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# Certificate of Analysis

**Dog Mesenchymal Stem Cells**

Catalog No. CAXMX-01001

Lot Number: 110530H01

Cryopreservation Date: 2011-5-30

Passage Number: 2

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## Viability

Cells are assayed for viability post-thaw using vital staining assay with trypan blue.

Specification: Cells should exhibit  $\geq 80\%$  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  $\leq 25\text{EU/ml}$ .

## Proliferation Ability

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

## 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:

Meet all specifications

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