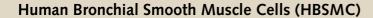
## **Certificate of Analysis**





Description		
Product Name	HBSMC-c / HBSMC-p	
Order Number	C-12561 / C-12562	
Lot Number	9062902.29	
Donor Age / Sex / Race	59 / male / caucasian	
Tissue / Localization	bronchi / main bronchi	
Number of Viable Cells	600.000	
Freezing Medium	Cryo-SFM (Order No.: C-29910)	
QC Evaluation Medium	Smooth Muscle Cell Growth Medium 2 (Order No.: C-22062)	
Stage of Culture	HBSMC-c: thawing and seeding results in passage 2 (3 <sup>rd</sup> culture) HBSMC-p: shipped in passage 2 (3 <sup>rd</sup> culture)	

## Viability & Growth Characteristics

Viability	79 % * (adherence of cells could vary under customer culture conditions)
Population Doubling (PD) Time in Log Phase	27.1 h / PD *
Population Doublings	> 15 *

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

Smooth muscle $\alpha$ -actin	positive by immunohistochemical staining
vWF / Factor VIII-related antigen	negative by immunohistochemical staining
CD90	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: 7 May 2010