



CSI007Ra01

Primary Rat Myocardial Cells (MC)

Organism Species: *Rattus norvegicus* (Rat)

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

2nd Edition (Revised in Jul, 2023)

[DESCRIPTION]

Cell Type: Cardiac myocytes

Synonyms: MC

Species: *Rattus norvegicus* (Rat)

Tissue Source: Heart

Size: $>5 \times 10^5$ cell/vial

[PROPERTIES]

Cell activity: $>85\%$ (Viability by Trypan Blue Exclusion).

Formulation: Frozen 1 mL or T25 flask.

Biosafety: Negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast and fungi.

Applications: For research use only. It is not approved for human or animal use, or for application in clinical diagnostic procedures.

Growth Properties: Adherent

[CONTENTS]

Form & Buffer: Supplied as solution form in frozen stock solution, containing 90% FBS+10% DMSO.

[USAGE]

Upon receiving the cells in a T-25 flask at room temperature, immediately transfer the cells to 37°C, 5% incubator; the cells in vials, directly and immediately transfer the cells from dry ice to liquid nitrogen.

Culture conditions:

DMEM+5% FBS+1% Cardiac Myocyte Growth Supplement+1% Penicillin-Streptomycin Solution

Temperature: 37°C

Condition: 95% air, 5% carbon dioxide

Cell recovery:

After receiving the cells, shake at 37°C in a water bath until completely dissolved, transfer to a 15 ml centrifuge tube, add 3-5 times complete culture solution, 1000 rpm for 5 min, discard the supernatant, and place in a T25 flask for culture.

Cell passage:

1. Cell passage when cell growth at 85-95%.
2. Discard the medium and wash with PBS 1-2 times.



3. 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 2 ml of complete medium containing 10% serum. Make it a single cell suspension.
4. Add the fresh medium to resuspend the cells. Unless otherwise stated, the recommended ratio of primary cells is 1/2.

Note: Further cultivation of MC is guaranteed under the conditions provided by us. However, MC is not recommended for long-term expansion and culture due to the proliferative capacity of this primary cell.

[Shipping]

Dry ice.

[STORAGE]

Upon receiving, directly and immediately transfer the cells from dry ice to liquid nitrogen and keep the cells in liquid nitrogen until they are needed for experiments.

[IMPORTANT NOTE]

1. MC is not recommended for expanding or long-term cultures due to limited expansion capacity.
2. The cell is for research use only, and we will not be responsible for any issue if the cell was used in clinical diagnostic or any other procedures.

[Figure]

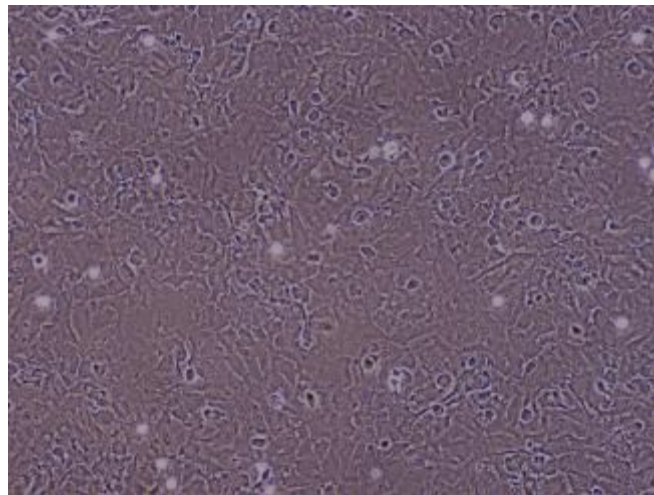


Figure 1

Figure 1 Morphology of Rat Myocardial Cells (Optical microscope,×100)

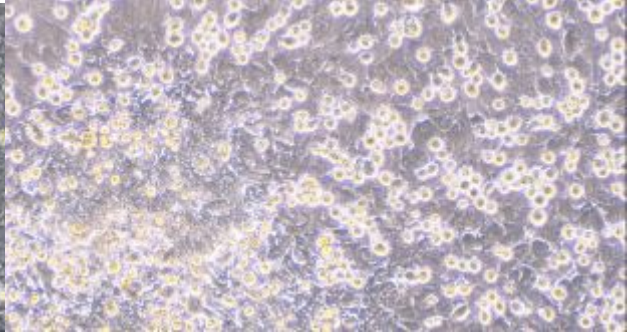
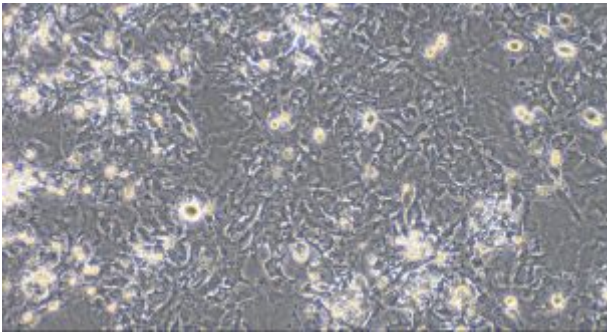


Figure 2

Figure 3

Figure 2,3 Video of rat cardiomyocyte mass pulsation

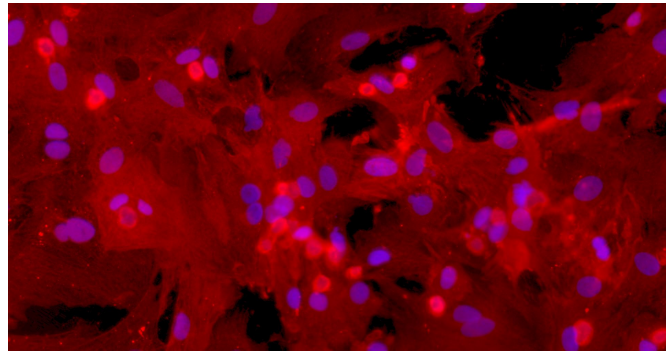
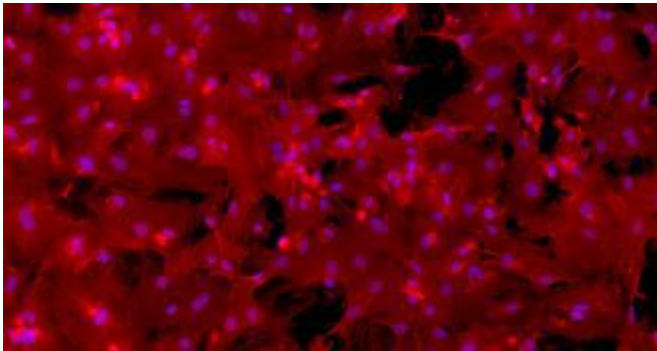


Figure 4

Figure 5

Figure 4 Immunofluorescence identification of Actin Alpha 1 (ACTC1) specific antibody (×200)

Figure 5 Immunofluorescence identification of Actin Alpha 1 (ACTC1) specific antibody (×400)