Making the Medicines of Tomorrow

Lonza
Specialized Modalities

TheraPEAK® MSC-VIVO® Media System for stem cells

Help improve performance for regenerative medicines and cellular delivery

September 2026

Public



TheraPEAK® MSC-VIVO® Media System

Growth medium and supplements for stem cell therapy applications

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A high-performing, flexible media system for hMSC expansion and exosome production.

Supports consistency, regulatory compliance, and supply security with **xeno-free formulation,** ready for GMP use

Promotes up to almost **2000x increase in hMSC proliferation by day 10** and maintains hMSC expression markers across multiple cell sources

Helps enable **high-yield EV production** with particles demonstrating up to **2x more junction and segment formation**

One base media supplemented for both 2D and 3D applications reduces media exchange and meets the needs of multiple research programs

Supports **trilineage differentiation*** to adipogenic, osteogenic, or chondrogenic cells and maintains ISCT surface marker expression

* When used with commercially available supplements



TheraPEAK® MSC-VIVO® Media System

Xeno-free formulation supporting regulatory compliance

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TheraPEAK® MSC-VIVO® Media System for hMSCs is made to exceptional quality and compliance standards with the reliability of Lonza's global network.

Quality

- Global Quality Management System
- Robust Change Notification process
- Global raw material and vendor management program
- Raw material characterization and QC testing
- Lot release testing

Compliance

- Routine site audits
- Industry standard certified:
  - ISO 9001
  - ISO 13485
  - 21 CFR 820
- GMP-compliant facility
- Regulatory support

Robust supply

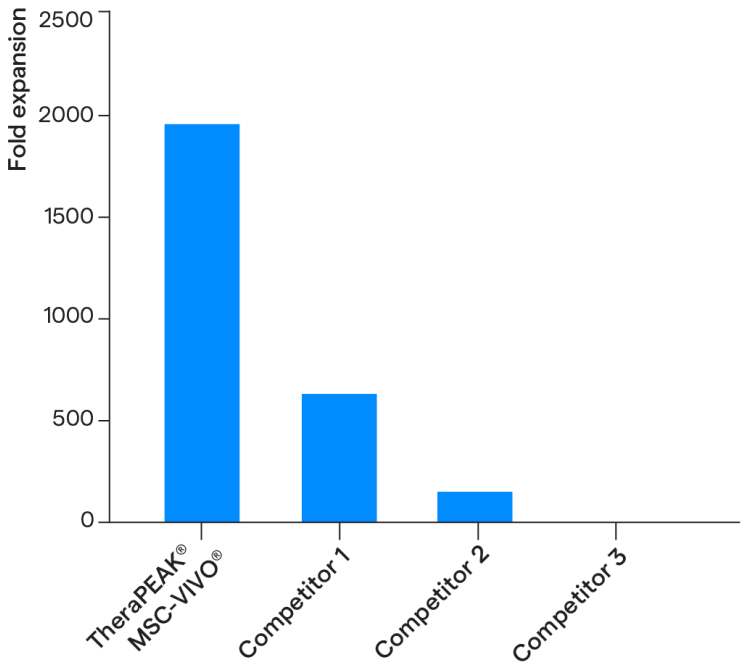
- Consistent, robust supply of quality raw materials
- Global supply chain management
- Flexible packing sizes and containers

TheraPEAK® MSC-VIVO® Media System

Up to 2000x increase in hMSC proliferation at day 10 while maintaining marker profile

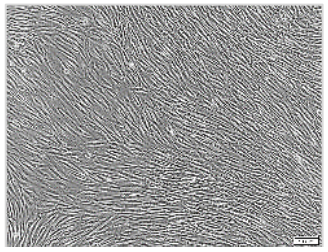
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2D MSC growth vs. competitor media

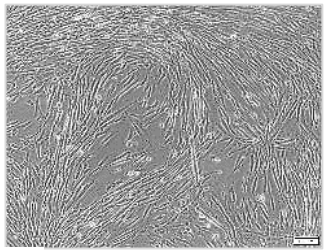


2D growth in MSC-VIVO®

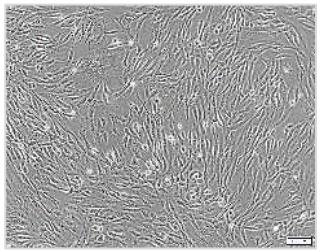
BM

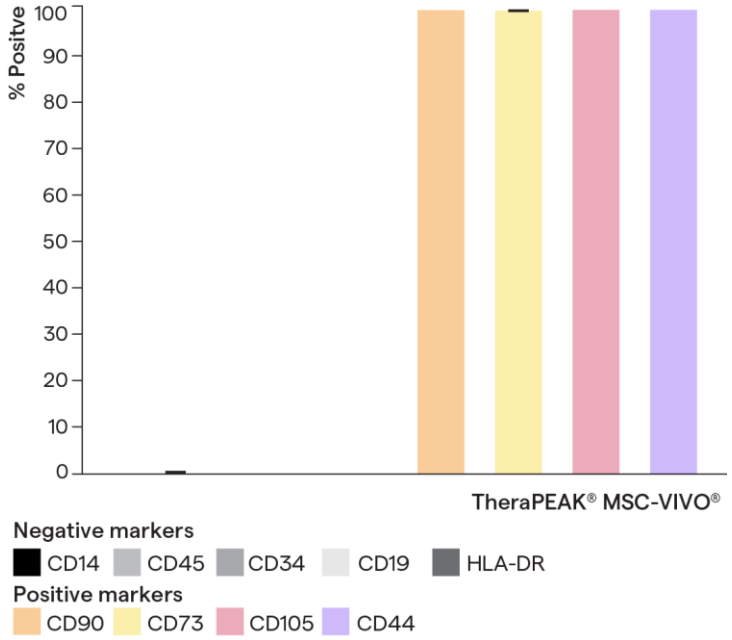


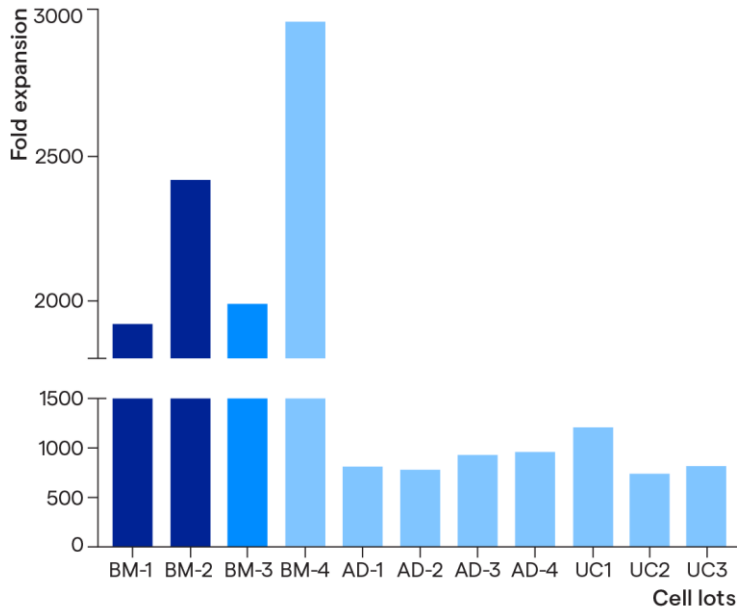
UC



AD



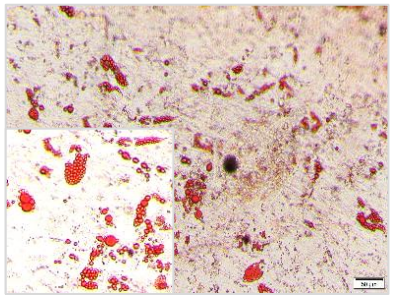
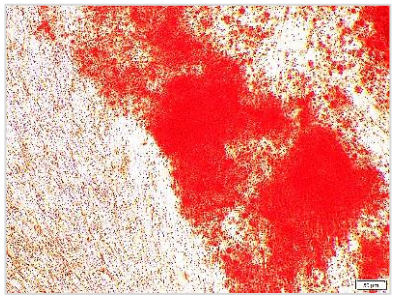
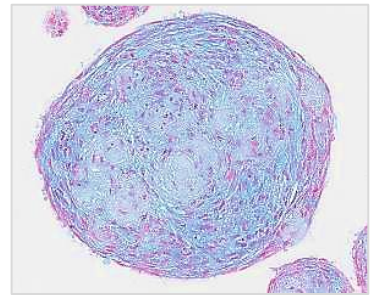
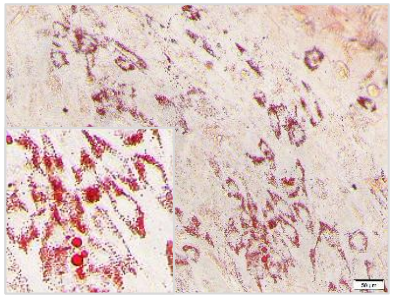
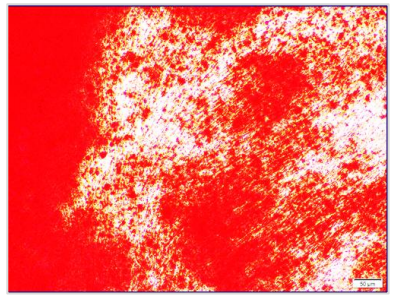
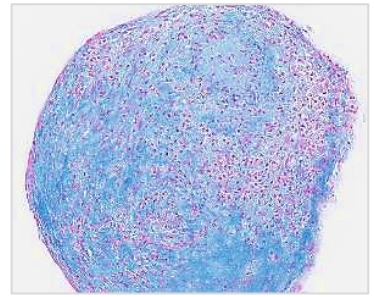
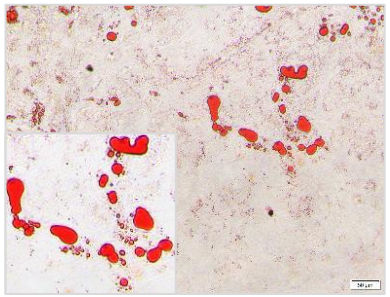
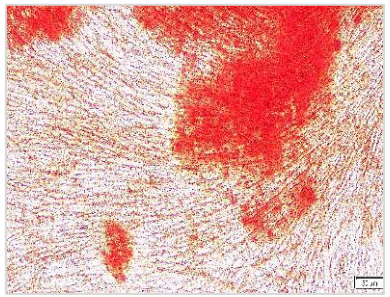
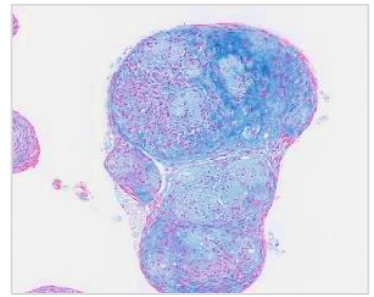




TheraPEAK® MSC-VIVO® Media System

Supports trilineage differentiation for 2D and 3D applications*

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	Adipogenesis	Osteogenesis	Chondrogenesis
BM			
UC			
AD			

*2D pictured, 3D is also validated

TheraPEAK® MSC-VIVO® Media System

Up to 80x increase in 3D proliferation in 10 days

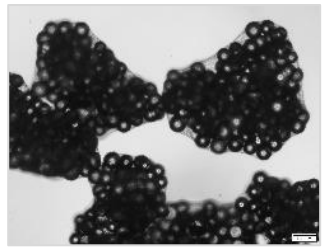
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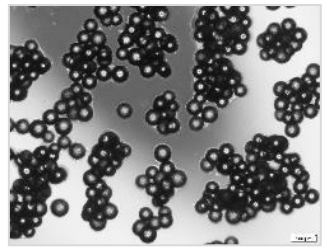
3D growth in MSC-VIVO® vs. competitor medium

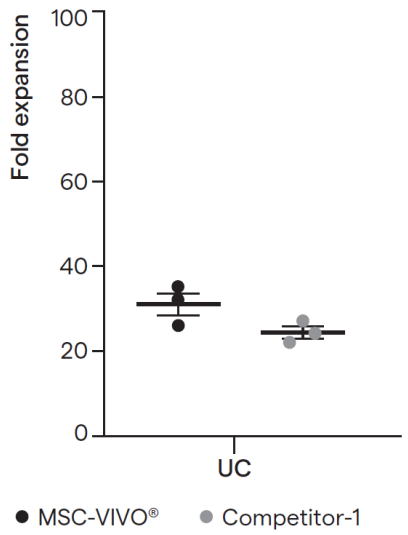
MSC-VIVO®		Competitor	
BM	UC	BM	UC

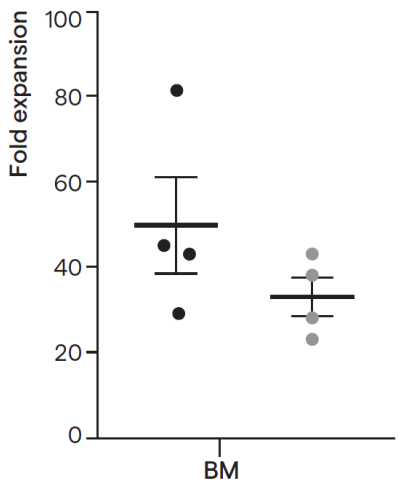


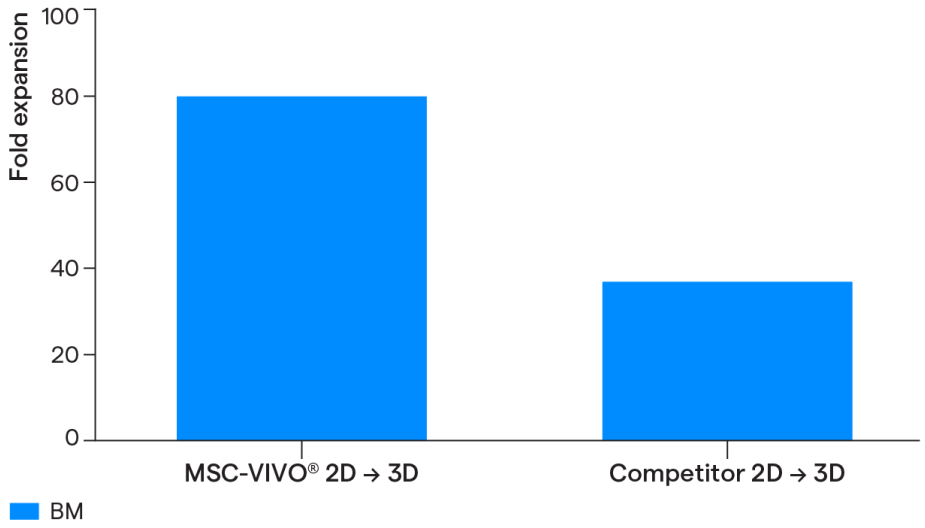










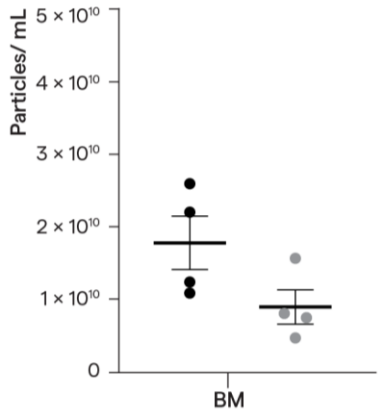


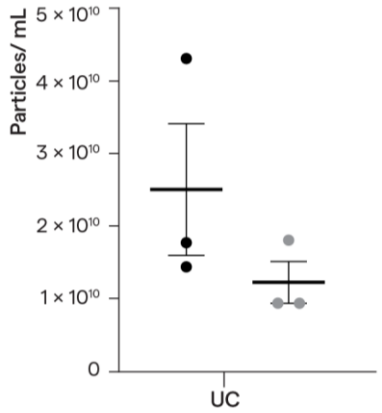
TheraPEAK® MSC-VIVO® Media System

Helps enable high-yield, high-quality, and high-integrity EV production

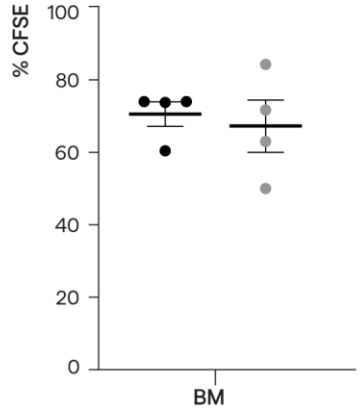
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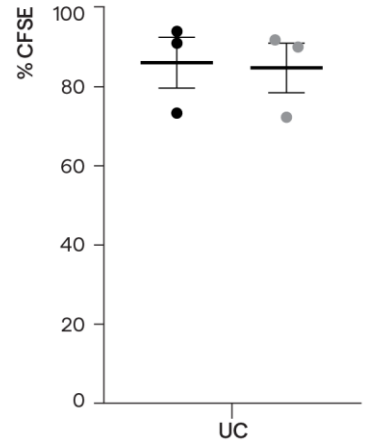
Particle count



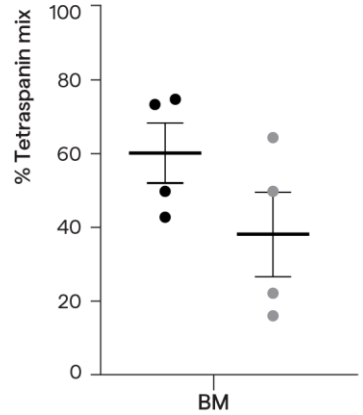


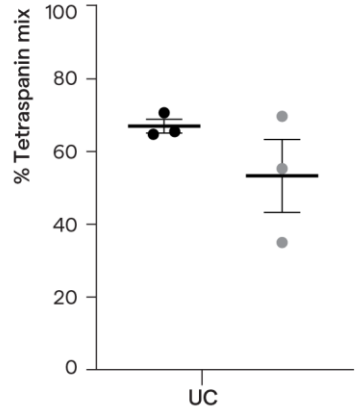
%CFSE+





% Tetraspanin-positive





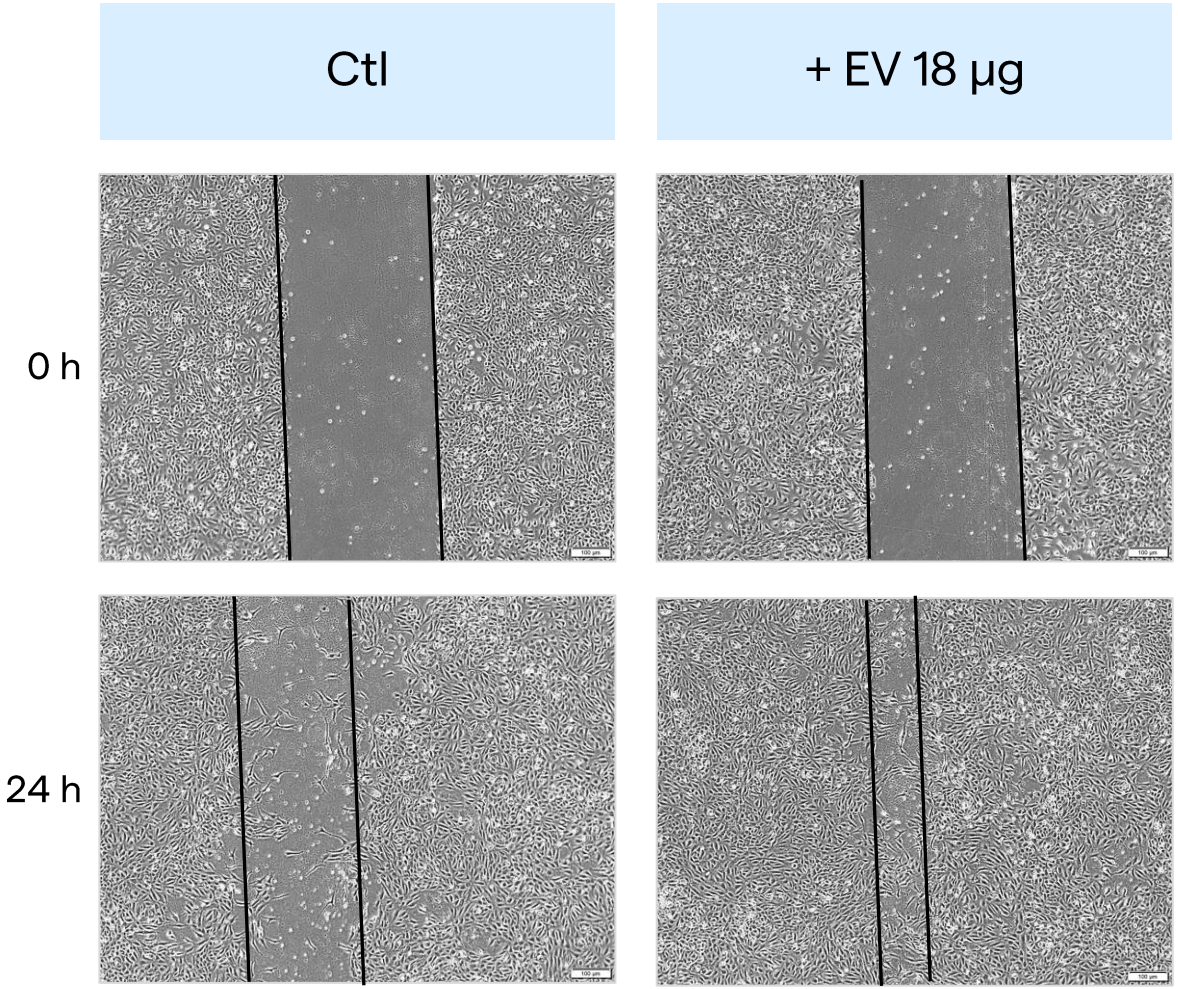
● MSC-VIVO® ● Competitor

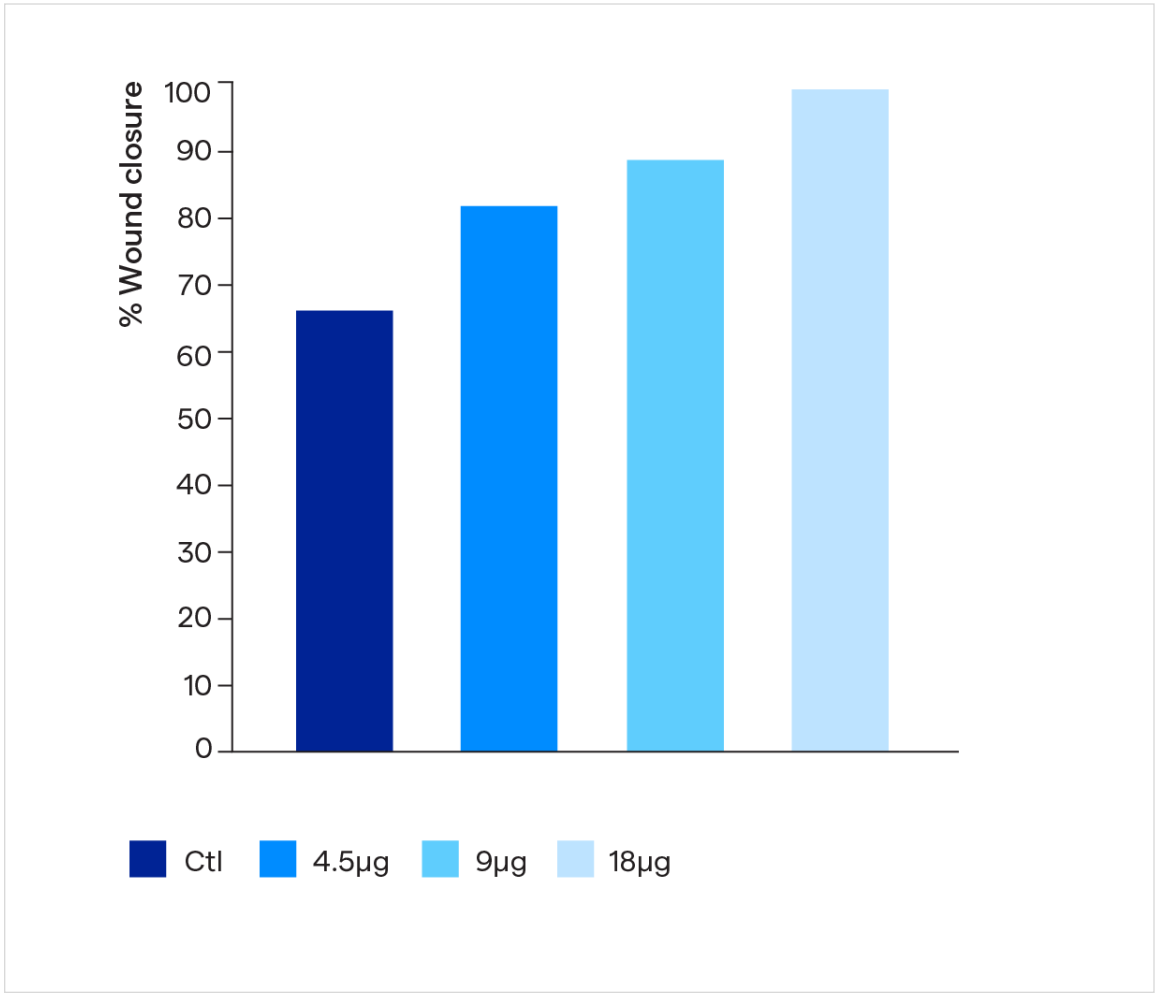
● MSC-VIVO® ● Competitor

TheraPEAK® MSC-VIVO® Media System

Promotes secretome profile that accelerates wound healing

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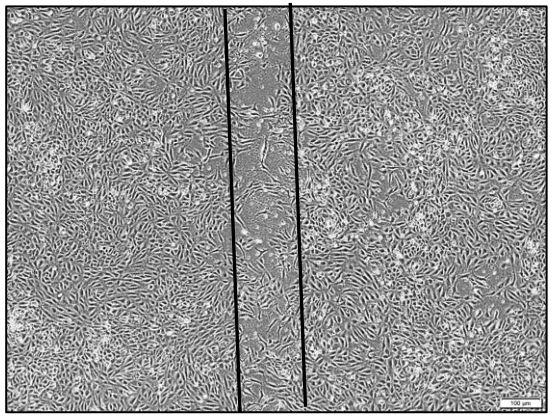


TheraPEAK® MSC-VIVO® Media System

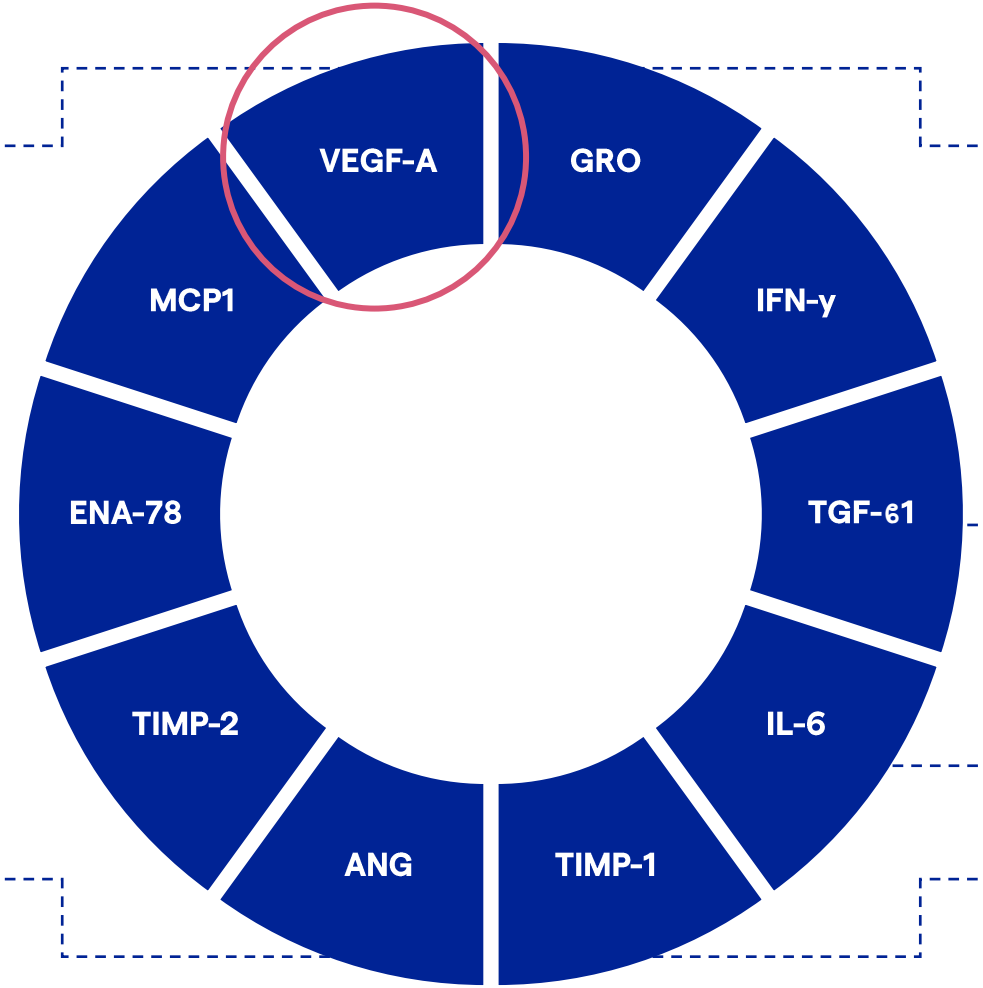
Factors present in EVs collected from cells cultured in MSC-VIVO

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Promotes angiogenesis by signaling Endothelial cells to migrate and proliferate



Stimulates the proliferation and migration of endothelial cells



It acts on endothelial cells via CXCR2, stimulating migration, proliferation, and tube formation.

Function in bone formation, blood vessel development, wound healing and tissue repair

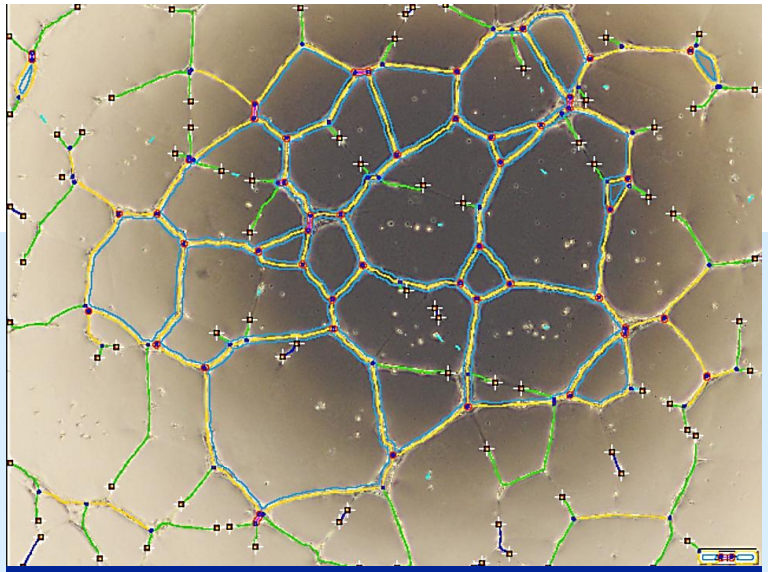
- Upregulates VEGF expression through the JAK/STAT3 and HIF-1α pathways.
- Stimulates endothelial cell proliferation, migration, and tube formation.

Inhibits the degradation of ECM and promotes cellular growth and survival

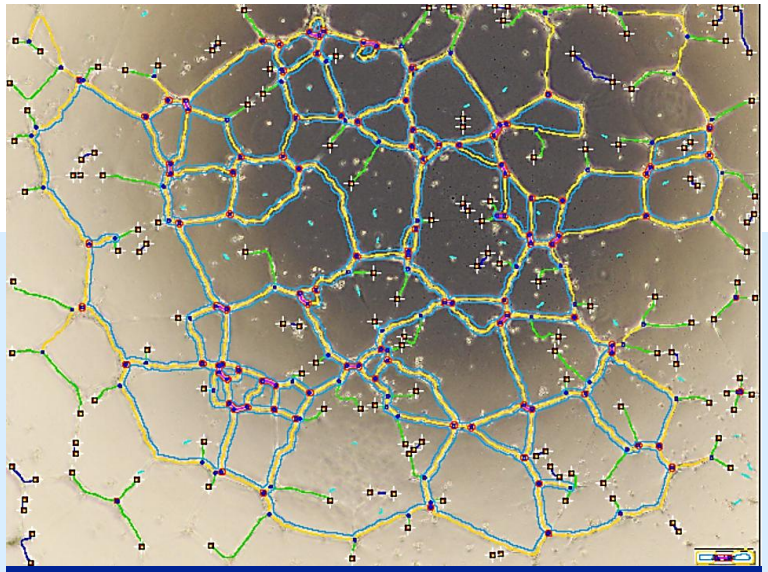
TheraPEAK® MSC-VIVO® Media System

Enables high-yield EVs capable of 2x more junction and segment formation

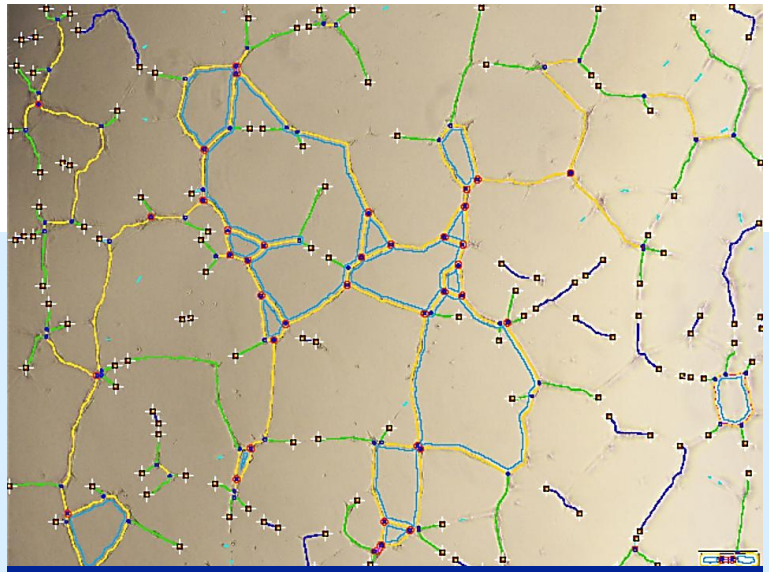
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EC medium w/o FBS



EC base + BM-EV MSC-VIVO

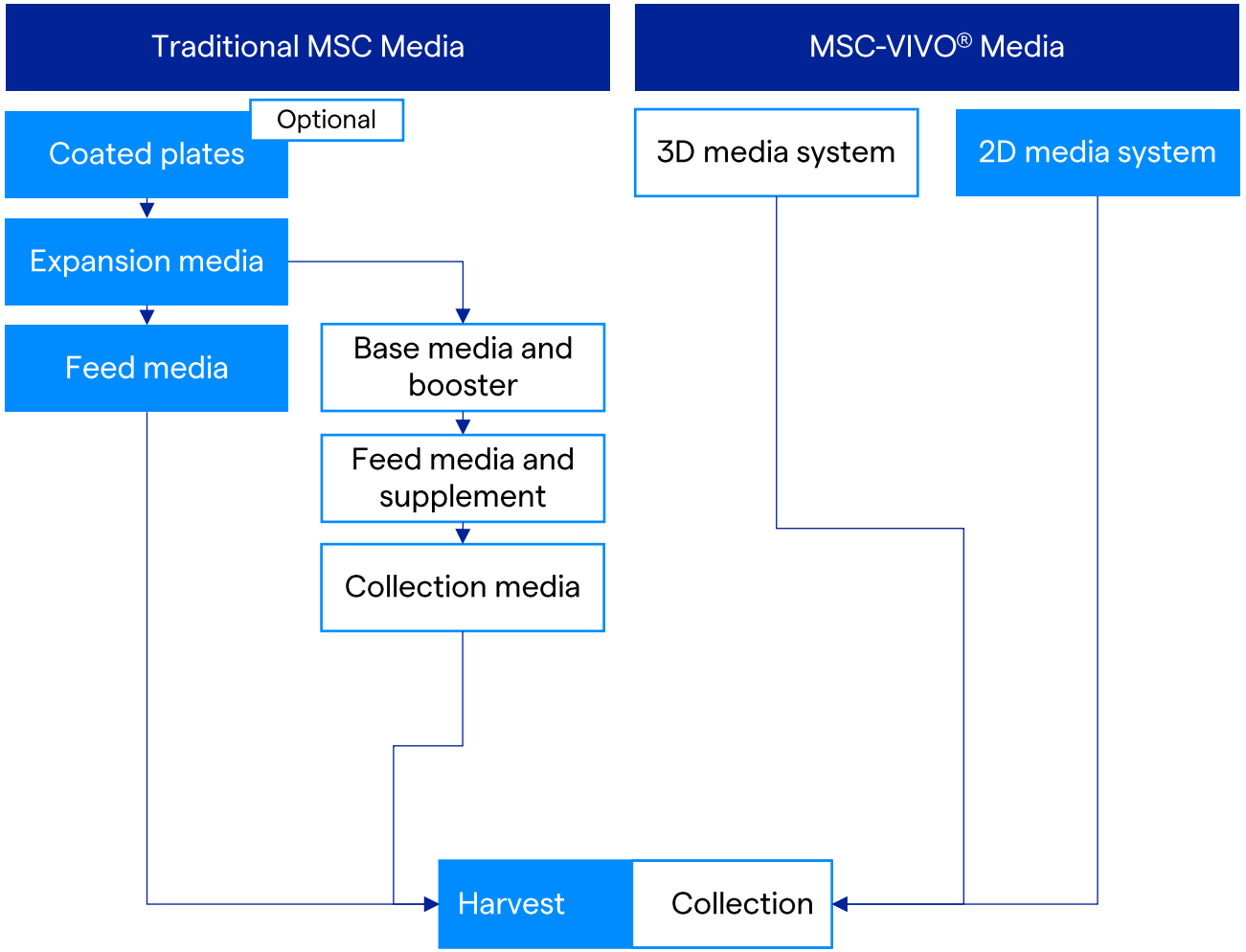


EC base + BM-EV Comp

TheraPEAK® MSC-VIVO® Media System

One base medium with supplements to support multiple programs

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Benefits

1	**Cost Savings**	Eliminates the need to use expensive coated plates for MSC growth or purchase additional buffers and production reagents.
2	**Reduced Process Complexity**	Removes additional steps in the production process, reducing the potential for human errors and streamlining workflows.
3	**Increased Consistency**	Eliminates the range of reagent variability, making the process more reproducible and reliable.
4	**Regulatory Compliance**	Facilitates smoother regulatory approval by minimizing the number of process components.

Legend

MSC workflow | EV workflow

TheraPEAK® MSC-VIVO® Media System

Improve performance for regenerative medicines and cellular delivery

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Cat. no.	Description	Size and packaging
BP18-972	TheraPEAK® MSC-VIVO® for 2D applications (includes Basal Media and Expansion Supplement)	1 L bottle (medium) and 5 mL bottle (supplement)
BP18-973	TheraPEAK® MSC-VIVO® for 3D applications (includes Basal Media and Exosome Supplement)	1 L bottle (medium) and 5 mL bottle (supplement)

Customization of packaging for specific applications is available upon request. Please contact your local salesperson or Scientific Support.

Learn more: https://bioscience.lonza.com/lonza_bs/US/en/better-mscs-start-with-a-better-cell-culture-media



Thank you



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September 2026