



# Tapestri Single-cell Custom DNA and Protein Panels

## Uncover genotypic and phenotypic insights simultaneously from single cells

The Mission Bio Tapestri® Platform leverages the patented two-step microfluidic workflow and proprietary multiplex chemistry to analyze SNVs, indels, CNVs, translocations, and protein expression. Target up to 1,000 genomic regions to resolve the clonal heterogeneity of cancers or the performance of gene-editing protocols across thousands of single cells.

With the easy-to-use and intuitive Tapestri Designer software, your custom DNA panel design can be completed within minutes. Primer design algorithms and multiplex PCR biochemistry have been optimized for the Tapestri Platform, so you can be confident of high design coverage and high panel uniformity. Custom DNA panels can also be paired with custom oligo-conjugated antibodies to enable simultaneous detection of genotype and phenotype from the same cell for true single-cell multi-omics insights.



### Key Features

- Optimized design parameters with high coverage and uniformity for the Tapestri workflow
- Support across the entire human and mouse genomes
- Designed within minutes with the easy-to-use Tapestri Designer software

### CUSTOMIZABLE, TARGETED DNA PANELS WITH MAXIMUM FLEXIBILITY

Tapestri Single-cell Custom DNA Panels offer unprecedented flexibility by targeting your genes or regions of interest. Our design solution supports human and mouse genomes for analysis of variant types including CNVs, SNVs, indels and translocations. The panels also scale to support your project schedule and budget (Table 1). Tapestri's targeted chemistry is a practical solution for single-cell multi-omics, offering high resolution at a fraction of the cost of whole genome sequencing.

### QUICK AND EASY DESIGN WORKFLOW USING TAPESTRI DESIGNER

The intuitive interface of Tapestri Designer software allows you to complete custom designs in three easy steps (Figure 1). Custom designs are typically completed within minutes. Start with our pre-designed panels and modify them as you need, or use your own gene list and create a panel design from scratch. For ordering custom oligo-conjugated antibodies for concurrent measurement of proteins, inquire with one of Mission Bio's representatives.

### Approximate number of sequencing reads recommended

*(80x average coverage per amplicon per cell and 2x150bp paired-end sequencing)*

	Number of amplicons in panel		
	50	150	300
<b>5,000 Cells</b>	20M	60M	120M
<b>10,000 Cells</b>	40M	120M	240M

Table 1. Flexible range of custom panel sizes to match your experimental needs.

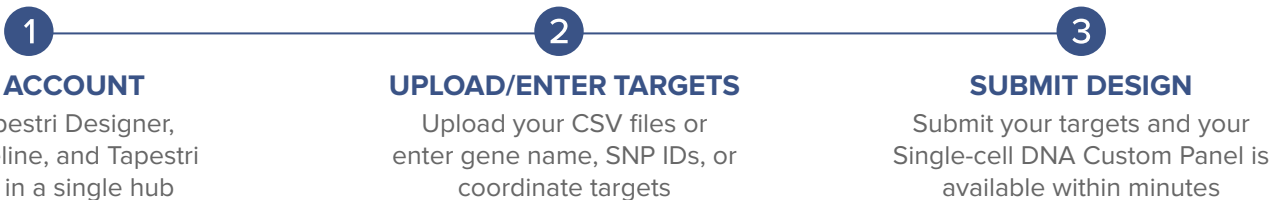


Figure 1. Three simple steps to create custom DNA panels.

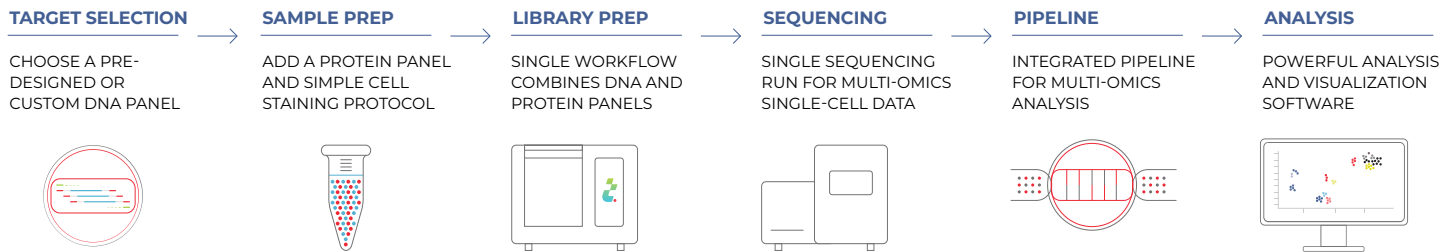


Figure 2. Multi-omics DNA and protein Tapestri workflow.

## Simplified targeted DNA single-cell analysis

### CONFIDENCE IN QUALITY AND PERFORMANCE

The Tapestri Designer software leverages decades of expertise in primer design algorithms and multiplex PCR biochemistry brought by our multidisciplinary team.

Researchers can expect the same high design coverage and panel uniformity that are typical of Tapestri Single-Cell DNA Pre-designed Panels (Figure 3).

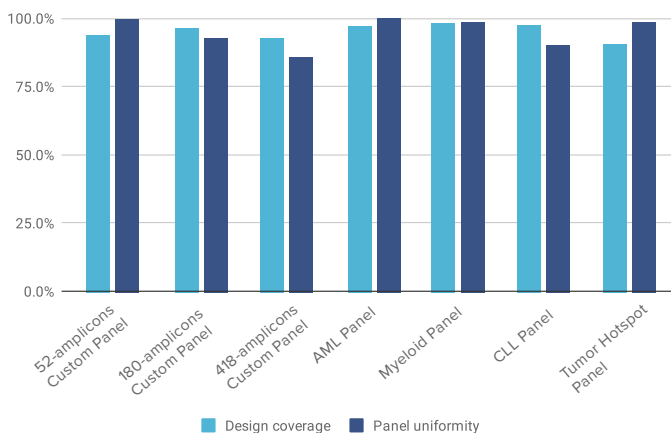


Figure 3. Observed panel performance for Tapestri Single-cell DNA Custom and Pre-designed Panels. Design coverage is percentage of targets designed of targets submitted. Panel uniformity is the percentage of targets that meet at least 20% of the average depth of coverage.

*“As I want to maximize the data from a single cell sequencing study of rare patient samples, it is imperative that the targeted panel is built wisely. Tapestri Designer does just that - with an easy to use interface, and high coverage of my genomic regions of interest.”*

- Guy Ledergor, MD, PhD

**UCSF** Helen Diller Family  
Comprehensive  
Cancer Center

**CONTACT US TO LEARN MORE**

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### GET STARTED WITH TAPESTRI DESIGNER

To design a custom panel, start by submitting gene names, SNV IDs, or genomic coordinates to Tapestri Designer at [www.tapestridesigner.com](http://www.tapestridesigner.com).

#### Tapestri Designer

- Creates human (hg19) or mouse (mm10) designs from gene names, SNV IDs, or genomic coordinates
- Supports common database inputs such as COSMIC, HGVS, or dbSNP
- Creates a panel design in just minutes
- Leverages superior oligo design engine based on actual single cell wet-lab data and machine learning algorithm
- Supports key variant types in cancer research including SNVs, indels, translocations, gene-level or chromosome-level CNVs, and immunophenotypes
- Includes technology support to help with panel selection, usage, or troubleshooting

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