Primary Bladder Smooth Muscle Cells; Normal, Human (HBdSMC) (ATCC® PCS-420-012™)

Please read this FIRST

Storage Temp. -130°C or below

Biosafety Level 1

Intended Use

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

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: Primary Bladder Smooth Muscle Cells; Normal, Human (HBdSMC) (ATCC® PCS-420-012™)

Description

Cell Characteristics

Tissue: Bladder

Morphology: spindle-shaped; elongated (non-differentiated)

Growth Properties: Adherent

Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

SAFETY PRECAUTION

ATCC highly recommends that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris.

Unpacking & Storage Instructions

1. Check all containers for leakage or breakage.
2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Preparation of Complete Growth Medium

1. Obtain one vial of Primary Bladder Smooth Muscle Cells (ATCC PCS-420-012) from the freezer; make sure that the caps of all components are tight.
2. Thaw the components of the growth kit (ATCC PCS-100-042) just prior to adding them to the basal medium (ATCC PCS-100-030).
3. Obtain one bottle of Vascular Cell Basal Medium (485 mL; PCS-100-030) 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, into the bottle of basal medium using a separate sterile pipette for each transfer.

Table 1. If using the Vascular Smooth Muscle Cell Growth Kit, add the indicated volume for each of the following components

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
<th>Final Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>rh FGF basic</td>
<td>0.5 mL</td>
<td>5 ng/mL</td>
</tr>
<tr>
<td>L-glutamine</td>
<td>25.0 mL</td>
<td>10 mM</td>
</tr>
<tr>
<td>Ascorbic acid</td>
<td>0.5 mL</td>
<td>50 µg/mL</td>
</tr>
<tr>
<td>rh Insulin</td>
<td>0.5 mL</td>
<td>5 µg/mL</td>
</tr>
<tr>
<td>rh EGF</td>
<td>0.5 mL</td>
<td>5 ng/mL</td>
</tr>
<tr>
<td>Fetal Bovine Serum</td>
<td>25.0 mL</td>
<td>5%</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Volume</th>
<th>Final Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penicillin-</td>
<td>0.5 mL</td>
<td>Penicillin: 10 Units/mL</td>
</tr>
<tr>
<td>Streptomycin-</td>
<td></td>
<td>Streptomycin: 10 µg/mL</td>
</tr>
<tr>
<td>Amphotericin B Solution</td>
<td></td>
<td>Amphotericin B: 25 µg/mL</td>
</tr>
<tr>
<td>Phenol Red</td>
<td>0.5 mL</td>
<td>33 µM</td>
</tr>
</tbody>
</table>
Primary Bladder Smooth Muscle Cells; Normal, Human (HBdSMC) (ATCC® PCS-420-012™)

Intended Use

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

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: Primary Bladder Smooth Muscle Cells; Normal, Human (HBdSMC) (ATCC® PCS-420-012™)

Handling Procedure for Frozen Cells and Initiation of Culture

Pre-warm complete growth media in a 37°C water bath. This will take between 10 to 30 minutes, depending on the volume. If using a small volume of medium (50 mL or less), warm only the volume needed in a sterile conical tube. Avoid warming complete growth media multiple times.

1. Passage normal bladder fibroblast cells when culture has reached approximately 80% confluence.
2. Warm both the Trypsin-EDTA for Primary Cells (ATCC® PCS-999-003) and the Trypsin Neutralizing Solution (ATCC® PCS-999-004) to room temperature prior to dissociation. Warm complete growth medium to 37°C prior to use with the cells.
3. For each flask, carefully aspirate the spent media without disturbing the monolayer.
4. Rinse the cell layer two times with 3 to 5 mL DPBS (ATCC® 30-2200) to remove residual traces of serum.
5. Add pre-warmed trypsin-EDTA solution (1 to 2 mL for every 25 cm²) to each flask.
6. Gently rock each flask to ensure complete coverage of the trypsin-EDTA solution over the cells, and then aspirate the excess fluid off of the monolayer.
7. Observe the cells under the microscope. When the cells pull away from each other and round up (typically within 3 to 5 minutes), remove the flask from the microscope and gently tap it from several sides to promote detachment of the cells from the flask surface.
8. When the majority of cells are detached, quickly add an equal volume of Trypsin Neutralizing Solution to each flask. Gently pipette or swirl the culture to ensure all of the trypsin-EDTA solution has been neutralized.
9. Transfer the dissociated cells to a sterile centrifuge tube and set aside while processing any remaining
Primary Bladder Smooth Muscle Cells; Normal, Human (HBdSMC) (ATCC® PCS-420-012™)

Please read this FIRST

Storage Temp. -130°C or below

Biosafety Level 1

Intended Use

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

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: Primary Bladder Smooth Muscle Cells; Normal, Human (HBdSMC) (ATCC® PCS-420-012™)

Quality Control Specifications

Sterility Testing
Bacteria and Yeast: Negative
Mycoplasma: Negative

Viral Testing
Hepatitis B: Negative

Specific Staining
Alpha Smooth Muscle Actin (+) for differentiated cells, Von Willebrand Factor (-)

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the Biosafety in Microbiological and Biomedical Laboratories from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

Human Material Precaution

All tissues used for isolation are obtained under informed consent and conform to HIPAA standards to protect the privacy of the donor’s personal health information. It is best to use caution when handling any human cells. We recommend that all human cells be accorded the same level of biosafety consideration as cells known to carry HIV. With infectious virus assays or viral antigen assays, even a negative test result may leave open the possible existence of a latent viral genome.

ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

Disclaimers

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

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.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at www.atcc.org.

Additional information on this culture is available on the ATCC web site at www.atcc.org.

© ATCC 2019. All rights reserved. ATCC is a registered trademark of the American Type Culture Collection. [12/19]