

Lifeline Cell Technology Certificate of Analysis

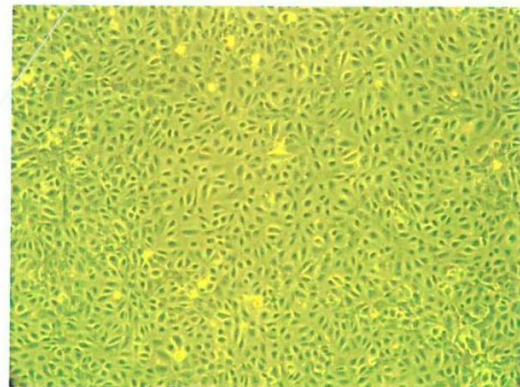
Product Name: Human Umbilical Vein Endothelial Cells (HUVEC)
Catalog Number: FC-0003
Product Description: Cryopreserved human umbilical vein endothelial cells. HUVEC are cryopreserved in P1, after isolation from tissue cells are cultured for one passage and then cryopreserved. Vials contain 500,000 cells in one ml cryopreservation solution.
Product Lot Number: 06354
Manufacture Date: JUL2017
Expiration Date: Not applicable when stored at or below -150° C

Product Information

Donor Demographics:Sex: Female Tissue Source: Umbilical Cord Age: New born
 Race: Caucasian
 Recommended Culture Medium:.....VascuLife, LM-0002 supplemented with:
 LifeFactor™ Kit, LS-1019 or LifeFactor™ Kit, LS-1020

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	855,000 cells/ml
Viability (by Trypan Blue Exclusion)	>70% viable	85.4% viable
Cell Growth		
Population Doubling capacity	>15 doublings	18.55 doublings
Cell morphology	normal	normal
Characterization		
Smooth muscle α-actin	negative	negative
Von Willebrand Factor	positive	positive

Picture of P₃ HUVEC lot# 06354 cultured in VascuLife EnGS Complete Medium, day 5 in culture from an inoculation of 2,500 cells/cm².



Quality Control: Jeremy Hammond August 10, 2017

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.