Certificate of Analysis

Strain C57BL/6 Mouse Mesenchymal Stem Cells With RFP
Cryopreservation Date: 2012-03-29
Passage Number: 9

Catalog No. MUBMX-01201
Lot Number: 120329J01

Viability

Cells are assayed for viability post-thaw using vital staining assay with trypan blue.
Specification: Cells should exhibit ≥ 80% viability.

Sterility

Bacterial and Fungal Contamination: Samples are inoculated and cultured in blood agar plate, thioglycolate broth, tryptocase soy broth and sabouraud dextrose agar.
Specification: No growth must be observed.

Mycoplasma: Samples are tested for mycoplasma contamination using a PCR-based assay and direct culture.
Specification: Results must be negative.

Endotoxin: Samples are tested for endotoxin contamination with LAL test.
Specification: Results must show a concentration of ≤ 25EU/ml.

Purity

Cells are assayed for purity using flow cytometric analysis of cell surface antigen expression after cryopreservation. Cells are immunofluorescently stained with fluorochrome-conjugated antibodies specific to cell surface antigens CD29, CD34, CD44, CD117 and Sca 1.
Specification: Cells must show ≥ 70% positivity for expression of cell surface antigens CD29, CD34, CD44 and Sca-1. Cells must show ≤ 5% positivity for expression of cell surface antigens CD117.

Proliferation Ability

Cells are characterized by their ability to proliferate in culture with an attached well-spread morphology for ≥ 5 passages, and ≤ 5% cells exhibit spontaneous differentiation in each passage.

RFP Expression

Expression of constitutive RFP is assayed by visual inspection of RFP fluorescence signal.
Specification: The results must indicate ≥80% of cells are visually inspected for RFP fluorescence signal during extensive subcultivation.

Differentiation Ability

Cells are assayed after cryopreservation for their ability of tri-lineage differentiation. Cells must be able to differentiate to osteocytes, adipocytes and chondrocytes when cultured in the appropriate differentiation media.

Results:

All specifications have been met.

Jane Chen
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Apr 20, 2012