Nucleus Biologics

NB-MSC™ SF Medium

Customizable Xeno-Free and Serum-Free Mesenchymal Stem Cell (MSC) Culture Medium

The Cell Performance Company™

NB-MSC™ SF Medium

Optimized MSC Media to Significantly Enhance Proliferation

MSCs are key players in cell therapy and regenerative medicine due to their significant therapeutic potential. However, traditional MSC culture systems often rely on FBS supplementation, which introduces variability and risks associated with animal-derived components. NB-MSC SF Medium is serum-free, xeno-free, and pre-optimized to enhance MSC proliferation, offering a more consistent and reliable alternative to FBS-based media, which is critical to address regulatory concerns during downstream development. As part of our QuickStart Media platform, NB-MSC is fully customizable, providing added convenience and cost-efficiency, along with the flexibility to meet specific research and production needs.

Customizable

Start with our pre-optimized MSC media formula or use it as a base to adjust to your process needs in terms of packaging configurations, quality, and overall composition.

Cost-Effective Performance

Drive serum-free proliferation at superior levels to the gold standard DMEM + 10% FBS while realizing cost savings versus other off-the-shelf media.

Transparent Process

Know every component and concentration and adjust any aspect to match your stage of development, making iteration and scale-up seamless.

QuickStart Media™: A Platform Designed For You!

Get a head start in your development with pre-optimized samples that can be customized specifically to meet your needs. Building an optimized media is complex and time-consuming. Designed to serve as a "seed" formulation for development, this service will help streamline the formulation process of in-demand media products and truly expedite your cell therapy projects.

Step 1

Order RUO sample of our specialized cell culture formulations.

Step 2

Test the performance of the medium and review the data.

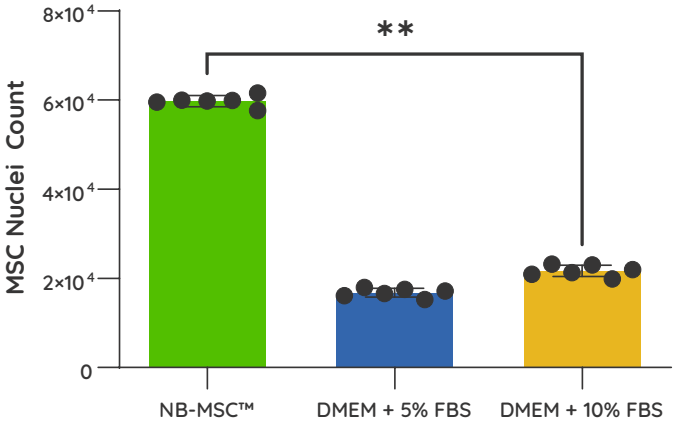
Step 3

Collaborate with our Services team to tailor the media to meet your needs.

Learn more about our QuickStart Media platform ↗

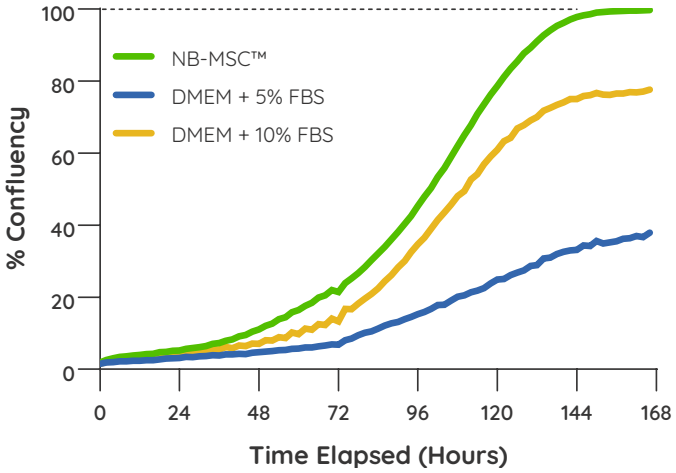
Maximize Performance With Xeno-Free MSC Media

Enhanced MSC Proliferation Without FBS



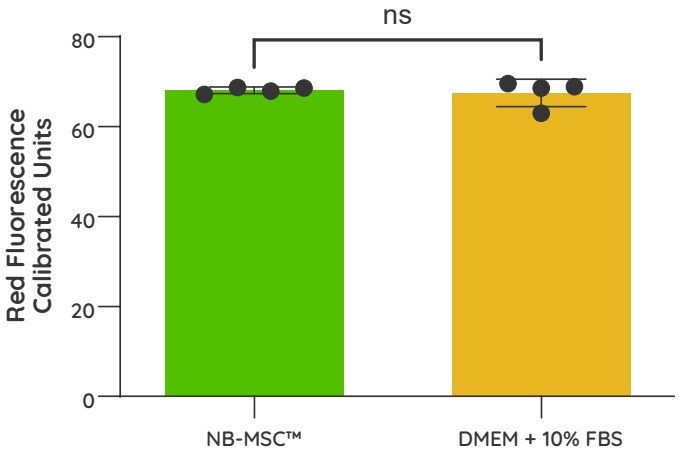
Cell counts following green fluorescent dye staining revealed that MSCs cultured in NB-MSC media supplemented with 1% Physiologix shows a significantly higher number of cells per well than either DMEM with 10% FBS or DMEM with 5% FBS at day 14. This data demonstrates NB-MSC's ability to support superior MSC proliferation, offering a more effective alternative to FBS-containing media.

Earlier and Faster Confluency with NB-MSC



NB-MSC media significantly accelerates MSC proliferation, as shown by confluency measurements over time. When supplemented with 1% Physiologix, NB-MSC achieves 100% confluency by day 6, highlighting its rapid support for MSC growth. In contrast, DMEM with 10% FBS reached only 80% confluency by day 6, while DMEM with 5% FBS attained just 40% confluency at the same time point. This data emphasizes NB-MSC's ability to facilitate faster and more complete cell coverage compared to FBS-containing alternatives.

Maintains CD90 Expression



CD90 expression was assessed on day 7 following expansion in both NB-MSC and DMEM + 10% FBS culture conditions. The results demonstrate comparable levels of expression across the two media, indicating that culturing cells in NB-MSC preserves their undifferentiated state while effectively supporting their expansion.

Read Our White Paper

Review NB-MSC's performance compared to the gold standard DMEM + 10% FBS.
Download our white paper ↗

NB-MSC™ SF Medium Ordering Information

Catalog Number	Product Name	Contents	Size	Price
2127	NB-MSC™ RUO Sample	NB-MSC™ Basal Medium NB-MSC™ Coating Solution Physiologix™ XF Serum Replacement	1 L 25 mL 10 mL	$549
N/A	NB-MSC™ Custom	NB-MSC™ Basal Medium NB-MSC™ Coating Solution	1 L 25 mL	Inquire

Product Specifications (RUO Sample)

Classification	Xeno-free, serum-free
Quality	Research use (RUO)
Sterility	Sterile filtered through a 0.2 micron filter
Format	Liquid
Volume	1 L
pH	6.8 to 7.2
Osmolality	345-375 mOsm/Kg
Phenol Red Indicator	Yes (can be removed)
Shipping Conditions	NB-MSC Medium: 2-8°C Physiologix XF SR: Dry ice
Storage Temperature	NB-MSC Basal Medium: 2-8°C NB-MSC Coating Solution: 2-8°C Physiologix XF SR: ≤-70°C
Shelf Life	90 days – analysis ongoing
Research Category	MSC research

Our Commitment to Quality

- Manufactured in a GMP environment
- Manufacturing practices certified to ISO 13485:2016
- Licensing options available

Nucleus Biologics
10929 Technology Place | San Diego, CA 92127
858.251.2010 | sales@nucleusbiologics.com | www.nucleusbiologics.com

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