Description

Organism: *Mus musculus*, mouse
Immortalization Method: spontaneous
Tissue: Prostate epithelium
Disease: Prostate cancer tumor
Age: 10 month
Gender: Male
Morphology: Epithelial-like

Growth Properties: adherent
Cytogenetic Analysis: Chromosome Count: near 6N (113-125)
Numerical Abnormalities: -1, +4, +10, +14, +15, +16, +17, -Y
Structural Abnormalities: Del(2pter->q12), Del(7q), Del(8q32), Del(10q11), Del(13q21), Del(14q12), Del(15q11)

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in the following manner: PTEN-P8 (ATCC® CRL-3031™)

Shipping Information

frozen

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. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125 x g for 5 to 7 minutes.
4. Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio) and dispense into a new culture flask. 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 complete 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).
5. 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.

Subculturing Procedure

S/C when culture reaches ~70-85% confluence.
A subcultivation ratio of 1:20 to 1:50 is recommended.

1. Remove and discard culture medium.
2. Briefly rinse the cell layer with 0.25% (w/v) Trypsin- 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes).

Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.
4. Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting.
5. Add appropriate aliquots of the cell suspension to new culture vessels. An inoculum of 8.0 X 103 to 1.0 x 104 viable cells/cm2 is recommended.
6. Incubate cultures at 37°C.

Renew medium every 2 to 3 days.

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### Cryopreservation Medium

Complete medium as described above w/ the addition of 10% fetal bovine serum(v/v)and 10% DMSO(v/v)

### Comments

PTEN mutations are one of the the most frequent genetic alterations found in human prostate cancers. This cell line, PTEN-P8, along with its isogenic partner, PTEN-CaP8 was generated to better understand the underlying molecular mechanisms of PTEN in prostate cancer progression and control, as well as the signaling pathways controlled by PTEN. PTEN-P8 is heterozygous for Pten deletion. Down-regulation of the Cre transgene produces very low to undetectable levels of Cre protein expression in this cell line. This cell line was generated from tissue that had not been subjected to hormone ablation therapy and are thus ideal for the study of human refractory prostate cancer formation, as many of the most well-studied human prostate cancer cell lines are from late-stage cancer tissue that has undergone such therapy.

### References

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

### Biosafety Level: 1

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

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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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