

General information

Description NCI-N87 cells express the surface glycoproteins carcinoembryonic antigen(CEA) and TAG 72, and are L-dopa decarboxylase(DDC) negative. They were minimally positive for vasoactive intestinal peptide(VIP) receptors and lacked gastrin receptors. They were found to express receptors for muscarinic cholinergic agents. No evidence of amplification or rearrangements was noted with the N-myc, L-myc, myb and EGF receptor genes. The cell line expressed levels of c-myc and c-erb-B 2 RNA that were comparable to other cell lines. There was no expression of the following genes: N-myc, L-myc, c-cis, IGF-2, or gastrin releasing peptide. NCI-N87 cells have a reported plating efficiency of 4.3%.

Organism Human

Tissue Stomach

Disease Gastric tubular adenocarcinoma

Metastatic site Liver

Synonyms NCI-N87, NCI N87, N-87, NCI-H87, H87, H-87, NCIN87

Characteristics

Gender Male

Ethnicity African

Morphology Epithelial

Growth properties Adherent

Identifiers / Biosafety / Citation

Citation N87 (Cytion catalog number 305057)

Biosafety level 1

Expression / Mutation

Tumorigenic Yes

NCI-N87 Cells | 305057

Handling

Culture Medium	RPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO ₃ (Cytion article number 820700a)
Medium supplements	Supplement the medium with 10% FBS
Passaging solution	Accutase
Subculturing	Remove medium and rinse the adherent cells using PBS without calcium and magnesium (3-5 ml PBS for T25, 5-10 ml for T75 cell culture flasks). Add Accutase (1-2 ml per T25, 2.5 ml per T75 cell culture flask), the cell sheet must be covered completely. Incubate at ambient temperature for 8-10 minutes. Carefully resuspend the cells with medium (10 ml), centrifuge for 3 min at 300 g, resuspend cells in fresh medium and dispense into new flasks which contain fresh medium.
Split ratio	1:2 to 1:4
Fluid renewal	2 to 3 times per week
Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)
Handling of cryopreserved cultures	N87 cells are shipped in a deep-frozen state on dry ice. Upon receipt, confirm that the vial remains frozen. For storage, place the cryovial immediately at temperatures below -150 degrees. If you plan to culture the cells immediately, swiftly thaw the vial by shaking it in a 37 degrees water bath with clean water and an antimicrobial agent for 40-60 seconds. Remove the vial once a small ice clump persists, ensuring it remains cold. Proceed with all subsequent steps under aseptic conditions. In a sterile flow hood, disinfect the cryovial with 70% ethanol. Then, gently open the vial and transfer the cell suspension into a 15 ml centrifuge tube pre-filled with 8 ml of room temperature culture medium. Gently mix the cells. For cell separation, centrifuge at 300 x g for 3 minutes and dispose of the supernatant. Skipping centrifugation is optional, although any residual freezing medium should be removed after 24 hours. Resuspend the pellet gently in 10 ml of fresh culture medium and divide between two T25 culture flasks. Follow the subculture protocol for subsequent steps.
Handling of proliferating cultures	One or two cell culture flasks come filled with cell culture medium. Collect the entire medium in a 50 ml centrifuge tube. Spin down the collected medium at 300 x g for 3 minutes to collect the cells which may have detached during transit. If a cell pellet is visible, resuspend the cells in 5 ml of cell culture medium and transfer to a T25 cell culture flask. Carefully add 5 ml of cell culture medium to each T25 cell culture flask. Examine cell morphology and confluency using a microscope. Finally, incubate the flasks at 37 degrees Celsius for at least 24 hours.

Quality control / Genetic profile / HLA

NCI-N87 Cells | 305057

Sterility

Mycoplasma contamination is rigorously 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.

STR profile

Amelogenin: x,Y
CSF1PO: 8,12
D13S317: 8,11
D16S539: 9,13
D5S818: 12,13
D7S820: 10,11
TH01: 9
TPOX: 9,11
vWA: 15,16
D3S1358: 14
D21S11: 30
D18S51: 17
Penta E: 5
Penta D: 12
D8S1179: 14
FGA: 20,21
D6S1043: 12
D2S1338: 23,24
D12S391: 16,21
D19S433: 14,14.2