

Immortalized Human Ovarian Cancer-Associated Fibroblasts (CAFs)

Catalog Number: NEOCAF72

Cell Type: Immortalized Human Ovarian Cancer-Associated Fibroblasts (CAFs)

Passage Number: P1

Cell Number: 1,000,000 cells/vial

Species: Human

Tissue Origin: Ovarian Tumor Microenvironment

Growth Properties: Adherent

Morphology: Spindle-shaped fibroblast-like morphology

Biosafety Level: BSL-2

Product Description

Immortalized Human Ovarian Cancer-Associated Fibroblasts (CAFs) are derived from human ovarian tumor stromal tissue and immortalized for extended in vitro expansion while maintaining key phenotypic and functional CAF characteristics. These cells are valuable for studying ovarian cancer progression, tumor-stroma interactions, extracellular matrix remodeling, metastasis, immunomodulation, angiogenesis, and therapeutic resistance.

These CAFs exhibit activated fibroblast phenotypes and secrete cytokines, chemokines, and extracellular matrix proteins commonly associated with the ovarian tumor microenvironment.

Recommended Culture Conditions

Culture Medium: CAF Growth Medium or Fibroblast Growth Medium supplemented with:

- 10% Fetal Bovine Serum (FBS)
- 1% Penicillin/Streptomycin
- Optional fibroblast growth supplements

Incubation Conditions:

- 37°C
- 5% CO₂
- Humidified atmosphere

Subculture Ratio: 1:3 to 1:5

Expression Markers

Positive Markers

- α -Smooth Muscle Actin (α -SMA / ACTA2)
- Fibroblast Activation Protein (FAP)
- Vimentin
- Fibroblast-Specific Protein-1 (FSP-1 / S100A4)
- PDGFR- β
- TE-7
- Collagen I
- Fibronectin
- Tenascin-C
- CXCL12 (SDF-1)
- TGF- β 1
- IL-6
- VEGF

Negative Markers

- Cytokeratin (Epithelial Marker)
 - CD31 (Endothelial Marker)
 - CD45 (Hematopoietic Marker)
 - E-cadherin
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Functional Characteristics

- Supports ovarian tumor growth and invasion
 - Promotes angiogenesis and extracellular matrix remodeling
 - Secretes pro-inflammatory cytokines and growth factors
 - Suitable for co-culture and 3D tumor microenvironment models
 - Useful for drug screening and immuno-oncology studies
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Quality Control

- Sterility tested
 - Mycoplasma negative
 - Viability $\geq 85\%$ post-thaw
 - Marker expression validated by immunocytochemistry and/or flow cytometry
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Storage and Handling

Storage: Liquid Nitrogen Vapor Phase

Shipping Condition: Dry Ice or Liquid Nitrogen

Thawing Recommendation:

Rapidly thaw vial in a 37°C water bath and transfer cells immediately into pre-warmed complete growth medium.

Intended Use

For Research Use Only (RUO).

Not intended for human or clinical applications.