Human iPSC - Neural Stem Cells

#Cat: NB-26-02321 Size: 1,000,000Cells

Catalog #: NB-26-02321
Storage: Liquid Nitrogen until ready for culture.
While Culturing keep in 37°C CO_2 incubator

Cell #: >1x10^6 cells
Product Format: Frozen Vial

General Information

Human iPSC-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. NB-26-02284) and Human Neural Stem Cell Growth Medium (cat. NB-26-02285) 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 our technical department or call us at +33 9 77 40 09 09 with your questions before beginning.

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1. Prepare plates coated with Neuro Coating Solution 1-2 hours before thawing the cells.
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 CO_2 incubator overnight. It is suggested to seed 10,000-50,000 cells per cm^2, 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.

Subculturing Procedure

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. NB-26-01693) to the cells and incubate at 37°C in a CO_2 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 CO_2 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.