ATCC

Product Sheet

NCI-H510A [H510A, NCI-H510] (ATCC® HTB-184™)

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 F-12K Medium, Catalog No. 30-2004. 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: NCI-H510A [H510A, NCI-H510] (ATCC® HTB-184™)

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Manassas, VA 20108 USA
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800.638.6597 or 703.365.2700
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Or contact your local distributor

Description

Organism: *Homo sapiens*, human
Tissue:
lung; derived from metastatic tissue: adrenal gland
Disease: carcinoma; small cell lung cancer; extrapulmonary origin
Age: 56 years
Gender: male
Morphology: epithelial
Growth Properties: mixed, adherent and suspension
DNA Profile:
Amelogenin: X
CSF1PO: 10,12
D13S317: 11,12
D16S539: 13
D5S818: 9,12
THO1: 7,9.3
TPOX: 8
vWA: 15
Cytogenetic Analysis: hypotriploid; modal number = 54; range = 46 to 57. Twenty to 25 marker chromosomes were common to all cells. These included t(13q21q), der(1)t(1;21)(p36.1;q11), der(7)t(7;7)(p22;q22), 11p+, 12p+, and 15p+. Neither DM nor HSR were detected; structurally normal N1, N2, N13 and N21 were absent. Generally, there were 3 copies of both F group chromosomes; the X chromosomes were paired, and structurally normal Y chromosome was not found.

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 10 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 25 cm^2 or a 75 cm^2 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% CO_2 in air atmosphere is recommended if using the medium described on this product.

Subculturing Procedure

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This line grows as a mixture of cells in suspension and adherent cells. Subcultures can be prepared by scraping the adherent cells into the medium, collecting the cells by centrifugation, resuspending in fresh medium and dispensing into new flasks.
Subcultivation Ratio: A subcultivation ratio of 1:3 to 1:8 is recommended
Medium Renewal: 2 to 3 times per week

Cryopreservation Medium

Complete growth medium described above supplemented with 7.5% (v/v) DMSO.
Cell culture tested DMSO is available as ATCC® Catalog No. 4-X.

Comments

The cells produce easily detectable p53 mRNA at levels comparable to those in normal lung tissue.
The line does not exhibit any gross structural DNA abnormalities.
The cells express elevated levels of four biochemical markers of SCLC: neuron specific enolase, the brain isoenzyme of creatine kinase, L-DOPA decarboxylase and bombesin-like immunoreactivity.
The cells form transplantable tumors with typical small cell carcinoma histology.

References

References and other information relating to this product are available online at 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

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. 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 strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.
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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

Additional information on this culture is available on the ATCC web site at www.atcc.org.
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