



CSI279Ra01

Primary Rat Inferior Vena Cava Smooth Muscle Cells (IVCSMC)

Organism Species: *Rattus norvegicus* (Rat)

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Revised in Jul, 2026)

[DESCRIPTION]

Cell Type: Smooth muscle cell

Synonyms: IVCSMC

Strain: Sprague Dawley Rat

Age: 8-9 Weeks

Tissue Source: Postcava

Disease: Normal

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

Growth properties: Adherent

Morphology: Spindle-shaped

[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.

[CONTENTS]

Form & Buffer: Supplied as solution form in frozen stock solution (Protein-free, Chemical Defined Cell Cryopreservation Medium). *IVCSMC are cryopreserved at P1 and delivered frozen.*

[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+10%FBS+1% Smooth Muscle Cell Growth Supplement+1%Penicillin-Streptomycin Solution

Temperature: 37°C

Condition: 95% air, 5% carbon dioxide

Medium Renewal: Every 1 to 2 days

Dissociation Solution: 0.25% Trypsin

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]

1. The culture cycle of Primary Rat Inferior Vena Cava Smooth Muscle Cells (IVCSMC) is limited in vitro. It is recommended to use the specialized growth medium provided by Cloud-Clone Corp. and follow the correct operational procedures to ensure optimal culture conditions for these cells.
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.

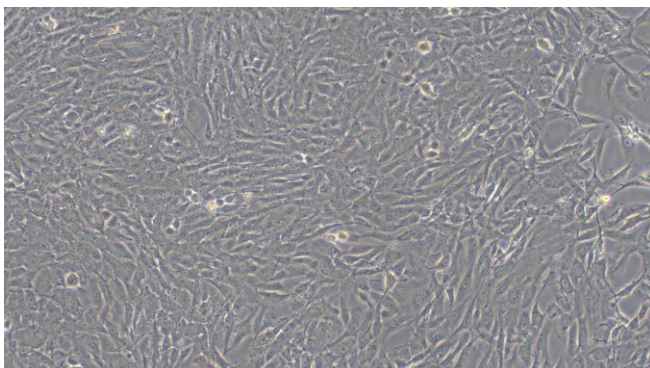
[Figure]

Figure 1

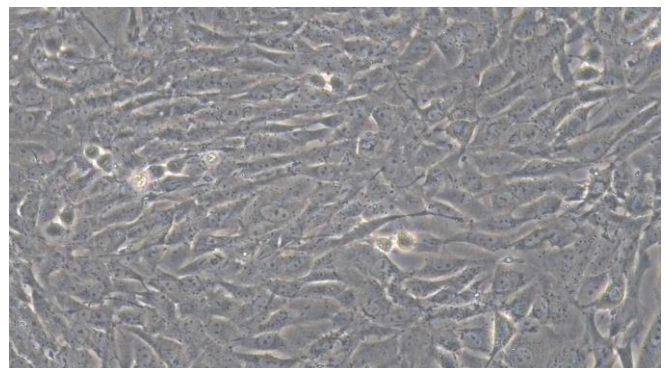


Figure 2

Figure 1 Morphology of Rat Inferior Vena Cava Smooth Muscle Cells (Optical microscope,×100)

Figure 2 Morphology of Rat Inferior Vena Cava Smooth Muscle Cells (Optical microscope,×200)