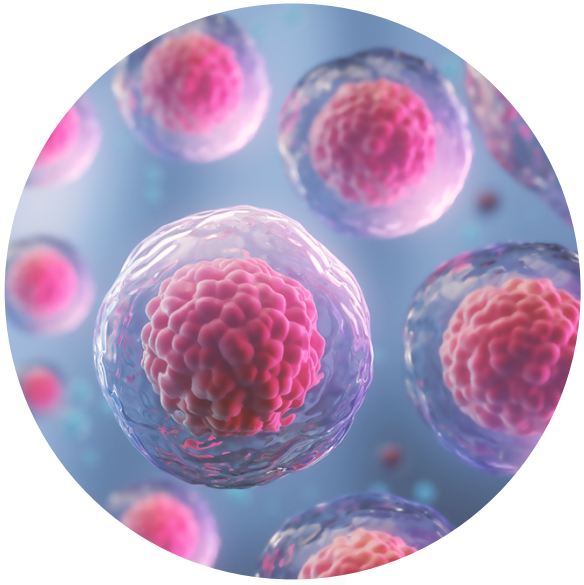
Specification Sheet

Normal Human Endothelial Cells

FC-0003
FC-0044
FC-0014
FC-0028
FC-0032
FC-0055

This product is for Research Use Only. This product is not approved for human or veterinary use or for use in in vitro diagnostics or clinical procedures.



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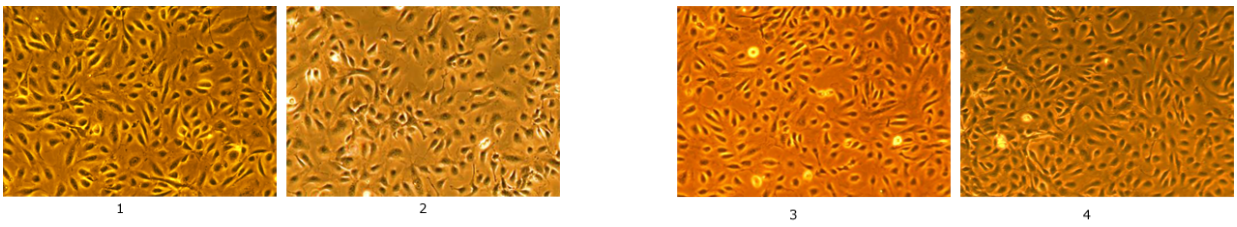
Human Umbilical Vein Endothelial Cells (HUVEC)	Human Aortic Endothelial Cells (HAoEC)
HUVEC 10-Donor Pool	Human Coronary Artery Endothelial Cells (HCAEC)
Human Iliac Artery Endothelial Cells (HIAEC)	Human Pulmonary Artery Endothelial Cells (HPAEC)



HAoEC HPAEC HCAEC HUVEC 10-Donor Pool

Endothelial cells, passage 3, 4 to 7 days after inoculation with 2,500 cells/cm^2 (100X).

CELL FEATURES:	ISOLATED FROM:	CRYOPRESERVED AT THE END OF:
• HUVEC	• Human umbilical cords	• Primary Culture*
• HUVEC 10-Donor Pool	• 10 different lots of HUVEC	• Secondary Culture*
• HAoEC	• Human aorta	• Secondary Culture*
• HIAEC	• Human iliac artery	• Secondary Culture*
• HPAEC	• Human pulmonary artery	• Secondary or Tertiary Culture*
• HCAEC	• Human coronary arteries	• Tertiary Culture*
• Human endothelial cells provide an ideal model for the study of angiogenesis, atherosclerosis or vascular biology.		
• Lifeline's human endothelial cells may be cultured with or without VEGF.		
• Lifeline's human endothelial cells are extensively tested for quality and optimal performance.		
• Lifeline guarantees performance and quality.		

NORMAL HUMAN ENDOTHELIAL CELLS ARE TESTED FOR:	
• Cell Count	500,000 cryopreserved cells per vial
• Proliferation and Morphology	Normal cell appearance for 15 population doublings
• Cell Viability	Minimum 70% viability when thawed from cryopreservation
• Sterility Testing	Negative for mycoplasma Negative for bacterial and fungal growth
• Virus Testing	Negative for HIV-1, HIV-2, HBV, and HCV by PCR
• Specific Staining	von Willebrand Factor positive Smooth muscle α-actin negative

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PART NUMBER	DESCRIPTION
FC-0003	HUVEC, Human Umbilical Vein Endothelial Cells, Primary – 500,000 cells per vial
FC-0044	HUVEC 10-Donor Pool, Secondary – 500,000 cells per vial
FC-0014	HAoEC, Normal Human Aortic Endothelial Cells, Secondary – 500,000 cells per vial
FC-0028	HIAEC, Normal Human Iliac Artery Endothelial Cells, Secondary – 500,000 cells per vial
FC-0032	HCAEC, Normal Human Coronary Artery Endothelial Cells, Tertiary – 500,000 cells per vial
FC-0055	HPAEC, Normal Human Pulmonary Artery Endothelial Cells, Secondary or Tertiary – 500,000 cells per vial
LL-0002	VascuLife® EnGS Medium Complete Kit (VascuLife Basal Medium, VascuLife EnGS LifeFactors™ Kit)
LL-0003	VascuLife VEGF Medium Complete Kit (VascuLife Basal Medium, VascuLife VEGF LifeFactors Kit)
LL-0004	VascuLife EnGS-Mv Medium Complete Kit (VascuLife Basal Medium, VascuLife EnGS-Mv LifeFactors Kit)
LL-0005	VascuLife VEGF-Mv Medium Complete Kit (VascuLife Basal Medium, VascuLife VEGF-Mv LifeFactors Kit)
CM-0004	Gelatin Solution [0.1%]
LS-1104	GA Antimicrobial Supplement, 0.5 mL (Gentamicin 30 mg/mL, Amphotericin B 15 µg/mL); provided with purchase of LL-0002, LL-0003, LL-0004, or LL-0005

Lifeline's Normal Human Endothelial Cells

Lifeline's Normal Human Endothelial Cells, when grown in Lifeline's VascuLife® Medium, provide an ideal low-serum culture model, with or without human VEGF, for the study of angiogenesis, atherosclerosis or vascular biology.

Lifeline's human endothelial cells are cryopreserved at the earliest possible passage to ensure the highest viability, purity, and plating efficiency. Our human endothelial cells are quality tested in VascuLife Medium to ensure optimal reduced-serum growth and morphology over a period of at least 15 population doublings.

Lifeline's human endothelial cells are not exposed to antimicrobials or phenol red when cultured in the respective Lifeline® medium. Lifeline offers antimicrobials and phenol red; however they are not required for eukaryotic cell proliferation. A vial of Gentamicin and Amphotericin B (GA; LS-1104) is provided with the purchase of VascuLife EnGS (LL-0002), VascuLife VEGF (LL-0003), VascuLife EnGS-Mv (LL-0004), or VascuLife VEGF-Mv (LL-0005) Medium Complete Kits for your convenience. The use of GA is recommended to inhibit potential fungal or bacterial contamination of eukaryotic cell cultures. Phenol Red (LS-1009) may be purchased, but is not required.

Quality Testing for Guaranteed Consistency and Reproducible Results

Lifeline Cell Technology manufactures products using the highest quality raw materials and incorporates extensive quality assurance in every production run. Exacting standards and production procedures ensure consistent performance.

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The Lifeline Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. Upon request, Lifeline will provide lot specific QC test results, material safety data sheets, and certificates of analysis. See complete guarantee/warranty statement at lifelinecelltech.com or contact your Lifeline representative for more information.

All donated tissues have been obtained under proper informed consent and adheres to the Declaration of Helsinki, The Human Tissue Act (UK), CFR Title 21, and HIPAA Regulations relative to obtaining and handling human tissue for Research Use.

Safety Statement

Lifeline recommends storing cryopreserved vials in liquid nitrogen vapor phase. Handle cryopreserved vials with caution. Always wear eye protection and gloves when working with cell cultures. Aseptically vent any liquid nitrogen from cryopreserved vials by carefully loosening the vial cap in a biosafety cabinet prior to thawing the vials in a water bath. If vials must be stored in liquid phase, the vials should be transferred to vapor phase storage or -80°C for up to 24 hours prior to being thawed.

**Lifeline Technical Note: There are different and often contradictory terminologies used by cell culture companies to define the passage number of cells. Lifeline's designation of 'primary cells' are cells that have been isolated from tissue, plated onto culture vessels, expanded, harvested and cryopreserved. The term 'secondary' indicates that the cells have been isolated, plated and expanded in culture vessels twice before being harvested for cryopreservation.*

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