Certificate of Analysis



Human Umbilical Artery Smooth Muscle Cells (HUASMC)

author: TM created: 12. September 2011 page: 1/1

Description		
Product Name	HUASMC-c / HUASMC-p	
Order Number	C-12500 / C-12550	
Lot Number	2022904.2	
Doner Age / Sex / Race	newborn / female / caucasian	
Tissue / Localisation	umbilical cord / umbilical artery	
Number of Viable Cells	790.000	
Freezing Medium	Cryo-SFM (Order No.: C-29910)	
QC Evaluation Medium	Smooth Muscle Cell Growth Medium 2 (Order No.: C-22062)	
Stage of Culture	HUASMC-c: thawing and seeding results in passage 2 (3 rd culture) HUASMC-p: shipped in passage 2 (3 rd culture)	

Viability & Growth Characteristics

Parameter / Test method*	Result
Viability / ISO 13319	76%
Population Doubling (PD) Time in Log Phase / PDL Test	28.8 h / PD
Population Doublings	> 15 PD*

Phenotypic Characterization (tested within the first two passages)

Parameter / Test method*	Result
Immunohistochemical staining	positive for Smooth muscle α -actin
Immunohistochemical staining	negative for vWF / Factor VIII-related antigen
Immunohistochemical staining	negative for CD90

Test for microbiological contaminants and infectious viruses

This lot is found to be nonreactive to following contaminations by qualified test methods:

Parameter / Test method	Result
Bacteria, Fungi / Direct Plating	negative / negative
Mycoplasma Genus, M. Pulmonis / PCR	negative / negative
HIV-1, HIV-2 / PCR	negative / negative
HBV, HCV / PCR	negative / negative
HTLV-1, HTLV-2 / PCR	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).



Dr. Timothy Meyer Head of Quality Control Date: Apr 30, 2012