



CSI004Ra01

**Primary Rat Cardiac Microvascular Endothelial Cells (CMEC)**

**Organism Species: Rattus norvegicus (Rat)**

***Instruction manual***

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

2nd Edition (Revised in Dec, 2024)

## [ DESCRIPTION ]

**Cell Type:** Epithelium

**Synonyms:** CMEC

**Species:** Rattus norvegicus (Rat)

**Tissue Source:** Cardiac microvessel

**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.

**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:**

Endothelial Cell Medium:

DMEM/F12+5%FBS+1%Endothelial Cell 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.

**[ 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.

**[ IMPORTANTNOTE ]**

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 Cardiac Microvascular Endothelial Cells (Optical microscope,×100)

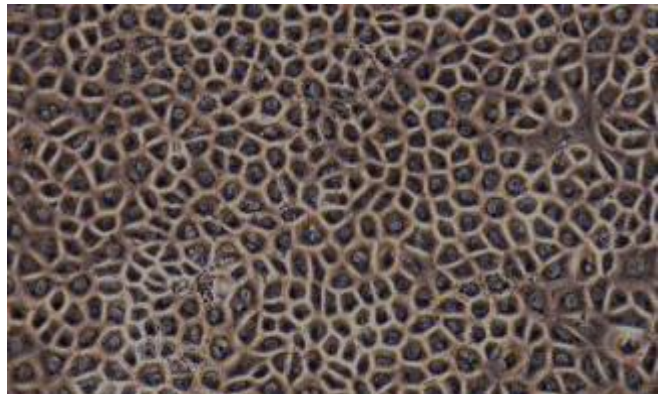


Figure 2

Figure 2 Morphology of Rat Cardiac Microvascular Endothelial Cells (Optical microscope,×200)

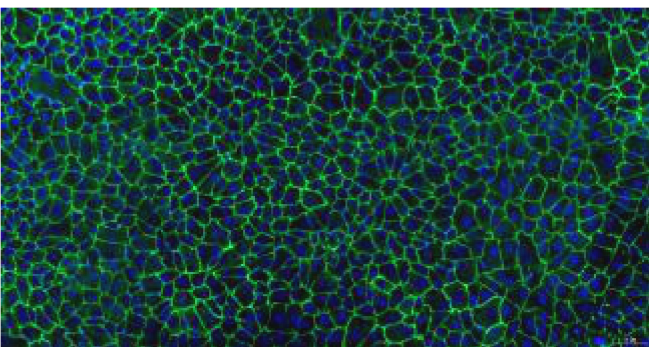


Figure 3

Figure 3 Immunofluorescence identification of ZO-1 specific antibody (×200)

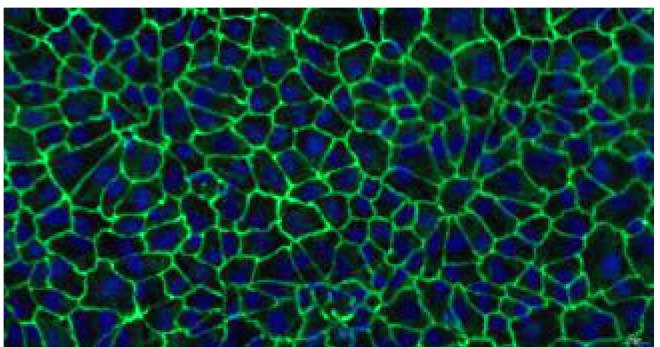


Figure 4

Figure 4 Immunofluorescence identification of ZO-1 specific antibody (×400)