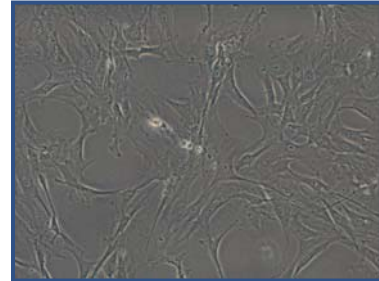


# Rat Bone Marrow Stromal Cells

## DPK-BMSC-R

### Introduction

Primary rat bone marrow stromal cells (BMSC) are isolated from bone marrow aspirates from femur and tibia of male Sprague-Dawley rats. Primary tissue culture growth of these cells is allowed for 7-10 days prior cryopreservation.



### Safety Statements

Health quality controls regularly performed on these rats including bacteriology, virus serology and parasitological controls, certify these animals to be free of pathogens. PCR testing on these cells gave negative results for presence of mycoplasma.

\* For research use only, not approved for application to humans, or for use in vitro diagnostic or clinical procedures.

### Product characteristics

**Organism:** *Rattus norvegicus* (rat)

**Strain:** Sprague-Dawley.

**Tissue:** Bone marrow aspirates.

**Cell type:** Bone Marrow Stromal Cells.

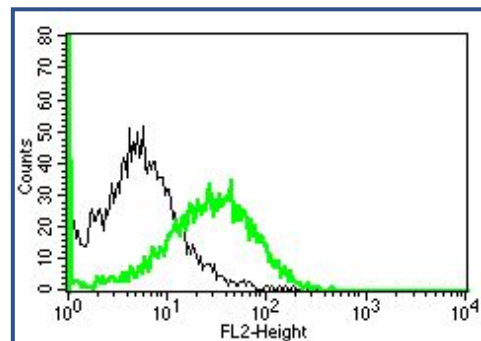
**Number of cells per vial:**  $>0.5 \times 10^6$  viable cells.

**Growth properties:** Adherent (plastic).

### Cell characterization

Isolated BMSC are characterised on the last day of primary culture. Dil-Ac-LDL (low density lipoprotein) endocytotic BMSC which do not take up FITC-labeled latex particles (non-phagocytotic) are considered as endothelial cells, whilst double-labeled cells are considered as phagocytotic reticular cells.

Cells are also characterised by flow cytometry for the phenotype-specific marker CD90 shown in green. Unspecific isotype IgG1 is shown in black.



### Handling instructions:

1. The recommended seeding density for attachment is approximately 20000 cells/cm<sup>2</sup> on plastic flasks/wells.
2. Use approximately 0.25 ml of culture medium per cm<sup>2</sup> of the plating surface and allow flasks/wells to equilibrate in a humidified 5% CO<sub>2</sub> incubator at 37°C for a minimum of 30 minutes.
3. Rapidly transfer the cryovial to thaw in a clean water bath at 37°C with gentle shaking. Monitor the contents of the vial, and when a small ice crystal remains remove the vial from the water bath. Wipe the cryovial with ethanol before opening.
4. Immediately mix the cell suspension using a micropipette avoiding the formation of bubbles and transfer it gently to the flasks previously prepared in step 2.
5. Help to distribute cells evenly by rocking the flasks gently. Loosen caps of flasks (unless vented caps are used) and return them to the incubator.
6. Change culture medium once cells are properly attached (no longer than 24 hours after seeding) and every second day thereafter. Pre-warm an appropriate amount of medium to 37°C before each medium change. Subculture cells when they are 70-90% confluent using Trypsin/EDTA solution.

\* Please, note that primary culture cells have a finite *in vitro* life-span.

### Culture medium

DMEM / F-12 (Sigma, D-8062) supplemented with 20 % fetal bovine serum, 10 µg/ml gentamycin (Sigma, G-1272) and 10 µg/ml penicillin-streptomycin (Sigma, A-5955).

Note: BMSC can be differentiated to endothelial-type cells, by adding to the medium Endothelial Cell Growth Supplement 10 ng/ml (Sigma, E-2759).

### Storage:

Store in liquid nitrogen. For best results, use upon arrival.

#### Note:

- ▶ *Dominion Pharmakine SL guarantees the performance of this product only when the recommended storage and protocols are followed.*
- ▶ *If this product does not arrive in good condition, please contact your distributor*

