



## Product Sheet

# H1HeLa (ATCC® CRL-1958™)

### Please read this FIRST



### 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 Leibovitz's L-15 Medium, Catalog No. 30-2008. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

(Note: The L-15 medium formulation was devised for use in a free gas exchange with atmospheric air. A CO<sub>2</sub> and air mixture is detrimental to cells when using this medium for cultivation)

### Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: H1HeLa (ATCC® CRL-1958™)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

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Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

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## Description

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

**Tissue:** cervix

**Disease:** adenocarcinoma

**Age:** 31 years

**Gender:** female

**Morphology:** epithelial

**Hela Markers:** Y

**Growth Properties:** adherent

**Virus Susceptibility:**

**Viral Testing:** ATCC confirmed this cell line tested positive for the presence of human papillomavirus (HPV) viral DNA sequences via PCR.

**Isoenzymes:**

G6PD, A

**DNA Profile:**

Amelogenin: X

CSF1PO: 9,10

D13S317: 12,13.3

D16S539: 9,10

D5S818: 11,12

D7S820: 8,12

THO1: 7

TPOX: 8,12

vWA: 16,18

## 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. 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 culture flask.
5. Incubate the culture at 37°C in a suitable incubator in a free gas exchange with atmospheric air

## Handling Procedure for Flask Cultures

### 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



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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 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 xg for 5 to 10 minutes. Remove shipping medium and save. Resuspend the pelleted cells in 10 ml of this medium and add to 25 cm<sup>2</sup> flask. Incubate at 37°C **in air atmosphere** until cells are ready to be subcultured.



### Subculturing Procedure

**Subcultivation Ratio:** A subcultivation ratio of 1:4 to 1:10 is recommended

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

Remove the medium and add fresh 0.25% trypsin, 0.03% EDTA solution, rinse and remove trypsin. Allow the culture to sit for 5 minutes at room temperature. Add fresh culture medium, aspirate and dispense into new flasks.



### Cryopreservation Medium

#### Cryoprotectant Medium

Complete growth medium described above supplemented with 5% DMSO.

Cell culture tested DMSO is available as ATCC® Catalog No. 4-X.



### Comments

The H-Hela cell line was established by V. Hamparian from the HeLa cell line isolated by Gey, et al. (see ATCC CCL-2).

This subline is susceptible to rhinoviruses and is useful for passaging and titrating rhinoviruses.

The line is usually carried as monolayer cultures in Leibovitz's L-15 medium, but can be readily adapted to other media and to suspension culture (in media without Ca<sup>++</sup>).

The H-HeLa line was cured of a mycoplasma contamination by W.M. Lee in Rueckert's laboratory and the cured line was given the designation H1-HeLa.



### References

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



### Biosafety Level: 2

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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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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