

HROBMC01 growing culture | 330800

General information

Description	This is one of a series of colorectal carcinoma cell lines which have been established by PD Dr. Michael Linnebacher since 2006. This line was established from a brain metastasis of a primary colorectal carcinoma.
Organism	Human
Tissue	Colorectal
Disease	Adenocarcinoma
Metastatic site	Brain

Characteristics

Age	60 years
Gender	Female
Ethnicity	Caucasian
Morphology	Epithelial-like
Cell type	Epithelial
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	HROBMC01 (Cytion catalog number 300800)
Biosafety level	1
Depositor	M. Linnebacher

Expression / Mutation

Protein expression	PTEN-
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Mutational profile p53 mut, APC mut, K-RasG12VA, N-Raswt, H-Raswt, PIK3CAwt, B-Rafwt

Handling

Culture Medium	DMEM:Ham's F12
Medium supplements	10% FBS, 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 NaHCO ₃
Passaging solution	Accutase
Doubling time	30 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 Accutase (1-2ml per T25, 2.5ml per T75 cell culture flask), the cell sheet must be covered completely. Incubate at ambient temperature for 8-10 minutes. Carefully resuspend the cells with medium (10 ml), centrifuge for 5 min at 300xg, resuspend cells in fresh medium and dispense into new flasks which contain fresh medium.
Split ratio	A ratio of 1:4 to 1:8 is recommended
Seeding density	1 x 10 ⁴ cells/cm ²
Fluid renewal	Every 3 to 5 days
Freezing recovery	After thawing, plate the cells at 5 x 10 ⁴ cells/cm ² and allow the cells to recover from the freezing process and to adhere for at least 48 hours.
Freeze medium	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 (Patient male, Y lost)
CSF1PO: 10,3
D13S317: 12
D16S539: 11
D5S818: 9,13
D7S820: 8,9,11
TH01: 7,9,3
TPOX: 8,10
vWA: 18,19
D21S11: 29,32.2