NEUROMICS

# Human iPSC – ALS Neural Stem Cells

**Catalog #:** IPS008

**Cell #:** >1x$10^6$ cells

**Storage:** Liquid Nitrogen until ready for culture.
While Culturing keep in 37°C $CO_2$ incubator

**Product Format:** Frozen Vial

## GENERAL INFORMATION

Human iPSC-ALS Neural Stem Cells are derived from integration-free induced pluripotent stem cell (iPSC) lines. Cells are provided at passage 1.

*Product is for Research use only.*

Frozen Vials are shipped in a Dry Ice Package.

## HANDLING OF ARRIVING CELLS

1. Check all containers for leakage or breakage.

2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below-130°C, preferably in liquid nitrogen vapor, until ready for use.

3. To ensure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

## PRODUCT TESTING

- Negative for bacteria, yeast, fungi, and mycoplasma

## MEDIUM

We recommend customers use our Neuro Coating Solution (cat. HNM009) and Human Neural Stem Cell Growth Medium (cat. HNM010) to culture these cells.

## PROTOCOL FOR THAWING THE CELLS

**Note:** If you have any questions or need clarification regarding the protocol for culturing these cells, please reach out to Dr. Jensen Auguste at (978) 608-1766 with your questions before beginning.

To ensure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

1. Prepare plates coated with Neuro Coating Solution 1-2 hours before thawing the cells.

NEUROMICS REAGENTS ARE FOR IN VITRO AND CERTAIN NON-HUMAN IN VIVO EXPERIMENTAL USE ONLY AND NOT INTENDED FOR USE IN ANY HUMAN CLINICAL INVESTIGATION, DIAGNOSIS, PROGNOSIS, OR TREATMENT. THE ABOVE ANALYSES ARE MERELY TYPICAL GUIDES. THEY ARE NOT TO BE CONSTRUED AS BEING SPECIFICATIONS. ALL OF THE ABOVE INFORMATION IS, TO THE BEST OF OUR KNOWLEDGE, TRUE AND ACCURATE. HOWEVER, SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE, EXPRESS OR IMPLIED, ON OUR PART. WE DISCLAIM ALL LIABILITY IN CONNECTION WITH THE USE OF THE INFORMATION CONTAINED HEREIN OR OTHERWISE, AND ALL SUCH RISKS ARE ASSUMED BY THE USER. WE FURTHER EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. v1-09809



Neuromics Antibodies • 5325 West 74th Street, Suite 8 • Edina, MN 55439
phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com

2. Thaw the cells and place the vial in a 37°C water bath with gentle agitation for 1-2 minutes. It's important to keep the cap out of the water to minimize the risk of contamination. Spray the vial with 70% ethanol, wipe the vial, and place it under your biosafety cabinet.

3. Pipette the cells into a 15 mL conical tube with 5 mL of Human Neural Stem Cell Growth Medium. Centrifuge at 200g for 5 minutes at room temperature.

4. After removing the supernatant, re-suspend the cells in the Human Neural Stem Cell Growth Medium.

5. Seed the cells on a pre-coated plate at the desired density. Incubate the cells in a 37°C CO2 incubator overnight. It is suggested to seed 10,000-50,000 cells per cm2, based on the intended application. Expect to observe some cell debris after the cell recovery process.

6. The cells can be expanded through 3-5 passages and stored for future use. Note that with an increase in passage number, random differentiation may occur.

**SUBCULTURE PROTOCOL**

1. Passage the cells when they reach 80-90% confluency.

2. Prepare plates coated with Neuro Coating Solution 1-2 hours before splitting the cells.

3. Remove the media from the cells and rinse once with D-PBS.

4. Add Cell Detachment Solution (cat. ADF001) to the cells and incubate at 37°C in a CO2 incubator for 1-2 minutes.

5. Add two volumes of Human Neural Stem Cell Growth Medium to detach the cells by gentle pipetting. Then, collect the cells into a 15 mL conical tube.

6. Centrifuge at 200 g for 5 minutes at room temperature, discard the supernatant, and re-suspend the cells in Human Neural Stem Cell Growth Medium, to determine the cell count.

7. Seed the cells on Neuro coated plates at the desired density and then placed the culture in a 37°C CO2 incubator.

8. Change media every other day.

**CAUTION**

Handling human tissue-derived products is potentially bio-hazardous. Although each cell strain is tested negative for HIV, HBV, and HCV DNA, diagnostic tests are not necessarily 100% accurate; therefore, proper precautions must be taken to avoid inadvertent exposure. 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 against contamination.

FOR RESEARCH USE ONLY

NEUROMICS REAGENTS ARE FOR IN VITRO AND CERTAIN NON-HUMAN IN VIVO EXPERIMENTAL USE ONLY AND NOT INTENDED FOR USE IN ANY HUMAN CLINICAL INVESTIGATION, DIAGNOSIS, PROGNOSIS, OR TREATMENT. THE ABOVE ANALYSES ARE MERELY TYPICAL GUIDES. THEY ARE NOT TO BE CONSTRUED AS BEING SPECIFICATIONS. ALL OF THE ABOVE INFORMATION IS, TO THE BEST OF OUR KNOWLEDGE, TRUE AND ACCURATE. HOWEVER, SINCE THE CONDITIONS OF USE ARE BEYOND OUR CONTROL, ALL RECOMMENDATIONS OR SUGGESTIONS ARE MADE WITHOUT GUARANTEE, EXPRESS OR IMPLIED, ON OUR PART. WE DISCLAIM ALL LIABILITY IN CONNECTION WITH THE USE OF THE INFORMATION CONTAINED HEREIN OR OTHERWISE, AND ALL SUCH RISKS ARE ASSUMED BY THE USER. WE FURTHER EXPRESSLY DISCLAIM ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. v1-09809

**www.neuromics.com**

Neuromics Antibodies • 5325 West 74th Street, Suite 8 • Edina, MN 55439
phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com