

SureSelect^{XT} Low Input

What is it?

SureSelect^{XT} Low Input is a low-input, FFPE-optimized library preparation kit. Now with 96 sample barcodes, it is the newest of Agilent's SureSelect hybrid-capture based target enrichment solutions for NGS.

KEY FEATURES

- **10 ng** of input DNA
- Optimized for high-quality intact DNA, low- and high-quality **FFPE DNA**
- **90-minute** hybridization and **master-mixed** reagents for faster, more efficient workflow
- **96 sample** indexes (with optional molecular barcodes)

Low Input

The need for a low input solution

Researchers are often faced with limited amounts of DNA from fresh frozen or FFPE of varying quality. A robust library prep is needed to ensure quality results from these valuable samples. SureSelect^{XT} Low Input enables target enrichment of as little as 10 ng to 200 ng of DNA in just a day. With master-mixed reagents, you can process samples more efficiently and pool up to 96 samples per sequencing run.

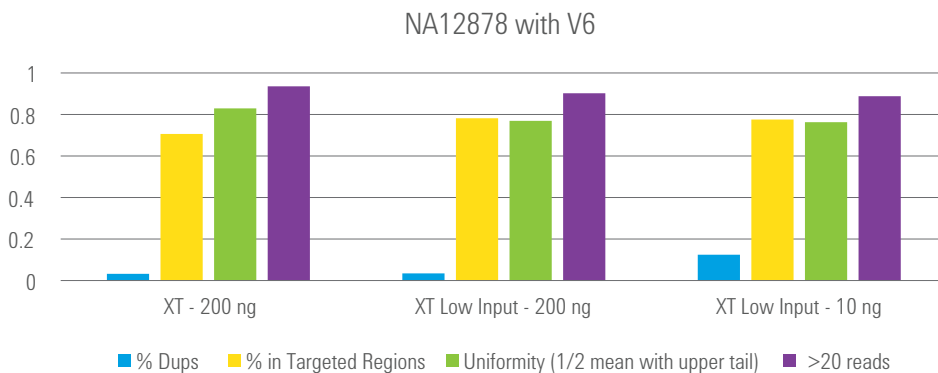


Figure 1. SureSelect^{XT} Low Input provides the same high-quality libraries at both 10 ng and 200 ng of input DNA.

FFPE Optimized

The importance of an FFPE-optimized library prep

While FFPE samples provide a valuable source of diverse genetic information, one of the hurdles in isolating DNA from FFPE tissue is the purification of DNA of sufficient molecular weight and quality for amplification and detection. Typically, by the time FFPE DNA is prepared for library generation, it is too degraded for high-sensitivity NGS. It is thus crucial to optimize the library preparation and minimize the number of steps to reduce sample loss and achieve high-quality libraries from challenging sample types.

FFPE-optimized library prep from Agilent

SureSelect^{XT} Low Input produces more complex libraries with a higher percentage of reads in targeted regions for a wide range of tissue types—in both fresh and FFPE samples. To improve single nucleotide variant (SNV) calling and consistency across FFPE samples of varying quality, Agilent has developed a complete workflow solution that features DNA pre-qualification (FFPE QC Kit, PN G9700A and G9700B and 4200 TapeStation System) and one-tube library preparation.



Advantages

- Improve SNV calling from FFPE DNA
- Reduce the number of library preparation steps, preventing DNA loss
- Prepare higher complexity libraries from both low- and high-quality DNA

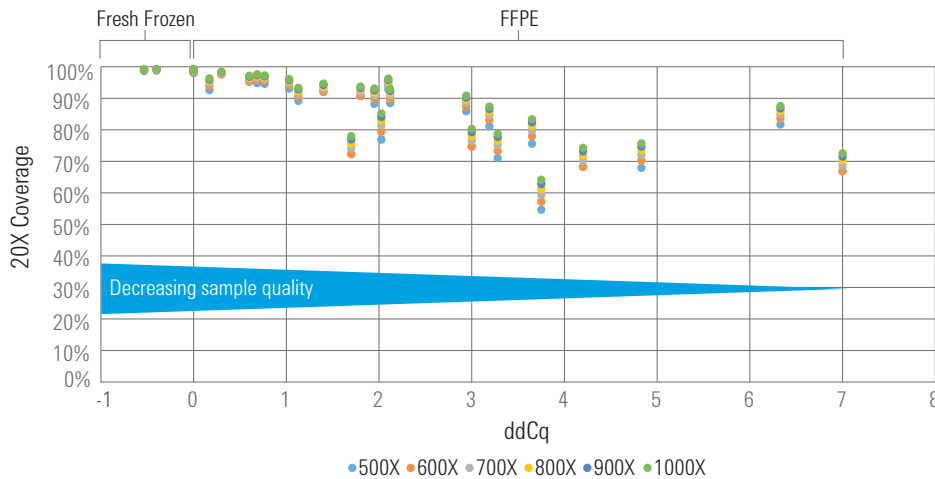


Figure 2. SureSelect^{XT} Low Input optimized performance for FFPE with the majority of bases covered at 20X across decreasing sample quality. % bases covered by at least 20X read depth with increasing sequencing depth (4-8 million - 2x100 bp reads) is plotted against gDNA quality (qPCR-based gDNA quality (ddCq) and is calculated using Agilent's FFPE QC Assay kit).

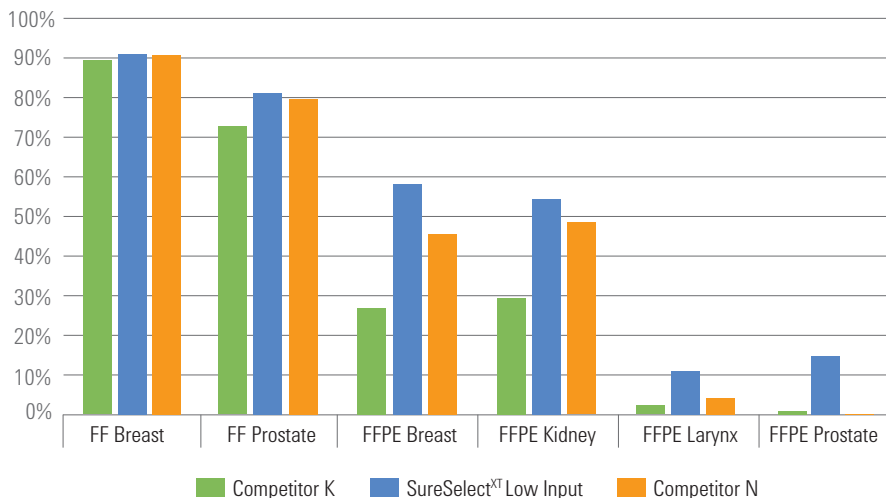


Figure 3. SureSelect^{XT} Low Input outperforms other library prep solutions at 100X coverage, especially as sample quality decreases: % bases covered by at least 100X read depth is plotted against gDNA of decreasing quality (qPCR-based gDNA quality (ddCq) and is calculated using Agilent's FFPE QC Assay kit (based on 1000X sequencing depth with 8 million - 2x100bp reads).

SureSelect^{XT} Low Input

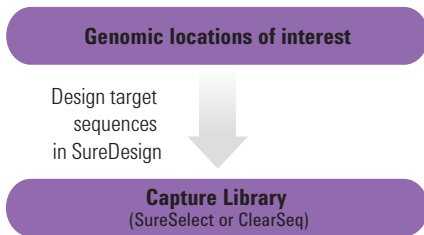
Streamlined Workflow

Expedite analysis with a streamlined workflow

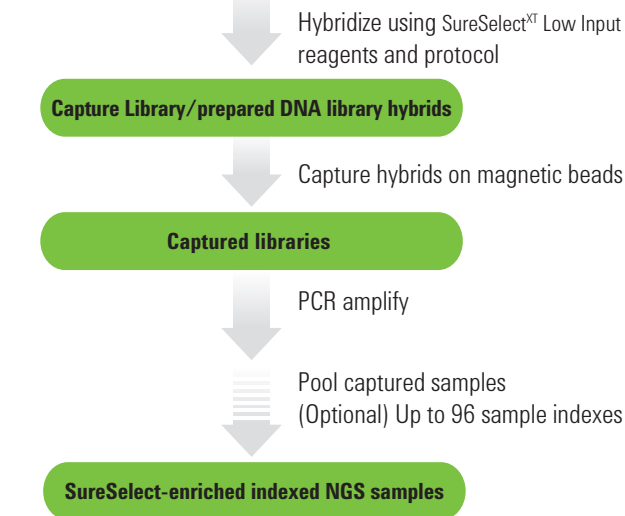
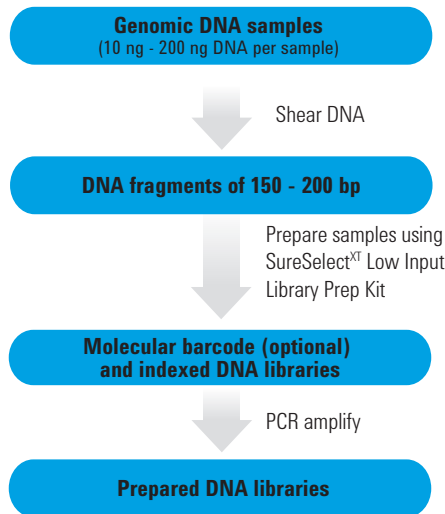
SureSelect^{XT} Low Input reduces the number of individual enzymatic steps, clean-up steps and sample transfers, allowing users to streamline and maintain library complexity, especially at lower input amounts. Agilent delivers the fastest hybridization on the market. Our 90-minute hybridization, combined with more efficient processing with master-mixed reagents, enables users to go from samples to sequencing-ready libraries in one day. Additionally, you can now pool up to 96 enriched libraries.



Create a Targeted Capture Panel



Library Preparation



Advantages

- Process samples faster and more efficiently with a 90-minute hybridization and master-mixed reagents
- Transform samples into sequencing-ready libraries in less than one day
- Streamline data analysis with the Agilent SureCall software

Ordering Information

| Part Number | Product Description |
|-------------|---|
| | SureSelectXT Low Input Reagent Kit, 96 rxn, Index 1-96 |
| G9707A | SureSelectXT Low Input Reagent Kit, index 1-96 + 1-499 kb Target Enrichment Baits, 96 rxn |
| G9707B | SureSelectXT Low Input Reagent Kit, index 1-96 + 0.5-2.9 Mb Target Enrichment Baits, 96 rxn |
| G9707C | SureSelectXT Low Input Reagent Kit, index 1-96 + 3-5.9 Mb Target Enrichment Baits, 96 rxn |
| G9707D | SureSelectXT Low Input Reagent Kit, index 1-96 + 6-11.9 Mb Target Enrichment Baits, 96 rxn |
| G9707E | SureSelectXT Low Input Reagent Kit, index 1-96 + 12-24 Mb Target Enrichment Baits, 96 rxn |
| G9707G | SureSelectXT Low Input Reagent Kit, index 1-96 + ClearSeq Comprehensive Cancer Target Enrichment Baits, 96 rxn |
| G9707H | SureSelectXT Low Input Reagent Kit, index 1-96 + Clinical Research Exome v2 Target Enrichment Baits, 96 rxn |
| G9707J | SureSelectXT Low Input Reagent Kit, index 1-96 + Clinical Research Exome v2 Plus Target Enrichment Baits, 96 rxn |
| G9707K | SureSelectXT Low Input Reagent Kit, index 1-96 + Human All Exon v6 Target Enrichment Baits, 96 rxn |
| G9707L | SureSelectXT Low Input Reagent Kit, index 1-96 + Human All Exon v6 Plus Target Enrichment Baits, 96 rxn |

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