



# Flow cytometry reagents and automation

Advancing your research with automated cocktail and sample preparation, combined with a wide-ranging antibody catalog.

Scientist-driven research solutions, with quality and reliability.

Our knowledge and expertise with fluorophores, chemistries, and antibody conjugation have helped us become a preeminent expert on flow cytometry. Our scientists are crafting dyes that ignite discoveries by emitting in the far red, filling previously unoccupied spectral spaces, and providing enhanced stability and/or brightness.

## Antibodies, fluorophores, and buffers

Explore our fluorophore options below to see which one best fits your panel.

### Fluorophores

Fluorophore	Excitation Max (nm)	Emission Max (nm)	Filter	Brightness
Ultraviolet laser (355 nm)				
Spark PLUS UV395™	355	385	379/28	4
Spark UV™ 387	355	388		2
StarBright UltraViolet 575	340	569	586/15	4
StarBright UltraViolet 740	343	737	740/35	5
StarBright UltraViolet 795	340	792	820/60	5

Fluorophore	Excitation Max (nm)	Emission Max (nm)	Filter	Brightness
Violet Laser (405 nm)				
Spark Violet™ 423	405	423	450/50	3
BV421™	405	421	450/50	5
Pacific Blue™	410	455	450/50	1
Spark Violet™ 500	393	500	510/50	1
BV510™	405	510	510/50	2
Spark Violet™ 538	399	538		1
BV570™	405	570	585/42	2
BV605™	405	603	610/20	4
BV650™	405	645	660/20	4
BV711™	405	711	710/50	5
BV750™	405	750	780/60	3
BV785™	405	785	780/60	4
Blue Laser (488 nm)				
KIRAVIA Blue 520™	488	520	530/30	4
Alexa Fluor® 488	495	519	530/30	3
FITC	493	525	530/30	3
Spark Blue™ 515	506	511	530/30	2
Spark PLUS B550™	516	540	530/30	3
Spark Blue™ 550	516	540	530/30	1
Spark PLUS B574™	506	574	570/40	4
Spark Blue™ 574	506	574	570/40	1
PerCP	482	675	695/40	1
PerCP/Cyanine5.5	482	690	695/40	2
PerCP/Fire™ 780	482	774	780/60	4
PerCP/Fire™ 806	482	802	780/60	4

Fluorophore	Excitation Max (nm)	Emission Max (nm)	Filter	Brightness
<b>Yellow/Green Laser (532, 561 nm)</b>				
PE	565	575	585/20	5
Spark PLUS YG581™	565	581	575/26 or 585/15	4
Spark YG™ 581	565	581	575/26 or 585/15	2
Spark YG™ 593	565	593		3
PE/Dazzle™ 594	565	610	610/20	5
PE/Fire™ 640	565	639		4
PE/Cyanine5	565	670	660/20	5
PE/Fire™ 700	565	695	710/50	5
PE/Fire™ 744	565	743	780/60	5
PE/Cyanine7	565	774	780/60	4
PE/Fire™ 810	565	806	780/60	4
<b>Red Laser (633 nm)</b>				
APC	650	660	660/20	4
Alexa Fluor® 647	650	668	660/20	4
Spark NIR™ 685	660	685		3
Spark Red™ 718	697	711	720/45	4
Alexa Fluor® 700	696	719	720/45	2
APC/Cyanine7	650	774	780/60	2
APC/Fire™ 750	650	774	780/60	2
APC/Fire™ 810	787	807		3

## Antibodies

### Antibodies and targets at glance

Our catalog features over 22,000 antibodies and kits for flow cytometry applications. We supply Research Use Only (RUO) products (not for diagnostic use), Analyte Specific Reagents (ASR) products, and products manufactured according to GMP guidelines. Adherence to quality is supported by our ISO 13485:2016 and MDSAP certifications.

Surface markers are crucial for phenotyping in flow cytometry, as combinations of these markers identify cell populations. For example, T cells are identified by TCR, CD3, and either CD4 or CD8. Other important surface markers include TRBC1, kappa and lambda light chains, and OX-40.

Intracellular targets include proteins like cytokines, chemokines, and growth factors, some of which require protein transport inhibitors for detection. Key intracellular markers are MPO and Ki-67, which are vital for signaling pathways and protein regulation.

Nuclear targets reveal cell fate information through transcription factors and genetic content. T helper cells, for instance, are characterized by transcription factors like FOXP3, T-bet, and GATA3. Histones are also assessed for epigenetic modifications.

## Reagents

<b>Sample Preparation Solutions</b>	
Buffer	Function
Lymphopure™	Density gradient media for mononuclear cell (PBMC) isolation.
RBC Lysis Buffer (10x)	Concentrated buffer for red blood cell lysis. Contains ammonium chloride, potassium carbonate, and EDTA.
RBC Lysis/Fixation Solution (10x)	Concentrated buffer for red blood cell lysis and fixation of remaining leukocytes.
<b>Fixation Buffers</b>	
Buffer	Function
Fixation Buffer	Paraformaldehyde-based buffer used to fix cells.
FluoroFix™ Buffer	Gentler fixation buffer with a lower percentage of paraformaldehyde specialized for use with tandem dyes.
<b>Storage Buffers</b>	
Buffer	Function
Cyto-Last™ Buffer	Specially formulated buffer for prolonged storage of cytokine producing cells.

Discover our list of flow cytometry reagents.



## Enhance flow cytometry reliability with automated cocktail preparation

In the realm of flow cytometry, the reliable preparation of reagents is crucial for obtaining precise and consistent outcomes. Flow cytometry is a critical tool in research, facilitating in-depth analysis of cell populations by detecting surface and intracellular markers. Preparing the antibody cocktail reliably is crucial for determining the quality of the collected data.

### Precision

- Reliable dispensing technologies that allow for precise volumes
- Minimize dead volume
- Reduce human error and variability in measurement

### Standardization

- Consistency in preparation process
- Enhance result reproducibility

### Enhance productivity

- Increase walkway time
- Focus on value-added activities
- Higher throughput

### Traceability

- Automatic audit trail
- Streamlined data capture

### Flexibility

- Software and deck customizable
- Deck QC identifies discrepancies pre-run
- Optional HEPA filter

## Fontus liquid handler

Fontus™ workstation streamlines and enhances the antibody cocktail preparation and staining process by focusing on these core aspects. This leads to more reliable and reproducible results, better resource utilization, and improved operational efficiency in research.

- Barcode reader for sample traceability
- Cooling blocks for antibody vial temperature control
- Flexible deck size based on customer's throughput and workflow
- Tinted Plexiglas for light blocking
- Automated handling of antibody reagents and cocktail reagent preparation
- Sub 5% CVs and 1  $\mu$ L to 5 mL sample working volumes
- Minimal dead volume with liquid level detection
- High throughput with dual pipetting arms

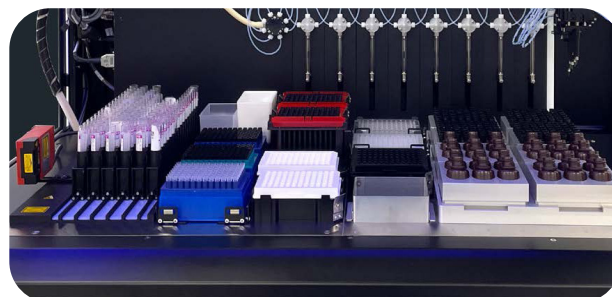


## Revvity's integrated solution: automated liquid handling and optimized reagents

Combine the power of Fontus automation with BioLegend's antibody reagents to streamline your workflow, increase throughput, and achieve consistency in your flow cytometry assay.

### Why automate?

- Provides standardization of flow cytometry sample preparation
- Improved operator safety through minimal sample interaction
- Reduced operator variability and potential risk of errors
- Open system allows for flexible laboratory testing protocols
- Versatile for routine and complex flow protocols
- Compatible with multiple manufacturers' antibody vials
- Enables highly skilled staff to concentrate on more complex operations



### Why BioLegend flow cytometry reagents?

- Our product expertise covers a diverse set of research areas including immunology, neuroscience, cancer, stem cells, and cell biology
- Over 27,000 catalog products with 100+ new products per month
- ISO 13485:2016 Certified Company since 2018
- GMP Suite is a Medical Device Single Audit Program (MDSAP) Certified Facility since 2019



For more information, contact  
your local representative or  
visit our website:



Fontus automated  
workstation



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