Product sheet

LS-CLS Cells | 603390

General information

Description	The LS-CLS cell line was established from the primary lymphosarcoma of an adult Mesocricetus auratus (hamster). This cell line originates from the hematopoietic lineage, specifically representing a lymphosarcoma, which is a type of cancer that affects lymphocytes, key components of the immune system. Lymphosarcomas are typically malignant, rapidly proliferating, and capable of metastasizing to various organs, making them significant in studies related to cancer biology, particularly hematologic malignancies. As an in vitro model, the LS-CLS cell line is valuable for researching the mechanisms of lymphosarcoma development and progression. It can also be used to investigate potential therapeutic approaches, including chemotherapeutic agents and targeted therapies aimed at hematopoietic cancers.
Organism	Golden Hamster
Tissue	Hematopoietic
Disease	Lymphosarcoma

Characteristics

Age	Adult
Gender	Unspecified
Morphology	Round cells
Growth properties	Suspension

Regulatory Data

Citation	LS-CLS (Cytion catalog number 603390)
Biosafety level	1
NCBI_TaxID	10036
CellosaurusAccession	CVCL_5789

Biomolecular Data

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Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Supplements	Supplement the medium with 10% FBS
Subculturing	Maintain cultures by periodically adding or replacing the medium. Initiate cultures with a density of 5 x 10^5 cells/ml and keep the cell concentration within the range of 3 x 10^5 to 1 x 10^6 cells/ml for optimal growth.
Seeding density	1 to 2 x 10^6 cells/ml
Fluid renewal	Every 3 to 5 days
Post-Thaw Recovery	24 to 48 hours
Freeze medium	As a cryopreservation medium, we use complete growth medium (including FBS) + 10% DMSO for adequate post-thaw viability, or CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress.

Thawing and Culturing Cells	1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit. 2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required. 3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains. 4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening. 5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently. 6. Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium. 7. Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth. 8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.
Incubation Atmosphere	37°C, 5% CO_2, humidified atmosphere.
Shipping Conditions	Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately −78 °C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.
Storage Conditions	For long-term preservation, place vials in vapor-phase liquid nitrogen at about −150 to −196 °C. Storage at −80 °C is acceptable only as a short interim step before transfer to liquid nitrogen.

Quality Control & Molecular Analysis

Sterility	Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods. To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.