

**HROC18 Cells | 300808**

**General information**

<b>Description</b>	This is one cell line of a series of tumor cell lines which have been established by PD Dr. Michael Linnebacher since 2006. HROC18 was derived from a primary clear cell adenocarcinoma. The cells are globular with indistinct borders, have a high nucleus to cytoplasm ratio and exhibit both microvilli and desmosomes. They can be cultured in soft agar.
<b>Organism</b>	Human
<b>Tissue</b>	Colon (coecum), UICC I
<b>Disease</b>	Primary adenocarcinoma, TNM stage T2N0M0 R0L0V0, grading G2, Lk(n) + 0, $\Sigma$ Lk(n) 28
<b>Synonyms</b>	HROC 18

**Characteristics**

<b>Age</b>	65 years
<b>Gender</b>	Female
<b>Ethnicity</b>	Caucasian
<b>Morphology</b>	Epithelial-like
<b>Growth properties</b>	Adherent

**Identifiers / Biosafety / Citation**

<b>Citation</b>	HROC18 (Cytion catalog number 300808)
<b>Biosafety level</b>	1
<b>Depositor</b>	M. Linnebacher

**Expression / Mutation**

<b>Protein expression</b>	Beta-actin, osteopontin, PTEN
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**Antigen expression** CD15+, CD24+, CD44+, CD55+, CD58+, CD50+, CD 54+, CD66acde+, CD71+, CD102+, CD326+ , CD80- , CD86-, EpCAM+, HLA-A2+, EGFR+

**Tumorigenic** Yes, in immune-suppressed nude mice

**Viruses** Free of human pathogenic viruses HBV, HCV, HIV.

**Ploidy status** Aneuploid

**Mutational profile** APCmut, p53mut, K-Raswt, N-Raswt, H-Raswt, B-RAFwt, PIK3CA mut

**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 hours

**Subculturing** Remove the old medium from the adherent cells and wash them with PBS that lacks calcium and magnesium. For T25 flasks, use 3-5 ml of PBS, and for T75 flasks, use 5-10 ml. Then, cover the cells completely with Accutase, using 1-2 ml for T25 flasks and 2.5 ml for T75 flasks. Let the cells incubate at room temperature for 8-10 minutes to detach them. After incubation, gently mix the cells with 10 ml of medium to resuspend them, then centrifuge at 300xg for 3 minutes. Discard the supernatant, resuspend the cells in fresh medium, and transfer them into new flasks that already contain fresh medium.

**Split ratio** A ratio of 1:3 is recommended

**Seeding density** 2 x 10<sup>4</sup> cells/cm<sup>2</sup>

**Fluid renewal** Every 3 to 5 days

**Freezing recovery** 1 to 2 weeks

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**Freeze medium**

CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

**Handling of cryopreserved cultures**

HROC18 cells are shipped in a deep-frozen state on dry ice. Upon receipt, confirm that the vial remains frozen. For storage, place the cryovial immediately at temperatures below -150 degrees. If you plan to culture the cells immediately, swiftly thaw the vial by shaking it in a 37 degrees water bath with clean water and an antimicrobial agent for 40-60 seconds. Remove the vial once a small ice clump persists, ensuring it remains cold. Proceed with all subsequent steps under aseptic conditions. In a sterile flow hood, disinfect the cryovial with 70% ethanol. Then, gently open the vial and transfer the cell suspension into a 15 ml centrifuge tube pre-filled with 8 ml of room temperature culture medium. Gently mix the cells. For cell separation, centrifuge at 300 x g for 3 minutes and dispose of the supernatant. Skipping centrifugation is optional, although any residual freezing medium should be removed after 24 hours. Resuspend the pellet gently in 10 ml of fresh culture medium and divide between two T25 culture flasks. Follow the subculture protocol for subsequent steps.

**Quality control / Genetic profile / HLA**

**Sterility**

Mycoplasma contamination is rigorously 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:** 12  
**D13S317:** 11  
**D16S539:** 12,13  
**D5S818:** 9,11  
**D7S820:** 8,11  
**TH01:** 7,8  
**TPOX:** 8  
**vWA:** 17

**HLA alleles**

**A\*:** 01:01:01, 02:01:01  
**B\*:** 08:01:01, 15:24:01  
**C\*:** 07:01:01  
**DRB1\*:** 03:01:01, 13:03:01  
**DQA1\*:** 05:01:01, 05:05:01  
**DQB1\*:** 02:01:01, 03:01:01  
**DPB1\*:** 01:01, 04:01  
**E:** 01:01, 01:03