



## Product Sheet

# K7M2-pCI Neo (ATCC® CRL-2837™)

### 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

Dulbecco's modified Eagle's medium with 4 mM L-glutamine adjusted to contain 1.5 g/L sodium bicarbonate and 4.5 g/L glucose supplemented with 0.8 mg/ml G-418 and 10% fetal bovine serum

### Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: K7M2-pCI Neo (ATCC® CRL-2837™)

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

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
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Or contact your local distributor

## Description

**Organism:** *Mus musculus*, mouse  
**Strain:** BALB/c  
**Tissue:** Derived from metastatic site: lung  
**Disease:** osteosarcoma  
**Cell Type:** osteoblast  
**Morphology:** osteoblast  
**Growth Properties:** adherent

## 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  $-130^{\circ}\text{C}$ , preferably in liquid nitrogen vapor, until ready for use.

## Handling Procedure for Frozen Cells

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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  $-70^{\circ}\text{C}$ . Storage at  $-70^{\circ}\text{C}$  will result in loss of viability.

**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.

1. Thaw the vial by gentle agitation in a  $37^{\circ}\text{C}$  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  $125 \times g$  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  $25 \text{ cm}^2$  or a  $75 \text{ cm}^2$  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  $37^{\circ}\text{C}$  in a suitable incubator. A 5%  $\text{CO}_2$  in air atmosphere is recommended if using the medium described on this product.

## Subculturing Procedure

### Protocol:

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  $37^{\circ}\text{C}$  to facilitate dispersal.
4. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.



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5. Add appropriate aliquots of the cell suspension to new culture vessels.  
An inoculum of  $6 \times 10^3$  to  $8 \times 10^3$  viable cells/sq. cm is recommended.
6. Incubate cultures at 37°C.

**Interval:** Maintain cultures at a cell concentration between  $3 \times 10^4$  and  $1 \times 10^5$  cells/sq. cm

**Subcultivation Ratio:** A subcultivation ratio of 1:4 to 1:6 is recommended

**Medium Renewal:** Two to three times weekly



### Cryopreservation Medium

### Cryoprotectant Medium

Complete growth medium described above supplemented with 5% (v/v) DMSO.

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



### Comments

Antigen Expression: CD31 + [PubMed:1315100]

Products: factor VIII [PubMed: 11315100]; integrin binding sialoprotein (BSP) [PubMed11315100]; biglyan [PubMed: 11315100]; decorrin [PubMed:1315100]; villin 2 (ezrin) [PubMed: 11325848].

Expression of bone sialoprotein, biglyan, decorrin, and osteopontin is suggestive of bone lineage cells. The K7M2 wt cell line was derived by intra-osseous injection of the K7 murine osteosarcoma cell line to the proximal tibia of a BALB/c mouse. The resultant primary tumor spontaneously metastasized to the lungs. A pulmonary metastasis was removed from the lung and then surgically implanted to a paraosteal tibial muscle flap of a naïve mouse. This cycle of implantation of pulmonary metastasis to paraosteal tibial muscle flap sites was repeated, resulting in the K7M2 primary tumor. This tumor was dissociated to a single cell suspension to create the K7M2 wt cell line [PubMed:11315100]. Expression of bone sialoprotein, biglyan, decorrin, and osteopontin is suggestive of bone lineage cells.



### 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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