# **Certificate of Analysis**



## Human Mesenchymal Stem Cells from Adipose Tissue (hMSC-AT)

| Description            |  |
|------------------------|--|
| Product Name           | hMSC-AT-c / hMSC-AT-p  |
| Order Number           | C-12977 / C-12978  |
| Lot Number             | 9061601.12   |
| Donor Age / Sex / Race | 37 / female / caucasian  |
| Tissue / Localization  | subcutaneous adipose tissue / abdomen  |
| Number of Viable Cells | 500.000  |
| Freezing Medium        | Cryo-SFM (Order No.: C-29910)  |
| QC Evaluation Medium   | MSC Growth Medium (Order No.: C-28010)  MSC Adipogenic Differentiation Medium (Order No.: C-28011)  MSC Chondrogenic Differentiation Medium (Order No.: C-28012)  MSC Osteogenic Differentiation Medium (Order No.: C-28013) |
| Stage of Culture       | hMSC-AT-c: thawing and seeding results in passage 2 (3 <sup>rd</sup> culture) hMSC-AT-p: shipped in passage 2 (3 <sup>rd</sup> culture)  |

### Viability & Growth Characteristics

Viability 81 % \* (adherence of cells could vary under customer culture conditions)

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

| Adipogenesis / Chondrogenesis / Osteogenesis | pass / pass / pass *                 |
|--|--------------------------------------|
| Differentiation Capacity up to               | > 10 Population Doublings *          |
| CD44   | > 95 % positive by flow cytometry ** |
| CD31 / CD45                                  | > 95 % negative by flow cytometry ** |

## Test for microbiological 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.
- \*\* Measured by Cell Lab Quanta SC<sup>TM</sup> (Beckman 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).



Silke Busch, Ph.D. Quality Control Manager Date: 18 Aug 2009

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Orders and Technical Information

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