

STANDARDIZED CELLS  
FOR REPRODUCIBLE RESULTS

HELPFUL PROTOCOLS AND  
TECHNICAL LITERATURE

FRIENDLY, QUALIFIED  
TECHNICAL SUPPORT



## VascuLife® VEGF Cell Culture Medium Specification Sheet



VascuLife VEGF (containing Vascular Endothelial Growth Factor) is a new low serum medium optimized for the rapid proliferation of human endothelial cells including Human Umbilical Vein Endothelial Cells (HUVEC), aortic endothelial cells and other human large-vessel endothelial cells. VascuLife supports the growth of these cells in a low serum environment. VascuLife contains no antimicrobials and no phenol red since these components can affect cell behavior and cause cell stress that may influence experimental results. Lifeline® offers these traditional supplements; however they are not needed, or recommended, to achieve optimal cell performance. VascuLife VEGF contains rh VEGF, which may affect stimulation assays especially where VEGF is the primary stimulator. Lifeline recommends using VascuLife EnGS for these types of studies.

VascuLife® VEGF medium grows human large-vessel endothelial cells at rates that meet or exceed other commercially available serum-containing media while maintaining excellent cell morphology.

### VascuLife VEGF Medium Format and Benefits

VascuLife is offered in a kit format composed of basal medium and associated supplements and growth factors called "LifeFactors®." This kit allows you to prepare fresh medium in your laboratory, extending shelf life and enhancing performance. VascuLife Basal Medium is provided in a light-protected 500 mL bottle. The remaining LifeFactors (growth factors and supplements) are packaged in a convenient gas-impermeable pouch for easy storage.

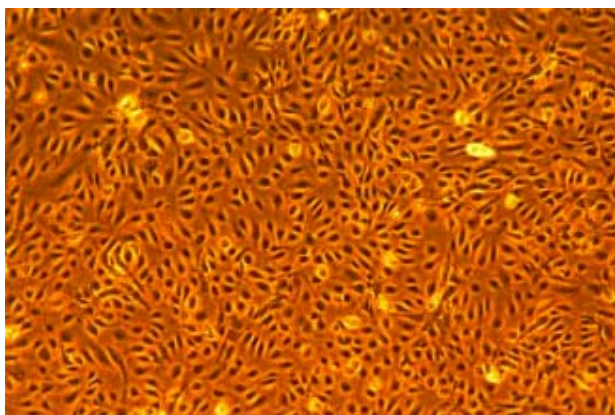
VascuLife VEGF Medium Kit	Part No.	Volume	Storage
VascuLife VEGF Medium Complete Kit, (VascuLife Basal Medium - 475 mL, VascuLife VEGF LifeFactors Kit)	LL-0003	500mL Supplemented	2-8°C Supplemented
VascuLife Basal Medium	LM-0002	475 mL	2-8°C
VascuLife VEGF LifeFactors Kit	LS-1020	Kit	-20°C

VascuLife VEGF LifeFactors	Part No.	Volume	Concentrations in Supplemented Medium
rh EGF	LS-1015	0.5 mL	5 ng/mL
rh FGF basic	LS-1002	0.5 mL	5 ng/mL
rh IGF-1	LS-1014	0.5 mL	15 ng/mL
Ascorbic Acid	LS-1005	0.5 mL	50 µg/mL
Hydrocortisone Hemisuccinate	LS-1007	0.5 mL	1.0 µg/mL
Heparin Sulfate	LS-1017	0.5 mL	0.75 U/mL
L-Glutamine	LS-1013	25 mL	10 mM
FBS	LS-1012	10 mL	2%

## Quality Testing for Guaranteed Consistency and Reproducible Results

Lifeline Cell Technology manufactures products using the highest quality raw materials and incorporates ISO style quality assurance in every production run. Exacting standards and production procedures ensure lot-to-lot consistency. Every production lot of VascuLife VEGF Medium is extensively tested using endothelial cells.

VascuLife VEGF Medium is Tested For:	
• Sterility	Negative for bacteria and fungal growth
• pH	7.8 +/- 0.3
• Cell Performance	Rate of proliferation and morphology
• Osmolality	270 +/- 10 mOsm
• Endotoxin	< 0.5 EU/mL

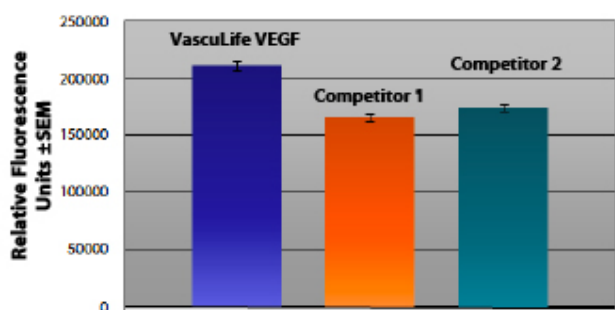


VascuLife VEGF medium grows HUVEC and other human large-vessel endothelial cells at rates that meet or exceed other commercially available serum-containing media while maintaining excellent cell morphology. In comparisons with other commercially available media, Vasculife VEGF shows superior proliferation at different seeding densities.

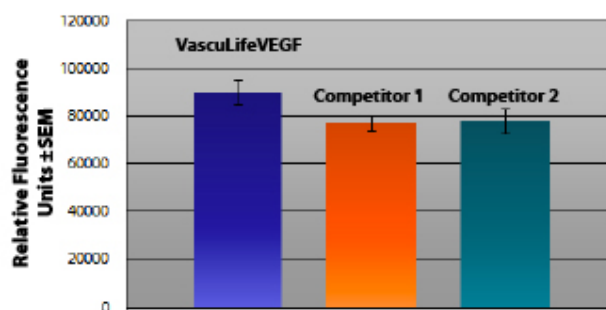
*Shown at left:* HUVEC, passage 2, 4 days after inoculation with 2,000 cells/cm<sup>2</sup> (100X).

*Shown below:* Proliferation at low seeding density in 24-well plates. Higher fluorescence represents a greater number of cells per well and therefore better proliferation.

**Media Comparisons**  
Human Umbilical Vein Endothelial Cells  
Seeded at 2,000 cells/cm<sup>2</sup>, Measured on Day 4



**Media Comparisons**  
Human Umbilical Vein Endothelial Cells  
Seeded at 200 cells/cm<sup>2</sup>, Measured on Day 7



Optional Supplements	Part No.	Volume	Concentrations of Supplement	Storage
Phenol Red Supplement	LS-1009	1.0 mL	33 mM	RT
Antimicrobial Supplement: Penicillin, Streptomycin and Amphotericin B	LS-1011	1.0 mL	Penicillin 10,000 Units/mL Streptomycin 10,000 µg/mL Amphotericin B 25 µg/mL	-20°C

## Innovative Packaging Features

Lifeline has made significant improvements to traditional medium packaging. VascuLife Basal Medium is provided in a light-protected 500 mL bottle. The remaining LifeFactors (growth factors and supplements) are packaged in a convenient gas-impermeable pouch for easy storage.

- The specially designed shrink label works as a light barrier to protect medium from light damage.
- A barrier sleeve helps protect the medium from contaminants found in the water bath.
- Lifeline is an environmentally friendly company. Our cell culture media bottles are recyclable and we ship all products with biodegradable packing material.

## The Lifeline<sup>®</sup> Guarantee

Lifeline's rigorous quality control ensures sterility and performance to standardized testing criteria. If Lifeline's products do not meet our posted performance and quality standards, we will replace them at no charge or provide a full refund. 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](http://lifelinecelltech.com) or contact your Lifeline representative for more information.

## Safety Statement

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

To place an order call Lifeline Technical Service and Sales at **877.845.7787** or visit [lifelinecelltech.com](http://lifelinecelltech.com) for more information.

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