Normal Human Endothelial Cell Systems and Media

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

Dermal Microvascular Endothelial Cells – Neonatal (HD-MVECn) Dermal Microvascular Endothelial Cells – Adult (HD-MVECa) Lung Microvascular Endothelial Cells (HL-MVEC)

Lifeline's Normal Human Endothelial Cells provide an ideal cell system to study angiogenesis, cancer, wound healing, atherosclerosis, inflammation, or vascular biology. Additionally, these cells can also be used for drug development or screening.

Lifeline's VascuLife® Medium is an optimized medium that provides a low-serum environment, with or without VEGF, which results in optimal endothelial cell growth over a period of at least 15 population doublings at rates equal to or greater than serum-supplemented medium. Lifeline's Endothelial Cells are cryopreserved at the end of primary, secondary, or tertiary culture to ensure the highest viability and plating efficiency. Lifeline's Human Endothelial Cells need not be exposed to Retinoic Acid or Phenol Red when cultured in Lifeline culture media.



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	≥ 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	Positive for von Willebrand factor Negative for Smooth muscle α-actin	



Call Lifeline Technical Service and Sales at 877.845.7787 Or visit lifelinecelltech.com for more information

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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.

The Lifeline® Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. 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. 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.

Safety Statement

This product is <u>For Research Use Only</u>. This product is not approved for human or veterinary use, or for use in *in vitro* diagnostic or clinical procedures.

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 nitrogen from cryopreserved vials 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.

PRODUCT INFORMATION:	
Part #	Description
FC-0003	HUVEC, Human Umbilical Endothelial Cells, Primary - 500,000 cells per vial
FC-0014	HAoEC, Normal Human Aortic Endothelial Cells, Secondary - 500,000 cells per vial
FC-0028	HIAEC, Human Iliac Artery Endothelial Cells, Secondary - 500,000 cells per vial
FC-0044	HUVEC 10-Donor Pool, Secondary - 500,000 cells per vial
<u>FC-0055</u>	HPAEC, Normal Human Pulmonary Artery Endothelial Cells, Secondary or Tertiary –
	500,000 cells per vial
<u>LL-0002</u>	VascuLife® EnGS Medium Complete Kit - For the culturing of Large Vessel Endothelial Cells
<u>LL-0003</u>	VascuLife VEGF Medium Complete Kit - For the culturing of Large Vessel Endothelial Cells
FC-0032	HCAEC, Normal Human Coronary Artery Endothelial Cells, Tertiary - 500,000 cells per vial
FC-0042	HD-MVECn, Human Dermal Microvascular Endothelial Cells-Neonatal - 500,000 cells per vial
FC-0039	HD-MVECa, Human Dermal Microvascular Endothelial Cells-Adult - 500,000 cells per vial
FC-0058	HL-MVEC, Human Lung Microvascular Endothelial Cells - 500,000 cells per vial
<u>LL-0004</u>	VascuLife EnGS-Mv Medium Complete Kit - For the culturing of HCAEC, and HD-MVECn
<u>LL-0005</u>	VascuLife VEGF-Mv Medium Complete Kit - For the culturing of HCAEC, HD-MVECn, HD- MVECa, and HL-MVEC



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