Certificate of Analysis

Sprague-Dawley (SD) Rat Neural Stem Cells

Catalog No. RASNF-01001
Lot Number: 131022B31

Cryopreservation Date: 2013-10-22
Passage Number: 2

Viability

Cells are assayed for viability post-thaw using vital staining assay with trypan blue.
Specification: Cells should exhibit ≥ 70% viability.

Sterility

Bacterial and Fungal Contamination: Samples are inoculated and cultured on 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 immunohistochemistry analysis of cell surface antigen expression after cryopreservation. Cells are immunostained with Nestin.
Specification: Cells must show ≥ 75% positivity for expression of cell surface antigens Nestin. Cells must show ≤ 10% positivity for expression of cell surface antigens GFAP, Galc and beta-III tubulin.

Proliferation Ability

The cells are characterized by their ability to proliferate in culture with neurosphere morphology for ≥ 5 passages, and ≤ 5% cells exhibit spontaneous differentiation in each passage.

Differentiation Ability

The cells are assayed after cryopreservation for their ability to differentiate into Neuron, Astrocyte and Oligodendrocyte, about 50% cells are stained with GFAP, 10% cells are stained with beta-III tubulin, and 2% cells are stained with Galc that detects each cell type.

Results:
All specifications have been met.

Jane Chen
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