




Product Sheet


# Dermal Cell Basal Medium (ATCC® PCS-200-030™)

Please read this FIRST



Storage Temp.  
**2 to 8°C, protect  
from light**

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Biosafety Level  
**1**

## Description

**Product Description:** Dermal Cell Basal Medium is a sterile, phenol red-free, liquid tissue culture medium intended for use as one component in a complete ATCC Primary Cell Solutions™ system.

This system is designed to support cells (e.g., keratinocytes, melanocytes) derived from normal human epidermis. Dermal Cell Basal Medium contains essential and non-essential amino acids, vitamins, other organic compounds, trace minerals and inorganic salts.

To support the proliferation and plating efficiency of keratinocytes (e.g., Primary Epidermal Keratinocytes, Normal, Human Neonatal Foreskin, ATCC PCS-200-010), Dermal Cell Basal Medium must be supplemented with the Keratinocyte Growth Kit (ATCC PCS-200-040). The complete serum-free (although not animal-free) media is formulated to inhibit fibroblast growth, and the low calcium concentration (0.06 mM) slows differentiation.

To support the proliferation and plating efficiency of melanocytes (e.g., Primary Epidermal Melanocytes, Normal, Human Neonatal, ATCC PCS-200-012 or Primary Epidermal Melanocytes, Normal, Human Adult, ATCC PCS-200-013), Dermal Cell Basal Medium must be supplemented with either the Melanocyte Growth Kit (ATCC PCS-200-041) or the Adult Melanocyte Growth Kit (ATCC PCS-200-042).

Using Dermal Cell Basal Medium supplemented with the appropriate growth kit, the growth of keratinocytes and melanocytes are supported without the use of feeder layers, extracellular matrix proteins or other substrates.

Optional media supplements:

1. Gentamicin-Amphotericin B Solution (ATCC PCS-999-025)
2. Penicillin-Streptomycin-Amphotericin B Solution (ATCC PCS-999-002)
3. Phenol Red (ATCC PCS-999-001)

**Volume:** 485 mL

## Directions for Use

1. Obtain one growth kit 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. It is necessary to warm the L-glutamine component in a 37°C water bath and shake to dissolve any precipitates, prior to adding to the basal medium.
3. Obtain one bottle of Dermal 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 volume of each growth kit component, as indicated in Table 1 or 2, to the bottle of basal medium using a separate sterile pipette for each transfer

**Table 1.** If using the Keratinocyte Growth Kit (ATCC® PCS-200-040), add the indicated volume for each component:

Component	Volume	Final Concentration
Bovine Pituitary Extract (BPE)	2.0 mL	0.4%
rh TGF-a	0.5 mL	0.5 ng/mL
L-Glutamine	15.0 mL	6 mM
Hydrocortisone Hemisuccinate	0.5 mL	100 ng/mL
rh Insulin	0.5 mL	5 mg/mL
Epinephrine	0.5 mL	1.0 mM
Apo-Transferrin	0.5 mL	5 mg/mL

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**Table 2.** If using the Melanocyte Growth Kit (ATCC® PCS-200-041), add the indicated volume for each component:

Component	Volume	Final Concentration
rh Insulin	0.5 mL	5 mg/mL
Ascorbic Acid	0.5 mL	50 mg/mL
L-Glutamine	15.0 mL	6 mM
Epinephrine	0.5 mL	1.0 mM
Calcium chloride	80 mL	0.2 mM
M8 Supplement	5 mL	Proprietary formulation

**Table 3.** If using the Adult Melanocyte Growth Kit (ATCC® PCS-200-042), add the indicated volume for each component:

Component	Volume	Final Concentration
rh Insulin	0.5 mL	5 mg/mL
Ascorbic Acid	0.5 mL	50 mg/mL
L-Glutamine	15.0 mL	6 mM
Epinephrine	0.5 mL	1.0 mM
Calcium Chloride	840 mL	1.5 mM
Peptide Growth Factor	1.0 mL	Proprietary formulation
M8 Supplement	5 mL	Proprietary formulation

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 media is summarized in Table 4.

**Table 4.** Addition of Antimicrobials/Antibiotics 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

- 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.
- Complete growth media should be stored in the dark at 2°C to 8°C (do not freeze). When stored under these conditions, complete media is stable for 30 days.

### Quality Control Specifications

**Cell testing:** Rate of proliferation and morphology.

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### 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.

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### 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.

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Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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A black rectangular box with white text and icons. The top section features a thermometer icon, the text "Storage Temp.", and "2 to 8°C, protect from light". A horizontal dashed line separates this from the bottom section, which features a biohazard icon, the text "Biosafety Level", and "1".

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