NCA11Ra01
Astrocytes (RA)
Organism Species: Rattus norvegicus (Rat)
Instruction manual

FOR IN VITRO AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

2th Edition (Revised in Jan, 2016)

[Description]

Product Name: Rat Astrocytes (RA)

Catalog Number: NCA11Ra01

Source: Rat Cerebral Cortex

Numbers of Cell: >1×10^6cells

Storage: Liquid Nitrogen

[Properties]

Cell Activity： >90%.

Cell Adherence: Adherence.

Endotoxin Level: 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 in vitro diagnostic or clinical procedures.

[Contents]

Form & Buffer: Supplied as solution form in cryoprotective medium (liquid nitrogen) or Supplied as solution form in astrocytes culture Medium (RT).

[Preservation]

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

[Shipping]

Dry ice or room temperature (T-25 flask).

[Cell Resuscitation]

1. Place the frozen vial in a 37℃ water bath. Hold and rotate the vial gently until the contents completely thaw. Centrifuge the tube at 1000 rpm for 5min. Resuspend cells in culture medium. A seeding density of 7,500 cells/cm^2 is recommended.
2. Upon receiving the cells in a T-25 flask at room temperature, immediately disinfect T-25 flask with 75% alcohol, transfer the cells to 37℃、5% incubator.

Caution: *Cryopreserved cells are very delicate.Thaw the vial in a 37℃ water bath and return the cells to culture as quickly as possible with minimal handling!*

【Cell Passage】

Subculture when the culture reaches 90% confluency. Warm complete medium, Trypsin/EDTA solution(Ca^{2+} and Mg^{2+}-free ,T/E), T/E neutralization solution (TNS), and DPBS (Ca^{2+} and Mg^{2+}-free) to room temperature. Rinse the cells with DPBS.Add 1mL 0.25% T/E solution into culture plate. Gently rock the plate complete coverage of cells by T/E solution . Incubate the plate in a 37℃ incubator for 5 min or until cells completely round up. Add 1 mL TNS solution to the plate and transfer detached cells to the 15 mL centrifuge tube. Rinse the plate with another 2 mL TNS to collect the residual cells. Centrifuge the 15 mL tube at 1000 rpm for 5 min. Resuspend cells in culture medium. Count and plate cells in a new cuture plate with the recommended cell density.

Caution: *Handling animal-derived products is potentially biohazardous. Always wear gloves and safety glasses when working with these materials. Never mouth pipette. We recommend following the universal procedures for handling products of human origin as the minimum precaution aginst contamination!*

【Recommended Medium】

It is recommended to use astrocytes culture Medium for culturing in vitro.

【References】

[1] Rudge JS.(1993) “Astrocyte-derived neurotrophic factors.” In Murphy S, Astrocytes: Pharmacology

and Function(pp 267-94). San Diego: Academic Press, Inc.

[2] Van der Laan LJ, De Groot CJ, Elices MJ, Dijkstra CD. (1997) “Extracellular matrix proteins expressed by human adult astrocytes in vivo and in vitro: an astrocyte surface protein containing the CS1 domain contributes to binding of lymphoblasts.” J Neurosci Res. 50:539-48.

[3] Chen Y, Swanson RA. (2003) “Astrocytes and brain injury.” J Crerb Blood Flow Metab. 23:137-49.

[4] Shao Y, McCarhy KD.(1994) “Plasticity of astrocytes.” Glia. 11:147-55.

[5] Grizzle WE, Polt S.(1988) “Guidelines to avoid personal contamination by infective agents in research laboratories that use human tissues.” J Tissue Cult Methods. 11:191-9.