



Product Sheet

# RWPE-2 (ATCC® CRL-11610™)

Please read this **FIRST**



Storage Temp.  
**liquid nitrogen**  
vapor phase

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Biosafety Level  
**2**

## Intended Use

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

## Complete Growth Medium

The base medium for this cell line is provided by Invitrogen (GIBCO) as part of a kit: Keratinocyte Serum Free Medium (K-SFM), Kit Catalog Number 17005-042. This kit is supplied with each of the two additives required to grow this cell line (bovine pituitary extract (BPE) and human recombinant epidermal growth factor (EGF). To make the complete growth medium, you will need to add the following components to the base medium:

- 0.05 mg/ml BPE - provided with the K-SFM kit
- 5 ng/ml EGF - provided with the K-SFM kit. NOTE: Do not filter complete medium.

## Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: RWPE-2 (ATCC® CRL-11610™)

## Description

**Organism:** *Homo sapiens*, human

**Tissue:** prostate

**Disease:** normal

**Cell Type:** epithelial

**Gender:** male

**Morphology:** epithelial

**Growth Properties:** adherent

**Isoenzymes:**

AK-1, 1

ES-D, 2

G6PD, B

GLO-I, 1-2

Me-2, 0

PGM1, 2

PGM3, 1

**DNA Profile:**

Amelogenin: X,Y

CSF1PO: 13

D13S317: 8,14

D16S539: 9,11

D5S818: 12,15

D7S820: 10,11

THO1: 8,9.3

TPOX: 8,11

vWA: 14,18

**Cytogenetic Analysis:** At passage 14, a majority of the cells were in the near diploid range (48-54), with the main population being 51, XY.

## 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.

## Handling Procedure for Frozen Cells

To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes).
2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.
3. It is recommended that the cryoprotective agent be removed immediately. Centrifuge the cell suspension at approximately 125 x g for 5 to 7 minutes. Discard the supernatant and resuspend the cell pellet in an appropriate amount of fresh growth medium.
4. Transfer the vial contents to an appropriate size vessel. It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).



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5. Incubate the culture at 37°C in a suitable incubator. A 5% CO<sub>2</sub> in air atmosphere is recommended if using the medium described on this product sheet.



## Handling Procedure for Flask Cultures

The flask was seeded with cells (see specific batch information) grown and completely filled with medium at ATCC to prevent loss of cells during shipping.

1. Upon receipt visually examine the culture for macroscopic evidence of any microbial contamination. Using an inverted microscope (preferably equipped with phase-contrast optics), carefully check for any evidence of microbial contamination. Also check to determine if the majority of cells are still attached to the bottom of the flask; during shipping the cultures are sometimes handled roughly and many of the cells often detach and become suspended in the culture medium (but are still viable).
2. **If the cells are still attached**, aseptically remove all but 5 to 10 mL of the shipping medium. The shipping medium can be saved for reuse. Incubate the cells at 37°C in a 5% CO<sub>2</sub> in air atmosphere until they are ready to be subcultured.
3. **If the cells are not attached**, aseptically remove the entire contents of the flask and centrifuge at 125 x g for 5 to 10 minutes. Remove shipping medium and save. Resuspend the pelleted cells in 5 mL of this medium and add to 25 cm<sup>2</sup> flask. Incubate at 37°C in a 5% CO<sub>2</sub> in air atmosphere until cells are ready to be subcultured.



## Subculturing Procedure

Volumes are given for a 75 cm<sup>2</sup> flask. Increase or decrease the amount of dissociation medium needed proportionally for culture vessels of other sizes.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with Ca<sup>++</sup>/Mg<sup>++</sup> free Dulbecco's phosphate-buffered saline (D-PBS).
3. Add 2.0 to 3.0 mL (to a T-25 flask) or 3.0 to 4.0 mL (to a T-75 flask) of 0.05% Trypsin - 0.53mM EDTA solution, diluted 1:1 with D-PBS, and place flask in a 37C incubator for 5 to 8 minutes. Observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 10 minutes).  
Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach.
4. Add 6.0 to 8.0 mL of 0.1% Soybean Trypsin Inhibitor (ATCC® 30-2104™) or 2% fetal bovine serum in D-PBS, as appropriate, and aspirate cells by gently pipetting.
5. Transfer cell suspension to centrifuge tube and spin at approximately 125 x g for 5 to 7 minutes.
6. Discard supernatant and resuspend cells in fresh serum-free growth medium. Add appropriate aliquots of cell suspension to new culture vessels. An inoculum of 2 x 10<sup>4</sup> to 4 X 10<sup>4</sup> viable cells/cm<sup>2</sup> is recommended.
7. Incubate cultures at 37°C. We recommend that you maintain cultures at a cell concentration between 4 x 10<sup>4</sup> and 8 X 10<sup>4</sup> cells/cm<sup>2</sup>.

Cells grown under serum-free or reduced serum conditions may not attach strongly during the 24 hours after subculture and should be disturbed as little as possible during that period.

**Subcultivation Ratio:** A subcultivation ratio of 1:3 to 1:5 is recommended

**Medium Renewal:** Every 2 days



## Cryopreservation Medium

Complete growth medium described above supplemented with 7.5% (v/v) DMSO. Cell culture tested DMSO is available as ATCC 4-X.



## Comments

RWPE-2 cells form small colonies in soft agar and form tumors when injected into nude mice. Further, a family of tumorigenic cell lines, that mimics multiple steps in prostate cancer progression, was also derived from RWPE-1 cells by exposure to N-methyl-N-nitrosourea (MNU). See the WPE1-NA22 (ATCC CRL-2849), WPE1-NB14 (ATCC CRL-2850), WPE1-NB11 (ATCC CRL-2851) and WPE1-NB26 (ATCC CRL-2852) cell lines. The depositor reports that the RWPE-1 cell line (ATCC CRL-11609) was screened, and found negative for, Hepatitis B virus, Hepatitis C virus and Human immunodeficiency virus. [ref](#)



## References

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



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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.

## ATCC Warranty

ATCC® products are warranted for 30 days from the date of shipment, and this warranty is valid only if the product is stored and handled according to the information included on this product information sheet. If the ATCC® product is a living cell or microorganism, ATCC lists the media formulation that has been found to be effective for this product. 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 product. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

## Disclaimers

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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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