

Primary Mouse Bone Marrow-derived Mesenchymal Stem Cells (BMSCs)**Organism Species: *Mus musculus* (Mouse)*****Instruction manual***

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Revised in April, 2019)

[DESCRIPTION]**Cell Type:** Mesenchymal Stem Cells**Synonyms:** BMSCs**Species:** C57/BL6 (Female)**Tissue Source:** Bone marrow**Size:** >2×10⁵cell/ T25 flask**[PROPERTIES]****Cell activity:** >85% (Viability by Trypan Blue Exclusion).**Formulation:** T25 flask at room temperature**Biosafety:** Negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast and fungi.**Growth Properties:** Adherent**Generations:** 1th**[CONTENTS]****Form & Buffer:** Supplied as solution form in BMSCS complete medium.**[USAGE]**

Upon receiving the cells in a T-25 flask at room temperature, immediately transfer the T-25 flask to 37°C, 5% CO₂ incubator for at least 4 hours.

Culture conditions:

DMEM(Gibco)+15%FBS(Gibco)+1%Penicillin-Streptomycin Solution

Temperature: 37°C

Condition: 95% air, 5% carbon dioxide

Cell culture:

After 4 hours incubation at 37°C, change the medium with fresh DMEM complete medium (pre-warmed to 37°C). When the cells are approximately 80 to 90% confluence, they can be dissociated with Trypsin-EDTA and passaged.

Cell passage:

1. Discard the medium and wash with PBS 1-2 times.
2. Add 1 ml of Trypsin at 37°C, observe the cell under the microscope. If the cells are retracted and rounded, pat the culture flask to let the cells fall off. Stop digestion by adding 1 ml of complete medium containing

15% serum. Make it a single cell suspension.

Note: Avoid leaving cells exposed to the trypsin longer than necessary. Care should also be taken that the cells not be forced to detach prematurely, as this may result in clumping.

3. Add the fresh medium to resuspend the cells. Unless otherwise stated, the recommended ratio of primary cells is 1/3~ 1/2.

Note: Although the cells do not reach 80 to 90% confluence, if the medium becomes acidic (the PH indicator in culture medium appears yellow), it is recommended that the medium be changed. In general, change the growth medium every three days.

Do not let cells overgrow, or it will result in contact inhibition.

[IMPORTANT NOTE]

The morphology of primary BMMSCs may be different in different generation times, and may change significantly from the 8th~10th generations.

The cell is for research use only, we will not be responsible for any issue if the cell was used in clinical diagnostic or any other procedures.

[CELL MORPHOLOGY & IDENTIFICATION]

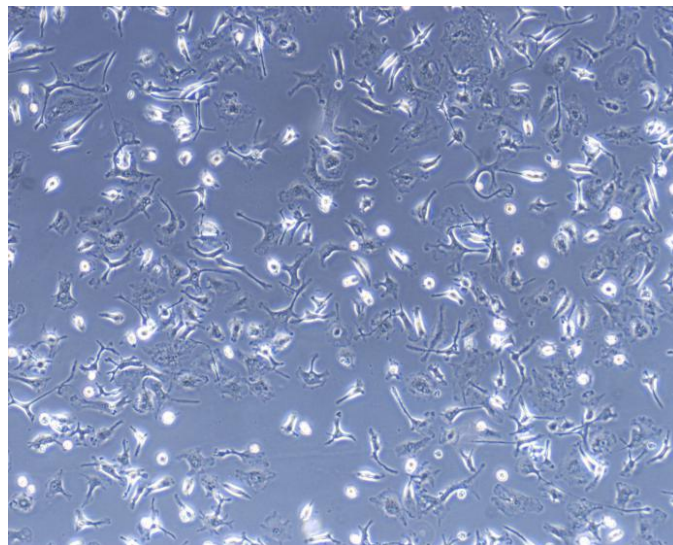


Figure 1 Primary BMMSCs culture diagram