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# Industry solutions for cell-based innovations

Human primary cells and media for transforming research and development into commercialization



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# Who we are

For over 35 years, we've been at the forefront of cell culture and cell biology, empowering scientists and industry leaders to drive innovation in life sciences. Guided by our philosophy of *human-centered* science, we're dedicated to advancing research and transforming it into real-world applications that improve lives.

Our comprehensive approach spans the entire process — from upstream manufacturing to downstream applications — ensuring seamless integration from bench to bedside. From pioneering high-quality human primary cells to developing innovative cell culture media, we provide you with the tools and expertise needed to accelerate progress

in cell-based therapeutics and research.

We own the entire manufacturing process. That's how we guarantee consistent quality, reliability, and scalability, enabling you to confidently transition from research to commercialization. At PromoCell, we don't just deliver products — we partner with you to shape the future of science.

## How we support commercialization

At PromoCell, we understand the unique challenges faced by industrial customers in translating research into scalable, commercial applications. We're committed to providing high-quality products and tailored solutions that streamline your processes, reduce risks, and ensure compliance with regulatory standards.



### Quality control and assurance

We own the entire manufacturing process, ensuring consistent product quality and reliability.



### Ethical and regulatory compliance

All products are delivered with fully traceable consent forms and ethical documentation, facilitating compliance with ethical and regulatory standards.



### EXCiPACT™ GMP certification

Our Excipient GMP-grade media comply with regulatory requirements and include all relevant supporting documentation, easing the transition to clinical applications and reducing your regulatory burden.



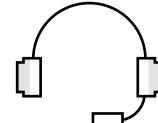
### Risk mitigation

Internal sourcing and production maintain high product availability, minimizing supply chain disruptions.



### Fast, personalized support

You will directly interact with our scientific experts, who will provide quick and precise responses to help you optimize your cell culture conditions and troubleshoot common issues.



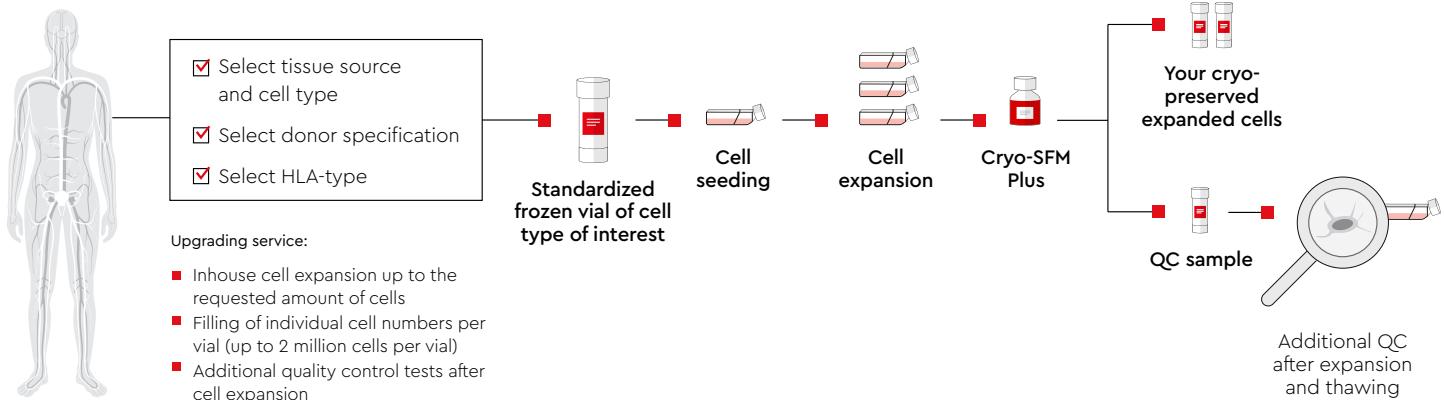
### Customized media and cell culture conditions

We provide tailored solutions for cells and media to meet your specific needs throughout the research and development pipeline — from assay development to manufacturing.



# Human primary cells

Human primary cells, isolated from tissues such as blood or bone marrow using enzymatic or mechanical techniques, offer biologically authentic insights.



## HLA-typed human primary cells

We offer a wide range of high-quality HLA-typed cells from various organs. Our HLA-typed cells include primary cells, stem cells, and blood cells. Each donor comes with a detailed HLA typing certificate, eliminating the need for additional typing. Our HLA-typed

cells enable efficient testing of potential therapies, minimizing off-target interactions and reducing reliance on animal experiments.

This approach facilitates faster and more cost-effective development of new treatments, particularly in cancer research.

## Donor selection

Select the cells you need based on various donor criteria, including age range, gender, BMI, ethnicity, disease type (such as diabetes or asthma), smoking status, and HLA type.

Additionally, we provide cells matched to specific donors or pre-screened for compatibility in Air-Liquid Interface (ALI) assays. If you have unique requirements,

simply let us know, and we'll work with you to provide the best solution for your cell-based research.

## Custom primary cell services

For large, standardized batches of human primary cells, our custom cell expansion service is designed to meet your unique needs. We offer a flexible production process

tailored to your specific requirements, such as passage number and cell quantity, as well as the expansion of existing cell lots to create your own cell banks. Our rigorous quality

control tests ensure high-quality results, and we can customize additional testing to meet your specific needs.

## Customized solutions

The successful commercial and clinical translation of cell-based therapies requires tailored solutions that span small-scale non-GMP development to GMP-compliant large-scale manufacturing. Our flexible manufacturing pipeline enables us to offer a wide range of customized cell culture media, designed to meet your specific requirements at every stage of your pipeline.

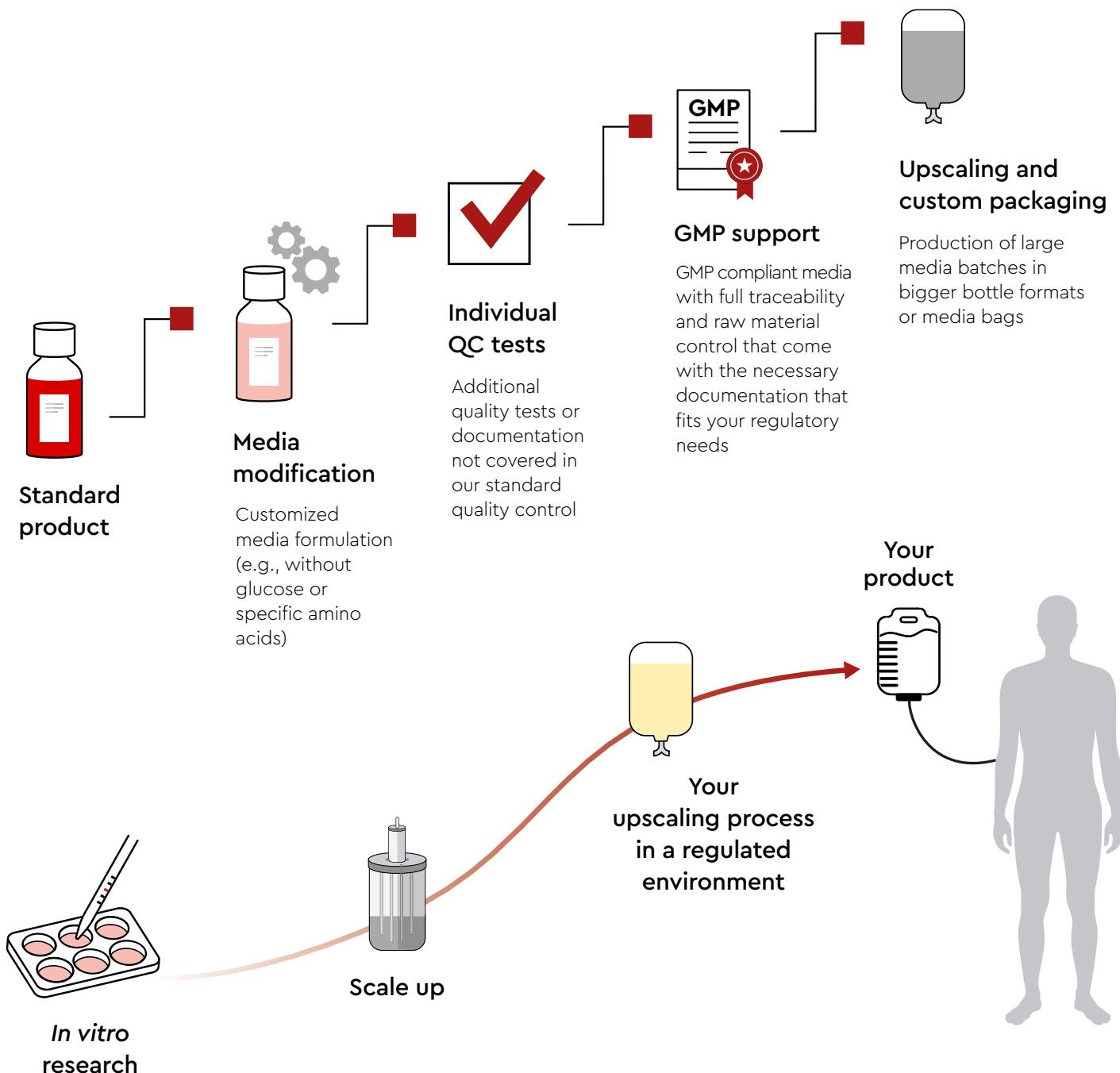
# Customized cell culture media

We provide custom cell culture media formulations tailored to your needs, whether that involves special ingredients, specific testing requirements, or regulatory compliance. Our media solutions are available in both standard and Excipient GMP-grade

versions, ensuring they meet your regulatory needs with comprehensive documentation, including Quality Assessment Files, Certificates of Analysis (CoA), and Certificates of Origin (CoO). For larger projects, we offer upscaling and custom packaging options,

including media bottles and bags in various sizes, as well as bulk growth supplements. This flexibility allows you to focus on your research while we handle the logistics of media production and compliance.

We support you from *in vitro* research to manufacturing in regulated environment



# Why customized cell culture media?

Our commitment to you

## 1 Regulatory compliance:

Our media solutions comply with strict regulatory standards of EXCiPACT™, reducing your regulatory burden and ensuring smooth transitions from research to commercial manufacturing. Additionally, we provide all relevant supporting documentation for your risk assessment directly with the product.

## 2 Enhanced safety and quality:

Our Excipient GMP-grade cell culture media ensure the highest standards of safety and quality, which are crucial for cell therapies and biopharmaceuticals.

## 3 Consistency and reliability:

We provide lot-to-lot consistency through comprehensive quality control tests, minimizing variability in production processes and ensuring reliable performance in cell culture applications. Additionally, we proactively inform you about any changes in raw material specifications that may impact regulatory status.

## 4 Customization and flexibility:

Our custom media production capabilities allow us to adapt formulations and processes to meet various raw material specifications and regulatory documentation needs, providing tailored solutions for diverse research and manufacturing requirements.

## 5 Risk minimization:

By using high-quality raw materials and maintaining full traceability, we minimize risks associated with cell culture media, ensuring that our products support the development of safe and effective therapies.

## Specifications of our media and supplement formulations

The choice of a suitable cell and tissue culture medium is crucial for maintaining the quality and performance of your cell cultures, which directly influences the safety of your cell-based therapies. With the wide variety

of culture media options available and the diversity of media nomenclature, it's vital to have a clear understanding of how each supplier defines their media, from serum-free or xeno-free to chemically defined.

With our [media and reagents specification guide](#) that outlines the components permitted in each media formulation, we help you make informed decisions when selecting the right media for your specific applications.



# Our GMP Offerings

Our GMP service capabilities are developed within a Quality Management system in compliance with the EXCiPACT™ GMP certification scheme to manufacture cell culture media classified as pharmaceutical excipients. This ensures stringent processes, full traceability, and comprehensive documentation for regulatory compliance. Our PromoExQ portfolio, Custom GMP Services, and GMP resources are a testament to our commitment to helping you translate your research from discovery to clinical applications.

## Our Custom GMP Services

We offer personalized, step-by-step support tailored to your cell therapy or regenerative medicine workflow, ensuring reproducibility and reliability from research through clinical translation.

### Key characteristics:

- Custom formulations to meet your specific cell type and research needs.
- Solutions designed to grow with your research and clinical applications.
- Modifications in formulation, quality control testing, scalability, or process integration.
- Dedicated project timelines with contingency planning to mitigate downtime risks.

## Excipient GMP-grade media

PromoExQ media are our premium Excipient GMP-grade cell culture media featuring specialized ready-to-use formulations. These include, amongst others, xeno-free and animal component-free formulations that maintain optimal cell viability, phenotype stability, and expansion capabilities. They are formulated with raw material traceability, batch-to-batch consistency, and Certificates of Analysis (CoA).



### The document package includes:

- Excipient Quality Assessment File (EQAF)
- Statement of GMP Compliance
- Statement on Microbial and Viral Safety (MVS)
- Statement on BSE/TSE Status
- Certificate of Origin (CoO)
- Declaration of Conformity
- Statement of Genetically Modified Organisms (GMO)
- Certificate of Analysis (CoA)

## Regulated vs standard products

	Research use only products	Regulated products	
Catalog number	C-*	EQ-C-*	PE-C-*
Stock keeping	off-the-shelf	off-the-shelf	Customized CRD-process, made-to-order
Intended use	Intended for <i>in vitro</i> research use only, not for diagnostic or therapeutic procedures.	Intended for research use or further manufacturing, not intended for direct administration to humans or animals.	Intended for research use or further manufacturing, not intended for direct administration to humans or animals.
<b>Quality Management System</b>			
Manufactured in compliance with ISO 9001:2015	✓	✓	✓
Excipient or pharmaceutical auxiliary material (PAM) manufactured in an EXCiPACT™-certified environment		✓	✓
<b>Final product / production and quality control</b>			
Manufactured according to SOP	✓	✓	✓
Documented batch record (confidential)	✓	✓	✓
QC batch-specific	✓	✓	✓
Product release batch-specific	✓	✓	✓
Storage of retain samples according to shelf life	✓	✓	✓
Guarantee of functionality regarding PromoCell's test system	✓	✓	on request
Customer formulation possible	✓		on request
Additional QC possible			✓
<b>Packaging</b>			
Package size other than standard package size available	on request		✓
Labeling, additional information			✓
Tamper Seals		✓	✓
<b>Raw materials</b>			
Guarantee of functionality regarding PromoCell's test system	✓	✓	on request
Guarantee of consistent regulatory status of raw materials		✓	✓
<b>Change control</b>			
Risk assessment regarding regulatory requirements in case of changes		✓	✓
Information about changes in raw material specifications, which may impact regulatory status		✓	✓

	Research use only products	Regulated products	
Catalog number	C-*	EQ-C-*	PE-C-*
Stock keeping	off-the-shelf	off-the-shelf	Customized CRD-process, made-to-order
Intended use	Intended for <i>in vitro</i> research use only, not for diagnostic or therapeutic procedures.	Intended for research use or further manufacturing, not intended for direct administration to humans or animals.	Intended for research use or further manufacturing, not intended for direct administration to humans or animals.
<b>Information</b>			
Product manual	✓	✓	
MSDS	✓	✓	✓
Information on Certificate of Analysis (CoA), batch-specific	Color / Clarity Microbial Contamination Functionality	Color / Clarity Microbial Contamination Functionality pH Osmolality Endotoxin <sup>+</sup> Mycoplasma	Color / Clarity Microbial Contamination Functionality <sup>++</sup> pH <sup>++</sup> Osmolality <sup>++</sup> Endotoxin <sup>++</sup> Mycoplasma <sup>++</sup> additional tests <sup>++</sup>
Excipient Quality Assessment File (EQAF) for catalog products		✓	
Customer Requirement Document (CRD) for Risk Assessment and Quality Agreement for Customized Products			✓
GMP certificate		✓	✓
Certificate of compliance / conformity	on request	✓	✓
TSE / BSE certificate		✓	✓
Microbial and virus safety certificate		✓	✓
GMO certificate		✓	✓
Certificate of origin for final products (Manufacturing site)	on request	✓	✓
CoA customized			✓
Information about ingredients (NDA is needed)			on request
<b>Audits</b>			
EXCiPACT™ audit report will be shared		✓	✓
In-person audits		✓	✓

\* product catalogue number

+ only for basal media

++ defined in CRD

**Note:** The regulated products are intended for research use or manufacturing. They are not intended for direct administration to humans or animals.

# Unlock Extended Right of Use for your commercial cell culture needs

We provide high-quality primary cells and cell culture media to support your commercial applications. To ensure compliance and seamless integration into your commercial processes, we offer extended use rights for our cells and certain media. This allows you to

use our products beyond research purposes, supporting commercialization with full legal assurance.

For commercial use, including quality control, production, or providing a service, an **Extended Right of Use** can be acquired.

This ensures full compliance with our terms and conditions, and allows seamless integration of our products into your commercial application.

For more details, please visit our terms and conditions or contact us at [eru@promocell.com](mailto:eru@promocell.com).

## Benefit from our know-how

At PromoCell, we believe that your success is our success. That's why we go beyond providing products — we partner with you to ensure you have the knowledge, tools, and support to achieve your goals.

With over 35 years of expertise in cell culture and cell biology, we provide a wealth of resources, training, and expert support to help you optimize your workflows and achieve your goals. Whether you're new to cell culture

or working on advanced applications, our tailored solutions and educational materials are designed to meet your needs.

### Expert training and support

#### Webinars and training:

Access recorded or live webinars and hands-on training sessions tailored to your specific needs. Whether you require guidance on cell culture basics or advanced techniques, our experts are here to help.

#### Scientific support:

Our dedicated scientific support team is available to answer your questions and provide personalized advice. [Contact us](#) for assistance with troubleshooting, protocol optimization, or product recommendations.

### Comprehensive scientific resources

We offer a wide range of scientific materials to enhance your expertise and support your research:



#### Application notes and white papers:

Explore in-depth resources on fundamental and application-specific topics in human primary cell culture.



#### Brochures and blog articles:

Stay informed with the latest insights and updates in cell culture and cell biology.



#### Resource library:

Visit our [resource center](#) to access a comprehensive collection of scientific materials: [www.promocell.com/resources](http://www.promocell.com/resources)

# Driving innovation in cell culture

We're committed to advancing cell culture technology with innovative solutions that empower you to achieve groundbreaking results. Our products are designed to enhance efficiency, reproducibility, and scalability in cell-based research and applications.

## Cryo-SFM Plus: Setting a new standard in cell cryopreservation

Our Cryo-SFM Plus is a defined, animal-free, and protein-free cryopreservation medium that ensures improved cell viability and adhesion after thawing.



### Key characteristics:



#### Defined composition:

A precisely defined formulation for consistent, reproducible results.



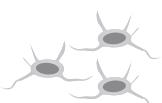
#### Animal-free and protein-free:

Regulatory-friendly and free from variability caused by animal-derived components



#### Patented\* antioxidant technology:

Protects cells from freeze-induced damage, preserving viability, attachment, and growth.



#### Maximal cell recovery and minimal freeze damage:

Achieve optimal cell yield with minimal freeze damage, ensuring high cell integrity for smooth experimental workflows.



#### Versatile application:

Suitable for various cell types, including primary cells, stem cells (including induced pluripotent stem cells), and established cell lines.

\* Our technology is patented in Germany and pending approval in other countries.

## Cancer media toolbox: Advancing cancer research

Our cancer media toolbox offers a comprehensive solution for culturing human malignant cells. From establishing primary cancer cell lines to developing 3D tumor models and screening assays, our xeno-free and serum-free formulations ensure highly standardized cell culture conditions and reproducible results.



### Primary Cancer Culture System D-ACF

Our PromoCell's Primary Cancer Culture System D-ACF is a standardized, defined and animal component-free (D-ACF) system for the isolation and culture of human primary tumor cells.

It supports the long-term culture of cancer cells while maintaining the clonal diversity of malignant subpopulations. Due to precise stromal control, prolonged culture allows for functional selection of malignant cells. This principle enables access to an enriched population of primary cancer cells, also suitable for the generation of cancer cell lines.

#### Key Advantages:

- Perform up to 5 isolations with one bottle of medium
- Maintains the diversity of original malignant tumor cell subpopulations
- Successfully deplete non-malignant cells from the culture
- No stromal overgrowth
- Defined and animal component-free (D-ACF)



### 3D Tumorsphere Medium XF

The 3D Tumorsphere Medium XF has been designed to meet your requirements for the extended serial 3D tumorsphere culture. It supports the most commonly used cancer cell lines in tumorsphere/mammosphere culture.

Continuous proliferation is supported during serial passage of 3D tumorsphere cultures. Thus, this culture system is also applicable for *in vitro* models of metastasis.



### Cancer Cell Line Medium XF

The PromoCell Cancer Cell Line Medium XF was designed with the aim of achieving a universal, consistent and xeno-free environment for culturing most commonly used human cancer cell lines in 2D. It has no ill-defined components such as fetal calf serum, extracts or hydrolysates and exhibits very low lot-to-lot variability.

Being broadly usable across all common adherently growing cancer cell lines, this culture medium is a cost-effective solution for ensuring efficient, genuinely standardized routine cultures.

#### Key Advantages:

- Establish 3D tumorsphere cultures from 2D cancer cell lines
- Suitable for routine culture
- Works with most commonly used cancer cell lines
- Xeno-free and serum-free formulation

#### Key Advantages:

- Robust growth performance for standard 2D cell culture
- Compatible with most commonly used cancer cell lines
- Xeno-free and serum-free formulation

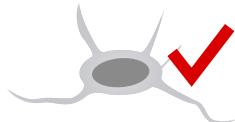
Are you working in a pharmaceutical company or in preclinical research? Let's collaborate to accelerate cancer research and innovation.

# Our portfolio

Our portfolio features a high-quality range of products designed to ensure reliable and reproducible results for your research and commercial applications. From human primary cells to specialized media and reagents, our products are tailored to meet the highest standards of quality and performance. As an example, our mesenchymal stem cell (MSC) portfolio highlights our commitment to providing standardized, well-characterized products that support cutting-edge research and development.

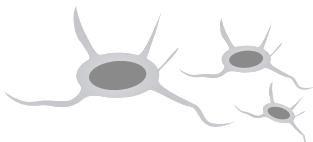
## MSC portfolio: Solutions for world-class stem cell research

Our MSC portfolio is designed to meet the rigorous demands of stem cell research and therapy development. Key advantages include:



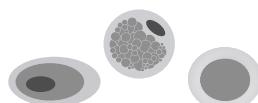
### Verified surface marker expression:

MSCs with verified expression of surface markers that meet the ISCT criteria.



### Standardized and well-characterized MSCs:

Ensuring reproducible results across experiments.



### Trilineage differentiation:

Confirmed differentiation into osteoblasts, adipocytes, and chondrocytes.



### Optimized MSC medium:

Culturing in our optimized MSC medium ensures the expression of trilineage surface markers.

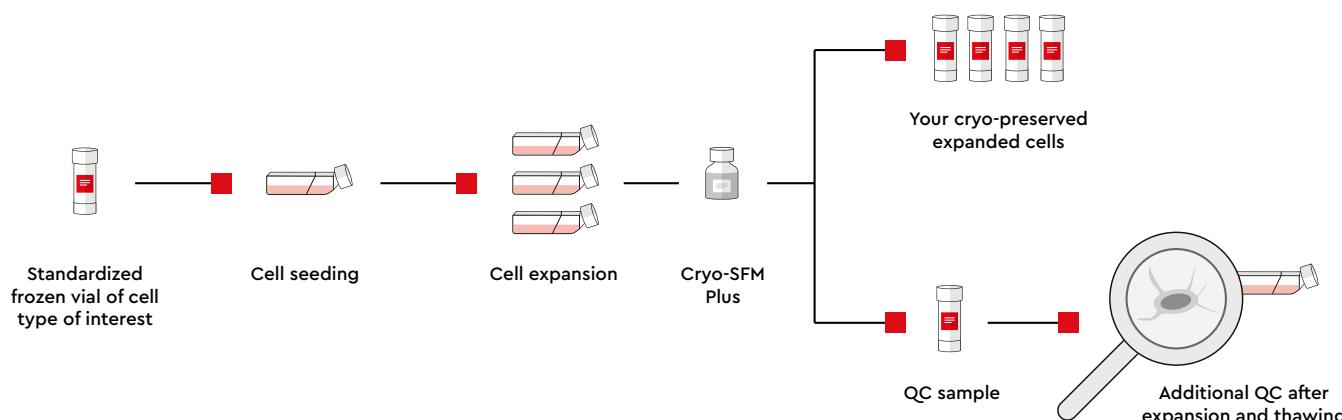


### Excipient GMP-grade MSC media:

Supporting regulatory compliance for preclinical and clinical applications.

## High-quality large-scale MSC lots

The commercial and clinical translation of cell-based therapies requires large-scale production of homogeneous and well-characterized MSC populations. Our expertise in cell isolation, media manufacturing, and quality control enables us to offer high-quality, large-scale MSC cultures to help you advance cell-based therapies. The use of large MSC lot sizes also minimizes donor and source-dependent effects on cell characteristics.



## What we offer:

- Customized large-scale industrial lots of standardized MSCs from bone marrow and adipose tissue
- Guaranteed MSC functionality and phenotypes in accordance with ISCT guidelines optimized media with supplements
- Expert technical support

Our solutions help you avoid time-consuming cell isolation and testing processes, as well as lot-to-lot variation problems.

## Explore our complete portfolio

In addition to our MSC portfolio, we offer a comprehensive selection of products to support your research and commercialization needs. Our products include primary cells from various tissues, specialized media for culturing cancer cells, and custom media solutions.

Tissue	Cell type	Cells	Expansion Medium	Differentiation Medium	Dissociation	Cryopreservation
Cardiovascular system	Cardiac, coronary and aortic, and saphenous vein endothelial cells	✓	✓			
	Cardiac myocytes	✓	✓			
	Cardiac and aortic adventitial fibroblasts	✓	✓			
	Coronary and aortic smooth muscle cells	✓	✓			
Respiratory system	Airway epithelial cells	✓	✓		✓	
	Pulmonary endothelial cells	✓	✓			
	Pulmonary fibroblasts	✓	✓			
	Pulmonary and airway smooth muscle cells	✓	✓			
Kidney	Renal epithelial cells	✓	✓			
Musculoskeletal system	Skeletal muscle cells	✓	✓		✓	
	Chondrocytes	✓	✓			
	Osteoblasts	✓	✓		✓	Mineralization medium
Skin and connective tissue	Epidermal keratinocytes	✓	✓			
	Epidermal melanocytes	✓	✓			
	Dermal endothelial cells	✓	✓			
	Dermal fibroblasts	✓	✓			
	Follicle dermal papilla cells	✓	✓			
Uterus	Uterine endothelial cells	✓	✓			
	Uterine fibroblasts	✓	✓			
	Uterine smooth muscle cells	✓	✓			

Detach Kit

Cryo-SFM Plus

Tissue	Cell type	Cells	Expansion Medium	Differentiation Medium	Dissociation	Cryopreservation
Mammary gland	Mammary epithelial cells	✓				
	Smooth muscle cells	✓	✓			Detach Kit
	CD34 <sup>+</sup> progenitor cells	✓	✓ Enrichment of functional CD34 <sup>+</sup> progenitor cells			
Umbilical cord and placenta	Mononuclear cells	✓	✓ *Short-term maintenance			
	Pericytes	✓	✓			
	Mesenchymal stem cells	✓	✓	✓ Adipogenic, Chondrogenic, Osteogenic, Neurogenic Differentiation	Accutase-Solution	
Adipose tissue	Preadipocytes	✓	✓	✓	Detach Kit	
	Mononuclear cells	✓	✓ *Short-term maintenance			
	CD14 <sup>+</sup> monocytes	✓	✓ *Short-term maintenance			
Peripheral blood	Macrophages	✓ M1 and M2		✓ M1-polarization (GM-CSF) M2-polarization (M-CSF)	Macrophage Detachment Solution	
	Dendritic cells			✓		
	Cancer stem cells		✓			
Cancer	Cancer cells		✓			
	Cancer-associated cells		✓			
					Detach Kit	

# Contact us

We're here to support you at every step of your journey, from research to commercialization. Whether you're ready to place an order, need scientific support, or have specific inquiries about our products and services, our team is ready to assist you.

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You can also contact us on our website at [promocell.com](http://promocell.com)

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## How to place an order

You can place an order using any of the following options:

**Email:** Send your order to [order@promocell.com](mailto:order@promocell.com)

**Fax:** Visit our website to select your country and find the corresponding fax number.

**Online shop:** Create an account on our website for easy and secure online ordering. Once registered, you can log in for all future orders.

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## Get scientific support

For technical or scientific inquiries, our dedicated support team is available to provide detailed information and assistance:

**Email:** [scientific.support@promocell.com](mailto:scientific.support@promocell.com); [TCS.US@promocell.com](mailto:TCS.US@promocell.com) for the USA

**Phone:** Germany: 0800–776 66 23 (toll-free)

UK: 0800–96 03 33 (toll-free)

France: 0800 90 93 32 (ligne verte)

USA: +1-866-827-9219 (toll-free)

All other countries: +49-6221-649 34 0

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## Additional resources

**Terms & Conditions:** [promocell.com/terms-conditions/](http://promocell.com/terms-conditions/)

**Scientific resources:** Explore our comprehensive library of scientific materials at [promocell.com/resources/](http://promocell.com/resources/)

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Let us be your trusted partner in advancing cell-based research and innovation. **Contact us today to get started.**

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