

Lifeline Cell Technology Certificate of Analysis

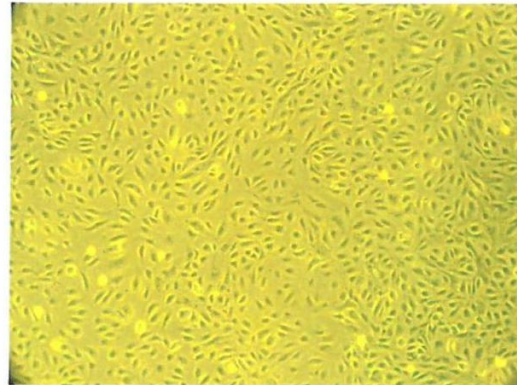
Product Name: Human Dermal Microvascular Endothelial Cells
Catalog Number: FC-0042
Product Description: Cryopreserved human dermal microvascular endothelial cells. Vials contain 500,000 cells in one ml cryopreservation solution.
Product Lot Number: 02673
Manufacture Date: JUN2012
Expiration Date: Not applicable when stored at or below -150° C

Product Information

Donor Demographics: Sex: Male Tissue Source: Foreskin Age: New born
 Race: Caucasian
 Recommended Culture Medium: VascuLife, LM-0002 supplemented with:
 LifeFactor™ Kit, LS-1029 or LifeFactor Kit, LS-1035

Test	Specifications	Results
Sterility Test (bacteria, yeast and fungi)	negative	negative
Sterility Test, mycoplasma	negative	negative
PCR virus testing:		
Hepatitis B	negative	negative
Hepatitis C	negative	negative
HIV-1 and HIV-2	negative	negative
Viable Cell Count	≥500,000 cells/ml	725,000 cells/ml
Viability (by Trypan Blue Exclusion)	>50% viable	95% viable
Cell Growth in VascuLife		
Population Doubling capacity	15 doublings.	15.40 doublings
Cell morphology	normal	normal
Characterization		
Smooth muscle α-actin	negative	negative
von Willebrand Factor	positive	positive

Picture of P₅ HMVEC lot# 02673 cultured in VascuLife EnGS Mv medium, day 5 in culture from an inoculation of 5,000 cells/cm².



Quality Control Jeremy Hammond November 4, 2013

Jeremy Hammond, QC Director Lifeline Cell Technology

To place an order call Lifeline technical and customer service at (877) 845-7787 or you may submit an order form by fax to (443) 393-0393. Order form available on line at www.lifelinecelltech.com/order.