NEUROMICS

Human iPSC – GFP Glutamatergic Neurons

Catalog #: IPS007

Cell #: >1x10^6 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-GFP Glutamatergic Neurons are derived from integration-free induced pluripotent stem cell (iPSC) lines. Cells are provided at passage 1.

Cells can be co-cultured with glial cells, enabling the development of comprehensive drug screening platforms to evaluate drug efficacy, neurotoxicity, and other neural responses. The cells should express high levels of MAP2 and TuJ1, 5-7 days after thawing.

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 AlphaBioMatrix Solution (cat. HNM011) and Human Glutamatergic Neuron Maturation Medium (cat. HNM005) 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.

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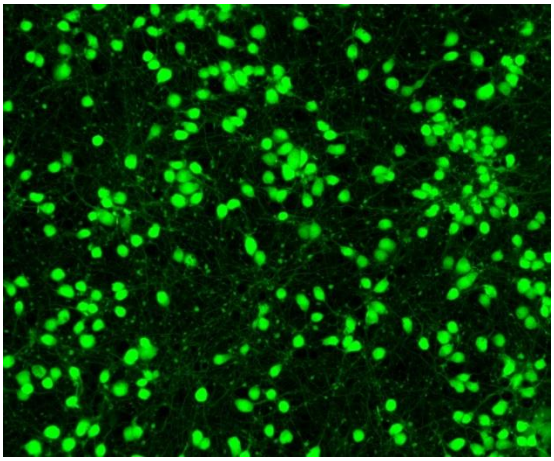
1. Before thawing the cells, coat the vessel with AlphaBioMatrix Solution.

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 Glutamatergic Neuron Maturation Media. Centrifuge at 300g for 5 minutes at room temperature.



4. After removing the supernatant, re-suspend the cells in the Human Glutamatergic Neuron Maturation Media.

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 100K-200K cells per cm2. Expect to observe some cell debris after the cell recovery process.

6. Implement a half-medium change every 3-4 days. This involves removing half of the media in the well first, and then adding the same amount of fresh media afterwards.

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.

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