

Product sheet

NCI-H82 | 300442

General Information

Description	NCI-H82 cell line established by A.F. Gazdar in 1978 from a patient with squamous cell carcinoma of the lung. It is characterized by high growth rate and is used for drug screening and cancer research. Key features include: <ul style="list-style-type: none">Genome: 25 chromosomesCell cycle: 24 hoursCell morphology: EpithelialCell growth: HighCell death: ApoptosisCell markers: c-myc, c-fos, c-jun
Organism	Human
Tissue	Lung
Disease	Squamous cell carcinoma
Metastatic site	Lung, lymph nodes

Synonyms NCI-H-82, H82, H-82, NCI H82, NCIH82, H82scl

Cell Characteristics

Age	41 days
Gender	Male
Ethnicity	White
Morphology	Epithelial
Growth properties	High growth rate, anchorage dependent, sensitive to hypoxanthine and thymine

References and Safety

Citation	NCI-H82 (ATCC CCL-246) Cytion 300442
Biosafety level	1
NCBI_TaxID	9606
CellSaurusAccession	CVCL_1591

Additional Information

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Receptors expressed IGF1R, IGF2R, IGF2BP1, IGF2BP2, IGF2BP3, IGF2BP4, IGF2BP5, IGF2BP6, IGF2BP7, IGF2BP8, IGF2BP9, IGF2BP10, IGF2BP11, IGF2BP12, IGF2BP13, IGF2BP14, IGF2BP15, IGF2BP16, IGF2BP17, IGF2BP18, IGF2BP19, IGF2BP20, IGF2BP21, IGF2BP22, IGF2BP23, IGF2BP24, IGF2BP25, IGF2BP26, IGF2BP27, IGF2BP28, IGF2BP29, IGF2BP30, IGF2BP31, IGF2BP32, IGF2BP33, IGF2BP34, IGF2BP35, IGF2BP36, IGF2BP37, IGF2BP38, IGF2BP39, IGF2BP40, IGF2BP41, IGF2BP42, IGF2BP43, IGF2BP44, IGF2BP45, IGF2BP46, IGF2BP47, IGF2BP48, IGF2BP49, IGF2BP50, IGF2BP51, IGF2BP52, IGF2BP53, IGF2BP54, IGF2BP55, IGF2BP56, IGF2BP57, IGF2BP58, IGF2BP59, IGF2BP60, IGF2BP61, IGF2BP62, IGF2BP63, IGF2BP64, IGF2BP65, IGF2BP66, IGF2BP67, IGF2BP68, IGF2BP69, IGF2BP70, IGF2BP71, IGF2BP72, IGF2BP73, IGF2BP74, IGF2BP75, IGF2BP76, IGF2BP77, IGF2BP78, IGF2BP79, IGF2BP80, IGF2BP81, IGF2BP82, IGF2BP83, IGF2BP84, IGF2BP85, IGF2BP86, IGF2BP87, IGF2BP88, IGF2BP89, IGF2BP90, IGF2BP91, IGF2BP92, IGF2BP93, IGF2BP94, IGF2BP95, IGF2BP96, IGF2BP97, IGF2BP98, IGF2BP99, IGF2BP100

Protein expression P53

Isoenzymes G6PD, B, PGM1, 1-2, PGM3, 1-2, ES-D, 1, Me-2, 1, AK-1, 1, GLO-1, 1, IGF2BP1 = 0.0082

Tumorigenic Yes, NCI-H82 is a highly tumorigenic cell line derived from a human non-small cell lung carcinoma (NSCLC).

Karyotype 46, XY, t(11;22)(q23;q11), der(22)t(11;22)(q23;q11)

NCI-H82

Culture Medium RPMI 1640, w: 2.0 mM Glutamine, w: 2.0 g/L NaHCO3 (Cytion 820700a)

Supplements 10% FBS

Subculturing 5-6 passages, 1:5 split ratio

Split ratio 1:2 or 1:5

Fluid renewal 2-3 times per week

Freeze medium RPMI 1640, w: 2.0 mM Glutamine, w: 2.0 g/L NaHCO3 (Cytion 820700a) + 10% DMSO + 10% FBS

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Thawing and Culturing Cells

1. Thaw the vial rapidly in a water bath at 37°C. Do not allow the cells to reach room temperature. Transfer the cells to a pre-warmed T25 flask containing 5 ml of complete medium. Gently mix the cells and incubate for 24 hours to allow the cells to attach.
2. After 24 hours, check for cell attachment. If no cells are attached, repeat the thawing and seeding process.
3. Once cells are attached, replace the medium with fresh complete medium. Incubate the cells at 37°C in 5% CO₂.
4. When cells reach 70-80% confluency, passage them into a new flask.
5. Seed cells into a T25 flask with 15 ml of complete medium. Seed density should be approximately 8 x 10⁵ cells per flask.
6. Harvest cells for analysis at 300 x g for 3 minutes. Pellets should be approximately 70% of the original volume.
7. Resuspend cells in 10 ml of complete medium. Seed density should be approximately 1 x 10⁶ cells per flask.
8. Incubate cells at 37°C in 5% CO₂.

Incubation Atmosphere 37°C, 5% CO₂, humidified

Flask Coating None

Freezing Procedure Harvest cells at 300 x g for 3 minutes. Resuspend in freezing medium and store at -78°C.

Shipping Conditions Store at -78°C.

Storage Conditions Store at -150°C for 196 days.

NCI-H82 / HLA

Sterility The cells are free of mycoplasmas and PCR confirmed negative for mycoplasmas.

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STR

CSF1PO: 11
D13S317: 8
D16S539: 12
D5S818: 12
D7S820: 10,13
TH01: 9,9.3
TPOX: 11
vWA: 14
D3S1358: 17
D21S11: 28,3
D18S51: 14,18
Penta E: 11,12
Penta D: 10,12
D8S1179: 13
FGA: 24,25