Applied Biological Materials Inc.
Telephone:1-866-757-2414
Email:info@abmgood.com
Website:www.abmGood.com

Rat Primary Pulmonary Microvascular Endothelial Cells

Cat.No.	**Unit**
T4802	$5x10^5$ cells / 1.0 ml

Cat. No.	T4802
Name	Rat Primary Pulmonary Microvascular Endothelial Cells
Description	Rat Primary Pulmonary Microvascular Endothelial Cells are isolated from rat lung microvasculature and characterized by typical cobblestone morphology and expression of endothelial-specific markers. These cells provide a physiologically relevant in vitro model for studying pulmonary microvascular function, angiogenesis, vascular permeability, inflammation, and lung disease mechanisms. Cryopreserved and quality-tested, they are suitable for a wide range of respiratory and vascular biology research applications.
Organism	Rat (R. norvegicus)
Tissue	Lung
Donor History	Normal tissue
Growth Properties	Adherent, polygonal
Cell Type	Primary Cells
Unit	$5x10^5$ cells / 1.0 ml
Storage Condition	Vapor phase of liquid nitrogen, or below -130°C.
Shipping Conditions	Ship with dry ice.
Product Format	Frozen
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	II
Certificate of Analysis	For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.abmgood.com.
Growth Conditions	**PriCoat™ T25 Flasks (G299) coated with Gelatin Coating Solution (0.1%) (TM063) are required for optimal cell adhesion and growth.** Endothelial Cell Medium Kit, Low Serum (TM155) + 1% Penicillin/Streptomycin Solution (G255), 37.0°C, 5% CO_2.
Unpacking and Storage Instructions	1. Visually examine the packaging containers for signs of leakage or breakage. 2. Immediately transfer frozen cells from dry ice packaging to a temperature below -130°C, preferably in liquid nitrogen vapor phase storage, until ready for

use.
To ensure the highest level of viability, thaw the vial and initiate culture as soon as possible upon receipt. If continued storage is desired, the vial should only be stored below -130°C or in liquid nitrogen vapor phase. Do not store at -70°C, as it will result in loss of viability.

Thawing Protocol

1. Thaw cells quickly in a 37°C water bath while agitating gently (maximum 2 minutes). The vial cap should be kept above the water level to minimize the risk of contamination.
2. Decontaminate the vial by spraying and wiping the exterior of the vial with 70% ethanol. From this point onwards, all operations should be strictly carried out inside a biological safety cabinet using aseptic conditions.
3. Transfer the cell suspension into a 15ml sterile conical tube containing 8-10ml of pre-warmed, complete growth media. Centrifuge cells at 120xg for 5 minutes.
4. Aspirate the supernatant without disturbing the cell pellet. Re-suspend the cell pellet in 6ml of the recommended pre-warmed, complete growth media and dispense into a T25 culture flask.
5. Incubate the cells at the recommended conditions.
6. Change media the following day to remove non-adherent cells and replenish nutrients.
7. Change media every 24-48 hours, and check cells daily under microscope to verify appropriate cell morphology. Change media every day when cells are >70% confluent. Pre-wash cells with 1X DPBS, No Ca, No Mg (CH110) 1-2 times whenever replacing media.

Subculture Protocol

Volumes given below are for a T25 flask; proportionally increase or decrease the volume as required per culture vessel size. Subculture cells once the culture vessel is 80% confluent.
1. Aspirate the culture media, and wash the adherent layer 1-2 times using 5ml sterile pipette with sterile 1X DPBS, No Ca, No Mg (CH110) to dislodge loosely attached cells and remove fraction. Remove and discard the wash solution from flask.
2. Incubate cells with add 2ml of pre-warmed 0.05% Trypsin-EDTA for 3-5 minutes. As soon as cells detach (may require few firm gentle taps) add 8-10ml of complete culture media supplemented with 10% FBS to neutralize the trypsin.
3. Plate cells in gelatin precoated flasks and incubate the cells at the recommended conditions.
4. Change culture media the following day to remove non-adherent cells and replenish nutrients.
5. Change media every 24-48 hours, and check cells daily under microscope to verify appropriate cell morphology. Change media every day when cells are >70% confluent. Pre-wash cells with 1X DPBS, No Ca, No Mg (CH110) 1-2 times whenever replacing media.

Cryopreservation

We recommend using serum-free CryoGuard™ Freezing Media (TM078).

Split Ratio

1:2

Expression

vWF, CD31

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Applied Biological Materials Inc, Cat. No. T4802.

Warranty

	abm warrants that cell lines shall be viable upon initiation of culture for a period of thirty (30) days after shipment and that they shall meet the specifications on the applicable **abm** Material Product Information sheet, certificate of analysis, and/or catalog description. Such thirty (30) day period is referred to herein as the "Warranty Period".
Disclaimer	1. Sale of this item is subjected to the completion of a Material Transfer Agreement (MTA) by the purchasing individual/institution for each order. If you have any questions regarding this, please contact us at licensing@abmgood.com. 2. All test parameters provided in the CoA are conducted using **abm**'s standardized culture system and procedures. The stated values may vary under the end-user's culture conditions. Please verify that the product is suitable for your studies by referencing published papers or ordering RNA (0.5 µg, Cat.# C207, $450.00) or cell lysate (100 µg, Cat.# C206, $600.00) to perform preliminary experiments, or alternatively use our Gene Expression Assay Service (Cat# C138). All sales are final. 3. We recommend live cell shipments for ease of cell transfer and this option can be requested at the time of ordering. Please note that the end-user will need to evaluate the feasibility of live cell shipment by taking into account the final destination's temperature variation and its geographical location. In addition, we thoroughly test our cell lines for freeze-thaw recovery. If frozen cells were received and not recovered in your lab under the exact, specified conditions (using recommended culture vessel, media, additional supplements, and atmospheric conditions), a live cell replacement is possible at a cost (plus shipping). 4. All of **abm**'s cell biology products are for research use ONLY and NOT for therapeutic/diagnostic applications. **abm** is not liable for any repercussions arising from the use of its cell biology product(s) in therapeutic/diagnostic application(s). Please contact a technical service representative for more information. 5. **abm** makes no warranties or representations as to the accuracy of the information on this site. Citations from literature and provided for informational purposes only. **abm** does not warrant that such information has been shown to be accurate. 6. **abm** warrants that cell lines shall be viable upon initiation of culture for a period of thirty (30) days after shipment and that they shall meet the specifications on the applicable **abm** Material Product Information sheet, certificate of analysis, and/or catalog description. Such thirty (30) day period is referred to herein as the "Warranty Period."
Application	Research Use Only.

Caution: *This product is for research use only and is not intended for therapeutic or diagnostic applications.*

Please contact a technical service representative for more information (1-866-757-2414).