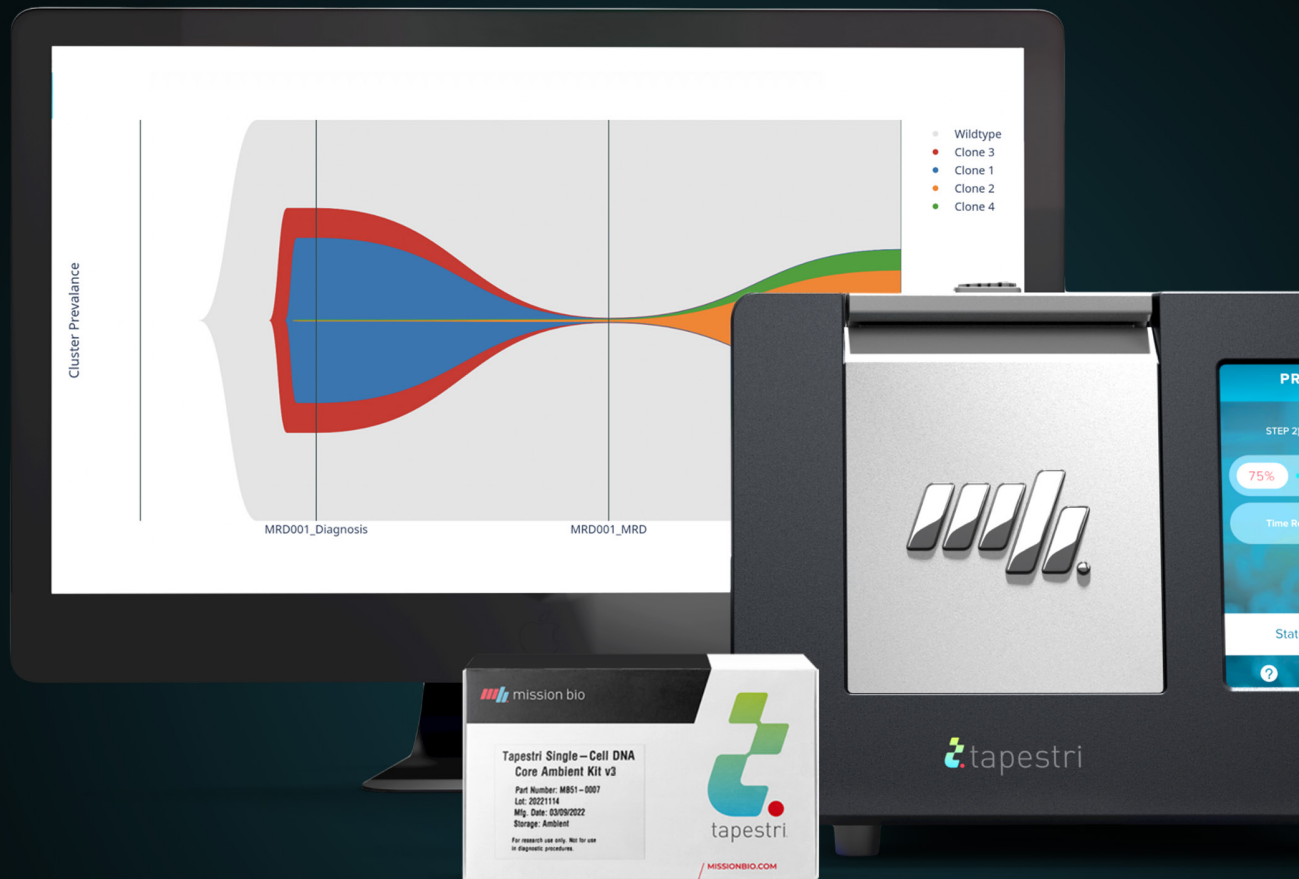


Mission Bio Tapestri Single-cell DNA Panels and Protein Panels

Uncover Genotype and Immunophenotype
Insights Simultaneously from Single Cells.



Mission Bio specializes in facilitating the widespread adoption of single-cell DNA and multiomic analysis.

Our technology and solutions services offering is centered around our unique Tapestri Platform, which allows scientists and drug developers to analyze the genetic makeup of individual cells and elicit novel, actionable insights.



Target with Precision

Tapestri® Single-cell DNA Panels and Protein Panels are highly sensitive and customizable panels that enable simultaneous targeted single-cell DNA and protein analysis on the Tapestri® Platform. Whether identifying rare subclones missed by standard bulk sequencing, or identifying co-mutation patterns and zygosity in subclones, Tapestri panels can be applied across a wide range of translational research applications, including hematologic malignancies, solid tumors, genome editing, biomarker discovery and cell and gene therapy.

TAPESTRI SINGLE-CELL APPLICATIONS



Hematologic malignancies



Solid tumors



Genome editing



Biomarker discovery



Cell & gene therapy

KEY BENEFITS

- Identify single nucleotide variant (SNV), copy number variant (CNV), loss of heterozygosity (LOH) and translocations from thousands of single cells
- Pair DNA and protein panels to gain genotype and immunophenotype insights simultaneously from single cells
- Leverage the flexibility in experimental design and budget with targeted panels focused on your genes or regions of interest

Choose a Panel Type that Fits your Needs

Tapestri Single-cell DNA Panels are available in ready-to-ship or build-to-order formats. To get your experiments running with minimal time and effort, consider our pre-designed and wet lab-tested Tapestri Single-cell DNA Catalog Panels.

Alternatively, choose from our new Tapestri Single-cell DNA Published Panels designed by leading oncology researchers and verified for performance through peer-reviewed publications.

If you require more flexibility, consider our pre-designed but customizable Tapestri Single-cell DNA Virtual Design Panels. For maximum versatility, create a Tapestri Single-cell DNA Custom Panel for human, mouse, or any other reference genome of your choice.

To integrate genotype and immunophenotype data, add a Protein Panel (oligo-conjugated antibodies from BioLegend) into your Tapestri experiments. This approach uncovers combined genotypic and immunophenotypic complexity across thousands of individual cells. To browse all panels or customize your own panel, visit Tapestri Designer (tapestridesigner.com).

DNA	<p>READY-TO-SHIP</p> <p>Catalog Panels</p>	<ul style="list-style-type: none"> – Pre-designed to cover the most commonly implicated genes in hematologic malignancies – Wet lab-tested – Available in small pack sizes
	<p>READY-TO-SHIP</p> <p>Published Panels</p>	<ul style="list-style-type: none"> – Pre-designed by leading researchers of hematologic malignancies – Featured in peer-reviewed publications – Available in small pack sizes
	<p>BUILT-TO-ORDER</p> <p>Virtual Design Panels</p>	<ul style="list-style-type: none"> – In silico-designed panels for additional indications in hematologic malignancies – Starting point for panel customization – Available in large pack sizes
	<p>BUILT-TO-ORDER</p> <p>Custom Panels</p>	<ul style="list-style-type: none"> – Fully customizable for maximum flexibility – Design a panel for human, mouse or any other custom reference using Tapestri Designer – Available in large pack sizes
PROTEIN	<p>Protein Panels (FROM BIOLEGEND)</p>	<p>Order the ready-to-use TotalSeq-D Heme Oncology Cocktail or configure your own antibody cocktail from a growing catalog of pre-optimized antibody oligonucleotide conjugates.</p>



“Knowing the clonal architecture and the immunophenotype on a single-cell level ... that opens doors to new therapeutic strategies and to figuring out resistance mechanisms and allowing us to hopefully circumvent those.”

LINDE MILES, PH.D.
CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER

Hematologic Malignancy DNA Panels

Clonal evolution is foundational to disease progression in hematologic malignancies, and can impact therapy response, resistance, and residual disease. Tapestri Single-cell DNA Panels and Protein Panels for research in hematologic malignancies provide unprecedented resolution to understand tumor heterogeneity that drives disease.

FEATURED PANELS

TAPESTRI SINGLE-CELL DNA MYELOID CLONAL EVOLUTION PUBLISHED PANEL

Designed by the Ross Levine Lab at Memorial Sloan Kettering Cancer Center

32-GENE MYELOID CLONAL EVOLUTION PANEL

ASXL1	DNMT3A	IDH2	NRAS	SETBP1	U2AF1
ATM	ETBP1	JAK2	PHF6	SF3B1	WT1
BRAF	EZH2	KIT	PPM1D	SRSF2	—
CALR	FLT3	KRAS	PTPN11	STAG2	—
CBL	GATA2	MPL	RAD21	TET2	—
CHEK2	IDH1	NPM1	RUNX1	TP53	—

Targets hotspots across 32 genes implicated in myelodysplastic syndromes (MDS), myeloproliferative neoplasms (MPN), and acute myeloid leukemia (AML)

TAPESTRI SCMRD AML DNA PANEL

40-GENE MRD AML PANEL

ASXL1	FLT3	MYC	SF3B1
BCOR	GATA1	MYH11	SMC1A
BRAF	GATA2	NF1	SRSF2
CALR	IDH1	NPM1	STAG2
CBFB	IDH2	NRAS	TET2
CBL	IL6R*	PHF6	TP53
CHEK2	IP6K1*	PPM1D	TRPC4*
CSF1R	JAK2	PTPN11	U2AF1
CYP4F3*	KIT	RAD21	UBA1*
DNMT3A	KMT2A	RUNX1	WT1
ETV6	KRAS	SETBP1	ZEB2*
EZH2	MEIS2*	SF3A1*	ZRSR2

40-hotspot-gene panel for Single-cell DNA sequencing curated based on relevant guidelines for AML MRD testing such as the European LeukemiaNet

ALL HEMATOLOGIC MALIGNANCY DNA PANELS

Visit Tapestri Designer to get the gene list and more details.

CATALOG PANELS

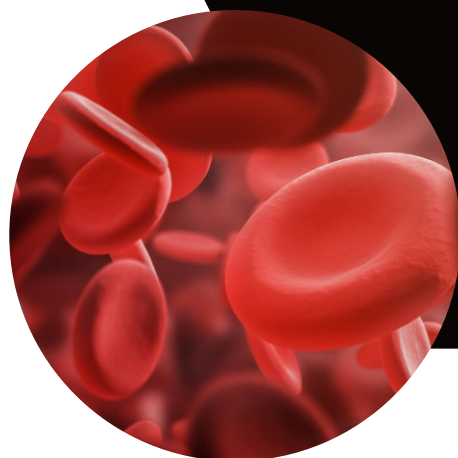
- Acute Myeloid Leukemia
- scMRD AML
- Myeloid

PUBLISHED PANELS

- Acute Lymphoblastic Leukemia (Jan Cools, VIB)
- Myeloid Clonal Evolution (Ross Levine, MSKCC)
- Myeloproliferative Neoplasms (Piers Blombery, Peter Mac)
- Myeloid (Koichi Takahashi, MDACC)
- Chronic Lymphocytic Leukemia (Omar Abdel-Wahab, MSKCC)

VIRTUAL DESIGN PANELS

- Acute Lymphoblastic Leukemia
- Chronic Myeloid Leukemia
- Classic Hodgkin's Lymphoma
- Diffuse Large B-Cell Lymphoma
- Follicular Lymphoma
- Mantle Cell Lymphoma
- Multiple Myeloma
- Myelodysplastic Syndromes
- Myeloproliferative Neoplasms
- T-Cell Lymphoma



Hematologic Malignancy Protein Panels

The linkage of genotype and immunophenotype in individual cells offers the resolution for uncovering unique disease signatures for personalized therapeutics. TotalSeq™-D oligo-conjugated antibodies from BioLegend enable measurement of proteins at a single-cell level and integrate seamlessly into the Tapestry single-cell DNA sequencing workflow to amplify the power of single-cell analysis.

FEATURED PANELS

TOTALSEQ-D HEME ONCOLOGY COCKTAIL

45-PROTEIN HEME ONCOLOGY PANEL

CD1c	CD8	CD16	CD34	CD49d	CD71	CD141	IgG1 control
CD2	CD10	CD19	CD38	CD56	CD83	CD163	IgG2a control
CD3	CD11b	CD22	CD44	CD62L	CD90	CD303	IgG2b control
CD4	CD11c	CD25	CD45	CD62P	CD117	CD304	—
CD5	CD13	CD30	CD45A	CD64	CD123	FcεRIα	—
CD7	CD14	CD33	CD45RO	CD69	CD138	HLA-DR	—

Target 42 heme cell surface lineage marker antibodies and 3 negative isotype controls

ALL HEMATOLOGIC MALIGNANCY PROTEIN PANELS

- TotalSeq™-D Heme Oncology Cocktail
- TotalSeq™-D Catalog Antibody Oligonucleotide Conjugates
- TotalSeq™-D scMRD AML Antibody Cocktail (sold as part of the Tapestry Single-cell MRD AML Multiomics Assay)

TOTALSEQ-D SCMRD AML ANTIBODY COCKTAIL

17-PLEX MRD AML AOC PANEL

CD2
CD3
CD7
CD10
CD11b
CD13
CD14
CD19
CD22
CD33
CD34
CD38
CD45RA
CD56
CD123
HLA.DR
CD117

17-plex antibody oligonucleotide conjugate (AOC) panel including AML MRD disease-specific biomarkers for immunophenotypic characterization (sold as part of the Tapestry Single-cell MRD AML Multiomics Assay)

Solid Tumor DNA Panels

Cellular heterogeneity in solid tumor cancers impacts clonal evolution and patient outcomes. Single-cell DNA solid tumor profiling enables high resolution of the genomic diversity in a variety of tumor types.

FEATURED PANELS

TAPESTRI SINGLE-CELL DNA BREAST CANCER RESEARCH PANEL V2

32-HOTSPOT GENES

AKT1	BRCA1	CCND1	CDKN2A	ERBB2	FGFR1	KRAS	MYC	NUP93	RB1	TP53
ARID1	BRCA2	CCNE1	EGFR	ERBB3	GATA3	MAP2K4	NCOR1	PIK3CA	RHOA	TP53BP1
ATM	CBFB	CDH1	EP300	ESR1	JAK1	MAP3K1	NF1	PTEN	SF3B1	—

30-COPY NUMBER VARIANTS

1p	5q	8p	13q	17q	BRCA1	CCNE1	CDKN2A	FGFR1	PTEN
1q	6q	8q	16q	20q	BRCA2	CDK4	EGFR	MYC	RB1
4q	7q	10q	17p	22q	CCND1	CDK6	ERBB2	PIK3CA	TP53

Target 32 hotspot genes and 30 copy number variants and chromosome arm aneuploidies relevant to breast cancer.
No. of amplicons: 369

TAPESTRI SINGLE-CELL DNA GLIOMA RESEARCH PANEL

10-HOTSPOT GENES

ATRX	CIC	IDH1	PIK3R1	RB1
BRAF	EGFR	IDH2	PTEN	TP53

6-COPY NUMBER VARIANTS

1p	7p	7q	10q	19q	MDM2/ CDK4
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Target 10 hotspot genes and 6 copy number variants and chromosome arm aneuploidies relevant to glioma.
No. of amplicons: 232

ALL SOLID TUMOR DNA PANELS

Visit Tapestri Designer to get the gene list and more details.

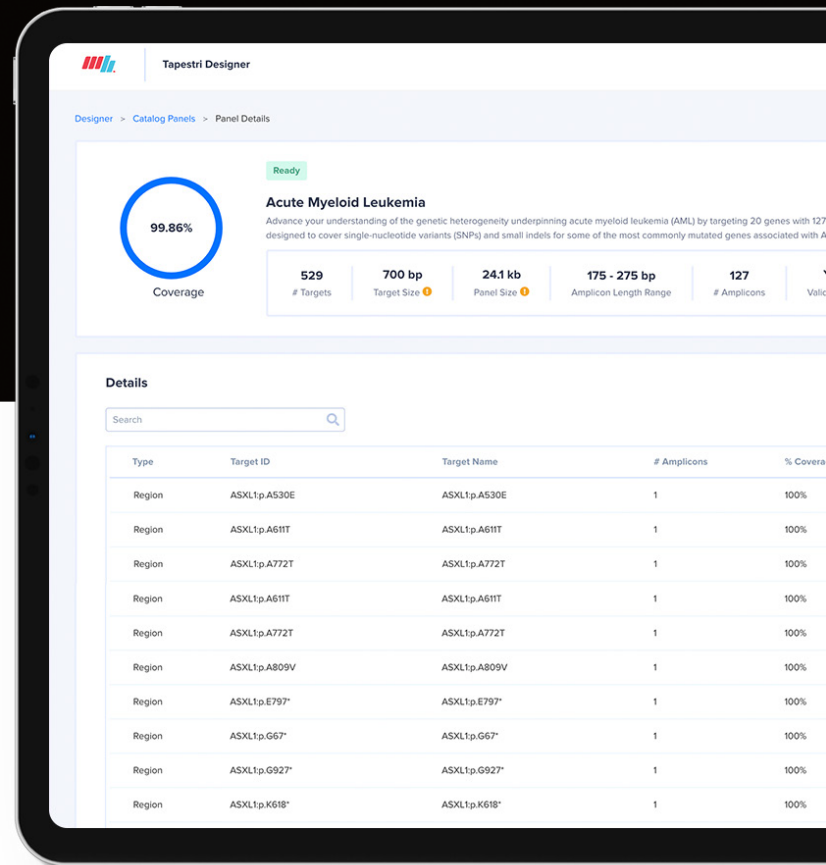
VIRTUAL DESIGN PANELS

- Breast Cancer Research Panel V2
- Glioma Research Panel
- Tumor Hotspot Panel

Custom Panels

For maximum flexibility, use the intuitive [Tapestri Designer software](#) to tailor a custom DNA panel to the most relevant genomic regions of heterogeneity for your research. 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. Panels can be designed against human, mouse or any other custom reference genomes of your choice.

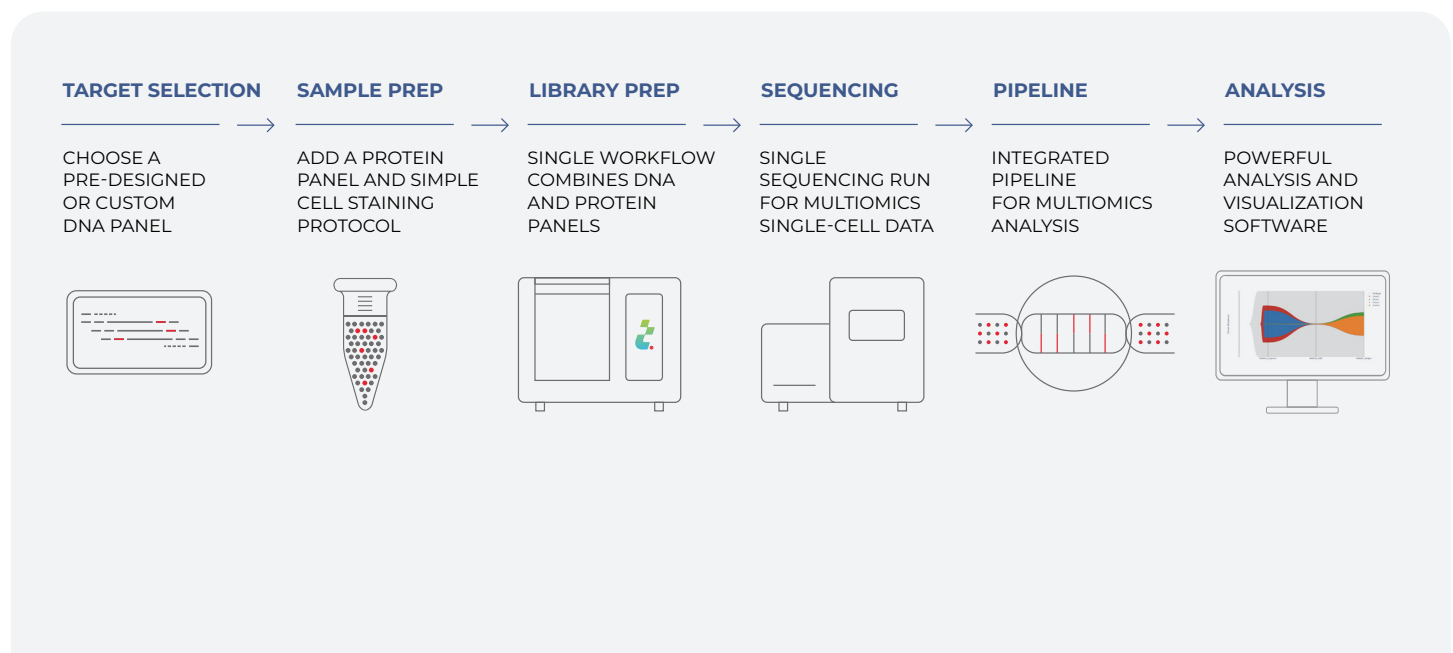
Inquire about custom oligo-conjugated antibodies for concurrent measurement of proteins.



The Tapestri Single-cell Multiomics Workflow

The Tapestri Platform provides an end-to-end solution that seamlessly plugs in to your existing next-generation sequencing (NGS) workflow.

Use the Tapestri instrument, reagents and consumables up-front of your NGS system and then Tapestri Pipeline and Tapestri Insights software for data analysis and visualization.



PANEL	PART NUMBER
Tapestri Single-Cell DNA AML Oligo Pool	MB03-0035
Tapestri Single-Cell DNA Myeloid Oligo Pool	MB03-0036
Tapestri Single-cell DNA Acute Lymphoblastic Leukemia Published Panel (Jan Cools, VIB)	MB03-0056
Tapestri Single-cell DNA Myeloproliferative Neoplasms Published Panel (Piers Blombery, Peter Mac)	MB03-0057
Tapestri Single-cell DNA Myeloid Clonal Evolution Published Panel (Ross Levine, MSKCC)	MB03-0058
Tapestri Single-cell DNA Myeloid Published Panel (Koichi Takahashi, MDACC)	MB03-0072
Tapestri Single-cell DNA Chronic Lymphocytic Leukemia Published Panel (Omar Abdel-Wahab, MSKCC)	MB03-0080
Tapestri scMRD AML DNA Panel	MB03-0101
Tapestri Single-cell DNA Custom Panel Kits	missionbio.com/panels/custom-panels
BioLegend TotalSeq-D Heme Oncology Panel	missionbio.com/panels/totalseq-d-heme-oncology



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