






# NB-ROC™ T Cell Serum-Free Medium

Xeno-Free and Serum-Free Expansion Medium for T Cells



 **Nucleus Biologics**  
The Cell Performance Company  
**NB-ROC™ T Cell SF Media**  
Part Number: XXXX  
Lot Number: XXXX-XX-XXX  
Date of Manufacture: DD/MON/YYYY  
Expiration Date: DD/MON/YYYY  
  
XX-0000.00  
  
   
San Diego, CA • 858-251-2010  
[www.nucleusbiologics.com](http://www.nucleusbiologics.com)

# NB-ROC™ T Cell Serum-Free Medium

## Optimized Medium for CAR-T Cell Therapy Development

The right media can ease development challenges and impact speed, cost, and quality of a final product. NB-ROC is specially optimized for CAR-T cell therapy development, primarily focused on significantly improving transduction, while maintaining all other critical attributes.

### Boost Transduction Efficiency

Yield more CAR+ cells at lower viral MOI to maximize the number of CAR+ cells in your therapeutic dose, which has shown to improve outcomes.

### Lower Manufacturing Cost

Decrease the amount of viral vector used in the process, resulting in reduced cost and increased safety of the final therapeutic dose.

### Maintain Key Quality Indicators

Promotes proliferation and population doubling, and maintains desired phenotypes and all other quality indicators, like cell health and viability.



## 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. NB-ROC is part of our [QuickStart Media](#) platform.

### Step 1

Order RUO sample of our specialized cell culture formulations.

### Step 2

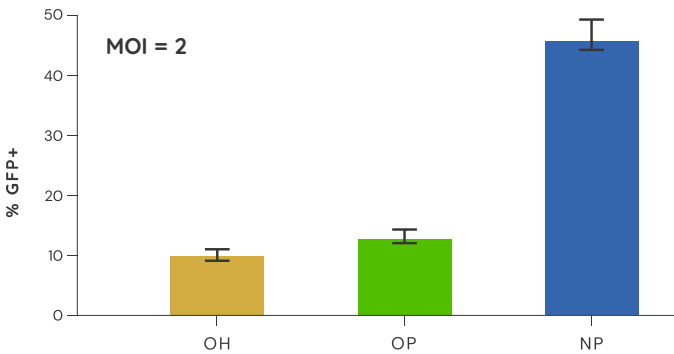
Test the performance of the medium and review the data.

### Step 3

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

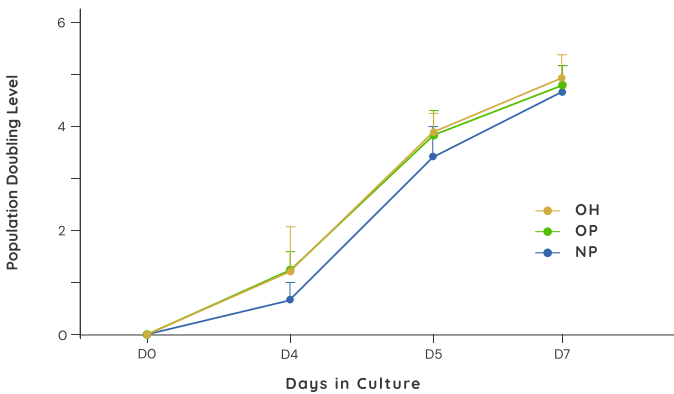
# Maximize T Cell Performance

## Significantly Improve Transduction Efficiency



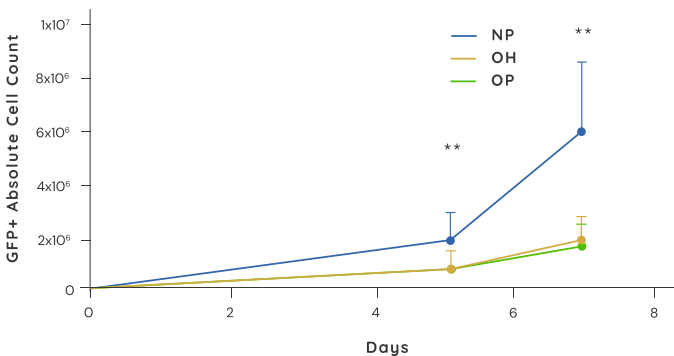
Combining NB-ROC with 2% Physiologix (NP), a serum-free complete media, improves transduction efficiency greater than threefold when compared to OpTmizer™ + 5% Human Serum (OH) and OpTmizer + 2% Physiologix (OP). Physiologix™ XF SR is Nucleus Biologics' xeno-free serum replacement made for stem cells and T cells. Data shown represents average of 3 donors ±SD in a G-Rex® model. MOI = 2.

## Promote Strong T Cell Growth



NB-ROC + 2% Physiologix (NP) supports strong population doubling equivalent to OpTmizer + 5% Human Serum (OH) and OpTmizer + 2% Physiologix (OP). Proliferation, cell health, viability, and maintenance of relevant phenotypes (assessed but not shown) are also comparable. Data shown represents average of 3 donors ±SD in a G-Rex model.

## Increase CAR+ Cells in Your Therapeutic Dose



NB-ROC increases efficacious cells in your process. Using GFP as a marker of lentiviral transduction, NB-ROC + 2% Physiologix (NP) shows significantly higher numbers of transfected cells compared to OpTmizer + 5% Human Serum (OH) and OpTmizer + 2% Physiologix (OP) after 7 days of culture. Data shown represents average of 3 donors ±SD in a G-Rex model.

### Supplement with Physiologix™

Achieve greater than threefold transduction efficiency when using NB-ROC with Physiologix.



# NB-ROC™ T Cell SF Medium Ordering Information

Catalog Number	Product Name	Contents	Size	Price
1536	NB-ROC™ RUO Sample	NB-ROC™ T Cell SF Basal Media NB-ROC™ T Cell SF Supplement	1 L 25 mL	\$209
1537	NB-ROC™ with Physiologix™ Kit RUO Sample	NB-ROC™ T Cell SF Basal Media NB-ROC™ T Cell SF Supplement Physiologix™ XF SR	1 L 25 mL 2 x 10 mL	\$366
N/A	NB-ROC™ Custom	NB-ROC™ T Cell SF Basal Media NB-ROC™ T Cell SF Supplement	Custom	Inquire

NB-ROC is configured with the proteins supplied separately for long-term stability and shelf life.

## Product Specifications (RUO Sample)

<b>Classification</b>	Xeno-free, serum-free	<b>Shipping Conditions</b>	NB-ROC T Cell Medium: 2–8°C Physiologix XF SR: Dry ice
<b>Sterility</b>	Sterile filtered basal media	<b>Storage</b>	NB-ROC T Cell SF Basal Media: 2–8°C NB-ROC T Cell SF Supplement: 2–8°C Physiologix XF SR: ≤–70°C
<b>pH</b>	6.5–7.5		365 days if not mixed
<b>Osmolality</b>	270–330 mOsm/Kg	<b>Shelf Life</b>	Recommended to use media within 2 weeks of mixing the basal media and supplement.
<b>Included Antibiotics</b>	No antibiotics	<b>Thawing</b>	Applicable to kits containing Physiologix only (Catalog Number 1537). Preferred method of thaw is 37°C water bath. Limit freeze thaw cycles of aliquots to less than three.
<b>Quality</b>	Research use	<b>Research Category</b>	T cell research
<b>Phenol Red Indicator</b>	Phenol red free		
<b>Serum Level</b>	Serum-free		
<b>Format</b>	Liquid		
<b>Glutamine</b>	Yes		
<b>Sodium Pyruvate Additive</b>	Yes		

### Our Commitment to Quality

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

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FM 759035

PN-R-5-080624