

CHIPCYTOMETRY™ VALIDATED TARGETS

Highlights

- ChipCytometry is a powerful platform for spatially resolved multiplexing of dozens of protein biomarkers.
- ChipCytometry offers the flexibility to tailor assays to meet individual project needs.
- Design custom panels from our list of ready-to-use, fully validated target markers.
- Custom validation is available for additional biomarkers upon request.

About ChipCytometry

ChipCytometry is a powerful platform for spatially resolved multiplexing that enables quantitative measurement of dozens of protein biomarkers on the same sample. High-resolution, high dynamic range imaging allows for quantitative single cell analysis of high- and low-expressing proteins, while maintaining critical information about cell morphology and tissue architecture.

Samples are loaded onto ZellSafe™ chips to preserve sample integrity during serial delivery of reagents. A cocktail of up to five fluorescently conjugated antibodies is delivered in successive rounds of staining, imaging, and photobleaching. Standard FCS files are generated from multichannel images, enabling identification of cellular phenotypes via hierarchical gating.

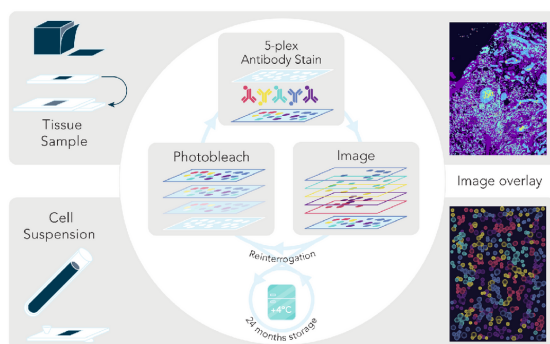


Figure 1. Overview of the ChipCytometry platform for spatially resolved multiplexing of protein biomarkers.

Target Validation

ChipCytometry offers the flexibility to tailor assays to meet individual project needs. Design custom panels from our list of ready-to-use, fully validated target markers. ChipCytometry offers a number of pre-validated targets for immunology, oncology, and neurobiology applications. Custom validation is available for additional biomarkers upon request.

Fully validated fluorescently conjugated antibodies are foundational to the analysis of protein targets. Each antibody is rigorously tested for precise and consistent performance and has been optimized for a specific cell or tissue type. All antibodies are commercially available to avoid tricky, proprietary conjugation chemistry.

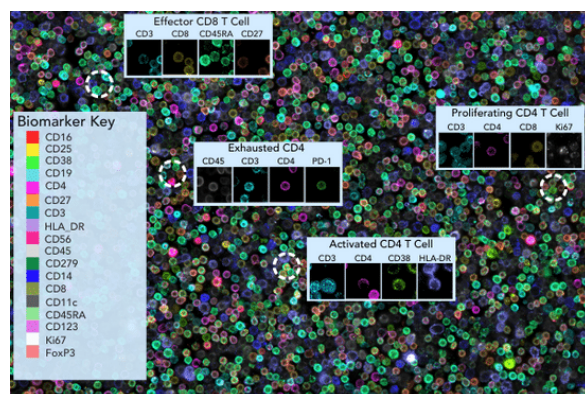
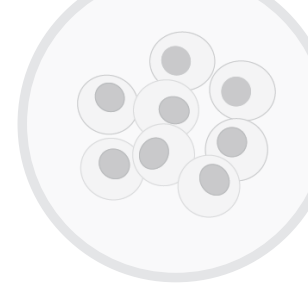


Figure 2. Immune phenotyping of human cell suspension using 18 pre-validated biomarkers.

Three Key Features

- ChipCytometry uses fluorescently conjugated antibodies for spatially resolved multiplexing of dozens of protein biomarkers.
- High-resolution, high dynamic range imaging enables quantitative single cell analysis of high- and low-expressing proteins.
- ChipCytometry works with a variety of sample types including tissue sections and cell suspensions.



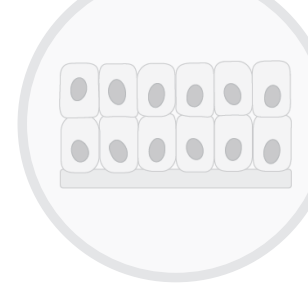
HUMAN CELL SUSPENSION

Validated Target List

A list of targets corresponding to fully validated fluorescently conjugated antibodies for use in ChipCytometry assays. Antibodies have been tested in human cell suspensions for precise and consistent performance. Select from our pre-validated target list to design custom panels specific to your project needs. Validation of custom biomarkers is available upon request.

Active caspase-3	CD29	CD86	CD294	IL12
AhR	CD30	CD90	CD319	IL13
Aiolos (IKZF3)	CD31	CD95	CLA	IL17A
Bcl-2	CD33	CD102	Collagen IV alpha	IL17F
Beta-actin	CD34	CD115	CTLA-4	IL23R
CCR10*	CD36	CD117 (c-Kit)	CXCL10	Interferon gamma
CD1c	CD38	CD123	CXCL13	Ki-67
CD2	CD39	CD127	Endoglin	Lag-3*
CD3	CD40	CD134	EpCAM	Light chain kappa
CD4	CD45	CD137	FoxP3	Light chain lambda
CD5	CD45RA	CD138	Glycophorin A	MICA/B
CD8	CD45RO	CD141	Glycophorin A/B	p-Histone H3 (Ser10)
CD10	CD52	CD154 (CD40L)	GM-CSF	p-Stat1 (Tyr701)
CD11b	CD54	CD161	Granzyme B	p-Stat3 (Tyr705)
CD11c	CD56	CD172a/b	Helios	Pan-cytokeratin
CD14	CD57	CD183 (CXCR3)*	HLA-DR	PD-1
CD15	CD61	CD184 (CXCR4)*	IDO	PD-L1
CD16	CD62L	CD185 (CXCR5)*	IgA	Perforin
CD18	CD64	CD193 (CCR3)*	IgD	T-bet
CD19	CD66b	CD194 (CCR4)*	IgG	TCF1/TCF7
CD20	CD68*	CD195 (CCR5)*	IgM	TCR alpha/beta
CD21	CD69	CD196 (CCR6)*	IL1b	TIGIT*
CD22	CD71	CD197 (CCR7)*	IL2	TIM-3
CD24	CD73	CD206	IL4	TNF alpha
CD25	CD80	CD244	IL5	Vimentin
CD27	CD81	CD257 (BAFF)	IL8	Zap-70
CD28	CD83	CD278 (ICOS)	IL10	

*Requires pre-stain on live cells.

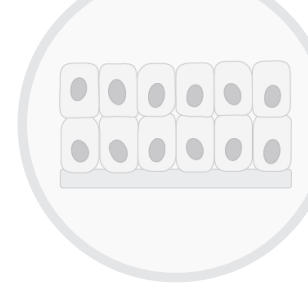


HUMAN FRESH FROZEN TISSUE

Validated Target List

A list of targets corresponding to fully validated fluorescently conjugated antibodies for use in ChipCytometry assays. Antibodies have been tested in human fresh frozen (FF) tissue for precise and consistent performance. Select from our pre-validated target list to design custom panels specific to your project needs. Validation of custom biomarkers is available upon request.

CA-IX	CD29	CD86	CTLA-4	N-cadherin
CD3e	CD31	CD90	Cytokeratin 18	OX40
CD4	CD38	CD95	E-cadherin	Pan-cytokeratin
CD8a	CD39	CD123 (IL3RA)	EGFR	PD-1
CD10	CD40	CD141	Endoglin	PD-L1
CD11c	CD44	CD155	EpCAM	SMA
CD14	CD45	CD161	FoxP3	SMAD1/2/3
CD16	CD45RA	CD193 (CCR3)	GATA3	TIGIT
CD19	CD45RO	CD223	Granzyme B	TIM-3
CD20	CD56	CD278 (ICOS)	HER2	VEGFR-2
CD21	CD68	CD299	HLA-A	Vimentin
CD25	CD69	CD335	HLA-DR	
CD27	CD73	Collagen IV alpha	Ki-67	

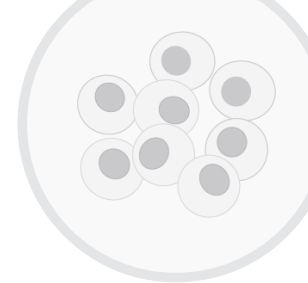


HUMAN FFPE TISSUE

Validated Target List

A list of targets corresponding to fully validated fluorescently conjugated antibodies for use in ChipCytometry assays. Antibodies have been tested in human formalin-fixed paraffin-embedded (FFPE) tissue for precise and consistent performance. Select from our pre-validated target list to design custom panels specific to your project needs. Validation of custom biomarkers is available upon request.

CD3	CD25	CD123	HLA-A	S1PR1 (EDG-1)
CD4	CD27	CD138	HLA-DR	SMA
CD8	CD38	CD223	Ki-67	Sox-10
CD11c	CD45	CD357	Pan-cytokeratin	TCF1
CD14	CD45RA	CD366	PD-1	TIGIT
CD16	CD45RO	EGFR	PD-L1	Vimentin
CD19	CD56	FoxP3	p-AMPK alpha-1,2 (Thr183, Thr172)	
CD20	CD68	HER2		

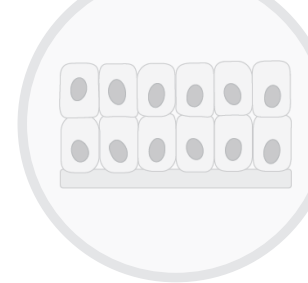


MOUSE CELL SUSPENSION

Validated Target List

A list of targets corresponding to fully validated fluorescently conjugated antibodies for use in ChipCytometry assays. Antibodies have been tested in mouse cell suspensions for precise and consistent performance. Select from our pre-validated target list to design custom panels specific to your project needs. Validation of custom biomarkers is available upon request.

CD3	CD45	CD137	CD317	MHC II
CD4	CD45R (B220)	CD154	Endoglin	NK1.1
CD5	CD62L	CD163	F4/80	PD-1
CD8a	CD69	CD169	FoxP3	PD-L1
CD11b	CD86	CD201	IL10	T-bet
CD11c	CD103	CD202b	IL12	TCR2
CD19	CD115	CD204	IL17A	TNF alpha
CD25	CD117	CD206	Interferon gamma	UCP1
CD29	CD124 (IL4RA)	CD284	Ly6C	
CD34	CD135	CD301	Ly6G (GR1)	

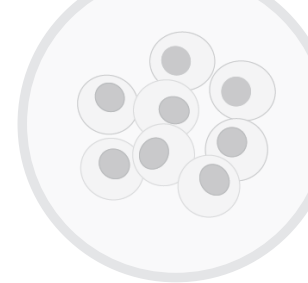


MOUSE FRESH FROZEN TISSUE

Validated Target List

A list of targets corresponding to fully validated fluorescently conjugated antibodies for use in ChipCytometry assays. Antibodies have been tested in mouse fresh frozen tissue (FF) for precise and consistent performance. Select from our pre-validated target list to design custom panels specific to your project needs. Validation of custom biomarkers is available upon request.

CD3e	CD25	CD68	F4/80	MHC II
CD4	CD27	CD69	FAP	NK1.1
CD5	CD31	CD103	FoxP3	Pan-cytokeratin
CD8a	CD44	CD140b	GFAP	PD-1
CD11b	CD45	CD206	Ki-67	PD-L1
CD11c	CD45R (B220)	Desmin	Ly6C	SMA
CD19	CD64	EpCAM	Ly6G (GR1)	VEGFR-2

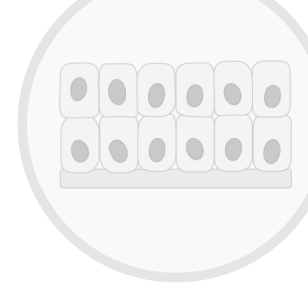


NON-HUMAN PRIMATE CELL SUSPENSION

Validated Target List

A list of targets corresponding to fully validated fluorescently conjugated antibodies for use in ChipCytometry assays. Antibodies have been tested in non-human primate cell suspensions for precise and consistent performance. Select from our pre-validated target list to design custom panels specific to your project needs. Validation of custom biomarkers is available upon request.

CD3	CD20	CD56	CD278	Interferon gamma
CD4	CD27	CD69	CD279	Ki-67
CD8	CD39	CD80	FoxP3	LAMP-1
CD11b	CD40	CD86	Granzyme B	Light chain lambda
CD11c	CD45	CD95	HLA-DR	Perforin
CD14	CD45RO	CD123	IL2	TNF alpha
CD16	CD49d	CD161	Integrin beta 7	



NON-HUMAN PRIMATE FRESH FROZEN TISSUE

Validated Target List

A list of targets corresponding to fully validated fluorescently conjugated antibodies for use in ChipCytometry assays. Antibodies have been tested in non-human primate fresh frozen (FF) tissue for precise and consistent performance. Select from our pre-validated target list to design custom panels specific to your project needs. Validation of custom biomarkers is available upon request.

Biotin	CD16	CD56	IgG
CD3	CD20	CD159a	IgM
CD14	CD45	IgA	