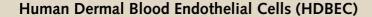
Certificate of Analysis





Description	
Product Name	HDBEC-c / HDBEC-p
Order Number	C-12211 / C-12214
Lot Number	0040804.2
Donor Age / Sex / Race	6 / male / caucasian
Tissue / Localization	skin / foreskin
Number of Viable Cells	600.000
Freezing Medium	Cryo-SFM (Order No.: C-29910)
QC Evaluation Medium	Endothelial Cell Growth Medium MV (Order No.: C-22020)
Stage of Culture	HDBEC-c: thawing and seeding results in passage 2 (3 rd culture) HDBEC-p: shipped in passage 2 (3 rd culture)

Viability & Growth Characteristics

Viability	93 % * (adherence of cells could vary under customer culture conditions)
Population Doubling (PD) Time in Log Phase	21.6 h / PD *
Population Doublings	> 15 *

Phenotypic Characterization

Smooth muscle α -actin	negative by immunohistochemical staining
CD31	> 95 % positive by flow cytometry **
Podoplanin	> 90 % negative by flow cytometry **

Test for Microbial Contaminants and Infectious Viruses

Bacteria / Fungi / Mycoplasma	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.
- ** Measured by Cell Lab Quanta SCTM (Beckmann Coulter Inc.).

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: 10 May 2010