Product sheet

MA-891 Cells | 305581

General information

Description	MA-891 is a highly metastatic murine mammary gland carcinoma cell line, established from a spontaneous mammary tumor in a mouse and selected for its aggressive metastatic behavior. The line grows as an adherent monolayer and is classified as a syngeneic tumor cell line compatible with immunocompetent mouse hosts, enabling in vivo studies of mammary carcinoma growth, metastasis, and immune interaction. MA-891 represents a highly metastatic variant selected for its propensity to disseminate to distant organs, particularly the lungs. MA-891 is applicable in murine mammary carcinoma research including studies of metastatic cascade biology, invasion, angiogenesis, tumor-immune interactions, and preclinical evaluation of anti-metastatic and anti-tumor agents. Its syngeneic origin enables testing of immunotherapy approaches in immunocompetent hosts, including checkpoint inhibitor evaluation and cancer vaccine development. The high metastatic potential makes it a useful model for studying metastasis prevention strategies and the biology of aggressive mammary carcinoma.
Organism	Mouse
Tissue	Mammary gland
Disease	Carcinoma
Metastatic site	Metastatic (high metastatic potential; primarily to lungs)
Applications	Murine mammary carcinoma research; metastasis biology; anti-metastatic drug evaluation; syngeneic tumor immunotherapy; tumor-immune interaction; cancer vaccine studies
Synonyms	Mouse Mammary Carcinoma Highly Metastatic Cell Line

Characteristics

Age	Age unspecified
Gender	Female
Ethnicity	Unspecified
Morphology	Epithelial-like
Cell type	Tumor Cell Line

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Growth properties	Adherent

Regulatory Data

Citation	MA-891 (Cytion catalog number 305581)
Biosafety level	1
NCBI_TaxID	10090

Biomolecular Data

Handling

Culture Medium	RPMI-1640 with 10% FBS; 1% Penicillin-Streptomycin Solution
Supplements	Supplement the medium with 10% FBS and 1% Penicillin-Streptomycin
Dissociation Reagent	Accutase
Doubling time	approx. 18 to 24 hours
Subculturing	Remove medium, wash with PBS without calcium and magnesium, cover with Accutase, incubate 8–10 min at RT, resuspend in medium, centrifuge 300×g 3 min, discard supernatant, reseed in fresh medium.
Split ratio	1 to 5
Seeding density	1 to 3 × 10^4 cells/cm^2
Fluid renewal	Every 2 to 3 days
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