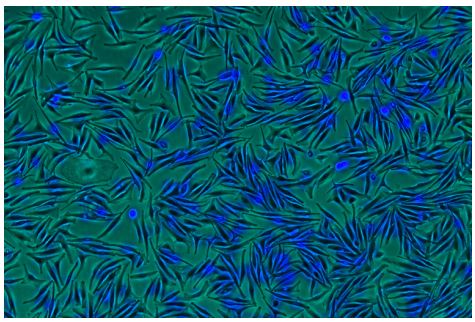
ATCC® PRIMARY CELL SOLUTIONS™



MELANOCYTES

ATCC® Normal Human Primary Epidermal Melanocytes from Neonatal Foreskin, when grown in Dermal Cell Basal Medium supplemented with Melanocyte Growth Kit components, provides an ideal cell system for propagation in low-serum (less than 1.0% FBS) conditions in the absence of cholera toxin and phorbol 12-myristate 13-acetate (PMA).

Each lot of ATCC® Normal Human Primary Epidermal Melanocytes is:

- Cryopreserved in the second passage to ensure the highest viability and plating efficiency.
- Performance tested together with ATCC® Primary Cell Solutions™ media, kit supplements and reagents to guarantee optimum reliability.
- Thoroughly tested for sample purity as part of the ATCC commitment to quality.

Applications for use might include research related to melanoma; dermal response to UV radiation; psoriasis and other skin diseases; skin trauma (e.g., wound repair, scars, burns); and cosmetic research (e.g., skin lightening compounds, skin protecting compounds).

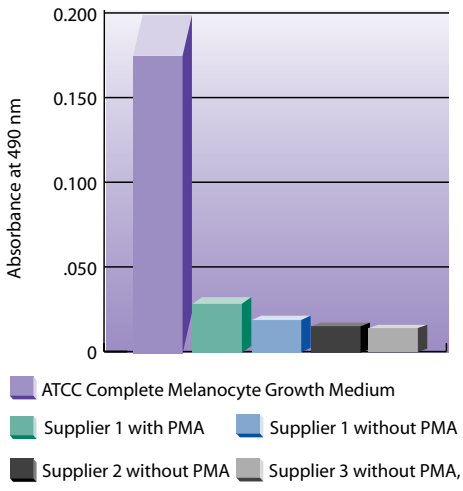
OPTIMIZED GROWTH MEDIUM MAKES A DIFFERENCE

Primary melanocytes are effectively supported by the complete ATCC® Primary Cell Solutions™ dermal cell system consisting of Dermal Cell Basal Medium supplemented with the Melanocyte Growth Kit. This unique formulation — without cholera toxin or PMA —is designed to produce cultures with:

- Functional expression of relevant biomarkers;
- Normal morphology; and
- Superior growth rates.

Use of this complete system eliminates the need for additional components such as feeder layers, extracellular matrix proteins or other substrates to enhance attachment and proliferation.

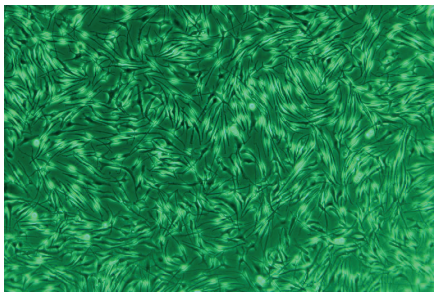
Melanocytes Grown in Different Brands of Low Serum or Serum-Free Media: Levels of L-DOPA Oxidase Activity



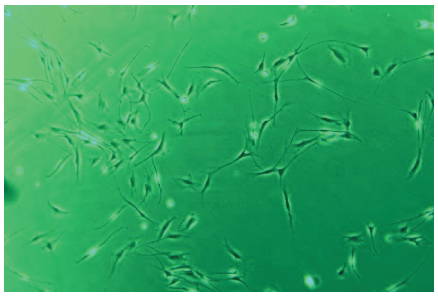
ATCC Primary Cell Solutions melanocytes were taken from liquid nitrogen and cultures initiated. The cells were grown for 4 days and then seeded in triplicate into a 24-well plate at 2,500 cells/cm^2 and grown for 6 days in different brands of low serum or serum-free media plus or minus PMA. The medium was not changed during the incubation period. L-DOPA Oxidase activity was measured by adding 500 µl of assay buffer, 300 µl MBTH reagent, and 200 µl of 5 mM L-DOPA to each well, incubating for 30 min at 37°C, and then measuring absorbance at 490 nm using a Wallac VICTOR2™ MultiLabel Counter. The higher the absorbance at 490 nm, the greater the level of tyrosine activity, a functional marker for melanocytes.

Comparison of Melanocyte Morphology and Cell Density in Different Medias*

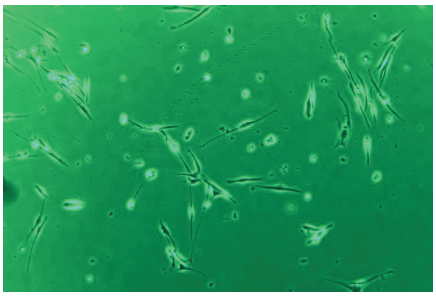
ATCC Complete Melanocyte Growth Medium



Supplier 1 Medium without PMA



Supplier 2 Medium without PMA.



* Day 6 of the L-DOPA Oxidase functional biomarker experiment.

Growth Rate Comparison: Primary Melanocytes Cultured in Different Brands of Medium (21.2 Days)*

Medium	Number of Doublings	Average Doubling Time (hrs)	Number of Passages
ATCC Complete Melanocyte Growth Medium	15	33.5	4
Supplier 1 Medium without PMA	7	73.6	3
Supplier 2 Medium without PMA	5.5	88.9	3

*This experiment was conducted while various lots of ATCC® Primary Cell Solutions™ melanocytes were undergoing QC testing. When the QC-specification for population doublings was achieved (15) the experiment was concluded at the end of 21.2 days of testing.

Ordering Information

To achieve the best possible results, we suggest that you order a complete system for each cell type:

Primary Cells 1 + **Media** 2 + **Growth Kits** 3 + **Reagents** 4 = **Great Data (A Perfect 10)** 10

PUTTING ALL THE PIECES TOGETHER ADDS UP TO YOUR SUCCESS.

	Product Name	Components	Price	Catalog No.
1	Primary Epidermal Melanocytes; Normal, Human Neonatal	≥ 5 x 10^5 viable cells	$459	PCS-200-012
2	Dermal Cell Basal Medium	485 ml	$44	PCS-200-030
3	Melanocyte Growth Kit	1 kit	$104	PCS-200-041
4	Phenol Red	1 ml	$22	PCS-999-001
4	Penicillin-Streptomycin-Amphotericin B Solution	1 ml	$22	PCS-999-002
4	Trypsin-EDTA for Primary Cells	100 ml	$24	PCS-999-003
4	Trypsin Neutralizing Solution	100 ml	$24	PCS-999-004
4	Gentamicin-Amphotericin B Solution	1 ml	$22	PCS-999-025
4	Dulbecco's Phosphate Buffered Saline (D-PBS)	500 ml	$12	ATCC 30-2200

Additional cells/cell types will be added in the coming months.
Visit us online at **www.atcc.org** to bookmark the primary cell page for easy reference.

SUPERIOR QUALITY. EXPERT SUPPORT. RELIABLE RESULTS.

For more information or to order:

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