

Product Information Sheet
Human Mesenchymal Stem Cell Expansion Media
Catalog Number: MR1016

Product Overview	
Product Name	Human Mesenchymal Stem Cell Expansion Media
Catalog #s	MR1016
Quantity	450 mL
Product Form	Liquid
Cell Species	Human Mesenchymal Stem Cells
Reagents Needed	Customer choice of high-grade or fully defined Fetal Bovine Serum (FBS) (not included) Penicillin/Streptomycin/Amphotericin B solution or Penicillin/Streptomycin solution, 100X (not included) ¹

Product Description
<p>This base media is specifically designed for the high-density growth of Human Adipose-Derived Mesenchymal Stem Cells, Human Amniotic Membrane Mesenchymal Stem Cells, Human Bone Marrow Mesenchymal Stem Cells, and Human Multipotent Unrestricted Somatic Stem Cells. This base media is transfection-compatible with available transfection reagents and maintains high cell viability at high cell densities. Base media does not contain fetal bovine serum (FBS).</p> <p>Base media requires the addition of (i) high-quality or fully defined Fetal Bovine Serum (FBS) and (ii) an antibiotic/antimycotic (recommended) solution to be considered a complete media, which is ready for use.</p> <p>This base media will support robust cell growth and expansion when used as directed. We do not recommend passing stem cells more than 10 passages.</p> <p>Media is shipped with gel packs.</p> <p>Note: This product is designed and tested to function with Cellular Engineering Technologies Inc. ("CET") Mesenchymal cell products CR1004-500 Human Adipose-Derived Mesenchymal Stem Cells (not included), CR1005-500 Human Bone Marrow-Derived Mesenchymal Stem Cells (not included), CR1006-500 Human Amniotic Membrane Derived Mesenchymal Stem Cells (not included) and CR1017-500 Human Multipotent Unrestricted Somatic Stem Cells (not included). 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.celleng-tech.com.</p>



Media Formulation Instructions	
Defrosting / Preparation	Defrost 50mL of FBS (not included) and 5mL of antibiotic/antimycotic solution (not included) in a 37°C water bath until ice in the tubes is no longer visible. Immediately disinfect the tubes and the bottle containing this base media with 70% isopropanol (not included).
Mixing	Working in a laminar flow hood, remove 5mL of the base media from the bottle and discard. This and all other procedures must be done in a sterile manner. Add 50mL of FBS to this base media. Add 5mL of the antibiotic/antimycotic solution to the base media ¹ . Cap the bottle containing the mixed liquid solution and gently swirl a few times. This formulated media is now considered complete media and ready to use with cells.

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

Cell Thawing Instructions (with CET Mesenchymal Stem Cell Product ² <i>not included</i>)	
Thawing	Remove vial of CET Mesenchymal Stem Cell Product 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 into a T-25 (25 cm ²) cell culture flask (not included).
Observation	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 Mesenchymal Stem Cell Expansion Media	4°C	3 months
complete media (see Media Formulation Instructions)	4°C	Not applicable
<i>Avoid repeated exposure to room temperature and light.</i>		

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 Mesenchymal Stem Cell Product includes CR1004-500 Human Adipose-Derived Mesenchymal Stem Cells, CR1005-500 Human Bone Marrow-Derived Mesenchymal Stem Cells, CR1006-500 Human Amniotic Membrane-Derived Mesenchymal Stem Cells and CR1017-500 Human Multipotent Unrestricted Somatic Stem Cells.