

Altasciences offers expert flow cytometry services in support of nonclinical and clinical studies. We leverage extensive experience in developing and validating **fit-for-purpose flow cytometry assays** for **exploratory** or **secondary endpoints**. Our expertise spans immunophenotyping panels of up to **18 colors**, including **intra-cellular cytokine staining, activation, proliferation markers**, or other **key PD markers**.

Our labs in the U.S. and Canada are equipped with **BD LSRFortessa™** for multi-centric studies. This setup ensures consistent validation of instrumentation and panels, facilitating a seamless transition from nonclinical to clinical studies. Our Montréal clinical pharmacology unit is a [few minutes' drive to our bioanalytical facility in Greater Montréal](#), while our preclinical sites in Seattle and Columbia have integrated flow cytometry labs.

BROAD APPLICATIONS

Preclinical

- Immunotoxicology
- Exposure confirmation (complement to PK evaluation) and on-target binding
- Immunomodulation
- Drug mechanism of action
- Identification of potential biomarkers
- Research/exploratory projects

Clinical

- Immunomodulation
- PK/PD correlation
- Receptor occupancy
- Drug mechanism of action
- Functional assays
- PhosFlow Assay

VALIDATION EXPERTISE

- Identifying and/or producing reagents and staining methodology for specific cell detection
- Establishing appropriate assay sensitivity in patients lymphodepleted following treatment
- Maintaining assay specificity with chimeric antigen reception (CAR) down-regulation *in vivo*
- Establishing the accuracy of cell counting methods
- Establishing the accuracy of absolute counts readouts

WHY PARTNER WITH US?

Expertise: Dedicated **flow scientists** and highly experienced lab directors, with **targeted** and **extensive knowledge**, ensure your studies are conducted quickly and reliably.

State-of-the-art equipment: Our three labs (Seattle, Columbia, and Greater Montréal) are equipped with BD LSRFortessa™ instruments.

Lab proximity to clinical pharmacology units: With labs located near our clinical pharmacology units, Altasciences provides quick turnaround and seamless study transitions.

WHAT MEETS YOUR NEEDS BEST?

	Project	Package	Program
Scope of work	One nonclinical or clinical study	A group of nonclinical or clinical studies for the same molecule (i.e., IND- or NDA-enabling)	Taking a compound from nonclinical to clinical development
Cost savings	Minimal	Volume-based	Maximum
Time savings	None	Some	Maximum
Extent of management required	High	Moderate	Low

SCAN THE QR CODE
TO LEARN MORE ABOUT OUR
FLOW CAPABILITIES



FLOW CYTOMETRY EXPERTISE

Altasciences has experienced scientific and technical flow specialists to develop panels tailored to your unique needs.

Validated nonhuman primate (NHP), minipig and human panels are available for immediate deployment. Our experts can advise you on requirements for species, tissues, and marker combinations.

FLOW CYTOMETRY:AVAILABLE ASSAYS

NHP

TBNK & Immunophenotyping T cell					Immunophenotyping B cell	
A	B	C	D	Cell population	Markers	Cell population
CD45	CD45	CD45	CD45	Leukocytes	CD3	T cells (total)
CD3	CD3	CD3	CD3	T cells (total)	CD4	T cells (helper)
CD4	CD4	CD4	CD4	T cells (helper)	CD8	T cells (cytotoxic)
CD8	CD8	CD8	CD8	T cells (cytotoxic)	CD14	Monocytes
CD20	CD20	CD20	CD20	B cells	CD159a	NK cells
CD14	CD14	CD14	CD14	Monocytes	CD19	B cells
CD159a	CD159a	CD159a	CD159a	NK cells	CD20	
HLADR	HLADR	HLADR	HLADR	DC	CD40	
CD11c	CD11c	CD11c	CD11c	Co-stimulation	CD21	B cells subsets
/	CD28	/	CD28		CD27	
/	CD95	/	CD95	Functional - Memory	CD38	
/	/	CD25	CD25	T cells (regulatory)	CD138	
/	/	CD125	CD127		IgD	
/	/	CD69	CD69	Early activation		

Human

TBNKM*	
Markers	Cell population
L/D	Live Cells
CD45	Leukocytes
CD3	T cells (total)
CD4	T cells (helper)
CD8	T cells (cytotoxic)
CD19	B cells
CD16	NK cells
CD56	
CD14	Monocytes

Porcine : Sinclair Nanopig™

TBNK*	
Markers	Cell population
CD45	Leukocytes
CD3	T cells (total)
CD4	T cells (helper)
CD8	T cells (cytotoxic)
CD21	B cells
CD335	NK cells
γδ-TCR	γδ-T cells

* 71h stability with streck cell preservative (1:1 v/v Ratio)

* Absolute count with Trucount tubes

* 11 days stability with Cyto-Chex vacutainer (2mL)

If you require additional cell-based platforms, we offer ELISpot, neutralizing cell-based assays, PBMC isolation, cytokine release assays, and cell sorting (MACS).