

## xGen Lockdown Probe Pools

High quality probes that deliver best-in-class performance for targeted sequencing

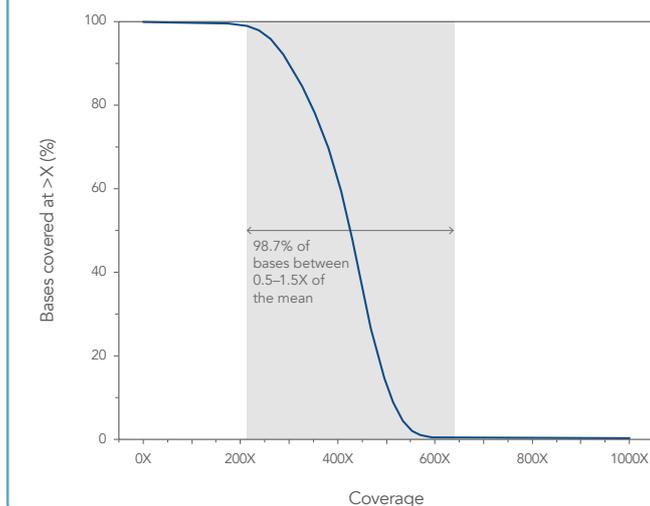
### Experience complete flexibility for target capture panel design

xGen Lockdown Probes are individually synthesized, 5'-biotinylated DNA probes used for target enrichment in NGS studies. Compared to array-synthesized and other suppliers' probes, xGen Lockdown Probes have been shown to exhibit better uniformity and less GC bias, allowing you to sequence deeper with fewer overall reads. Lockdown Probe Pools are formulated to be modular—use them as a custom panel or combine with a stocked panel to add new targets. Custom probe panels can be easily designed using our Target Capture Probe Design and Ordering Tool. For convenience, predesigned xGen Lockdown Panels and Gene Capture Pools are also available.

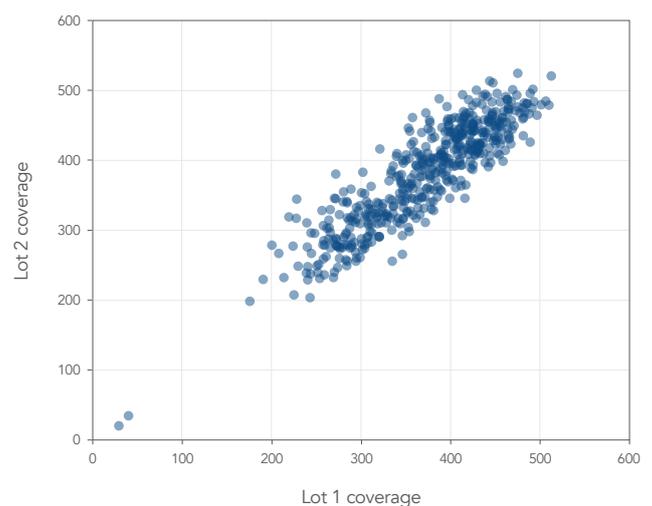
### Achieve consistently deep, uniform coverage

Capture panels created with xGen Lockdown Probe Pools provide deep, uniform coverage of the targeted regions (Figure 1A), because all probes are present at equimolar concentrations. Individual synthesis of xGen Lockdown Probes also delivers reliable batch-to-batch performance (Figure 1B).

#### A Deep coverage



#### B Consistently uniform coverage



**Figure 1. Consistently deep, uniform sequence coverage with xGen Lockdown Probe Pools.** A DNA library created from human genomic DNA (Coriell) was enriched for an 88 kb target region using an xGen Lockdown Probe Pool. The enriched libraries were sequenced on an Illumina NextSeq™ instrument and subsampled to 600K reads. The data show (A) deep, uniform coverage and (B) consistent mean target coverage for 2 synthesis lots of 1000 probes. The mean of duplicates for each synthesis lot are plotted. Coverage and target depth were calculated with Picard and BEDTools, respectively.

## benefits

**Achieve improved, consistent target capture** from individually synthesized and quality controlled probes.

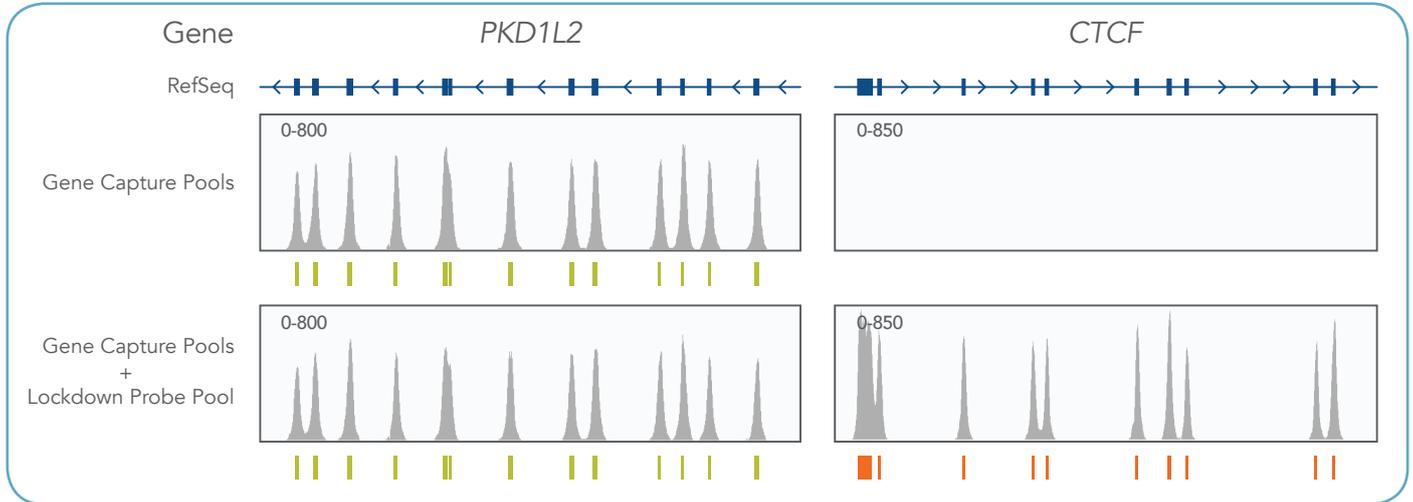
**Customize or expand existing capture panels cost-effectively** by adding supplemental probes.

**Enjoy quick turnaround times for custom panels**, delivered in as few as 7 business days.

Discover more at  
[www.idtdna.com/LockdownProbes](http://www.idtdna.com/LockdownProbes)

## Expand the range of your existing target capture panels

The flexibility afforded by individual synthesis allows ordering of specific xGen Lockdown Probes for supplementing existing target capture panels. Supplementary xGen Lockdown Probes can be used to rescue regions that are poorly captured by existing panels; e.g., first exons and GC rich regions. xGen Lockdown Probes can also be used to extend the target range of predesigned or custom capture panels (Figure 2), allowing a core panel to be used for various sequencing applications.



**Figure 2.** To customize an existing panel, Lockdown probes can be added to target additional regions of interest, such as untranslated regions (UTRs), introns, or fusions. Libraries were prepared from Coriell NA12878 genomic DNA and captured using either (**top**) a Gene Capture Pool (1232 probes targeting 27 genes covering a 115 kb region) or (**bottom**) the same Gene Capture Pool spiked with an xGen Lockdown Probe Pool targeting 14 additional genes (9 kb). Targets for each gene correspond to RefSeq exons, and probe regions are indicated in green and orange for *PDK1L2* and *CTCF*.

## Ordering information

Product	Size	Catalog #
	16 reactions	
xGen Lockdown Probe Pools	96 reactions	<a href="http://www.idtdna.com/LockdownProbes">www.idtdna.com/LockdownProbes</a>
	4 x 96 reactions	

Related products	Size	Catalog #
	16 reactions	1075474
xGen Universal Blockers—TS Mix	96 reactions	1075475
	4 x 96 reactions	1075476
xGen Hybridization and Wash Kit	16 reactions	1080577
	96 reactions	1080584

For Research Use Only. Not for use in diagnostic procedures.

