COR-L23

305895

GENERAL INFORMATION

Description

COR-L23 is a human lung carcinoma cell line derived from an adult patient with large cell lung carcinoma (LCLC). The cell line was established from a clinical tumor sample and represents a non–small cell lung cancer model with epithelial characteristics. In culture, COR-L23 grows as an adherent monolayer and is maintained in standard RPMI-based medium supplemented with fetal serum. The cell line was developed as part of a panel of lung cancer models derived directly from patient specimens to facilitate investigation of the molecular and cellular mechanisms underlying lung tumorigenesis.
Phenotypic characterization has shown that COR-L23 differs from classical small cell lung carcinoma cell lines in both morphology and biomarker expression. Unlike typical small cell lung cancer models that grow as floating aggregates and express strong neuroendocrine markers, COR-L23 displays features consistent with large cell carcinoma, including reduced expression of neuroendocrine-associated enzymes and markers commonly observed in small cell lung cancer. These differences highlight its relevance as a model for studying non–small cell lung cancer biology and for comparing molecular features between distinct lung cancer subtypes.
Genetic and cytogenetic analyses of lung cancer cell line panels that include COR-derived models have revealed chromosomal abnormalities and oncogenic alterations commonly associated with lung malignancies. Such alterations may involve dysregulation of oncogene families and structural chromosomal changes that contribute to tumor progression. Due to these molecular features and its well-characterized phenotype, COR-L23 is widely used for studies of lung cancer signaling pathways, drug response, and mechanisms of tumor cell proliferation and survival.

Tissue	Metastatic
Disease	Lung large cell carcinoma
Metastatic site	Pleural effusion

Synonyms

- CORL23
- COR-L23P
- COR-L23/P
- L23/P

CLASSIFICATION

Organism	Human
Sex	Male
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Morphology	epithelioid, very large, often multinucleate cells growing adherently as monolayer; image ; image ; image ; image
Doubling time	35 hours ; ~30 hours

IDENTIFIERS

Citation

COR-L23 (Cytion catalog number 305895)

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Banking information
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BIC: SOLADES1HDB

NCBI TaxID	9606
Cellosaurus	CVCL_1139

EXPRESSION AND SUSCEPTIBILITY

Mutational profile

Mutation: p.Gly12Val, Homozygous

HANDLING AND CULTURE

Culture medium

RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)

Incubation atmosphere	37°C, 5% CO_2, humidified atmosphere.

Supplements

Supplement the medium with 10% FBS

Dissociation reagent	Accutase
Seeding density	1 to 3 x 10^4 cells/cm^2

Thawing and culturing

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
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.
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.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
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.
Centrifuge the mixture at 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium.
Follow the procedure described under Post-Thaw Recovery

QUALITY CONTROL AND CRYOPRESERVATION

Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

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.

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.

DONOR

Donor age	62 years
Ethnicity	Caucasian

LEGAL AND SAFETY

Safety precautions

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

Warranty

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

Material Transfer Agreement required	Yes

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