Agarabi CHO

CRL-3440™

Description

Agarabi CHO is a cell line exhibiting lymphoblast and epithelial (per depositor) morphology that were isolated from the ovaries of a Chinese hamster (*Cricetulus griseus*). The cells were stably transfected with a two-vector system expressing a model mouse-human chimeric IgG1 antibody. Single cell derived clones were isolated by limiting dilution and expanded. Agarabi CHO was subjected to further amplification by treatment with 2 µM methotrexate for up to 42 days and frozen. On thaw, Agarabi CHO was serially subcultured in the absence of methotrexate on a 3-4 day regime for ~2-3 weeks and cryopreserved. This cell line is an industrially-relevant research material that can be used in the study of continuous biomanufacturing, process analytical technology, and bioprocess design.

Organism: *Cricetulus griseus*, hamster, Chinese
Tissue: Ovary
Morphology: Lymphoblast-like (ATCC PPF). Epithelial like, per depositor
Growth properties: Suspension
Cells per vial: ≥ 1.7×10^7
Volume: 1.0 mL

Storage Conditions

Product format: Frozen

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.

Growth Conditions

Temperature: 37°C
Atmosphere: 93% Air, 7% CO_2

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: The base medium for this cell line is CD FortiCHO medium (Thermo Fisher Scientific, Cat# A1148301). To make the complete medium add the following component to 1000 mL of the base medium:

- 40 mL of 200 mM L-glutamine (ATCC 30-2214)

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 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.
4. Resuspend cell pellet with the recommended pre-warmed 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 Vented Shaker Flasks with incubator humidity at a shaking speed of 130 RPM; every 3-4 days. 8% $CO2_2$ in air atmosphere is recommended if using the medium described on this product sheet.

Subculturing procedure:

Cultures can be maintained by addition or replacement of fresh medium. Start cultures at 5 X 10^5 cells/mL and maintain between 3 X 10^5 and 3 X 10^6 cells/mL.

Medium Renewal: Add fresh medium every 2 to 3 days (depending on cell density). Culture to be grown via vented Flat-bottom shaker flasks at appropriate size per working volume) with incubator humidity maintained at 37°C and 8% CO_2. Shake flask every 3-4 days at 130 rpm. Note: When cultured in 125-mL spinner flasks, cultures may achieve peak densities between 6 and 10 x 10^6 cells/mL.
Reagents for cryopreservation: Culture Medium + 5% DMSO (ATCC 4-X)

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Agarabi CHO (ATCC CRL-3440)

References

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

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