BC-3C

305246

GENERAL INFORMATION

Description

BC3c is a human bladder carcinoma cell line established from a surgical biopsy of an invasive solid transitional cell carcinoma derived from an adult female donor. The cell line was generated from primary tumor tissue through enzymatic dissociation and serial passaging in McCoy's 5A medium supplemented with fetal calf serum. BC3c cells display an epithelial morphology with adherent growth and form cohesive colonies in vitro. Immunocytochemical characterization confirmed epithelial origin through expression of cytokeratins 8 and 19, while mesenchymal markers such as vimentin and fibroblast-associated antigens were absent. The cells do not express α-fetoprotein or carcinoembryonic antigen. Cytogenetic analysis demonstrated a near-triploid karyotype with multiple structural and numerical chromosomal abnormalities, consistent with genomic instability typical of invasive urothelial carcinoma.
Molecular analysis did not detect activating mutations in H-ras codon 12 or K-ras codons 12 and 13, and no mutations were identified in examined hotspot codons of TP53. Furthermore, there was no accumulation of p53 protein detected by immunocytochemistry, suggesting the absence of common p53 stabilization events in this model. BC3c cells exhibit rapid in vitro proliferation, including growth under low-serum conditions, indicative of autocrine growth stimulation. Conditioned medium from BC3c cultures supports proliferation, supporting the presence of endogenous growth-promoting factors.

Tissue	Urinary bladder
Disease	Bladder carcinoma

Synonyms

- BC3c

CLASSIFICATION

Organism	Human
Sex	Female
Growth properties	Adherent
Biosafety level	1

CHARACTERISTICS

Doubling time	~25-30 hours

IDENTIFIERS

Citation

BC-3C (Cytion catalog number 305246)

NCBI TaxID	9606
Cellosaurus	CVCL_1958

HANDLING AND CULTURE

Culture medium

McCoys 5a, w: 3.0 g/L Glucose, w: stable Glutamine, w: 2.0 mM Sodium pyruvate, w: 2.2 g/L NaHCO3 (Cytion article number 820200a)

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Incubation atmosphere	37°C, 5% CO_2, humidified atmosphere.

Supplements

Supplement the medium with 10% FBS

Dissociation reagent	Accutase 20 min 37&degC

Thawing and culturing

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
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.
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.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
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.
Centrifuge the mixture at 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium.
Follow the procedure described under Post-Thaw Recovery

QUALITY CONTROL AND CRYOPRESERVATION

Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

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.

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.

DONOR

Donor age	82 years
Ethnicity	Caucasian

LEGAL AND SAFETY

Safety precautions

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

Warranty

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

Material Transfer Agreement required	Yes

PRODUCT DETAILS

Composition table

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