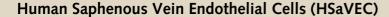
Certificate of Analysis





Description	
Product Name	HSaVEC-c / HSaVEC-p
Order Number	C-12231 / C-12232
Lot Number	9100101.15
Donor Age / Sex / Race	52 / male / caucasian
Tissue / Localization	saphenous vein / thigh
Number of Viable Cells	550.000
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 nd culture) HSaVEC-p: shipped in passage 1 (2 nd culture)

Viability & Growth Characteristics

Viability	83 % * (adherence of cells could vary under customer culture conditions)
Population Doubling (PD) Time in Log Phase	18.9 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 α-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

^{*} 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).



Silke Busch, Ph.D. Quality Control Manager Date: 16 Dec 2009