Product sheet

HROC40 Cells | 300822

General information

Description	This is one cell line of a series of tumor cell lines which have been established by PD Dr. Michael Linnebacher from Primary CRC resection specimens since 2006.
Organism	Human
Tissue	Colon descendens, UICC IIIa
Disease	Primary adenocarcinoma, TNM stage T3N1M0R0L1V1, grading G3, Lk(n) + 2, Σ Lk(n) 18

Characteristics

Age	69 years
Gender	Male
Ethnicity	Caucasian
Morphology	Epithelial-like
Growth properties	Adherent

Regulatory Data

Citation	HROC40 (Cytion catalog number 300822)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_1G01

Biomolecular Data

Protein expression	Beta-actin, osteopontin low, Toll-like receptor (TLR) 3 moderate, TLR4 moderate, TLR7 low, TLR8 -, PTEN
Antigen expression	CD326+, CD44+, CD15+, CD71+, CD73+, CD274+, CD47+, CD54+, CD95+, CD276+, CD133- , CD66acdeweak, IDO+, cFLIP+, MHC-I+, MHCIIweak after IFN-y treatment, EpCAM+

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Tumorigenic	Yes, in immune-suppressed nude mice
Viruses	Free of human pathogenic viruses SV40, JC/BK, HBV, HCV, HIV.
Ploidy status	Aneuploid
MSI-status	MSS
Mutational profile	P53G266e, APCwt, K-RasG13D, mt13, N-Raswt, H-Raswt, PIK3CAwt, B-Rafwt

Handling

Culture Medium	DMEM:Ham's F12 (1:1), w: 3.1 g/L Glucose, w: 2.5 mM L-Glutamine, w: 15 mM HEPES, w: 0.5 mM Sodium pyruvate, w: 1.2 g/L NaHCO3 (Cytion article number 820400a)
Supplements	Supplement the medium with 10% FBS
Dissociation Reagent	Accutase
Subculturing	After thawing, resuspend the cell pellet carefully. Centrifuge at 300 x g for 3 min and discard the supernatant. Seed into 2x 25cm^2 cell culture flasks and leave the flasks for 48 hrs in the incubator. Replace the spent medium every 2-3 days, until 80-90% confluency is reached. This will take roughly 10-14 days.
Seeding density	5x10^4 cells/cm^2 after thawing, 3x10^4 cells/cm^2 once the cells are proliferating vigorously
Fluid renewal	Every 3 to 5 days
Post-Thaw Recovery	Fast
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

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.