

## CX-1 growing culture | 330159

### General information

**Description** The CX-1 cell line is a unique subclone derived from the HT-29 cell line, which is known for its remarkable properties. CX-1 cells, derived from the human colon xenograft model xC-1, were generated by introducing HT-29 cells into athymic mice. They are of the same origin as HT-29, female and have an age of 44 years at harvest. CX-1 cells play an important role in the study of adenocarcinoma of the colon and serve as a reliable model system for studying the intricacies of this disease at the cellular level. These cells have a fast doubling time of about 24 hours, ensuring greater efficiency of experimental procedures and accelerating research results. The TP53 mutation (p.Arg273His) was observed, which has a nucleotide substitution from G to A (CGT to CAT) and leads to a mutation effect from arginine to histidine. In addition, the P53 protein was detected in CX-1 cells by immunoblotting.

**Organism** Human

**Tissue** Colon

**Disease** Adenocarcinoma

**Synonyms** HT-29/Cx-1, Cx1

### Characteristics

**Age** 44 years

**Gender** Female

**Ethnicity** Caucasian

**Morphology** Epithelial-like

**Growth properties** Adherent

### Identifiers / Biosafety / Citation

**Citation** Cx-1 (Cytion catalog number 300159)

**Biosafety level** 1

### Expression / Mutation

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<b>Protein expression</b>	p53 positive, CEA positive
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<b>Tumorigenic</b>	Yes, in nude mice
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<b>Reverse transcriptase</b>	Negative
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<b>Products</b>	Cytokeratine 8, 18, 19
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**Handling**

<b>Culture Medium</b>	DMEM
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<b>Medium supplements</b>	10% FBS, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 1.5 g/L NaHCO <sub>3</sub> , w: 1.0 mM Sodium pyruvate
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<b>Passaging solution</b>	Accutase
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<b>Doubling time</b>	24 hours
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<b>Subculturing</b>	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 Accutase (1-2ml per T25, 2.5ml per T75 cell culture flask), the cell sheet must be covered completely. Incubate at ambient temperature 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.
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<b>Split ratio</b>	A ratio of 1:2 to 1:8 is recommended
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<b>Seeding density</b>	1 x 10 <sup>4</sup> cells/cm <sup>2</sup> will yield in a confluent layer in about 4to6 days
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<b>Fluid renewal</b>	1 to 2 times per week
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<b>Freezing recovery</b>	After thawing, plate the cells at 5 x 10 <sup>4</sup> cells/cm <sup>2</sup> and allow the cells to recover from the freezing process and to adhere for at least 24 hours.
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<b>Freeze medium</b>	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)
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### Handling of cryopreserved cultures

The cells come deep-frozen shipped on dry ice. Please make sure that the vial is still frozen. If immediate culturing is not intended, the cryovial must be stored below -150 degree Celsius after arrival. If immediate culturing is intended, please follow the below instructions: Quickly thaw by rapid agitation in a 37 degree Celsius water bath within 40-60 seconds. The water bath should have clean water containing an antimicrobial agent. As soon as the sample has thawed, remove the cryovial from the water bath. A small ice clump should still remain and the vial should still be cold. From now on, all operations should be carried out under aseptic conditions. Transfer the cryovial to a sterile flow cabinet and wipe with 70% alcohol. Carefully open the vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of culture medium (room temperature). Resuspend the cells carefully. Centrifuge at 300 x g for 3 min and discard the supernatant. The centrifugation step may be omitted, but in this case the remains of the freeze medium have to be removed 24 hours later. Resuspend the cells carefully in 10 ml fresh cell culture medium and transfer them into two T25 cell culture flasks. All further steps are described in the subculture section.

### Handling of proliferating cultures

One or two cell culture flasks come filled with cell culture medium. Collect the entire medium in 1 or 2 x 50 ml centrifuge tubes, respectively. Carefully add 5 ml of cell culture medium to each T25 cell culture flask. Control the cell morphology and confluency under the microscope. Incubate at 37 degree Celsius for a minimum of 24 hours. Spin down the collected medium at 300 x g for 3 minutes to collect the cells which may have detached during transit. If a cell pellet is visible, resuspend the cells in 5 ml of cell culture medium and transfer to a T25 cell culture flask. Incubate at 37 degree Celsius for a minimum of 24 hours.

## Quality control / Genetic profile / HLA

### Sterility

Mycoplasma contaminations are ruled out through PCR-based and luminescence-based mycoplasma assays. The absence of bacterial, fungal or yeast contamination is controlled through daily visual cell monitoring.

### STR profile

**Amelogenin:** x,x  
**CSF1PO:** 11,12  
**D13S317:** 11  
**D16S539:** 11,12  
**D5S818:** 11,12  
**D7S820:** 10  
**TH01:** 6,9  
**TPOX:** 8,9  
**vWA:** 17,19  
**D3S1358:** 15,17  
**D21S11:** 29,30  
**D18S51:** 13  
**Penta E:** 14,16  
**Penta D:** 11,13  
**D8S1179:** 10  
**FGA:** 20,22