




Product Sheet


# Mesenchymal Stem Cell Growth Kit for Adipose and Umbilical-derived MSCs - Low Serum (ATCC® PCS-500-040™)

Please read this FIRST



Storage Temp.  
**-20°C (or -70°C for long-term storage)**

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Biosafety Level  
**1**

## Description

### Product Description:

Mesenchymal Stem Cell Growth Kit for Adipose and Umbilical-derived MSCs –Low serum (ATCC® PCS-500-040) contains components that when added to Mesenchymal Stem Cell Basal Medium (ATCC PCS-500-030) create a complete ATCC Primary Cell Solutions™ culture environment for multipotent stem cells derived from normal human tissues including lipoaspirates (e.g., Adipose-Derived Mesenchymal Stem Cells; Normal, Human, ATCC PCS-500-011) or umbilical cord (Umbilical Cord-Derived Mesenchymal Stem Cells; Normal, Human, ATCC PCS-500-010). The low serum (2% FBS) medium formulation is designed to support normal, undifferentiated mesenchymal stem cell morphology as well as promote rapid growth and proliferation. No feeder layers, extracellular matrix proteins or other substrates are required.

Volume: 1 Kit

## Directions for Use

### Unpacking and Storage Instructions

1. Check all containers for leakage or breakage.
2. Store the growth kit(s) at either -20°C in a freezer that is not self-defrosting or at -70°C for long-term storage. If thawed upon arrival, the Growth Kit can be stored at 2°C to 8°C and added to the basal medium within 72 hours of receipt.

### Preparation of Complete Growth Media

1. Obtain one Mesenchymal Stem Cell Growth Kit for Adipose and Umbilical-derived MSCs - Low Serum from the freezer; make sure that the caps of all components are tight.
2. Thaw the components of the growth kit just prior to adding them to the basal medium.
3. Obtain one bottle of Mesenchymal Stem Cell Basal Medium (485 mL) from cold storage.
4. Decontaminate the external surfaces of all growth kit component vials and the basal medium bottle by spraying them with 70% ethanol.
5. Using aseptic technique and working in a laminar flow hood or biosafety cabinet, transfer the indicated volume of each growth kit component, as indicated in Table 1, to the bottle of basal medium using a separate sterile pipette for each transfer.

**Table 1.** Mesenchymal Stem Cell Growth Kit for Adipose and Umbilical-derived MSCs - Low Serum Components

Component	Volume	Final Concentration
MSC Supplement	10 mL	2% FBS 5 ng/mL rh FGF basic 5 ng/mL rh FGF acidic 5 ng/mL rh EGF
L-Alanyl-L-Glutamine	6 mL	2.4 mM

Antimicrobials and phenol red are not required for proliferation but may be added if desired. The recommended volume of each **optional** component to be added to the complete growth media is summarized in Table 2.

**Table 2.** Addition of Antimicrobials/Antimycotics and Phenol Red (Optional)

Component	Volume	Final Concentration
Gentamicin-Amphotericin B Solution	0.5 mL	Gentamicin: 10 µg/mL Amphotericin B: 0.25 µg/mL
Penicillin-Streptomycin-Amphotericin B Solution	0.5 mL	Penicillin: 10 Units/mL Streptomycin: 10 µg/mL Amphotericin B: 25 ng/mL
Phenol Red	0.5 mL	33 µM

6. Tightly cap the bottle of complete growth medium and swirl the contents gently to assure a homogeneous solution. Do not shake forcefully to avoid foaming. Label and date the bottle.
7. Complete growth media should be stored in the dark at 2°C to 8°C (do not freeze). When stored under these conditions, complete growth media is stable for two weeks.

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## Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.

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