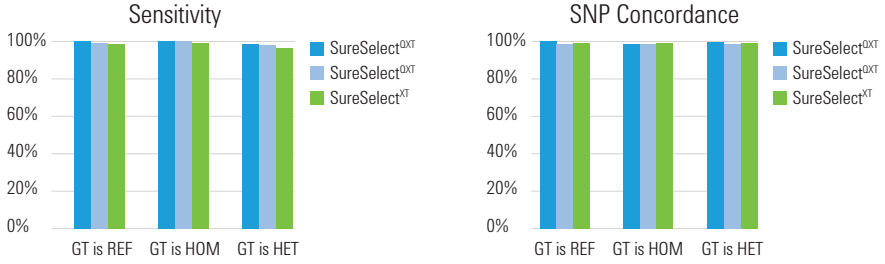


Figure 2. Enriched sequencing-ready libraries generated from 50 ng in 7 hours with only 3.5 hours of hands-on time enabling a 24–36 hour turn around time from sample-to-data when sequenced with the MiSeq or HiSeq2500 platforms.

Complete and accurate variant profiling from SureSelect^{QXT}



	SureSelect^{QXT} + V5	Competitor I
SNPs		
n_eval_sites	45162	24034
n_overlapping_sites	43819	22745
n_concordant	43761	22713
n_novel_sites	1343	1289
db_snp_rate	97.01	94.62
concordance_rate	100	99.86
InDels		
insertion	1411	699
deletion	1434	791

	16 rxn	96 rxn
SureSelect^{QXT} Reagent Kit	G9681A	G9681B
SureSelect^{QXT} Library Prep Kit	G9882A	G9682B

Figure 3. Excellent sensitivity and concordance for SNP and indel calling is achieved using SureSelect^{QXT} (SureSelect Human All Exon V5, 4 Gb sequencing).

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