**Description**

Organism: *Homo sapiens*, human  
Tissue: urinary bladder  
Disease: transitional cell carcinoma  
Age: 58 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:  
Amelogenin: X,Y  
CSF1PO: 10,11  
D13S317: 10,12  
D16S539: 11,12  
D5S818: 12,13  
D7S820: 9,11  
THO1: 9.3  
TPOX: 11,12  
vWA: 17,18  
Cytogenetic Analysis: The cell line is aneuploid human male (XY), with most chromosome counts in the triploid range. However, the chromosome count range is quite broad, extending from hyperdiploid to hexaploid. Normal chromosomes N11 and N20 are under-represented with respect to the other normal chromosomes: altered forms of these two chromosomes are prominent as marker chromosomes. Chromosome N13 tends towards over-representation. Five marker chromosomes are noted: 20q+, 11q+, 8p+, del(1)(q31), 5p+(HSR). One of these, 20q, is identical to marker chromosome M1 of C. O'Toole, et al., Br. J. Cancer 38: 64, 1978. The remainder are not as clearly related to the original marker chromosomes noted by those authors. Refer to the Certificate of Analysis for batch-specific test results.

**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. Transfer the vial contents to...
Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio), and dispense into a 25 cm² or a 75 cm² 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 sheet.

**Subculturing Procedure**

Volumes are given for a 75 cm² 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 0.25% (w/v) Trypsin-0.53 mM EDTA solution to remove all traces of serum that 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.
6. Incubate cultures at 37°C.

**Medium Renewal**: A subcultivation ratio of 1:2 to 1:10 is recommended

**Subcultivation Ratio**

**Medium Renewal**: 2 to 3 times per week

**Comments**

Electron microscopic examination did not reveal desmosomes but varying amounts of rough endoplasmic reticulum and prominent microfilaments were observed. Contains the ras (H-ras) oncogene.

**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.

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J82 (ATCC® HTB-1™)

Please read this FIRST

Storage Temp.
liquid nitrogen
vapor phase

Biosafety Level
1

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: J82 (ATCC® HTB-1™)