LMH

CRL-2117™

Description

LMH are cells exhibiting epithelial morphology that were isolated from the liver of a chicken with hepatocellular carcinoma. It has applications in cancer research.
Organism: *Gallus gallus*, chicken
Tissue: Liver
Morphology: epithelial
Growth properties: Adherent
Disease: Hepatocellular Carcinoma

Storage Conditions

Product format: Frozen
Storage conditions: Vapor phase of liquid nitrogen

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local

or national agencies.

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may 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 vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Handling Procedures

Unpacking and 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.

Complete medium: Waymouth's MB 752/1 medium, 90%; fetal bovine serum, 10%
Handling Procedure: 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 cells to a flask as recommended on the Certificate of Analysis (flask size and dilution ratio will be provided). 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 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).
4. 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 sheet.

Note: It is not necessary to remove the cryoprotective agent. If it is desired that the cryoprotective agent be removed immediately, or that a more concentrated cell suspension be obtained, centrifuge the cell suspension at approximately 125 x g for 5 to 10 minutes. Discard the supernatant and resuspend the cells with fresh growth medium at the dilution ratio recommended in the specific batch information.

Note also: Flasks must be coated with 0.1% gelatin.

It is recommended to coat the vessel fresh each time; however coated vessel(s) can be stored at 2-8C with coating solution under sterile conditions using a plug seal cap or parafilm.

Using 0.1% Porcine Gelatin (ATCC cat # PCS-999-027 or equivalent) aseptically add recommended 0.1% Porcine Gelatin coating solution to desired vessel(s) – see table below for volume recommendations.

Rock the vessel(s) on a BenchRocker or equivalent at 37C, rocking slow speed for at least 30 minutes, and to overnight for incubation only.

Note: Plug seals (non-vented) or parafilm (covering the caps) are recommended to prevent evaporation. Switch to vented cap prior to use.

Aspirate coating solution and rinse vessel(s) with Dulbecco's Phosphate-Buffered Saline (DPBS) or culture medium – see the table below for volume recommendations.

Remove rinsing solution and pre-warm the vessel(s) with culture medium at 37C for 1 hour prior to seeding cells.

Coating Solution Volumes per vessel

Vessel Size	Coating Solution Volume (mL)	Rinsing Solution Volume (mL)
T12.5	1 to 3	1 to 3
T25	2 to 5	1 to 5
T75	6 to 15	4 to 15
T150	8 to 20	8 to 30
T225	15 to 30	10 to 45
T300	20 to 32	16 to 60

Subculturing procedure: Remove medium, rinse two times with cold 0.25% trypsin, 0.03% EDTA solution.
Allow the flasks to sit at room temperature (or incubate at 37°C) until the cells detach.
Add fresh culture medium, aspirate, and dispense into new culture flasks.

Subcultivation Ratio: A subcultivation ratio of 1:4 is recommended
Medium Renewal: Every 2 to 3 days
Reagents for cryopreservation: Complete growth medium supplemented with 5% (v/v) DMSO (ATCC 4-X)

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: LMH (ATCC CRL-2117)

References

References and other information relating to this material are available at www.atcc.org.

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Revision

This information on this document was last updated on 2025-05-05

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