Product sheet

CT26.WT Cells | 305178

General information

Description	CT26.WT is a clonally derived cell line from the parent CT26 cell line, which itself was established from a colon carcinoma induced in a BALB/c mouse using the carcinogen N-nitroso-N-methylurethane (NNMU). This cloning process was performed to obtain a cell line with consistent characteristics and reproducible results in experimental setups. As a result, CT26.WT retains the undifferentiated carcinoma phenotype of its progenitor, making it a robust model for studying various aspects of colorectal cancer, including tumor genesis, progression, and the tumor microenvironment. This cell line is extensively used in oncological research, particularly in the study of immune responses to tumors. Its compatibility with BALB/c mice, which are genetically identical to the source of the CT26.WT cells, allows researchers to study the complex interactions between cancer cells and the immune system in a controlled yet biologically relevant setting. The use of CT26.WT in syngeneic murine models helps in the investigation of immunotherapeutic strategies, such as the efficacy of novel immunomodulatory agents and the role of immune checkpoints in cancer progression. This facilitates the development of more effective cancer treatments that can later be adapted for human clinical trials.
Organism	Mouse
Tissue	Colon
Disease	Colon adenocarcinoma
Synonyms	CT26WT

Characteristics

Breed/Subspecies	BALB/c
Morphology	Fibroblast
Growth properties	Adherent

Regulatory Data

Citation	CT26.WT (Cytion catalog number 305178)
Biosafety level	1
NCBI_TaxID	10090

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CellosaurusAccession	CVCL_7256

Biomolecular Data

Antigen expression	H-2d
Tumorigenic	Yes

Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Supplements	Supplement the medium with 10% FBS
Dissociation Reagent	Accutase
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.
Fluid renewal	2 to 3 times per week
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

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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.