

ExCell Bio

OptiVitro[®] T Cell Serum-free Medium (phenol red-free)

For Research and Manufacturing Use

Not Intended for Diagnostic and Therapeutic Use

User Manual

Catalog Number	TE000-N032
	TE000-N031
	TE000-N031S
	TE000-N071
	TE000-N072
	TE000-N074



PRODUCT DESCRIPTION

OptiVibro® T Cell Serum-free Medium (phenol red-free) is a serum-free, animal component-free medium designed for T cell culture. It comprises OptiVibro® T Cell Serum-free Basal Medium (phenol red-free) and OptiVibro® Immune Cell Serum-free Medium Supplement UE01. OptiVibro® T Cell Serum-free Medium (phenol red-free) is suitable for activating and expanding T cells from human PBMCs and CBMCs. Additional activation and expansion cytokines are needed.

SPECIFICATION, STORAGE AND TRANSPORTATION

REQUIREMENT

Product Name	Cat. #	Specification	Storage	Transportation	Shelf Life
OptiVibro® T Cell Serum-free Medium (phenol red-free)	TE000-N032	1000 mL kit	-	-	-
OptiVibro® T Cell Serum-free Basal Medium (phenol red-free)	BA0042	1000 mL bottle	2-8°C Protect From Light.	< 25°C Protect From Light.	12 months
OptiVibro® Immune Cell Serum-free Medium Supplement UE01	BA0332	8 mL	2-8°C Protect From Light.	< 25°C Protect From Light.	18 months
OptiVibro® T Cell Serum-free Medium (phenol red-free)	TE000-N031	500 mL kit	-	-	-
OptiVibro® T Cell Serum-free Basal Medium (phenol red-free)	BA0041	500 mL bottle	2-8°C Protect From Light.	< 25°C Protect From Light.	12 months
OptiVibro® Immune Cell Serum-free Medium Supplement UE01	BA0331	4 mL	2-8°C Protect From Light.	< 25°C Protect From Light.	18 months
OptiVibro® T Cell Serum-free Medium (phenol red-free)	TE000-N031S	100 mL kit	-	-	-
OptiVibro® T Cell Serum-free Basal Medium (phenol red-free)	BA0041S	100 mL bottle	2-8°C Protect From Light.	< 25°C Protect From Light.	12 months
OptiVibro® Immune Cell Serum-free Medium Supplement UE01	BA0331S	0.8 mL	2-8°C Protect From Light.	< 25°C Protect From Light.	18 months
OptiVibro® T Cell Serum-free Medium (phenol red-free)	TE000-N071	1 L kit	-	-	-
OptiVibro® T Cell Serum-free Basal Medium (phenol red-free)	BA0161	1 L bag	2-8°C Protect From Light.	< 25°C Protect From Light.	12 months

OptiVibro® Immune Cell Serum-free Medium Supplement UE01	BA0333	8 mL	2-8°C Protect From Light.	< 25°C Protect From Light.	18 months
OptiVibro® T Cell Serum-free Medium (phenol red-free)	TE000-N072	2 L kit	-	-	-
OptiVibro® T Cell Serum-free Basal Medium (phenol red-free)	BA0162	2 L bag	2-8°C Protect From Light.	< 25°C Protect From Light.	12 months
OptiVibro® Immune Cell Serum-free Medium Supplement UE01	BA0334	16 mL	2-8°C Protect From Light.	< 25°C Protect From Light.	18 months
OptiVibro® T Cell Serum-free Medium (phenol red-free)	TE000-N074	5 L kit	-	-	-
OptiVibro® T Cell Serum-free Basal Medium (phenol red-free)	BA0164	5 L bag	2-8°C Protect From Light.	< 25°C Protect From Light.	12 months
OptiVibro® Immune Cell Serum-free Medium Supplement UE01	BA0338	20 mL×2	2-8°C Protect From Light.	< 25°C Protect From Light.	18 months

| HANDLING RECOMMENDATIONS

1. Please make sure to store the cell culture medium in a light-protected environment, avoid fluorescent lamps or other lamplight exposure, and better to use colored packaging bags in the refrigerator or warehouse.
2. During the transportation of the product, it should be kept away from light. This is to prevent the product from being affected by the irradiation of fluorescent lamps or other light sources, which may lead to discoloration.
3. During the transportation of the product to the clean area, it is essential to carry out a cleaning process. The cleaning method may involve disinfectant wiping, and not utilize UV irradiation.

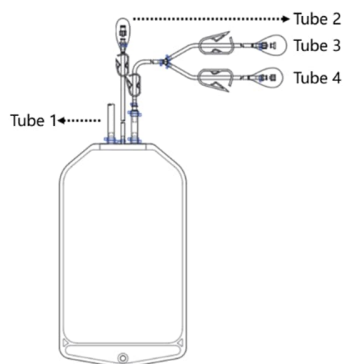
Note: When passing through transfer windows equipped with UV lamp, remember to proactively turn off the UV lamp inside the transfer window.

| INSTRUCTION FOR USE

Prepare media

1. Bottle format: Equilibrate OptiVibro® T Cell Serum-free Basal Medium (phenol red-free) and OptiVibro® Immune Cell Serum-free Medium Supplement UE01 to room temperature for 1-4 hours. In a biosafety cabinet, add 8 mL/4 mL of supplement to every 1000 mL/500 mL of basal medium. Mix by inverting 3-5 times to obtain the complete OptiVibro® T Cell Serum-free Medium (phenol red-free).
2. Bag format: Equilibrate OptiVibro® T Cell Serum-free Basal Medium (phenol red-free) and OptiVibro® Immune Cell Serum-free Medium Supplement UE01 to room temperature for 1-4 hours. In a biosafety cabinet, aseptically inject the contents of OptiVibro® Immune Cell Serum-free Medium Supplement UE01 into the bag of OptiVibro® T Cell Serum-free Basal Medium (phenol red-free) using a sterile syringe through the designated ports (see

below). Mix well by shaking the bag to obtain the complete OptiVibro® T Cell Serum-free Medium (phenol red-free).



Note:

- 1) Allow the basal medium and supplement to equilibrate to room temperature for 1-4 hours before mixing.
- 2) Once mixed, the medium can be stored at 2-8°C, protect from light, and should be used within two weeks.
- 3) A small amount of precipitation in the supplement when stored at 2-8°C is normal and does not affect usability. The precipitation will dissolve after 1-4 hours at room temperature.

Tube	Description	Remark
Tube 1	C-flex tubing, sealed end	In Cat. # BA0161 (1 L bag) and Cat. # BA0162 (2 L bag) products, the tubing is less than 10 cm in length. In Cat. # BA0164 (5 L bag) product, the tubing is 30 cm long, with an ID of 1/4" and an OD of 3/8", and is compatible with the G-REX® cell culture system.
Tube 2	Silicone tubing with acupuncture sampling port	For sterile sampling
Tube 3	3.2/4.8 mm PVC tubing with Male Luer taper and Female cap	For connecting culture bags through Luer taper or PVC welding
Tube 4	3.2/4.8 mm PVC tubing with Female Luer taper and Male cap	

Activation and Expansion of T Cells from PBMCs

1. Prepare fresh peripheral blood mononuclear cells (PBMCs) or rapidly thaw frozen vials in a 37°C water bath and transfer the cells into complete OptiVibro® T Cell Serum-free Medium (phenol red-free) to dilute the cryopreservation solution.
2. Centrifuge cells at 400×g for 10 minutes and remove the supernatant.
3. Equilibrate complete OptiVibro® T Cell Serum-free Medium (phenol red-free) to room temperature before use. Resuspend PBMCs at a concentration of 0.5-1×10⁶ cells/mL in the complete OptiVibro® T Cell Serum-free Medium (phenol red-free) supplemented with cytokines such as IL-2, IL-7, or/with IL-15.
4. Transfer cells to culture plates pre-coated with anti-human CD3/CD28 antibodies or use beads for T-cell activation.
5. Incubate the cells in a humidified 37°C incubator with 5% CO₂.
6. Feed and adjust the cell concentration to 0.5-1×10⁶ cells/mL with complete medium supplemented with cytokines every 2-3 days. The cells can be transferred to bioreactors for further expansion at around Day7 post-activation.

| DISCLAIMER

1. Use the product according to the manual instructions. Deviations from these instructions are at the user's risk, and our company will not be responsible for any resulting product performance deviations.



-
2. This product is for scientific research and commercial production only and is not intended for clinical diagnosis or treatment. Users assume all risks for unauthorized use, and our company shall not be responsible for any consequences.