Version Date: 02/21/25

Product Summary

Human iPSC Growth Media Kit

Catalog Number: MR1001-K

Product Overview	
Product Name	**Human iPSC Growth Media Kit**
Catalog #	MR1001-K
Quantity	500 mL (base media) / 7mL (growth supplement)
Product Form	Liquid
Cell Species	Human Induced Pluripotent Stem Cells
Reagents Needed	Penicillin/Streptomycin/Amphotericin B solution or Penicillin/Streptomycin solution, 100X (not included)[1]

Product Description

Human iPSC Growth Media Kit

Our Human iPSC Growth Media Kit is a high-performance, serum-free, and xeno-free growth media specifically designed to support the culture and expansion of human induced pluripotent stem cells (iPSCs). This universal, defined media is compatible with a range of extracellular matrices, including Vitronectin XF, Geltrex, and Matrigel, ensuring flexibility for your stem cell research.

This complete, ready-to-use iPSC media is formulated to maintain pluripotency by minimizing cell differentiation and promoting robust, healthy growth. The formulation also prevents cell death, enhancing the reliability of your iPSC cultures. No additional reagents or additives are required, making it easy to use while ensuring reproducible, high-quality results.

Key Features & Benefits:

- Universal, defined media compatible with Vitronectin XF, Geltrex, and Matrigel matrices.
- Serum-free and xeno-free for a safer, more consistent culture environment.
- Promotes robust iPSC growth while minimizing differentiation and preventing cell death.
- Ready-to-use, no additional additives required.
- Ideal for pluripotent stem cell maintenance, stem cell research, and regenerative medicine applications.

Recommended Uses of iPSC Growth Media Kit:

- iPSC culturing with any of the following products
  - Normal iPS Cell Lines
    - Human Amniotic Membrane Derived iPSC CR1018-500
    - Human CD34+ Derived iPSCs CR1003-500
    - Human Foreskin Fibroblast iPSCs CR1001-500
    - Human Multipotent iPSCs CR1002-500
  - CET Disease Model iPS Cell Lines
  - Your iPS Cell line of choice

Components:

- iPS Induced Pluripotent Stem Cell Basal Media (500mL)
- iPS Growth Supplement (7mL)

This kit is shipped with gel packs and the supplement is shipped with dry ice for optimal storage and transportation.

Product Image

FOR RESEARCH APPLICATIONS ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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Note: This product has been tested to function with human fibroblasts of low passage numbers or nucleated fractions of whole blood. Although investigators are welcome to use this product with other cell products, CET cannot and will not guarantee this product's performance. Additionally, using third-party cell lines with this product will void CET's warranty should they not function as indicated. Please refer to CET's Terms & Conditions, available at www.cet.bio.

Media Formulation Instructions	
Defrosting / Preparation	Defrost iPS Growth Supplement at 4°C twenty-four hours before the media is to be prepared and 5mL of antibiotic/antimycotic solution (not included) in a 37°C water bath until ice in the tubes is no longer visible. Never defrost the iPS Growth Supplement using a 37°C water bath. It is normal for iPS Growth Supplement to appear hazy or have suspended solutes. Gently mix by inversion. Immediately disinfect the tubes and the bottle containing the iPS Base Media with 70% isopropanol (not included).
Mixing	Working in a laminar flow hood, remove 12mL of the iPS Base Media from the bottle and discard it. This and all other procedures must be done in a sterile manner. Add the complete contents of the iPS Growth Supplement to the iPS Base Media. Add 5mL of the antibiotic/antimycotic solution to the iPS Base Media[1]. Cap the bottle containing the mixed liquid solution and gently swirl it a few times. This formulated media is now considered complete and ready to use with cells.

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Cell Thawing Instructions (with CET Induced Pluripotent Stem Cell Products[2] *not included*)	
Thawing	Remove the vial of CET Induced Pluripotent Stem Cells[2] from dry ice. Defrost the vial of cells in a 37°C water bath with constant, moderate agitation until ice in the ampoule is barely visible. DO NOT OVERTHAW. Immediately disinfect the vial with 70% isopropanol (not included).
Plating	Working in a laminar flow hood, open the vial and transfer the contents to a sterile 15 mL tube. Very slowly, add approximately 10mL of complete media (see Media Formulation Instructions), pre-warmed to 37°C. Centrifuge the suspended cells at 200 x g for 5 minutes. Decant the medium and gently resuspend the pellet in 10mL of complete media (see Media Formulation Instructions), then transfer to a pre-coated cell culture dish (not included).
Observation	As a general rule, cells should be fed with fresh complete media every 24 hours, and old media should be discarded before new complete media is added. Observe the cells microscopically to estimate cell viability and then place the flask in an incubator at 37°C, 5% CO_2, and 90% humidity. Cells will be ready to pass between 3-7 days. Cells should be sub-cultured at a density of 5,000 to 10,000 cells/cm or desired plating density.

Storage and Stability		
	Storage Temperature	**Storage Time**
Human iPS Cell Growth Media Kit	4°C	3 months
complete media *(see Media Formulation Instructions)*	4°C	Not applicable
CET Induced Pluripotent Stem Cell Products[2] (not included)	-80°C (preferably in the vapor phase of a liquid nitrogen storage unit)	12 months
Avoid repeated exposure to room temperature and light.		

[1] These solutions should be portioned in 5mL aliquots, stored at -20C, and never frozen/thawed. Although antimycotics are not necessary, CET highly recommends their usage for long-term cell culture. Antibiotics and antimycotics should not be used as an alternative to proper aseptic techniques.

[2] CET Induced Pluripotent Stem Cell Products include CR1001-500 Human Foreskin Fibroblast iPS Cells, CR1002-500 Human Multipotent iPS Cells, CR1003-500 Human CD34+ iPS Cells, and CR1018-500 Human Amniotic Membrane iPS Cells.

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