Product sheet

15P-1 Cells | 305191

General information

Description	15p-1 cells are a mammalian cell line derived from Mus musculus, specifically utilized for the study of cellular responses to steroid hormones. Originating from the testicular tissue of mice, these cells exhibit a unique sensitivity to androgens, which makes them particularly valuable in endocrinology and cancer research. The 15p-1 cell line expresses the androgen receptor (AR), enabling the study of androgenic effects on gene expression, cell growth, and differentiation processes. Characteristically, 15p-1 cells are used to explore the molecular pathways influenced by androgens and their role in diseases such as prostate cancer. They provide a controlled in vitro environment to dissect the interactions between androgens and their cellular receptors, facilitating insights into both normal physiological and pathological states. This cell line is also instrumental in screening potential pharmaceuticals targeting androgen-related pathways, contributing to the development of therapeutic strategies. Maintained under standard cell culture conditions, 15p-1 cells require a medium enriched with fetal bovine serum (FBS) and an optimal temperature of 37°C, along with a CO2 concentration of 5% to mimic physiological conditions. Rigorous quality control is essential to preserve their genetic and phenotypic characteristics, ensuring reliable and reproducible results in research applications.
Organism	Mouse, transgenic
Tissue	Testis

Characteristics

Breed/Subspecies	C57BL/6 x DBA/2
Age	6 months
Gender	Male
Morphology	Epithelial
Growth properties	Adherent

Regulatory Data

Citation	15P-1 (Cytion catalog number 305191)
Biosafety level	1

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NCBI_TaxID	10090
CellosaurusAccession	CVCL_6552
GMO Status	GMO-S1: This mouse testis cell line (15P-1) contains the MPyV large T antigen introduced via an MPyV-based vector, supporting transformation and sustained proliferation. The modification is integrated into murine testis-derived cells. This classification applies only within Germany and may differ elsewhere.

Biomolecular Data

Handling

Culture Medium	DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 3.7 g/L NaHCO3, w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)
Supplements	Supplement the medium with 10% FBS
Dissociation Reagent	Accutase
Subculturing	First, 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

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.