EIV22024E

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

PRODUCT DESCRIPTION

OptiVitro® T Cell Serum-free Medium (Phenol Red-Free) is a state-of-the-art, xeno-free, and serum-free medium designed for the in vitro expansion of human T lymphocytes. This medium is composed of OptiVitro® T Cell Serum-free Basal Medium (Phenol Red-Free) and OptiVitro® Immune Cell Serum-free Medium Supplement UE01, both of which are sterile and manufactured in compliance with GMP regulations. This product is free of cytokines and antibiotics, ensuring a clean and defined environment for your T cell cultures.

SPECIFICATION, STORAGE AND TRANSPORTATION REQUIREMENT

Name	Cat.#	Specification	Storage	Transportation	Shelf Life
OptiVitro® T Cell Serum-free Medium (phenol red-free)	**TE000-N074**	**5 L kit**	-	-	-
OptiVitro® T Cell Serum-free Basal Medium (phenol red-free)	BA0164	5 L (bag)	2-8 ℃ Protect from light	< 25℃ Protect from light	12 months
OptiVitro® Immune Cell Serum-free Medium Supplement UE01	BA0338	20 mL x2	2-8 ℃ Protect from light	< 25℃ Protect from light	18 months
OptiVitro® T Cell Serum-free Medium (phenol red-free)	**TE000-N072**	**2 L kit**	-	-	-
OptiVitro® T Cell Serum-free Basal Medium (phenol red-free)	BA0162	2 L (bag)	2-8 ℃ Protect from light	< 25℃ Protect from light	12 months
OptiVitro® Immune Cell Serum-free Medium Supplement UE01	BA0334	16 mL	2-8 ℃ Protect from light	< 25℃ Protect from light	18 months
OptiVitro® T Cell Serum-free Medium (phenol red-free)	**TE000-N071**	**1000 mL kit**	-	-	-
OptiVitro® T Cell Serum-free Basal Medium (phenol red-free)	BA0161	1 L (bag)	2-8 ℃ Protect from light	< 25℃ Protect from light	12 months

OptiVitro® Immune Cell Serum-free Medium Supplement UE01	BA0333	8 mL	2-8 ℃ Protect from light	< 25℃ Protect from light	18 months
OptiVitro® T Cell Serum-free Medium (phenol red-free)	**TE000-N032**	**1000 mL kit**	-	-	-
OptiVitro® T Cell Serum-free Basal Medium (phenol red-free)	BA0042	1000 mL (bottle)	2-8 ℃ Protect from light	< 25℃ Protect from light	12 months
OptiVitro® Immune Cell Serum-free Medium Supplement UE01	BA0332	8 mL	2-8 ℃ Protect from light	< 25℃ Protect from light	18 months
OptiVitro® T Cell Serum-free Medium (phenol red-free)	**TE000-N031**	**500 mL kit**	-	-	-
OptiVitro® T Cell Serum-free Basal Medium (phenol red-free)	BA0041	500 mL (bottle)	2-8 ℃ Protect from light	< 25℃ Protect from light	12 months
OptiVitro® Immune Cell Serum-free Medium Supplement UE01	BA0331	4 mL	2-8 ℃ Protect from light	< 25℃ Protect from light	18 months
OptiVitro® T Cell Serum-free Medium (phenol red-free)	**TE000-N031S**	**100 mL kit**	-	-	-
OptiVitro® T Cell Serum-free Basal Medium (phenol red-free)	BA0041S	100 mL (bottle)	2-8 ℃ Protect from light	< 25℃ Protect from light	12 months
OptiVitro® Immune Cell Serum-free Medium Supplement UE01	BA0331S	0.8 mL	2-8 ℃ Protect from light	< 25℃ Protect from light	18 months

PERFORMANCE, APPLICATION AND HANDLING RECOMMENDATIONS

1. Store cell culture medium in a dark environment, ideally in colored packaging to protect it from light exposure.

2. During transport, avoid prolonged exposure to fluorescent or other types of lighting to prevent discoloration.

3. For transport to sterile areas, implement thorough cleaning and sterilization methods, such as disinfectant wiping (avoid UV sterilization).

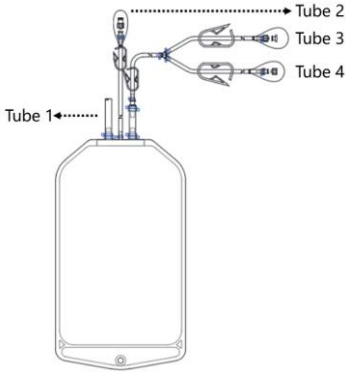
4. For transfer through UV-sterilized windows, switch off UV lamps in advance.

INSTRUCTION FOR USE

Prepare media

1. **Bottle format:** Under a sterile laminar flow hood, combine 4 mL/8 mL of OptiVitro® Immune Cell Serum-free Medium Supplement UE01 with 500 mL/1000 mL of OptiVitro® T Cell Serum-free Basal Medium (Phenol Red-Free). Mix well and ensure the caps are replaced tightly.

2. **Bag format:** Aseptically inject the contents of OptiVitro® Immune Cell Serum-free Medium Supplement UE01 into the bag of OptiVitro® T Cell Serum-free Basal Medium (Phenol Red-Free) using a sterile syringe through the designated ports. Mix well by shaking the bag.



Tube	Description	Remark
Tube 1	C-flex tubing, sealed end	/
Tube 2	Silicone tubing with acupuncture sampling port	For sterile sampling
Tube 3	0.122”ID x 0.161” OD PVC tubing with Male Luer taper and Female cap	For connecting culture bags through Luer taper or PVC welding
Tube 4	0.122”ID x 0.161” OD PVC tubing with Female Luer taper and Male cap	

Cell Culture

1. Prepare fresh peripheral blood mononuclear cells (PBMCs) or rapidly thaw frozen vials in a 37°C water bath.

2. Centrifuge cells at 400×g for 10 minutes and remove the supernatant.

3. Resuspend PBMCs at a concentration of 0.5-1×10^6 cells/mL in the complete medium supplemented with cytokines such as IL-2, IL-7, or 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℃ incubator with 5% CO_2.

6. Feed and adjust the cell concentration to 0.5-1×10^6 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.

【Note】

Use the complete OptiVitro® T Cell Serum-free Medium (Phenol Red-Free) within two weeks for optimal results.

DISCLAIMER

1. The product should be used according to the instructions in the manual. If the experimenter fails to operate according to the instructions, our company will not be responsible for any deviation in product performance caused by this.

2. The product is only used for scientific research and commercial production, and is not suitable for clinical diagnosis and treatment. Otherwise, all consequences arising shall be borne by the experimenter, and our company shall not be responsible.