**Description**

Organism: *Homo sapiens*, human  
Tissue: prostate; derived from metastatic site: brain  
Disease: carcinoma  
Age: 69 years  
Gender: male  
Morphology: epithelial  
Growth Properties: adherent  
Isoenzymes:  
AK-1, 1  
ES-D, 1  
G6PD, B  
GLO-I, 2  
Me-2, 1-2  
PGM1, 1  
PGM3, 2  
DNA Profile:  
D7S820: 7, 10, 11  
D13S317: 12, 13, 14  
D5S818: 10, 13  
vWA: 17, 18, 19  
TH01: 7  
CSF1PO: 10, 11  
TPOX: 11  
D16S539: 11, 13  
Amelogenin: X, Y  

**Cytogenetic Analysis:** This is a hypotriploid human cell line. Both 61 and 62 chromosome numbers had the highest rate of occurrence in 30 metaphase counts. The rate of higher ploidies was 3%. The t(11q12q), del(11)(q23), 16q+, del(9)(p11), del(1)(p32) and 6 other marker chromosomes were found in most cells. The N13 was usually absent. The Y chromosome is abnormal through translocation to an unidentified chromosomal segment. The X chromosome was present in single copy.

**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 ATCC-formulated Eagle’s Minimum Essential Medium, Catalog No. 30-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

**Citation of Strain**

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: DU 145 (ATCC® HTB-81™)

**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. Discard supernatant.  
4. Resuspend the cell pellet with the recommended complete medium and dispense into a 25 cm² culture flask. It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is
Incubate the culture at 37°C in a suitable incubator. A 5% CO\textsubscript{2} in air atmosphere is recommended if the cells are not 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\textsubscript{2} in air atmosphere until they are ready to be subcultured.

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\textsubscript{2} 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 pellet in 10 mL of this medium and add to 25 cm\textsuperscript{2} flask. Incubate at 37°C in a 5% CO\textsubscript{2} in air atmosphere until cells are ready to be subcultured.

### Complete Growth Medium

The base medium for this cell line is ATCC-formulated Eagle’s Minimum Essential Medium, Catalog No. 4-030-2003. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

### Subculturing Procedure

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).

### 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\textsubscript{2} 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 pellet in 10 mL of this medium and add to 25 cm\textsuperscript{2} flask. Incubate at 37°C in a 5% CO\textsubscript{2} in air atmosphere until cells are ready to be subcultured.

### Medium Renewal:

- 2 to 3 times per week

### Cryopreservation Medium

Complete culture medium described above supplemented with 5% (v/v) DMSO. Cell culture tested DMSO is available as ATCC® Catalog No. 4-X.

### Comments

The line is not detectably hormone sensitive, is only weakly positive for acid phosphatase and isolated cells form colonies in soft agar. The cells do not express prostate antigen. Ultrastructural analyses of both the cell line and original tumor revealed microvilli, tonofilaments, desmosomes, any mitochondria, well developed Golgi and heterogenous lysosomes.

### 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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