Product sheet

MX-1 Cells | 300296

General information

Description	The Mx-1 cell line has been established as in vitro culture from the Mx-1 tumor xenograft model of breast carcinoma tissue.
Organism	Human
Tissue	Breast
Disease	Adenocarcinoma, Infiltrating duct carcinoma (IDC)
Synonyms	Mx1, MxI

Characteristics

Age	29 years
Gender	Female
Ethnicity	Caucasian
Morphology	Epithelial-like
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	Mx-1 (Cytion catalog number 300296)
Biosafety level	1

Expression / Mutation

Receptors expressed	Estrogen (oestrogen) receptor (-)
Protein expression	p53 (-)
Tumorigenic	Yes, in nude mice

Handling

Culture Medium	DMEM:Ham's F12, w: 3.1 g/L Glucose, w: 1.6 mM L-Glutamine, w: 15 mM HEPES, w: 1.0 mM Sodium pyruvate, w: 1.2 g/L NaHCO3 (Cytion article number 820400a)
Medium supplements	Supplement the medium with 10% FBS
Passaging solution	Accutase
Doubling time	30 to 35 hours
Subculturing	Remove medium and rinse the adherent cells using PBS without calcium and magnesium (3-5 ml PBS for T25, 5-10ml for T75 cell culture flasks). Add TrypleExpress (1-2ml per T25, 2.5ml per T75 cell culture flask), the cell sheet must be covered completely. Incubate at 37 degree Celsius for 10 minutes. Carefully resuspend the cells, the addition of medium is optional but not necessary, and dispense into new flasks which contain fresh medium. Do not allow the cells to become confluent, subculture once per week. Note: The cells do not form a confluent monolayer. Subculture when a dense layer of cells is observed macroscopically.
Split ratio	A ratio of 1:2 to 1:3 is recommended
Seeding density	2 x 10^4 cells/cm^2
Fluid renewal	2 to 3 times per week
Freezing recovery	Fast
Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

Handling of cryopreserved cultures

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. Optionally, skip centrifugation but remove any remaining freezing medium after 24 hours.
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.

Quality control / Genetic profile / HLA

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.

STR profile	**Amelogenin**: x,x **CSF1PO**: 11 **D13S317**: 11,12 **D16S539**: 12 **D5S818**: 12 **D7S820**: 11,12 **TH01**: 7,9 **TPOX**: 7,8 **vWA**: 17,18 **D3S1358**: 15 **D21S11**: 29,30,31,32 **D18S51**: 12,16 **D8S1179**: 11,12,13 **FGA**: 20 **D2S1338**: 19 **D19S433**: 13,15.2,16.2
HLA alleles	**A***: 11:01:01 **B***: 35:01:01 **C***: 04:01:01 **DRB1***: 01:03:01 **DQA1***: 01:01:01 **DQB1***: 05:01:01 **DPB1***: 04:01:01 **E**: 01:01:01