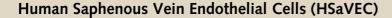
## **Certificate of Analysis**





Description	
Product Name	HSaVEC-c / HSaVEC-p
Order Number	C-12231 / C-12232
Lot Number	0022202.16
Donor Age / Sex / Race	48 / male / caucasian
Tissue / Localization	saphenous vein / thigh
Number of Viable Cells	650.000
Freezing Medium	Cryo-SFM (Order No.: C-29910)
QC Evaluation Medium	Endothelial Cell Growth Medium (Order No.: C-22010)
Stage of Culture	HSaVEC-c: thawing and seeding results in passage 1 (2 <sup>nd</sup> culture) HSaVEC-p: shipped in passage 1 (2 <sup>nd</sup> culture)

## Viability & Growth Characteristics

Viability	94 % * (adherence of cells could vary under customer culture conditions)
Population Doubling (PD) Time in Log Phase	30.3 h / PD *
Population Doublings	> 15 *

## Phenotypic Characterization (tested within the first two passages)

CD31	positive by immunohistochemical staining
vWF / Factor VIII-related antigen	positive by immunohistochemical staining
Dil-Ac-LDL uptake	positive by immunohistochemical staining
Smooth muscle $\alpha$ -actin	negative by immunohistochemical staining

## **Test for Microbial Contaminants and Infectious Viruses**

Bacteria / Fungi / Mycoplasma	negative / negative / negative
HIV-1	negative
HBV / HCV	negative / negative

<sup>\*</sup> Using PromoCell's standardized culture system and procedures. The stated values may vary under customer culture conditions.

The tissue used by PromoCell for the isolation of human cell cultures is derived from donors who have signed an informed consent form, which outlines in detail the purpose of the donation and the procedure for processing the tissue (www.promocell.com/ethics).



Christian Leppert, Ph.D. Quality Control Manager

Date: 23 Apr 2010