



CSI914Ra01

Primary Rat Optic Nerve Astrocytes (ONA)

Organism Species: *Rattus norvegicus* (Rat)

*Instruction manual*

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Revised in Aug, 2026)

## [ DESCRIPTION ]

**Cell Type:** Astrocytes

**Synonyms:** ONA

**Strain:** Sprague Dawley Rat

**Age:** 2-3 days

**Tissue Source:** Optic Nerve

**Disease:** Normal

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

**Growth properties:** Adherent

**Morphology:** Polygonal

## [ 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). **ONA 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% CO<sub>2</sub> incubator; the cells in vials, directly and immediately transfer the cells from dry ice to liquid nitrogen.

**Culture conditions:**

**Coating conditions:** Poly-D-lysine (0.1mg/mL, 2ml/T25 Flask)

DMEM/F12+10% FBS+1% Astrocyte Growth Supplement+1% Penicillin-Streptomycin Solution

Temperature: 37°C

Condition: 95% air, 5% carbon dioxide

Medium Renewal: Every 2 to 3 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 over 80%.
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 1/2-1/3.

**[ 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. The culture cycle of Primary Rat Optic Nerve Astrocytes (ONA) 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. It is recommended that culture bottles be coated with Poly-D-lysine, and the concentration of Poly-D-lysine is 0.1mg/mL, using 2 ml per T25 flask.
3. 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.

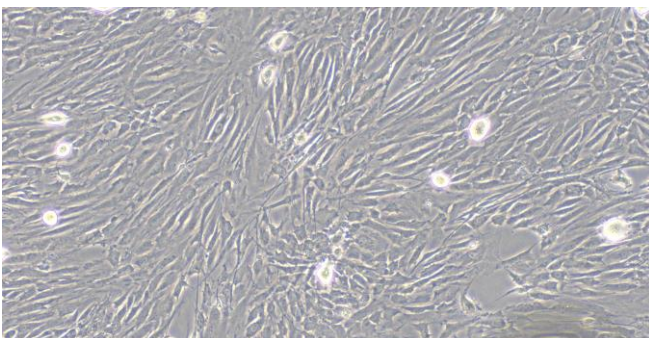
**[ Figure ]**

Figure 1

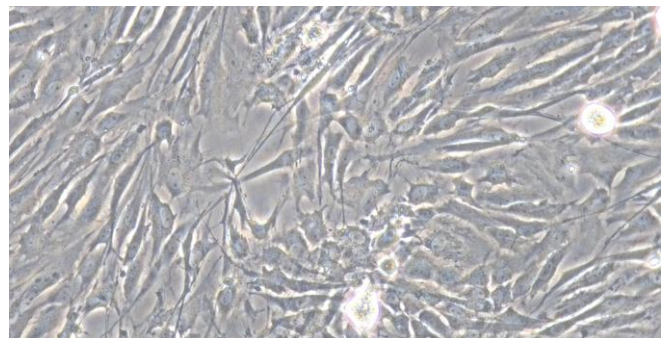


Figure 2



Figure 1 Morphology of Primary Rat Optic Nerve Astrocytes (ONA) (Optical microscope,×100)

Figure 2 Morphology of Primary Rat Optic Nerve Astrocytes (ONA) (Optical microscope,×200)