

User Manual

OriCell™ Complete Medium For Human Umbilical Cord Mesenchymal Stem Cells (Without EXO)

Catalog No. HUXUC-90012



Introduction

Exosomes are a kind of vesicles secreted by cells to the outside of the cell, which contain rich contents, including lipids, nucleic acids, proteins, etc. Exosomes are widely found in various body fluids of mammals, including blood, lymph, milk, etc. FBS products for cell culture do not remove exosomes during the production process, so they cannot be used for exosome research in cells.

The serum component we used from the product (OriCell™ Complete Medium For Human Umbilical Cord Mesenchymal Stem Cells, Cat. No.: HUXUC-90011) has undergone ultracentrifugation and multiple filtration steps to remove the exosomes. This process effectively retains the nutrients in the serum, making it suitable for cell culture. By culturing cells with this product, we can obtain abundant and high-purity exosomes.

Note: This product is intended for research use only and is not for diagnostic, therapeutic, clinical, household, or any other applications.

When citing our products in academic publications, please use the following format: “OriCell™ [Product Name] + [Catalog Number], from Cyagen Biosciences.”

Product Information

Components	Catalog Number	Volume
OriCell™ Basal Medium For Cell Culture	BLDM-03011	450 mL
OriCell™ Fetal Bovine Serum Without EXO + Culture Supplement (For Human Umbilical Cord Mesenchymal Stem Cells)	HUXUC-05002	50 mL

QC

- Pass the detection of bacteria, fungi, mycoplasma and endotoxins.
- Pass the detection of osmotic pressure and pH.
- Pass the detection of product quality.

Please refer to "COA" for details.

General Handling Principles

1. Maintain strict aseptic technique. Ensure complete sterility throughout all procedures, particularly within the laminar flow hood and incubator.
2. Follow standardized protocols. Adhere strictly to the product manual instructions. Implement rigorous control over experimental variables and include appropriate parallel controls.
3. Ensure proper storage and use. Store all components according to specified conditions and use them promptly to ensure optimal performance.
4. Aliquot for long-term storage. If the entire volume will not be used up immediately, prepare the medium in batches according to the specified component volume ratios and store in aliquots.

Product Stability and Storage Conditions

1. All components must be stored away from light.
2. The basal medium has a shelf life of 1 year and should be stored at 4 °C. Other components have a shelf life of 2 years and should be stored at -20 °C.
3. Once prepared, the medium has a shelf life of 1 month when stored at 4 °C. The shelf life may be extended up to a maximum of 45 days, provided that culture conditions remain stable, the container is properly sealed, and repeated temperature fluctuations are avoided.
4. Use all components before the expiration dates. Expired components may severely compromise culture performance.

Preparation of Complete Medium

Materials Required

- OriCell™ Complete Medium For Human Umbilical Cord Mesenchymal Stem Cells (Without EXO) (Cat. No.: HUXUC-90012)
- Clean, sterile and stable quality disposable consumables (pipettes, pipette tips, centrifuge tubes, etc.)
- Clean sealing film
- Aluminum foil and other light-avoiding materials

Steps

1. At least 6 hours before preparation, place the OriCell™ Fetal Bovine Serum without EXO + Culture Supplement (Cat. No.: HUXUC-05002) in a refrigerator at 4°C to allow it to thaw completely.

Note: Flocs may appear in the thawed serum, the main component of which is fibrin, which

will not affect the product performance. If floc persists, it can be removed by filtration using a 0.45 μm filter when collecting exosomes.

2. Carefully wipe the outer packaging of all ingredients with 75% ethanol. Open the package inside a clean bench (laminar flow hood).
3. Add all of the supplement (Cat. No.: HUXUC-05002) to OriCell™ Basal Medium For Cell Culture (Cat. No.: BLDM-03011).
4. Tighten the cap of the basal medium bottle and swirl the bottle gently to mix thoroughly.

Note:

- 1) If the medium will not be used up immediately, we recommend preparing in batches. Please prepare the required amount according to the ratio of each component in the kit. Any remaining components must be stored according to their respective storage conditions and should not be subjected to multiple freeze-thaw cycles.
 - 2) Please choose whether to add antibiotics (e.g., Penicillin/Streptomycin) according to your own needs. If required, it should be prepared or purchased separately.
5. Seal the bottle with Parafilm, wrap it in aluminum foil to protect from light, and label it with the product name, preparation date, and other relevant information.

Note:

- 1) All components in OriCell™ Complete Medium For Human Umbilical Cord Mesenchymal Stem Cells (Without EXO) are strictly aseptically controlled. Under normal circumstances, we do not recommend sterilization again. If there is a risk of contamination during the preparation process, the complete medium can be filtered and sterilized.
- 2) This product is not suitable for long-term culture and expansion of cells. Please replace the ordinary complete medium with this product when preparing to collect exosomes.

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