

DISCOVERY
L I F E S C I E N C E S

Science at your Service™

AllCells® Product Catalog

Primary Human Cells and Tissues



The Patient, their Hope, and our **Commitment.**

Hope enables the patient to endure the adversity and pain of disease. Hope motivates people to participate in clinical research studies and biospecimen donation. Time is the worst enemy of hope. As time passes, it prolongs and intensifies pain while diminishing the body and spirit.

Our mission is to enable the discovery and development of therapeutic and diagnostic solutions that improve patient outcomes.

At Discovery Life Sciences, we commit to acquiring the leading technologies and employing the most dedicated and brightest minds from every culture, walk of life, and region of the world. We come together to accelerate and advance science. We accomplish this by partnering with researchers in industry, academia, and governments enhancing their abilities to complete their vital work faster by providing them with the highest quality products and services. We commit to acting ethically and with integrity while strictly adhering to all laws and regulations.

We will never waiver from these commitments...

Because Patients Are Waiting[®].

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Science at your Service™

Discovery combines the world's largest commercial biospecimen inventory and procurement network with preeminent multi-omic service laboratories.

Our consultative, innovative approach helps our customers and partners overcome obstacles to reach quality results faster.



AllCells®

High Quality RUO and GMP Human Primary Cells

Serving the complete cell and gene therapy continuum

RUO/GMP Mobilized and Non-Mobilized Leukopaks, Isolated Cells, Thousands of Recallable/HLA-Typed Donors

Genomics
WES, RNA-Seq, Single-Cell, Targeted-Seq, Pan-Cancer, WGS, HiFi LRS, Epigenomics, qPCR

Proteomics
Targeted & Untargeted LC-MS/MS, Luminex, Olink (Explore HT, Explore, Target, Focus, Flex), Multi-omics

Molecular Pathology
IHC, mIF, ISH, Histology, Digital Pathology, Quantitative Gene Expression

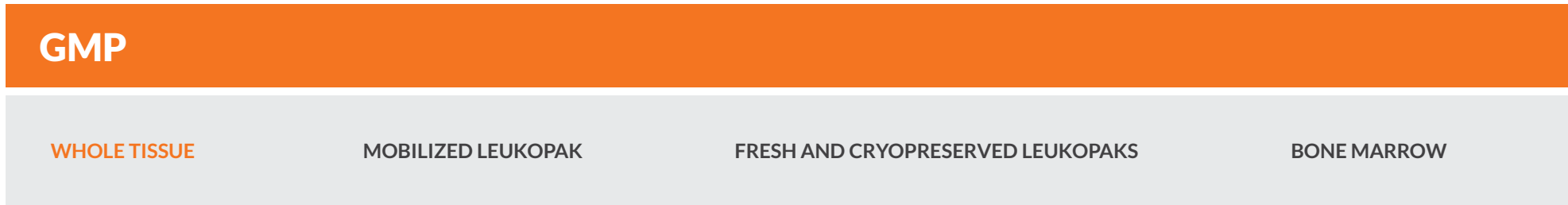
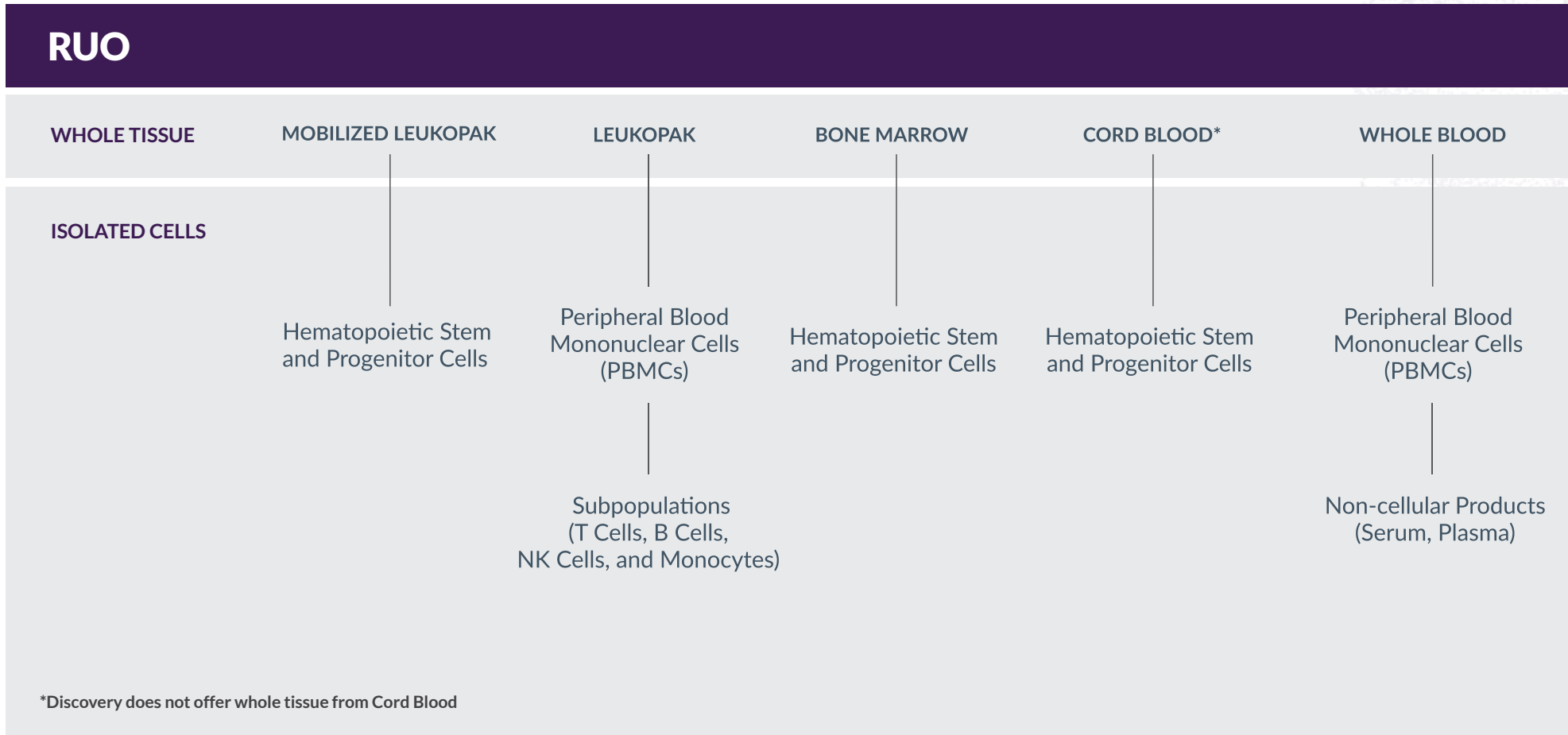
Assay-Ready Biospecimens
The World's Largest Biospecimen Inventory Powered by Discovery Partners® Network

**Gentest®
In Vitro Preclinical**
Hepatocytes, HLM, Supersomes™, TransportoCells™, ADMET Services, Hematopoietic CFC Assay Services

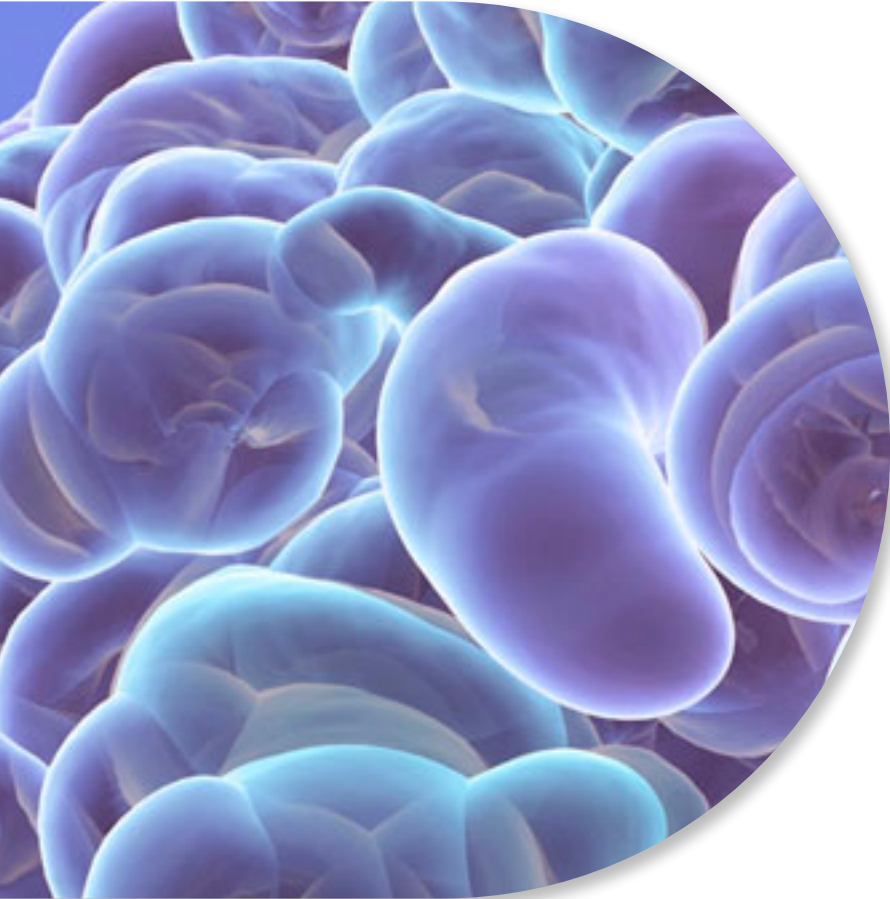
Flow Cytometry & Cell Biology
Clinical Flow Cytometry, FACS, Dissociations, Single Cell & Spatial Library Prep, *In Vitro* Culture

AllCells[®] Product Overview

Available in fresh, frozen, or cryopreserved formats from healthy human donors.







Leukopak

Leukapheresis products are highly enriched in mononuclear cells (MNC) and are a great source for large quantities of leukocytes.

Peripheral blood is collected by leukapheresis from healthy and consenting donors using the Spectra Optia® Apheresis System following an IRB-approved protocol. Mononucleated cell-rich blood is continuously collected using ACD-A as an anticoagulant. During collection, autologous plasma is combined with apheresed cells at a 4:6 ratio.

This procedure results in large yields of single-donor MNC, allowing for scalability and reproducibility of experiments. Leukopaks typically contain up to 50% T cells, 20% monocytes, 10% B cells, 10% NK cells, 3% granulocytes, and 3% hematocrit.

Actual percentages will vary from donor to donor. All products are quality controlled for viability and are determined using a validated AO/PI protocol. The viability of cryopreserved cell products is determined post-thaw.

Leukopaks	Size	RUO Catalog Number	GMP Catalog Number
Fresh	By volume: <ul style="list-style-type: none"> • Full Bag • Half bag • Quarter bag 	LP, FR, Full Pak LP, FR, Half Pak LP, FR, Quarter Pak	CG, LP, FR, Full Pak
	By cell count: <ul style="list-style-type: none"> • 10 billion TNCs • 5 billion TNCs • 2.5 billion TNCs 	LP, FR, 10B LP, FR, 5B LP, FR, 2.5B	
Cryopreserved	2.5-3 billion per bag	LP, CR, Solo, 2.5-3.0B*	CG, LP, CR, Solo 2.5-3.0B*

PBMCs	Size	Catalog Number
Fresh	2 billion	LP, FR, MNC, 2B
	4 billion	LP, FR, MNC, 4B
Cryopreserved †	100 million	LP, CR, MNC, 100M
	50 million	LP, CR, MNC, 50M
	25 million	LP, CR, MNC, 25M
	10 million	LP, CR, MNC, 10M

Cryopreserved Isolated Cells	Size	Catalog Number
CD3+ Pan T [†]	25 million	LP, CR, CD3+, NS, 25M
CD4+ Helper T [†]	25 million	LP, CR, CD4+, NS, 25M
CD4+/CD45RA+ Naïve Helper T [†]	5 million	LP, CR, CD4+/CD45RA+, NS, 5M
RegT(CD4+CD127/lowCD25+), PSNS [†]	1 million	LP, CR, RegT(CD4+CD127lowCD25+), PSNS, 1M
CD8+ Cytotoxic T ^{††}	10 million	LP, CR, CD8+, NS, 10M
		LP, CR, CD8+, PS, 10M
CD8+/CD45RA+ Naïve Cytotoxic T ^{††}	5 million	LP, CR, CD8+/CD45RA+, NS, 5M
Gamma Delta T [†]	2 million	LP, CR, Gamma Delta T, NS, 2M
CD56+ NK ^{††}	5 million	LP, CR, CD56+, NS, 5M
		LP, CR, CD56+, PS, 5M
CD14+ Monocytes ^{††}	10 million	LP, CR, CD14+, NS, 10M
		LP, CR, CD14+, PS, 10M
	50 million	LP, CR, CD14+, NS, 50M
		LP, CR, CD14+, PS, 50M
CD19+ B ^{††}	10 million	LP, CR, CD19+, NS, 10M
		LP, CR, CD19+, PS, 10M



*Multiple bags are available per donor

†Bulk cell isolation services are available from starting material of full and half leukopaks

††Negative and positive selections are available

Cryopreserved Leukopaks

Maintain flexibility in your workflow without compromising quality.

With AllCells® Cryopreserved Leukopaks, you have access to high-quality primary cells whenever you need them without worrying about potential delivery delays that can be associated with fresh cells. When stored properly, cryopreserved leukopaks allow for prolonged storage affording you flexibility in your workflow without compromising on quality.

A key advantage with AllCells® Cryopreserved Leukopaks is that our acquisition and manufacturing facilities are adjacent to each other. This enables the leukapheresis material to be immediately cryopreserved in CryoStor® CS10 (GMP-grade cryopreservation medium) or any other cryoprotectants that customers require to maintain cell viability between collection and processing events.





HIGH QUALITY CELLS

Superior TNC and cell viability due to on-site processing facilities, which mitigate loss of viability prior to cryopreservation.



STATE-OF-THE-ART CRYOPRESERVATION

Cells are cryopreserved using a controlled rate freezer, which enables consistently high post-thaw recovery and viability.



DEPENDABLE COLD CHAIN LOGISTICS

We utilize CryoPort LN₂ Dry Shippers for dependable end-to-end shipping logistics.



FLEXIBILITY

Cryopreserved cells give you the flexibility to run experiments and manufacture on your schedule without waiting on delivery of fresh cells.

Product	LP, CR, Solo 2.5-3.0B	CG, LP, CR, Solo 2.5-3.0B	LP, CR, Full Pak, Custom
Description	Leukapheresis material cryopreserved in CS10	Leukapheresis material cryopreserved in CS10	Leukapheresis material cryopreserved per custom specification
Pre-Cryopreservation TNCs	2.5 - 3B per solo bag	2.5 - 3B per solo bag	Custom
Format	CS250 bag with target volume of 70 mL	CS250 bag with target volume of 70 mL Minimum 3 bags per lot	Custom
Sampling Vials	1	Up to 8	Custom
Documentation	Certificate of Analysis, Immunophenotyping Report, CBC Report	Certificate of Analysis, Summary of Records, Immunophenotyping Report, CBC Report	Custom



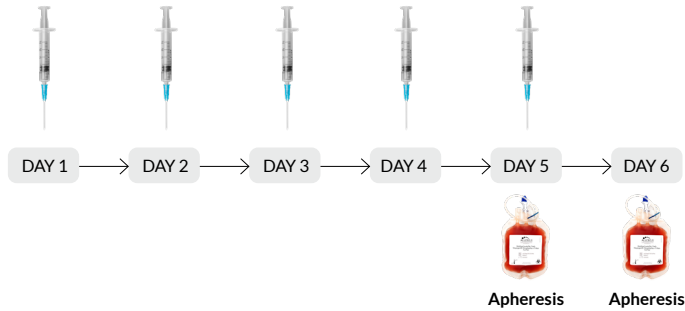
Mobilized Leukopak

Mobilized Leukopaks are apheresis products collected from healthy and consenting donors treated with FDA-approved drugs to stimulate the mobilization of CD34+ hematopoietic stem and progenitor cells (HSPC).

Mobilized peripheral blood enriched in single-donor CD34+ HSPCs is collected through leukapheresis using the Spectra Optia® Apheresis System's continuous flow centrifugal technology. Approximately 120mL of autologous plasma is combined with apheresed cells. The product is filled to deliver a nominal 280mL in a blood bag. This procedure results in large-scale yields of single-donor CD34+ HSPCs.

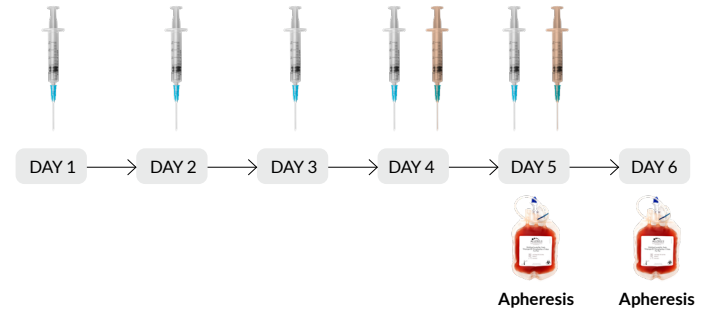
We offer Mobilized Leukopaks with different mobilization regimens, including G-CSF (Neupogen®), plerixafor (Mozobil®), or a combination of the two drugs. Actual TNC concentration and CD34+ percentage vary based on donors' response to mobilization and from collection to collection.

Subcutaneous injection of 10 μ g/kg/day Neupogen



Reg F: Neupogen 10 μ g/kg/day x 5 days, apheresis on day 5 and 6

Subcutaneous injection of 10 μ g/kg/day Neupogen Subcutaneous injection of 240 μ g/kg Mozobil



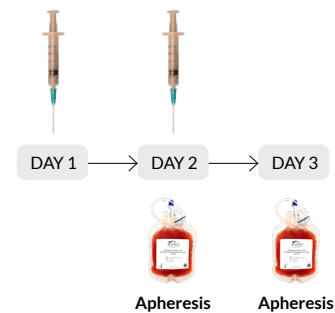
Reg H: Neupogen 10 μ g/kg/day x 5 days + Mozobil 240 μ g/kg/day x 2 days on day 4 and 5 (evenings), apheresis on day 5 and 6

Subcutaneous injection of 240 μ g/kg Mozobil



Moz A: Mozobil 240 μ g/kg/day x 1 day (evening), apheresis day 2 (morning); 11 hours between injection and collection

Subcutaneous injection of 240 μ g/kg Mozobil



Moz B: Mozobil 240 μ g/kg/day x 2 days (evenings), apheresis on day 2 and 3 (mornings); 11 hours between injection and collection

Mobilized Leukopak

Applications

A mobilized leukopak is an excellent source of CD34+ hematopoietic stem and progenitor cells and is increasingly selected for its ease of collection and accessibility. These cells are used in research and process development in areas of cell-based therapies and regenerative medicine.

Product Specifications

Our Mobilized Leukopak products are offered in fresh or cryopreserved and in different formats:

- Whole Tissue Apheresis
- Isolated Cells: CD34+ HSPCs



Fresh Mobilized Leukopaks	Size	RUO Catalog Number	GMP Catalog Number
Mobilized Regimen F Neupogen x 5 days	1 Pak, 2 Pak	mLP, RegF, FR, Full Pak mLP, RegF, FR, Full Pak 2	Not Applicable
Mobilized Regimen H Neupogen x 5 days, + Mozobil x 2 days	1 Pak, 2 Pak	mLP, RegH, FR, Full Pak mLP, RegH, FR, Full Pak 2	CG, mLP, RegH, FR, Full Pak CG, mLP, RegH, FR, Full Pak 2*
Mobilized Regimen A Mozobil x 1 day (11 hrs between injection and collection)	1 Pak	mLP, MozA, FR, Full Pak	Not Applicable
Mobilized Regimen B Mozobil x 2 days (11 hrs between injection and collection)	2 Paks	mLP, MozB, FR, Full Pak mLP, MozB, FR, Full Pak 2	Not Applicable

*The purchase of both bags is required

Cryopreserved Mobilized CD34+ Cells†	Size	Catalog Number
Reg F CD34+	0.5 million 1 million 5 million 10 million 25 million	mLP, RegF, CR, CD34+, PS, 0.5M mLP, RegF, CR, CD34+, PS, 1M mLP, RegF, CR, CD34+, PS, 5M mLP, RegF, CR, CD34+, PS, 10M mLP, RegF, CR, CD34+, PS, 25M
Reg H CD34+	1 million 5 million 10 million 25 million	mLP, RegH, CR, CD34+, PS, 1M mLP, RegH, CR, CD34+, PS, 5M mLP, RegH, CR, CD34+, PS, 10M mLP, RegH, CR, CD34+, PS, 25M
Moz B CD34+	1 million 5 million 10 million 25 million	mLP, MozB, CR, CD34+, PS, 1M mLP, MozB, CR, CD34+, PS, 5M mLP, Moz B, CR, CD34+, PS, 10M mLP, Moz B, CR, CD34+, PS, 25M

†Bulk CD34+ isolation services are available from mobilized leukopaks

99%

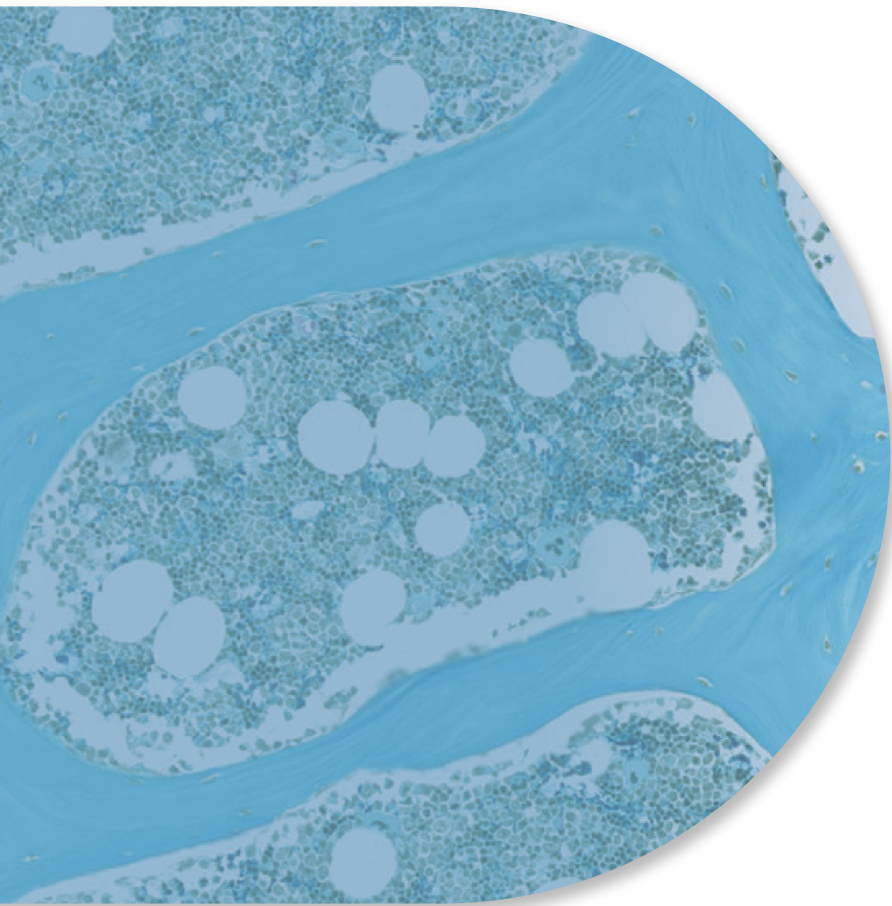
Enhanced Reliability

For Mobilized Leukopak Orders

The timely delivery of Mobilized Leukopaks is a critical component of your biomedical research. To ensure your project timeline, we offer an enhanced reliability of 99% to mitigate the risk associated with donor deferrals. Donor deferral, albeit a rare occurrence, is a risk that could cause a major disruption in your workflow, inflate the financial costs, and delay speed to market.

	RJQ MOBILIZED LEUKOPAKS
Mobilization Regimens	mLP Reg H mLP Reg F mLP Moz B
Lead Time	3 Weeks
Program Cost	35%-50% of the full regimen price





Bone Marrow

Bone marrow is an excellent source of CD34+ hematopoietic stem and progenitor cells (HSPCs) and mesenchymal stem cells.

It is the primary site of hematopoiesis in adults, the process of mature blood cell formation from HSPCs to maintain blood homeostasis.

On average, bone marrow is composed of 70% granulocytes, 10% T cells, 3% B cells, 5% monocytes, and 0.8% CD34+ hematopoietic stem and progenitor cells (HSPCs). The total nucleated cell (TNC) concentration and cell type percentages vary from donor to donor.

AllCells® Bone Marrow products are quality controlled for cell count and viability determined using a validated AO/PI protocol.

Bone Marrow



Applications

Bone marrow is used for research in hematopoiesis and erythropoiesis for multiple types of diseases, and ex vivo expansion studies.

Product Specifications

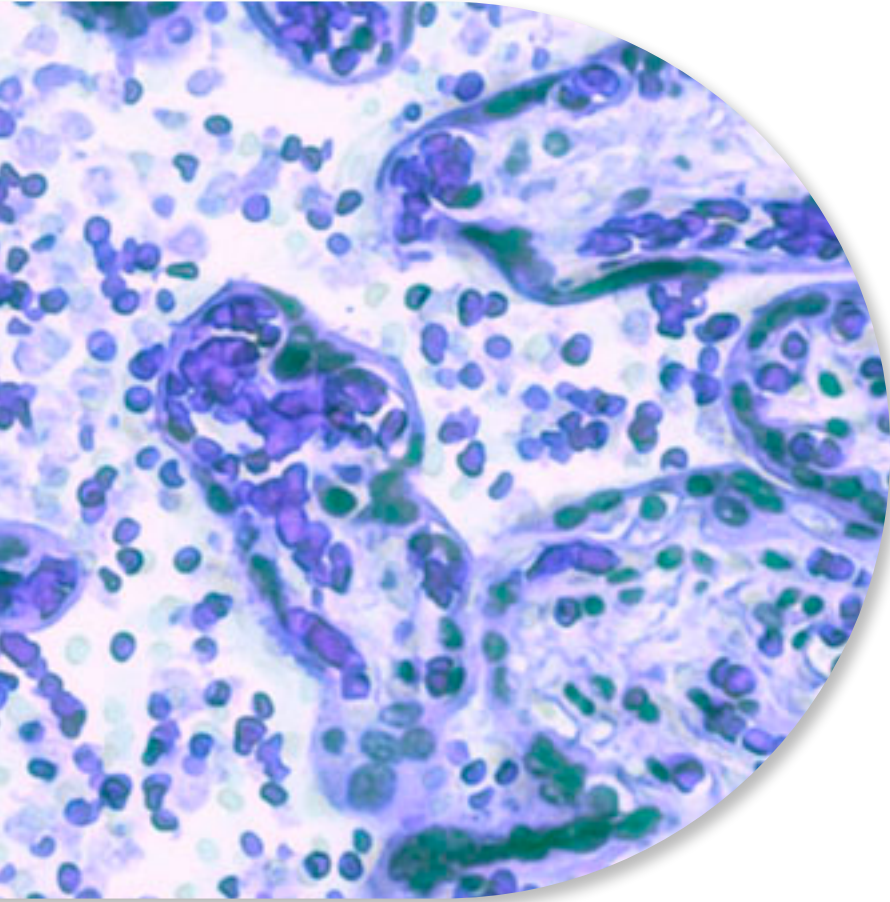
Bone Marrow products are collected by qualified clinicians from the posterior iliac crest of healthy and consenting donors following IRB-approved protocols.

Available Formats:

- Whole Tissue: Fresh
- Isolated Cells: CD34+ HSPCs

Fresh Bone Marrow	Size	RUO Catalog Number	GMP Catalog Number
Whole Aspirate	10 mL	BM, FR, 10 mL	CG, BM, FR, 1ea (100mL)
	25 mL	BM, FR, 25 mL	
	50 mL	BM, FR, 50 mL	
	100 mL	BM, FR, 100 mL	

Cryopreserved Bone Marrow	Size	Catalog Number
CD34+	0.5 million	BM, CR, CD34+, PS, 0.5M
	1 million	BM, CR, CD34+, PS, 1M
	2 million	BM, CR, CD34+, PS, 2M



Cord Blood

Cord Blood products are collected from a single umbilical cord following IRB-approved protocols. Multiple cord blood units may be combined during processing for mixed donor product.

AllCells® Cord Blood products are derived at the time of delivery from healthy pregnant women and are quality controlled. The stem cell purity is quantified post-thaw using a FACS assay.

Cord Blood

Cord Blood CD34+ cells are regarded as more naive and primitive, having a higher proliferative engraftment and multipotent potential than other sources.

Applications

Cord blood is a rich source of potent CD34+ cells and used primarily for cell therapy and the generation of humanized mice for research in cancer immunotherapy and gene therapy.

Cryopreserved Cord Blood	Size	Catalog Number
CD34+ Single Donor	1 million	CB, CR, CD34+, Single, PS, CS10, 1M
CD34+ Mixed Donors	1 million	CB, CR, CD34+, Mixed, PS, CS10, 1M



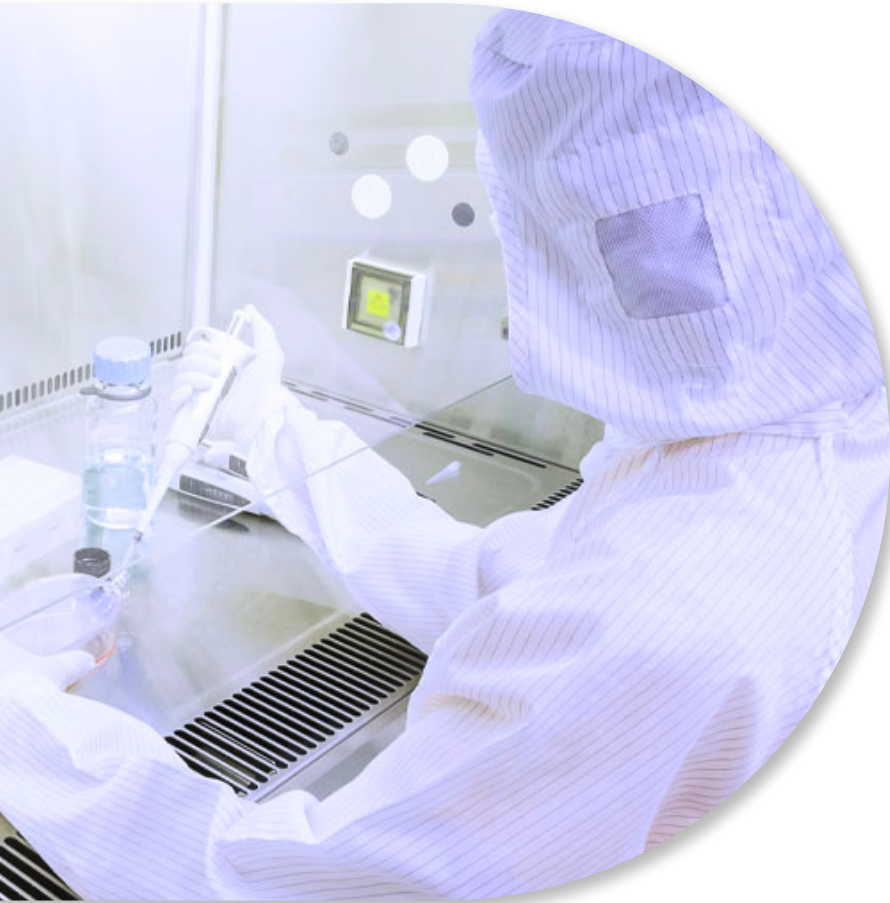
99% GMP Collections Deliverability

Mitigate the cost of failure with built-in risk reduction steps including infectious disease screening across various time points and parallel donors.

With years of GMP expertise and over 20 years in the CGT industry, we are your reliable and trusted supplier of high-quality GMP starting material to support your cell therapy commercialization journey.

Our dynamic and continuously expanding donor pool and facilities provides you continuous and assured access to high-quality starting material to support scalability throughout your product lifecycle.

Our dedicated team of scientists, clinicians, quality and logistics experts will partner with you to define, design and manage your project to deliver a product that meets your specific needs.



For more information on AllCells' GMP products and services, please visit allcells.com/gmp.



**GMP
CLEAN ROOM
(ALAMEDA, CALIFORNIA)**



**FDA-
REGISTERED**



**EXTENDED
VIRALS**



**AABB
ACCREDITATION
(ALAMEDA, CALIFORNIA)**



**COMPETITIVE
PRICING**

Made-to-Order Products and Services

Customized to fit your research needs.

Customization available for:

- Donor attribute requirements
- Tissue collection
- Cell processing
- Cell isolation
- Cell cryopreservation
- Characterization
- Packaging & delivery



The Right Donors for Every Project

Premier Access to our Donor Repository

Discovery has a large, diverse donor pool, with facilities strategically located across the United States. GMP and RUO products are available at our Alameda, CA and Quincy, MA locations, enabling geographic diversity for supply chain risk mitigation. Fresh products for same day delivery are available across sites.



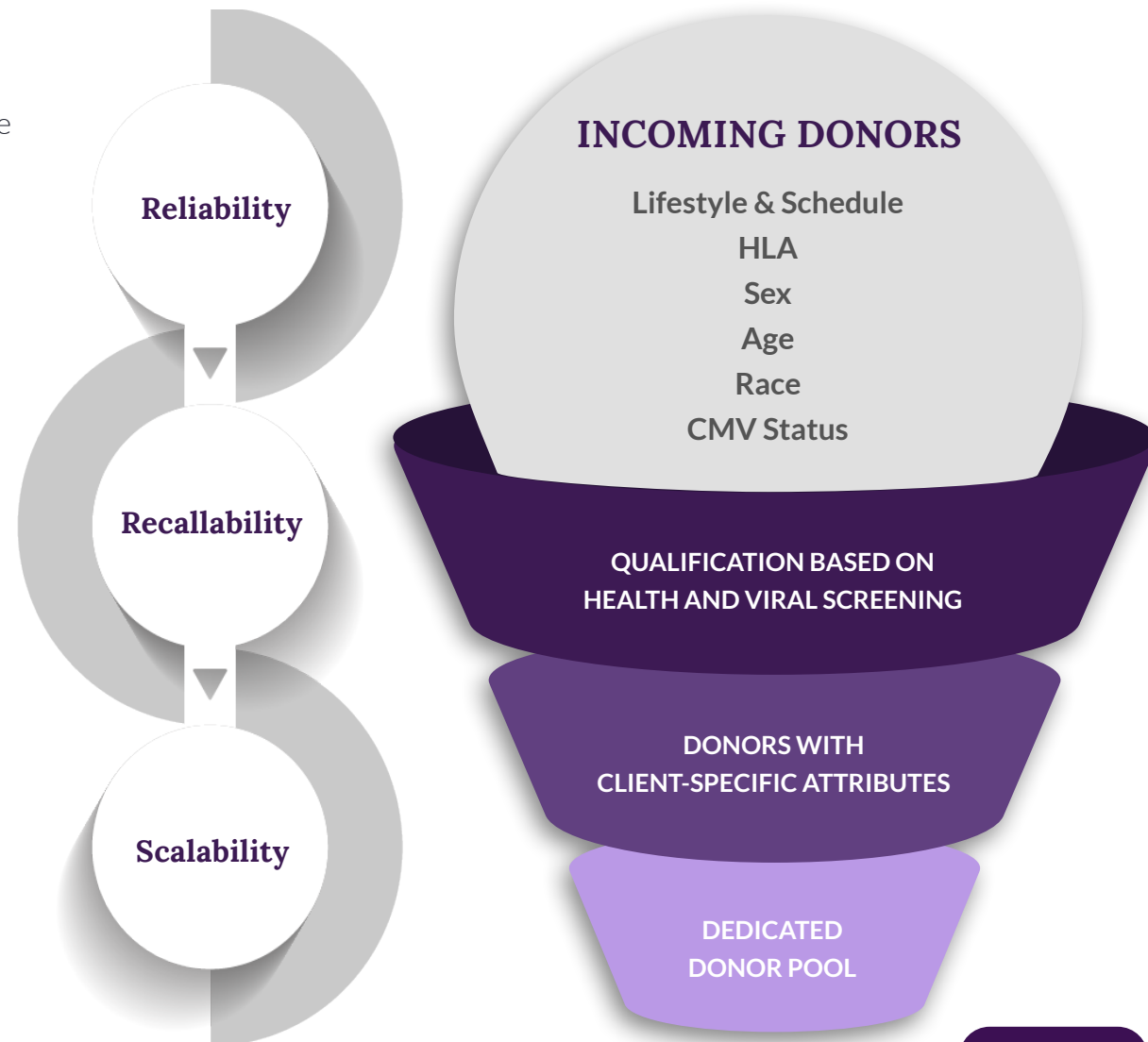
The image features a light gray silhouette of the United States. Two orange target icons are placed on the map: one in the West Coast region labeled 'BAY AREA' and one in the Northeast region labeled 'BOSTON METRO'. In the center of the map is the Discovery Life Sciences logo, which consists of three overlapping circles in blue and orange, followed by the text 'DISCOVERY' in a large, bold, sans-serif font, 'L I F E S C I E N C E S' in a smaller, spaced-out font below it, and 'AllCells® Collection Facilities' in a smaller font at the bottom.

FDA-registered
AABB-accredited (Alameda, CA)
Experienced technical and clinical team
Strict IRB compliance, regulatory oversight
Donors meeting FDA 21 CFR 1271 requirements

A Unique Donor Ecosystem

Reliability and recallability are built into the program.

- Innovative software targets specific donors to get the right donors for every project
- Above 98% success for all planned collections
- Collection cadence / timeline specifications
- Recruitment based on demand and forecast
- Dedicated, reserved donor pool options available





DISCOVERY

L I F E S C I E N C E S

Science at your Service™

Contact us at info@allcells.com
or visit www.allcells.com to learn more
about our AllCells® products and services.

