

Human Lung Squamous Cell Carcinoma Cancer-Associated Fibroblasts (CAFs)

Product Information

Product Name	Human Lung Squamous Cell Carcinoma Cancer-Associated Fibroblasts (CAFs)
Catalog Number	NEOCAF67
Cell Type	Cancer-Associated Fibroblasts (CAFs)
Tissue Source	Human Lung Squamous Cell Carcinoma
Species	Human
Cell Number	1,000,000 cells/vial
Passage Number	P1
Growth Properties	Adherent
Biosafety Level	BSL-2
Storage Condition	Liquid Nitrogen Vapor Phase
Shipping Condition	Dry Ice
Intended Use	For Research Use Only (RUO). Not for human or clinical applications.

Description

Human Lung Squamous Cell Carcinoma Cancer-Associated Fibroblasts (CAFs) are isolated from human lung squamous cell carcinoma tissue and expanded under optimized culture conditions. These CAFs display characteristic spindle-shaped fibroblast morphology and express multiple CAF-associated activation markers involved in extracellular matrix remodeling, tumor progression, angiogenesis, and immunomodulation.

These primary CAFs are ideal for cancer biology, tumor microenvironment, fibrosis, drug screening, immuno-oncology, and co-culture studies.

Recommended Culture Conditions

Parameter	Recommendation
Culture Medium	CAF Growth Medium

Parameter	Recommendation
Incubation Conditions	37°C, 5% CO ₂
Vessel Coating	Optional collagen or attachment factor coating
Medium Change	Every 2–3 days
Subculturing Ratio	1:2 to 1:4
Cryopreservation Medium	10% DMSO + FBS

Morphology

- Spindle-shaped fibroblast-like morphology
 - Adherent monolayer growth pattern
 - Activated stromal phenotype
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Expression Markers

Positive Markers

Marker	Expression
α -SMA (ACTA2)	Positive
FAP	Positive
FSP-1 (S100A4)	Positive
Vimentin	Positive
PDGFR- β	Positive
Fibroblast Activation Protein	Positive
Collagen I	Positive
Fibronectin	Positive
Tenascin-C	Positive
CXCL12	Positive
TGF- β	Positive
IL-6	Positive
VEGF	Positive
CD90 (Thy-1)	Positive
Periostin	Positive



Negative Markers

Marker	Expression
CD31	Negative
CD34	Negative
EpCAM	Negative
Cytokeratin 18	Negative
E-Cadherin	Negative

Functional Characteristics

- Supports tumor growth and invasion.
 - Promotes extracellular matrix remodeling.
 - Secretes inflammatory cytokines and growth factors.
 - Enhances angiogenesis and tumor progression.
 - Suitable for 2D and 3D tumor microenvironment models.
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Quality Control Testing

Test	Result
Sterility Testing	Negative
Mycoplasma Testing	Negative
Endotoxin Testing	Passed
Viability Post-Thaw	$\geq 70\%$
Morphology Verification	Passed
Marker Expression Validation	Passed

Storage & Handling

- Store immediately in liquid nitrogen vapor phase upon arrival.
 - Avoid repeated freeze-thaw cycles.
 - Thaw rapidly in a 37°C water bath.
 - Transfer cells immediately into pre-warmed complete medium after thawing.
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Safety Statement

This product is intended for laboratory research use only and is not intended for diagnostic, therapeutic, or clinical applications.
