# xGen™ NGS—HELPING RESEARCHERS OVERCOME CANCERS BIGGEST CHALLENGES

Don't limit your research, customize your workflow to your needs

With IDT's xGen solutions researchers can customize their workflow components to their specific needs

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Library	Adapters &	Library	Target	Blockers &
Preparation	Primers	Normalization	Enrichment	Wash Kits

# LIBRARY PREP KITS—ONE VENDOR FOR ALL YOUR LIBRARY PREP NEEDS

Whether you're working with DNA or RNA, low-input amounts, or challenging samples (i.e., FFPE, cfDNA); IDT has a library prep solution to overcome your cancer research challenges.

### ADAPTERS & PRIMERS—COMPREHENSIVE OFFERING OF HIGH PURITY ADAPTERS AND PRIMERS

Whether your project requires a basic indexing solution or a more sophisticated design, we have the products and expertise to deliver the right solution.

# HYBRIDIZATION CAPTURE PANELS—CUSTOMIZE & SCALE YOUR WORKFLOW AS NEEDED

The IDT xGen hybridization products include a variety of predesigned cancer specific panels and custom panel options that are available in a range of panel sizes. All supported by an automation-friendly protocol for those working with high-throughput type applications.

# AMPLICON SEQUENCING—SEQUENCE FASTER WITH AN EASY-TO-USE WORKFLOW

Expertly designed research panels using content from peer-reviewed publications and thought leader input. Panels include primers for researching cancer genes, rare disease, and sample tracking applications.

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

#### > WWW.IDTDNA.COM

#### PRODUCT SPOTLIGHT: ENABLING ULTRA-LOW FREQUENCY VARIANT IDENTIFICATION IN CTDNA WITH xGen cfDNA & FFPE LIBRARY PREP KIT WITH CUSTOM xGen HYB CAPTURE PANEL



**Figure 1. Libraries were generated according to the xGen cfDNA & FFPE DNA Library Prep Kit protocol using 25 ng matched cfDNA from three trios.** (*n* = 3) Libraries were captured with subject-specific xGen Custom Hyb Panels. After sequencing, reads were mapped using BWA (0.7.15). Error correction with combined read families was performed as described in the xGen cfDNA & FFPE DNA Library Prep Kit Analysis Guidelines. Finally, variants were called using VarDict (1.5.8); no filters were applied for the error-corrected xGen cfDNA & FFPE DNA Library Prep Kit data. Allele fraction of each tumor-associated variant for each subject is shown.

Whole genome sequencing	Extraction	DNA Library Prep 2–3.5 hrs.	Sequencing	
Whole Exome Sequencing	Extraction	Library Prep	Exome Capture	Sequencing
Hybridization Capture	Extraction	DNA Library Prep	Hybridization Capture	Sequencing
Amplicon Sequencing	Extraction	Amplicon PCR	Sequencing	
Whole Genome Bisulfite Conversion	Extraction & Busulfite Conversion (	Methyl Library Prep 2–3.5 hrs. 💙	Sequencing	
Targeted Methulation Sequencing	Extraction & Busulfite Conversion	Methyl Library Prep 2–3.5 hrs.	Hybridization Capture	Sequencing
Whole Transcriptome Sequencing	Extraction	RNA Library Prep	Sequencing	
	Extraction & PolyA/Ribo- depletion	RNA Library Prep	Hybridization Capture	Sequencing

Myeloid Amp PanelTP 53 Amp Panel

## MIX AND MATCH YOUR ONCOLOGY RESEARCH WORKFLOW COMPONENTS

Target enrichment components for hybridization capture or amplicon sequencing methods

Library Prep Kits	Adapters & Primers	Hyb Capture Panels	
<ul> <li>DNA Library Prep EZ or MC</li> <li>cfDNA &amp; FFPE DNA Library Prep</li> <li>RNA Library Prep</li> <li>Broad-range RNA Library Prep</li> <li>Methyl-Seq Library Prep</li> </ul>	<ul> <li>Unique Dual Index (UDI)</li> <li>UDI + UMI</li> <li>UDI + Stubby Adapters</li> <li>Combinatorial Bual Index (CDI)</li> <li>Single Index (SI)</li> </ul>	<ul> <li>Custom Hyb Panels</li> <li>Exome Hyb Panel v2</li> <li>Pan Cancer Hyb Panel</li> <li>AML Canver Hyb Panel</li> <li>Inherited Disease Hyb Panel</li> <li>CNV Backbone Hyb Panel</li> <li>Hyman ID Hyb Panel</li> </ul>	
Library Prep Kits	Primers	Amplicon Panels	
Amplicon Care Kit	<ul> <li>Unique Dual Index (UDI)</li> <li>Combinatorial Dual Index (CDI)</li> </ul>	<ul> <li>Custom Amplicon Panels</li> <li>56G Onco Amp Panel</li> </ul>	

### LEARN MORE ABOUT OUR ONCOLOGY RESEARCH SOLUTIONS

There are multiple factors to take into consideration when determining the best NGS approach for your oncology research needs. Download IDT's 11 page brochure to explore in further detail our xGen NGS solutions for oncology research.

# > FOR MORE INFORMATION, VISIT WWW.IDTDNA.COM/NGS

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