xGen™ Custom Amplicon Panels

Targeted sequencing of your most important genes

Efficient NGS throughput and scalability

Simplest, fastest workflow available

Tailored genomic content for library prep

Tailored to meet your needs

Custom amplicon panels offer a completely curated targeted sequencing workflow to interrogate genomic targets relevant to you. xGen Amplicon technology's ability to generate super amplicons result in increased coverage, even in changing or diverse genomes. Optional xGen Normalase™ module included to support high-throughput library quantification in a single enzymatic reaction.

xGen NGS—made to discover

Whatever your application, xGen Custom Amplicon can enable your research

The cost-effective and flexible custom design means the panel can be used for research applications such as:

- Genotyping by sequencing
- Variant identification with a limit of detection down to 1%
- Identifying germline inherited SNPs and indels
- Somatic cell variant identification
- Targeted virus or pathogen sequencing
- Genetic fingerprinting
- Liquid biopsy

Simple, 2.5-hour workflow

From DNA to NGS library in as little as 2.5 hours, the workflow for the xGen Custom amplicon panels can be done in a single tube with minimal hands-on steps. As shown in Figure 2, the DNA sample is first amplified with the multiplex custom panel to create copies of each of your intended targets. Then the amplicons are converted into indexed libraries in a second PCR reaction with the appropriate indexing primers for your NGS instrument. When multiple libraries are pooled, IDT-proprietary xGen Normalase reagent is used to normalize the libraries for NGS analysis.

Multiplex PCR
70 minutes

Adapter attachment & indexing PCR
35 minutes

Library normalization with Normalase™ technology (optional)
40 minutes

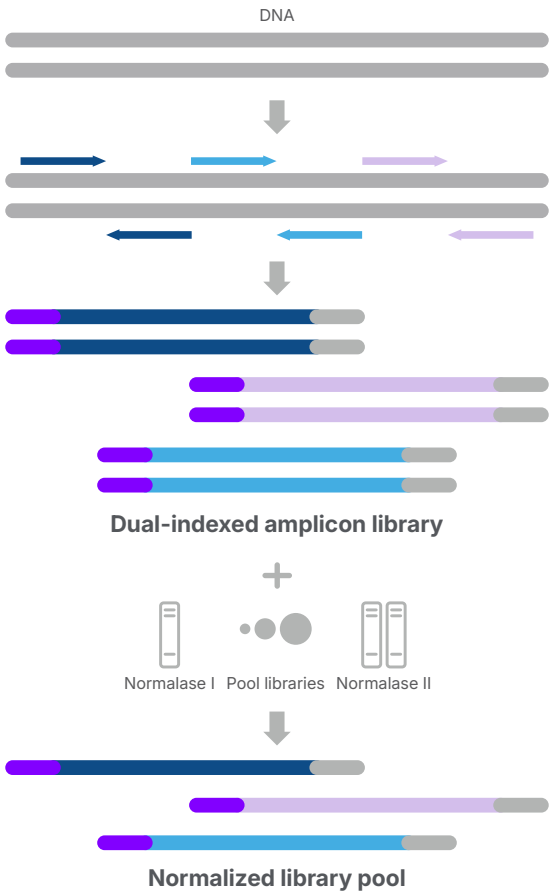

Figure 1. xGen Custom Amplicon Panels have a single tube workflow that is done in as little as 2.5 hours. Creating an NGS library starts with multiplex PCR. Your custom panel is combined with the DNA sample to amplify the targets of interest. The samples are then amplified with indexing primers to create a functional dual indexed library. As an optional step, the xGen Normalase reagent can be used after pooling multiple libraries to ensure each is equally represented in the final sample for the flow cell.

Automate your custom amplicon panel

Need to sequence a high number of sample? xGen Normalse is included as an optional benefit with your order. Complete your library quantification in a single enzymatic reaction to save time and reduce sequencing costs. Reduce hands on time with 1536 UDI primer plates, pre-mixed, ready to use, and ready to ship for use with your favorite automation platform.

It's never been easier to design and order your custom amplicon panel

Fill out and upload your genes of interest on our easy-to-use website portal (or tool). Your request will go to our expert design team. Our team will create your custom amplicon panel based on your specifications and a quote for you to confirm everything is the way you want. Once everything is agreed upon go ahead and place your order.

OR

If you need help with your design one of our expert design team members is ready to help. We believe in the power of scientific collaboration to drive novel discoveries.

Either way you can choose to pool and ship your panel for faster delivery or a functional QC to ensure your panel is working before it arrives at your lab.

For more information, visit
www.idtdna.com/NGSxGenCustomAmplicon

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