



# Mesenchymal Stem Cell Growth Kit for Bone Marrow-derived MSCs

PCS-500-041<sup>TM</sup>

## Description

Mesenchymal Stem Cell Growth Kit for Bone Marrow-derived MSCs contains components that when added to Mesenchymal Stem Cell Basal Medium for Adipose, Umbilical and Bone Marrow-derived MSCs create a complete culture environment for multipotent stem cells derived from normal human bone marrow (eg, Bone Marrow-derived MSCs, ATCC PCS-500-012). The serum (7% FBS) medium formulation is designed to support normal, undifferentiated mesenchymal stem cell morphology and promote rapid growth and proliferation. No feeder layers, extracellular matrix proteins, or other substrates are required.

**Shipping information:** 1 kit

---

## Storage Conditions

**Product format:** Frozen

**Storage conditions:** -20°C or colder, -70°C for long-term storage

---

## Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

---

## Biosafety Information

# Mesenchymal Stem Cell Growth Kit for Bone Marrow-derived MSCs

PCS-500-041

ATCC determined that a biosafety level is not applicable to this material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to complete your own risk assessment and understand any potential hazards associated with the material per your organization's policies and procedures and any other applicable regulations as enforced by your local or national agencies.

---

## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

---

## Handling Procedures

### 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 Bone Marrow-derived MSCs 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

## Mesenchymal Stem Cell Growth Kit for Bone Marrow-derived MSCs

PCS-500-041

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 Bone Marrow-derived MSCs components

Component	Volume	Final Concentration
FBS	35 mL	7% FBS
rh IGF-1	0.5 mL	15 ng/mL
rh FGF-b	0.5 mL	125 pg/mL
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

# Mesenchymal Stem Cell Growth Kit for Bone Marrow-derived MSCs

PCS-500-041

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.

## Quality Control Specifications

**Bacterial and fungal testing:** Not detected  
**Functional tests:** Rate of proliferation and morphology comparable to control.

## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Mesenchymal Stem Cell Growth Kit for Bone Marrow-derived MSCs (ATCC PCS-500-041)

## References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

## Warranty

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet,

## Mesenchymal Stem Cell Growth Kit for Bone Marrow-derived MSCs

PCS-500-041

website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

---

### Disclaimers

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use. Any proposed commercial use is prohibited without a [license from ATCC](#).

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate or complete and the customer bears the sole responsibility of confirming the accuracy and completeness of any such information.

This product is sent on the condition that the customer is responsible for and assumes all risk and responsibility in connection with the receipt, handling, storage, disposal, and use of the ATCC product including without limitation taking all appropriate safety and handling precautions to minimize health or environmental risk. As a condition of receiving the material, the customer agrees that any activity undertaken with the ATCC product and any progeny or modifications will be conducted in compliance with all applicable laws, regulations, and guidelines. This product is provided 'AS IS' with no representations or warranties whatsoever except as expressly set forth herein and in no event shall ATCC, its parents, subsidiaries, directors, officers, agents, employees, assigns, successors, and affiliates be liable for

## Mesenchymal Stem Cell Growth Kit for Bone Marrow-derived MSCs

PCS-500-041

indirect, special, incidental, or consequential damages of any kind in connection with or arising out of the customer's use of the product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

Please see the material transfer agreement (MTA) for further details regarding the use of this product. The MTA is available at [www.atcc.org](http://www.atcc.org).

---

### Copyright and Trademark Information

© ATCC 2023. All rights reserved.

ATCC is a registered trademark of the American Type Culture Collection.

---

### Revision

This information on this document was last updated on 2024-10-26

---

### Contact Information

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: [tech@atcc.org](mailto:tech@atcc.org) or contact your local distributor

---