Description

Organism: Homo sapiens, human
Tissue: prostate
Disease: normal
Cell Type: epithelial
Age: 54 years adult
Gender: male
Morphology: epithelial
Growth Properties: adherent
Virus Susceptibility:
Viral Testing: ATCC confirmed this cell line is positive for the presence of HPV viral DNA sequences via PCR.
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

Cyto genetic Analysis: At passage 32, a majority of the cells were in the diploid range (45-51) with two main populations: 45, X,Y and 51, XY.

SAFETY PRECAUTION

Unpacking & Storage Instructions

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 submerged 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 10 minutes. Discard the supernatant and resuspend the
Transfer the cells 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).

Incubate the culture at 37°C in a suitable incubator. A 5% CO₂ in air atmosphere is recommended if using the medium described on this product sheet.

Upon receipt visually examine the culture for macroscopic evidence of any microbial contamination. Discard supernatant and resuspend cells in fresh serum-free growth medium.

Biosafety Level

Transfer cell suspension to centrifuge tube and spin at approximately 125 x g for 5 to 7 minutes.

Briefly rinse the cell layer with Ca++/Mg++ free Dulbecco’s phosphate-buffered saline (D-PBS).

Pipette and produce PSA.

In 3-dimensional Matrigel culture, RWPE-1 cells organize into acini and secrete PSA into the lumen when exposed to androgen. ref

When injected with Matrigel or with stromal cells, into male athymic rodents, RWPE-1 cells also organize into acini ref and produce PSA.

Cells from the RWPE-1 cell line were further transformed by Ki-ras using the Kirstin murine sarcoma virus (Ki-MuSV) to establish the tumorigenic RWPE-2 cell line (ATCC CRL-11610) ref and the RWPE2-W99 (ATCC CRL-2853) cell line.

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-
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. ATCC confirmed this cell line is positive for the presence of HPV viral DNA sequences via PCR.

References and other information relating to this product are available online at www.atcc.org.

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.

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**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-1 (ATCC® CRL-11609™)

**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.