Product sheet

NCI-H295R Cells | 300483

General information

Description	H295R was adapted from the NCI-H295 pluripotent adrenocortical carcinoma cell line established by A.F. Gazdar and associates (1990) from a carcinoma of the adrenal cortex. The original cells were adapted to a culture medium which decreased the population doubling time from 5 days to 2 days. The adapted cells were selected to grow in a monolayer, in contrast to the original cells which grew in suspension. This cell line retains the ability to produce adrenal androgens. It is responsive to angiotensin II and potassium ions.
Organism	Human
Tissue	Adrenal gland
Disease	Carcinoma
Synonyms	NCI-H295R, NCI H295R, NCIH295R, H-295R, H295R-S1

Characteristics

Age	48 years
Gender	Female
Ethnicity	Caucasian
Morphology	Epithelial-like
Growth properties	Monolayer, adherent

Identifiers / Biosafety / Citation

Citation	NCI-H295R (Cytion catalog number 300483)
Biosafety level	1

Expression / Mutation

Products	Aldosterone, cortisol, C19 steroids

Handling

Product sheet

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Culture Medium	You can purchase our ready-to-use NCI-H295R Cell Growth Medium (820402) or choose to supplement 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) with the below additives
Medium supplements	Supplement the medium with 5% FBS, 0.00625 mg/ml insulin, 0.00625 mg/ml transferrin, 6.25 ng/ml selenium, 1.25 mg/ml bovine serum albumin, 0.00535 mg/ml linoleic acid
Passaging solution	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.
Split ratio	A ratio of 1:3 to 1:4 is recommended
Fluid renewal	2 to 3 times per week
Freezing recovery	48 hours
Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

Handling of cryopreserved cultures

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. Optionally, skip centrifugation but remove any remaining freezing medium after 24 hours.
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.

Quality control / Genetic profile / HLA

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.

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STR profile	**Amelogenin**: x,x **CSF1PO**: 10,12 **D13S317**: 13 **D16S539**: 11 **D5S818**: 12 **D7S820**: 9,12 **TH01**: 9.3 **TPOX**: 8 **vWA**: 17,18 **D3S1358**: 15,16 **D21S11**: 32.2 **D18S51**: 17 **Penta E**: 5,12 **Penta D**: 8 **D8S1179**: 13 **FGA**: 19.2,24
HLA alleles	**A***: 02:01:01 **B***: 15:10:01 **C***: 03:04:02 **DRB1***: 01:01:01 **DQA1***: 01:01:01 **DQB1***: 05:01:01 **DPB1***: 04:02:01 **E**: 01:03:02