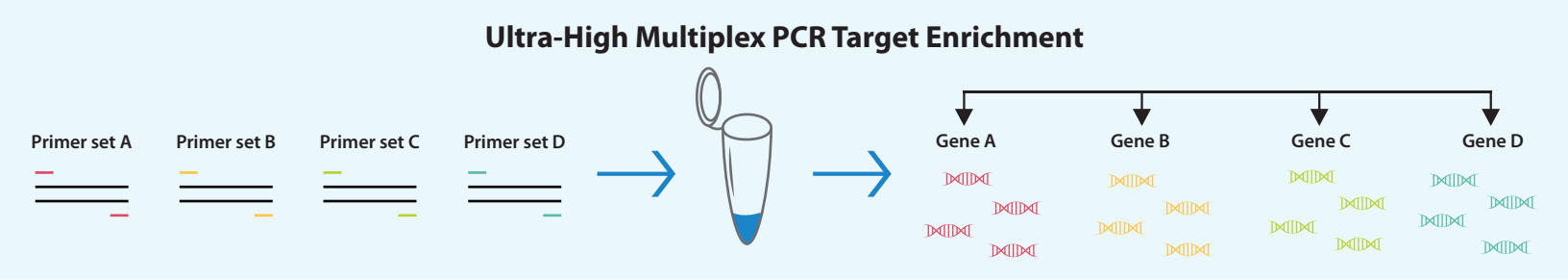


SenseCare Bio

TargetPlex™ Custom DNA Amplicon Panels

Ultimate Design Customization

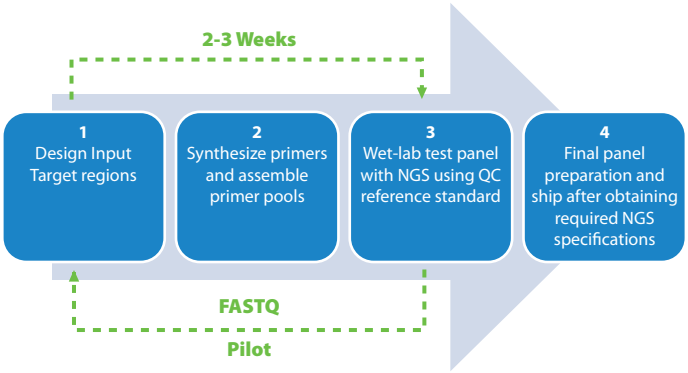
The TargetPlex™ Custom DNA Amplicon Panels are designed to allow re¬searchers the ability to analyze hundreds of genes of interest using next-generation sequencing (NGS) by designing ultra-high multiplex PCR amplicon enrichment panels. Our custom amplicon panels are capable of ultra-high multiplex PCR enrichment (~10,000 PCR primer per pool) and can cover up to 2.5 Mb of cumulative genomic sequences (hg19) with ultimate design flexibility (e.g. one pool design, padding, primer redundancy, and unique molecular indexes). Researchers start the design process by 1) selecting the sequencing platform of choice (Illumina or Ion Torrent). Then, 2) selecting the amplicon length (100 bp, 150 bp. or 200 bp). Choose 100 bp for cell-free DNA (cfDNA) panels. For highly degraded FFPE, we recommend using a 150 bp design for most effective FFPE-Direct workflow, or choose a 200 bp design for testing high quality genomic DNA (gDNA). Then, 3) download the Amplicon Target Submission Form by clicking here. Then, prepare the regions of interest (genomic coordinates or Gene IDs) in the Amplicon Target Submission Form. Finally, 4) submit the form to info@sensecarebio.com.

TargetPlex Custom DNA Amplicon Panel Design Features

- >99% typical in-silico design coverage
- > 95% amplicon success rate on first attempt
- > 90% coverage uniformity @ > 0.2X of mean
- Uses TargetPlex's proprietary Noise-Canceling Technology
- FFPE-DirectTM enabled for maximum sensitivity and minimal loss of target during target enrichment

Quickly Optimize Your Custom Content

Our experienced bioinformatics team will review your target regions, panel requirements, and will work closely with you to resolve any design limitations we may encounter. Quickly, within a few days, we will generate an in-silico design based on your target requests. A design coverage report is prepared and returned to the researcher for re¬view and discuss. Typically, on the initial pilot design, we achieve at least 95% coverage at >1X sequencing coverage when sequencing high quality gDNA reference material, although we typically achieve higher. Our robust chemistry and proprietary primer-design pipeline helps us to achieve fewer amplicon drop-out and our novel primer-tiling algorithm allows for high specificity. In challenging regions we also employ primer redundancy to minimize the iteration cycle time and obtain faster turnaround time from pilot-to-final panel. See custom panel design overview figure 1.



Leveraging our Pre-defined Panel to add Additional Targets

SenseCare Bio also has developed many optimized pre-defined content multiplex PCR enrichment panels. Currently, several pre-designed TargetPlex panels are available (see www.SenseCareBio.com). For faster turnaround time, we can add additional target of interest to an existing pre-designed panel allowing for faster turnaround in as little as 2-weeks including wet-lab verification.

Convert Your Existing Multiplex PCR Panel Design to TargetPlex

Is your current multiplex PCR panel is not sequencing adequately, allow us to take advantage of the TargetPlex™ Noise-Canceling technology and convert your existing PCR primers to TargetPlex compatible primers and use the TargetPlex™ NGS Library Preparation Kit. You will likely achieve significant coverage improvement and/or lower your off-target reads. You may be able to sequence more samples per run at a significant cost and time saving.

Innovative Library Preparation Technologies

FFPE-Direct™ is a rapid, addition-only, 3.5-hour workflow is ideal for translational research laboratory use. This breakthrough workflow allows single-step enrichment and DNA library preparation directly from 5 - 15 um thick tissue sections, cytology smear or gDNA (~ 10 ng/primer pool) without the need for separate, labor intensive, and time-consuming, pre-analytical FFPE DNA extraction, purification, isolation, or DNA quantification step (e.g. Qubit™) prior to target enrichment. Powered by the TargetPlex's Noise-Canceling Technology™ (NTC), this novel library chemistry eliminates the vast majority of amplification by-product generated that could impede downstream sequencing efficiency with excessive off-target reads, which consumes sequencing capacity. Due to the higher TargetPlex™ chemistry efficiency, fewer sequencing reads are needed allowing for higher barcoded/indexed samples per sequencing run.

Product Name	Product Description	Reactions in kit*	Cat # for Illumina Sequencing	Cat # for Ion Torrent Sequencing
TargetPlex™ NGS DNA Library Preparation Kit	Compatible with all TargetPlex™ panels (Custom or pre-defined primer pools). The kit including all the reagents needed to prepare a sequencing ready NGS library. Each reaction is enough for a 2-primer pool panel. This FFPE-Direct ™ enabled kit includes MagClean Beads, barcode/index adaptors, library amplification primers, HiFi PCR master mix for target enrichment and final PCR library amplification is included.	8	YST0067-01	YST0068-01
TargetPlex Custom Multiplex-PCR Primer Pool	Ready-for-use multiplex PCR primer pool(s) desalted, purified, normalized concentration, and pooled in PCR enrichment using the TargetPlex™ NGS DNA Library Preparation Kit.	Inquire	YST-Custom-Panel	YST-Custom-Panel
DNA Library	Real-time qPCR Master Mix and primers, probes and library calibration standards for NGS DNA library quantification.	96	YST0065-01	YST0076-01

* Larger and bulk size kits are available. Please inquire or visit our product page for more details.
** FOR RESEARCH USE ONLY.

SenseCare Bio
Email: info@sensecarebio.com
Phone: +1 510-861-2542
sensecarebio.com