



Cell and Gene Therapy  
Product Catalog



# 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 restore hope by speeding the development of innovative diagnostics and effective treatments to improve care. We believe that the passing of time should increase the joy of the patient and their loved ones rather than extinguish it.

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<sup>®</sup>.*

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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®

Serving the Complete Cell and Gene Therapy Continuum.

High quality RUO and GMP human primary cells

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

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

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

**Biospecimens**  
The World's Largest Biospecimen Inventory Powered by Discovery Partners® Network

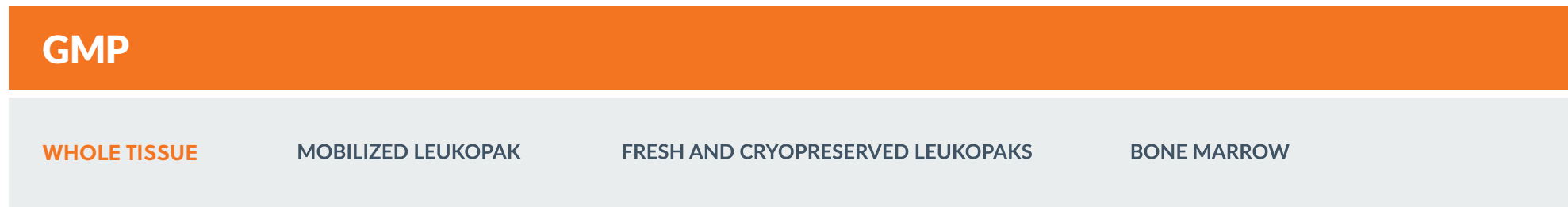
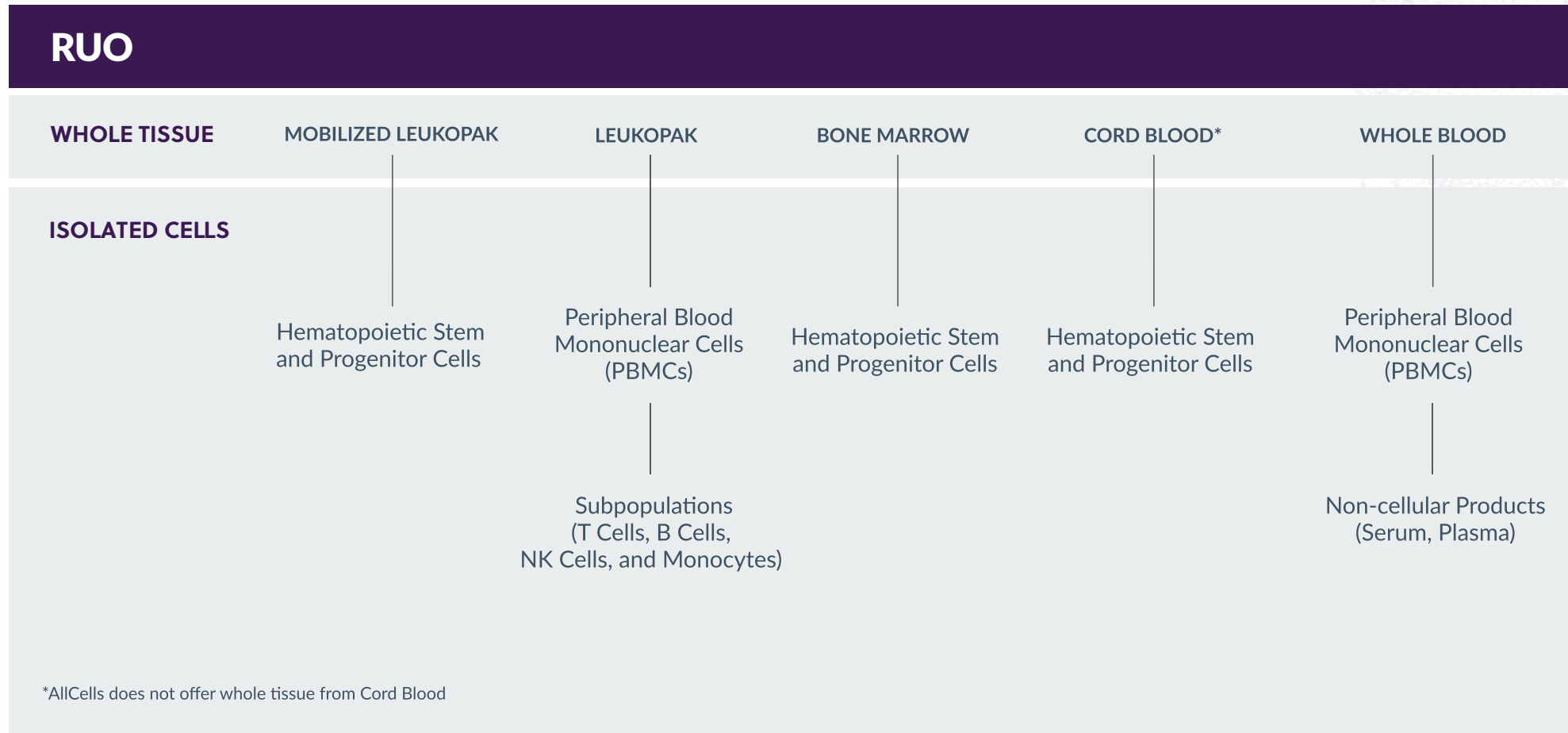
**Gentest In Vitro Preclinical**  
Hepatocytes, HLM, Supersomes™, TransportoCells™, ADMET Services, Hematopoietic CFC Assay Services

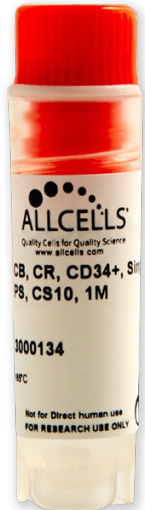
**Flow Cytometry & Cell Biology**  
Clinical Flow Cytometry, FACS, Dissociations, Single Cell & Spatial Library Prep, In Vitro Culture

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

# Product Overview

AllCells' products are available in fresh, frozen, or cryopreserved formats from healthy human donors.





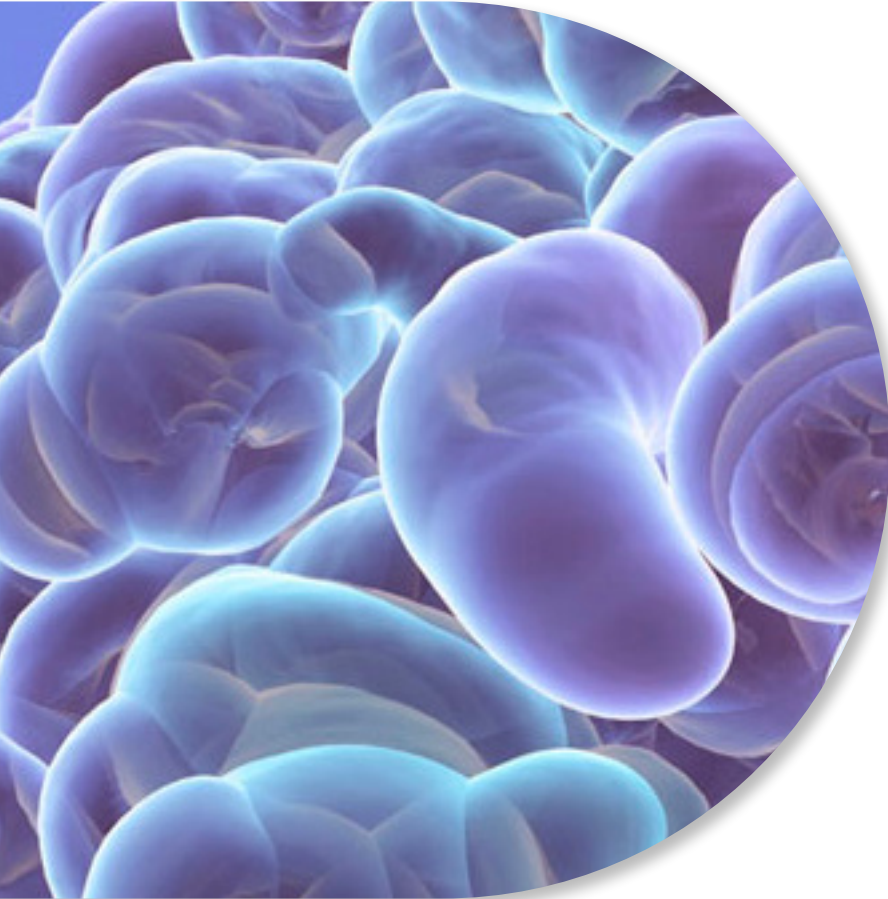
ALLCELLS  
Quality Cells for Quality Science  
www.allcells.com  
CB, CR, CD34+, S  
PS, CS10, 1M  
3000134  
MPC  
Not for Direct Human Use  
FOR RESEARCH USE ONLY

ALLCELLS  
Quality Cells for Quality Science  
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CB, CR, CD34+, S  
PS, CS10, 1M  
3000134  
MPC  
Not for Direct Human Use  
FOR RESEARCH USE ONLY

ALLCELLS  
Quality Cells for Quality Science  
Clinical Grade Mobilized LeukoPak, Fresh,  
Neupogen(R) 10ug/kg x 5, Mozobil  
240 ug/kg x 2, Day 5 Collection, Full Pak  
REF CG, mL/P, Right, FR, Full Pak  
LOT <Lot Number>  
DID <Donor ID>  
T <DDMMYY>  
T <DDMMYY>  
Human Tissue - Handle with Care  
For manufacturing use only.  
Not for direct human use.  
www.allcells.com | 1301 Harbor Bay Parkway Suite 200 | Alameda, CA 94502

ALLCELLS  
Quality Cells for Quality Science  
REF BM, FR, 100mL  
LOT 9000013 11May21  
Human Tissue - Handle with Care  
For manufacturing use only.  
Not for direct human use.  
www.allcells.com | 1301 Harbor Bay Parkway Suite 200 | Alameda, CA 94502

W4554 21 000027 817  
Rh NEGATIVE  
1301 Harbor Bay Parkway, Suite 200  
Alameda, CA 94502  
www.allcells.com  
Collection Date 02/18/2020 For Nonclinical Use Only  
Donor ID 123456  
05 Jul 2021  
Expiration Date 10 Jul 2021  
MNC, APHERESIS  
For Further Processing  
Total Volume ... mL containing  
... mL RBCs  
LOT 3000000  
Store at 2°C to 8°C  
ALLCELLS  
LL-LAB-02, Rev 3



# 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"> <li>• Full Bag</li> <li>• Half bag</li> <li>• Quarter bag</li> </ul>	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"> <li>• 10 billion TNCs</li> <li>• 5 billion TNCs</li> <li>• 2.5 billion TNCs</li> </ul>	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 <sup>†</sup>	25 million	LP, CR, CD3+, NS, 25M
CD4+ Helper T <sup>†</sup>	25 million	LP, CR, CD4+, NS, 25M
CD4+/CD45RA+ Naïve Helper T <sup>†</sup>	5 million	LP, CR, CD4+/CD45RA+, NS, 5M
RegT(CD4+CD127/lowCD25+), PSNS <sup>†</sup>	1 million	LP, CR, RegT(CD4+CD127lowCD25+), PSNS, 1M
CD8+ Cytotoxic T <sup>†‡</sup>	10 million	LP, CR, CD8+, NS, 10M
		LP, CR, CD8+, PS, 10M
CD8+/CD45RA+ Naïve Cytotoxic T <sup>†‡</sup>	5 million	LP, CR, CD8+/CD45RA+, NS, 5M
Gamma Delta T <sup>†</sup>	2 million	LP, CR, Gamma Delta T, NS, 2M
CD56+ NK <sup>†‡</sup>	5 million	LP, CR, CD56+, NS, 5M
		LP, CR, CD56+, PS, 5M
CD14+ Monocytes <sup>†‡</sup>	10 million 50 million	LP, CR, CD14+, NS, 10M
		LP, CR, CD14+, PS, 10M
		LP, CR, CD14+, NS, 50M LP, CR, CD14+, PS, 50M
CD19+ B <sup>†‡</sup>	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

AllCells utilizes CryoPort LN<sub>2</sub> 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

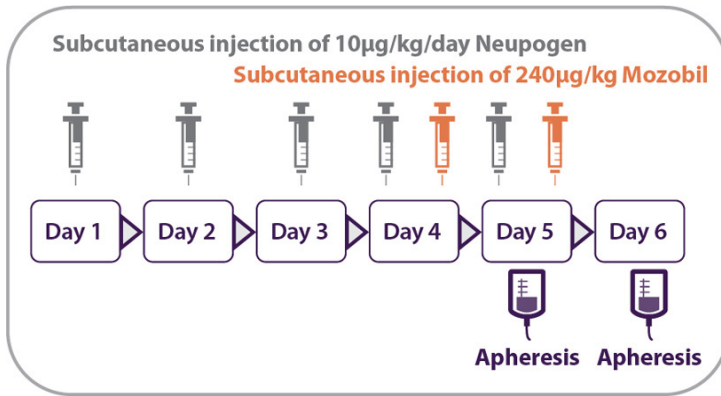


# Mobilized Leukopak

*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).*

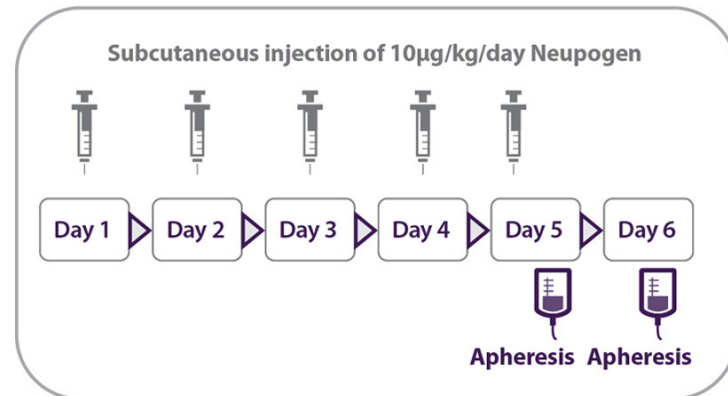
Mobilized peripheral blood enriched in single-donor CD34+ HSPCs is collected through leukapheresis using the Spectra Optia® Apheresis System's continuous flow centrifugal technology. Approximately 120mL of autologous plasma is combined with apheresed cells. The product is filled to deliver a nominal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

AllCells offers 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.



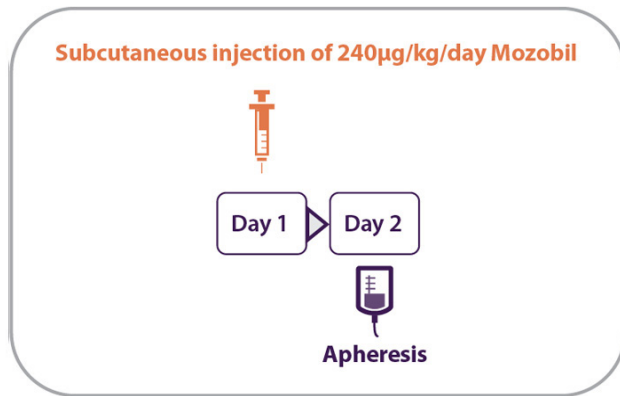
**REG H**

Filgrastim (Neupogen) 10ug/kg/day x 5 days + Mozobil 240ug/kg/day x 2 days on day 4 and 5 (evenings), apheresis on day 5 and 6



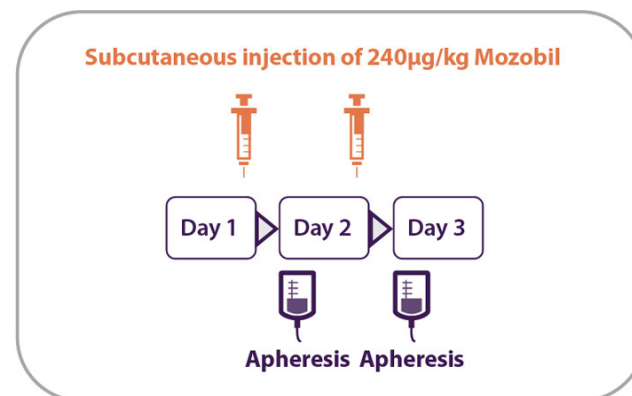
**REG F**

Filgrastim (Neupogen) 10ug/kg/day x 5 days, apheresis on day 5 and 6



**MOZ REG A**

Plerixafor (Mozobil) 240ug/kg/day x 1 day (evening), apheresis day 2 (morning); 11 hours between injection and collection



**MOZ REG B**

Plerixafor (Mozobil) 240ug/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

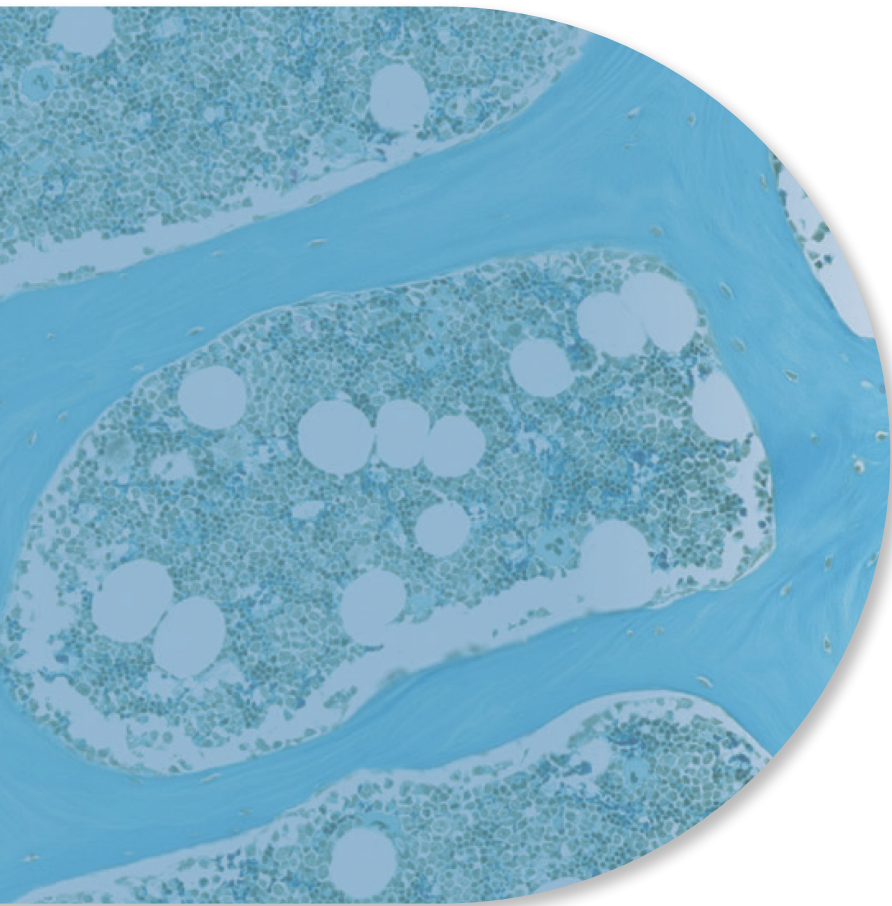
# 99% Enhanced Reliability

## *For Mobilized Leukopak Orders*

The timely delivery of Mobilized Leukopaks is a critical component of your biomedical research. To ensure your project timeline, AllCells offers 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.

	RJO 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

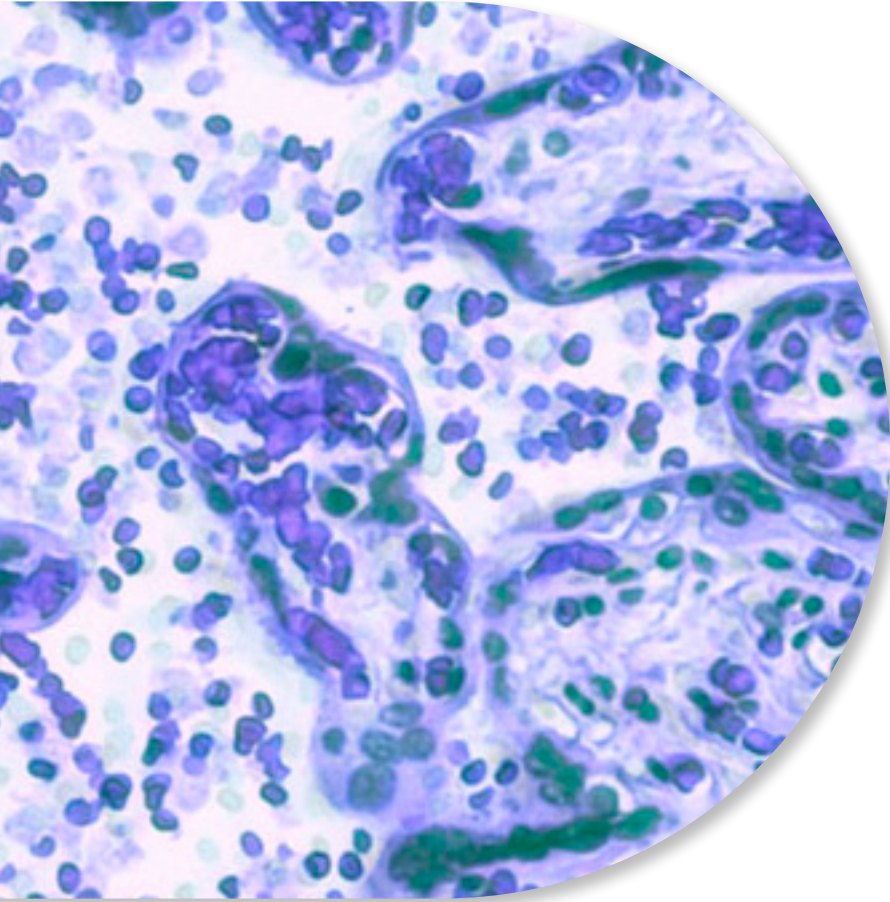
Bone Marrow products are collected by qualified clinicians from the posterior iliac crest of healthy and consenting donors following IRB-approved protocols.

### Available Formats:

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

Fresh Bone Marrow	Size	RUO Catalog Number	GMP Catalog Number
Whole Aspirate	10 mL 25 mL 50 mL 100 mL	BM, FR, 10 mL BM, FR, 25 mL BM, FR, 50 mL BM, FR, 100 mL	CG, BM, FR, 1ea (100mL)
Cryopreserved Bone Marrow	Size	Catalog Number	
CD34+	0.5 million 1 million 2 million	BM, CR, CD34+, PS, 0.5M BM, CR, CD34+, PS, 1M 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



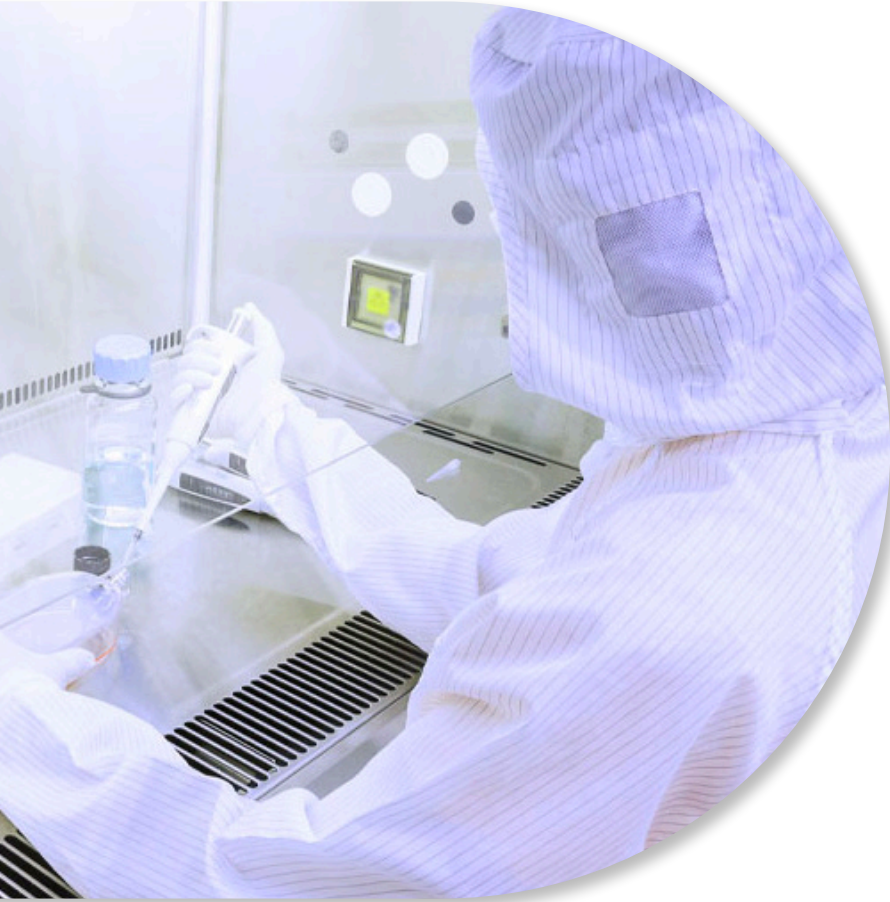
# 99% GMP Collections Deliverability

*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, AllCells is your reliable and trusted supplier of high-quality GMP starting material to support your cell therapy commercialization journey.

AllCells' 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](https://allcells.com/gmp).



**GMP  
CLEAN ROOM**



**FDA-REGISTERED,  
AABB COMPLIANCE**



**EXTENDED VIRALS**



**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

AllCells has the largest, most diverse donor pool in the industry, with facilities strategically located across the United States. GMP 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.

- GMP and RUO products available
- RUO products available



FDA registered,  
AABB-compliant facilities

Experienced technical  
and clinical team

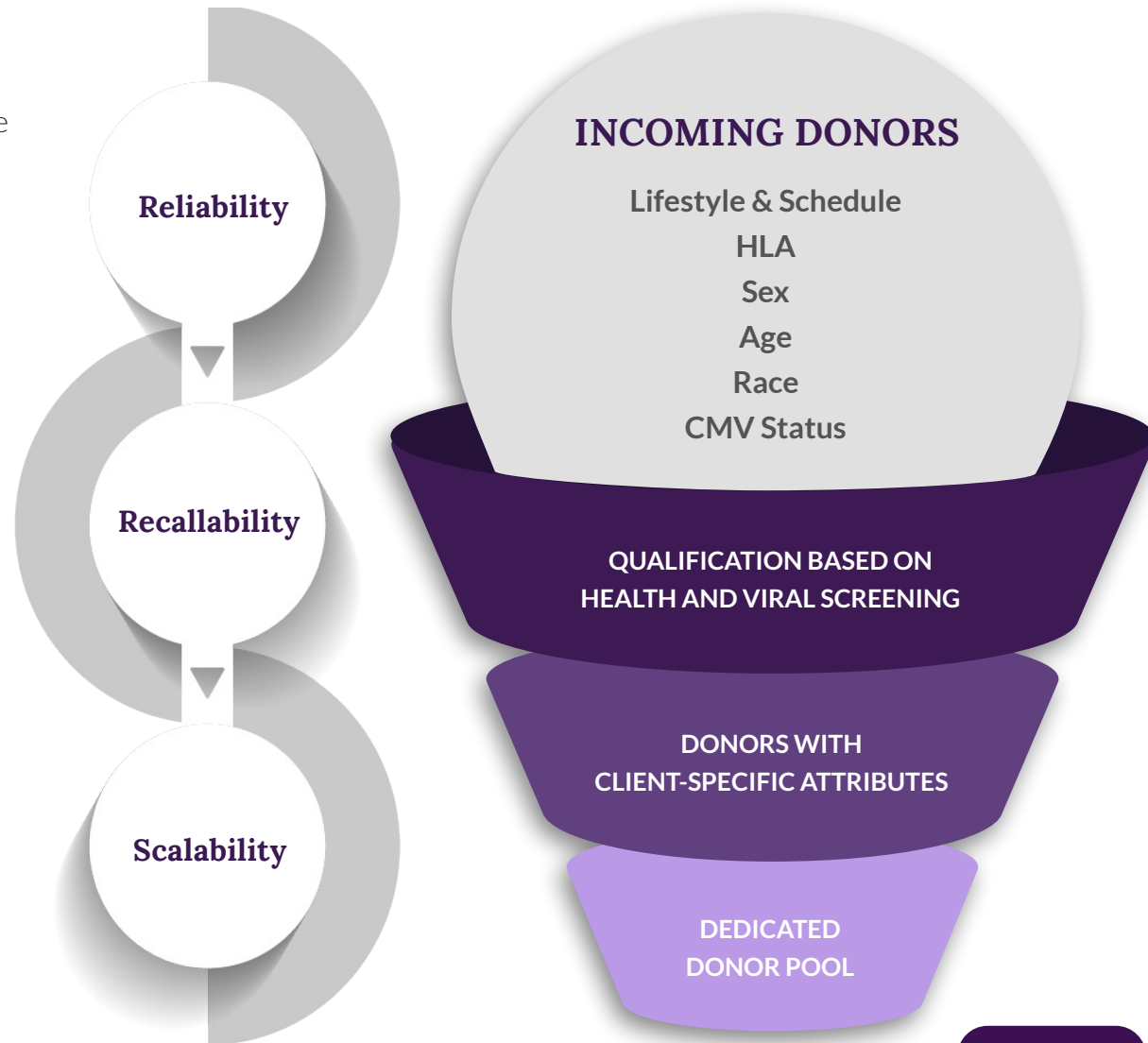
Strict IRB compliance,  
regulatory oversight

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





Contact us at [orders@allcells.com](mailto:orders@allcells.com)  
or visit our website at  
[www.allcells.com](http://www.allcells.com)